

DIVISION I

General Requirements



SECTION 01010 - SUMMARY OF WORK

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract from the front of the Specification book, including General Conditions and Supplementary General Conditions, apply to this Section.

1.2 SUMMARY

- A. The Owner is:
 - 1. The Village at Ocean Gate, LLC
 - 2. c/o Atlas Investment Group, LLC
 - 3. 35 Fay Street, Suite 107B
 - 4. Boston, MA 02118
- B. Section Includes:
 - 1. Project description.
 - 2. Applicable regulatory requirements.
 - 3. Access to the site and use of the premises.
 - 4. Site Conditions
 - 5. Preconstruction meeting.
 - 6. Security procedures.
 - 7. Building Air infiltration and Blower Door Testing.
 - 8. Coordination.

1.3 PROJECT DESCRIPTION

- A. The project consists of the construction of garages and retail space on lower level with residential buildings, associated plazas and site work above.
 - 1. Total number of units:
 - a. Building 1 = 40 Units.
 - b. Building 2 = 42 Units.
 - 2. At Middle Street, Portland, Maine.
 - 3. As shown in contract documents prepared by David M. White, Architect
 - a. Dated on the cover of these Contract Specifications and the cover of the Contract Drawings.

- B. The Project Construction
 - 1. Construction of:
 - a. First Floor of poured concrete and structural steel with steel and concrete deck.
 - b. Two 4 story residential buildings above to be constructed as wood framed buildings with open web trusses and conventional platform framing.
 - 2. Sprinkler, HVAC and electrical systems.
 - 3. Installation of new water lines, sanitary system and utilities as shown.
 - 4. Raised Plaza with pavers and planter beds over Garage Level between Building 1 and 2.

1.4 REGULATORY REQUIREMENTS

- A. The following currently enforced regulations are applicable to this project:
 - 1. The ME State Building Code.
 - 2. The ME State Plumbing Code
 - 3. The ME State Electrical Code
 - 4. The ME State Mechanical Code
 - 5. Federal Fair Housing Amendments
 - 8. ADAAG for areas open to the public.
- A. Other regulations may also be applicable.
- B. Obtain copies of the regulations listed above and keep at the project site for the use of all parties.
- C. Submit copies of all permits, licenses, and similar permissions obtained, and receipts for fees paid, to the Owner directly.

1.5 ACCESS TO THE SITE AND USE OF THE PREMISES

- A. The space available to the contractor for the performance of the work, either exclusively or in conjunction with others performing other construction as part of the project, is shown on the drawings.
 - 1. Other areas are off limits to all construction personnel.
- B. Limited storage areas will be available on site.
- C. Signs: Provide signs adequate to direct visitors.
 - 1. Do not install, or allow to be installed, signs other than specified sign(s) and signs identifying the principal entities involved in the project.

1.6 SITE CONDITIONS

- A. If the Geotechnical Report is not bound in this specification a copy is available from the Owner or Architect for review by the contractor.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 PRECONSTRUCTION MEETING

- A. A preconstruction meeting will be held at a time and place designated by the Owner, for the purpose of identifying responsibilities of the owner's and the architect's personnel and explanation of administrative procedures.
- B. The contractor shall also use this meeting for the following minimum agenda:
 - 1. Construction schedule.
 - 2. Use of areas of the site.
 - 3. Delivery and storage.
 - 4. Safety.
 - 5. Security.
 - 6. Cleaning up.
 - 7. Subcontractor procedures relating to:
 - a. Submittals.
 - b. Change orders.
 - c. Applications for payment.
 - d. Record documents.
- C. Attendees shall include:
 - 1. The owner.
 - 2. The architect, and any consultants.
 - 3. The contractor and its superintendent.
 - 4. Others interested in the work.

3.2 SECURITY PROCEDURES

- A. Limit access to the site to persons involved in the work.
- B. Provide secure storage for materials for which the Owner has made payment and which are stored on site.
- C. Secure completed work as required to prevent loss.

3.3 BUILDING AIR INFILTRATION AND BLOWER DOOR TESTING

A. Building Air Infiltration :

1. All components and systems are to be installed and constructed to prevent air infiltration through assemblies and around penetrations.
 - a. Manufacturer's installation instructions shall be strictly adhered to, where air infiltration is affected.
 - b. The annular space of all penetrations shall be sealed using fire stopping where it is already required or caulking and foam sealant where a fire rating issue is not present.
2. At key stages of building construction an energy consultant and/or testing agent shall inspect the construction. The stages of construction for inspection shall be as follows. Additional inspections may be required as needed:
 - a. Completion of framing and windows installation.
 - b. Completion of rough-in installations.
 - c. Completion of insulation installation.
 - d. Completion of drywall and finish carpentry.
 - e. Completion of exterior siding and all exterior wall penetrations.
3. Items indicated to be addressed shall be addressed to the satisfaction of the energy consultant or testing agent prior to installation of the next stage of construction.
4. The costs of energy consultant inspection services shall be at the Owner's expense.

B. Blower Door Testing:

1. At the completion of the project a full building Blower Door Test and individual unit Blower Door Tests shall be conducted following ASTM E1827-96 (2002) or ASTM E779 as determined by the testing agency.
2. The General Contractor shall assist in this testing by providing personnel to set systems and components as needed to conduct the testing.
3. The costs of standard Blower Door Testing services shall be at the Owner's expense.
4. The General Contractor prior to signing the contract for construction shall specifically agree to meet the following air infiltration performance values for the entire building and for each unit.
 - a. Air Infiltration Through Building Shell: .15 ACH or less.
 - b. Total Building Air Infiltration:
Building 1 : 1843 CFM or less
Building 2 : 1983 CFM or less
 - c. Effective Leakage Area per 100 Square Feet of Building Shell:
2 SF or less.

5. The General Contractor shall agree to assist in determining the deficiency in the building that is causing the building to fail to meet the performance standards stated here. If significant additional testing is needed to determine the deficiency, the cost at that testing shall be reimbursed to the Owner by the General Contractor.
6. The General Contractor shall agree to address and correct the deficiency as determined through collective review with the energy consultant or testing agent.

3.4 COORDINATION

- A. If necessary, inform each party involved, in writing, of procedures required for coordination; include requirements for giving notice, submitting reports, and attending meetings.
 1. Inform the owner when coordination of his work is required.
- B. See other requirements in other portions of the contract documents.
- C. Conduct meetings for the specific purpose of coordination, at least once a month.
 1. Attendees shall include:
 - a. Contractor.
 - b. Subcontractors currently working at the site.
 - c. Subcontractors or suppliers who are currently having work fabricated offsite.
 - d. Representative from the Owner.
- D. Prepare coordination drawings where limited space available may cause conflicts in the locations of installed products, and where required to coordinate installation of products.
 1. Where space is limited, show plan and cross-section dimensions of space available, including structural obstructions and ceilings as applicable.
 2. Coordinate shop drawings prepared by separate entities.
 3. Show installation sequence when necessary for proper installation.

END OF SECTION 01010

DAVID M. WHITE, ARCHITECT

403 tibbetts hill rd.
p.o. box 447
goffstown, n.h. 03045
603-497-3405
fax 603-497-2783

MEMO

Date: July 1, 2008

From: David White

To: Barbara Barhydt

Project: The Village at Ocean Gate

Copy To: The Village at Ocean Gate,

Number: 02

LLC

Reference: Exterior materials

The following is a list of materials selected for the exterior of the building. The submitted elevations identify three color schemes. These color schemes are an important means of creating the diversity in the building massing, so although your purview is usually in assuring quality material selections, we believe this coloration should be included for the overall design intent of the project.

Most of the materials selected have representative samples in your office which can be presented to the Planning Board at the workshop.

1. The brick selected is as indicated herein and by the submitted samples.
2. The belt course and cap stones are precast concrete in a sandstone appearance.
3. The foundation base is Shouldice Textured Stone in Tex-Stone Antique Bronze to simulated granite facing.
4. The material for the siding at the balconies, fourth floor, and parapet and the elevator penthouse is Hardie panel (fiber cement board) with battens at 16" O.C.
5. The material for the clapboard siding is Hardie plank clapboards (fiber cement board), 6" exposure.
6. The windows, except at the storefront and the deck doors and patio doors are manufactured by Eagle Window and Door Company or equal.

7. The storefront framing is manufactured by Kawneer or equal. Color to be Hartford Green. Color at the main residential entrances to be Medium Bronze.
8. The Newbury Street entrance to be hollow metal frames and doors by Ceco or equal, painted a chocolate brown.
9. The balcony railings are manufactured by Superior Aluminum Corp. or equal. Color to match adjacent siding color.
10. The overhead doors are manufactured by Overhead Door Corporation or equal. Doors to be painted to match Shouldice Antique Bronze
11. Service doors are manufactured by Ceco or equal and will be painted to match the window color of the clapboard field above.
12. Louvers for the carbon monoxide exhaust system (this includes intake and exhaust) will be galvanized metal to be painted to match the field color in which they are located.
13. Grilles for the HVAC units are made by the HVAC manufacturer and will be painted to match the field in which they are located.
14. Exhaust vents for bath, kitchen and dryer fans to be painted to match the brick or siding material.

The following are the selected colors for the three selected color schemes:

Color Scheme A:

Red Brick – Old Port Red Range I

or

Hardie Clapboards: Color Plus Countrylane Red

Window lintels: Sandstone colored precast concrete

Window sills: Red Brick

Windows in the brick or clapboard field: Eagle Mallard Green

Trim and window trim in the clapboard field: Color Plus Alpine Frost

Hardie Panel at decks and top floor: Color Plus Light Mist

Window trim in the panel field: Color Plus Light Mist

Windows in the Hardie panel field: Eagle Harbor Mist or Colony White.

Color Scheme B:

Brown Brick – Woodland Brown Brushed Velour

Window lintels: Sandstone colored precast concrete

Window sills: Brown brick

Windows in all fields: Eagle Tan

Hardie Panel at decks and top floor: Color Plus Khaki Brown

Window trim in the Hardie panel field: Color Plus Khaki Brown

Color Scheme C:

Hardie Clapboards: Color Plus Harris Cream

Windows in the clapboard field: Eagle Butterscotch.

Windows in the panel field: Eagle Antique White

Trim and window trim in the clapboard field: Color Plus Navajo Beige

Hardie Panel at balconies and top floor: Color Plus Autumn Tan

Window trim in the Hardie panel field: Color Plus Autumn Tan

Storefronts:

Awnings: Colors to be selected by tenants and submitted to staff for approval. In general, colors shall match or shall be compatible with storefront color selections.

SECTION 01025 - PAYMENT, MODIFICATION, AND COMPLETION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract from the front of the Specification book, including General Conditions and Supplementary General Conditions, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Schedule of values.
 - 2. Payment procedures.
 - 3. Modification procedures.
 - 4. Completion procedures.
- B. Related Requirements Specified Elsewhere in the Project Manual:
 - 1. Time limit for submittal of schedule of values.
 - 2. Retainage.

1.3 CONTRACT CONDITIONS

- A. See the conditions of the contract for additional requirements.
- B. The architect will act upon the contractor's application for payment within 7 days after receipt.
- C. The owner shall make payment to the contractor within 30 days or subsequent to the Department of Housing and Urban Development processing of the Contractor's Requisition and issuing payment.
- D. No payment will be made for materials or equipment stored off site.
- E. Payments may be withheld if the contractor fails to make dated submittals within the time periods specified.

1.4 DEFINITIONS

- A. Change Proposal Request: Any written request from the owner or architect to the contractor for a quotation, price, or breakdown on a change proposed but not ordered.

- B. Final Completion: The stage at which all incomplete and incorrect work has been completed or corrected in accordance with the contract documents.
- C. List of Incomplete Work: A comprehensive list of items to be completed or corrected, prepared by the contractor for the purpose of obtaining certification of substantial completion. This list is also referred to as a "punchlist."
- D. Modifications: Written amendments to the contract signed by both the owner and the contractor, change orders, construction change directives, and written orders for a minor change in the work issued by the architect.
- E. Schedule of Values: A detailed breakdown of the contract sum into individual cost items, which will serve as the basis for evaluation of applications for progress payments during construction.
- F. Substantial Completion: The time at which the work, or a portion of the work which the owner agrees to accept separately, is sufficiently complete in accordance with the contract documents so that the owner can occupy or use the work for its intended purpose.
- G. Time and Material Work: Work which will be paid for on the basis of the actual cost of the work, including materials, labor, equipment, and other costs as defined elsewhere, as documented by detailed records. This basis is also referred to using the terms "cost-plus," "cost of the work," "force account," and similar terms.

1.5 SUBMITTALS

- A. Schedule of Values: First application for payment will not be reviewed without schedule of values.
 - 1. Submit in size not larger than 8-1/2 by 11 inches.
 - 2. Submit 11 copies.
 - 3. Identify with:
 - a. Project name.
 - b. Project number.
 - c. Architect's name.
 - d. Owner's name.
 - e. Contractor's name and address.
 - f. Submittal date.

- B. Applications for Progress Payments: Submit sufficiently in advance of date established for the progress payment to allow for the processing indicated.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 SCHEDULE OF VALUES

- A. Prepare a schedule of values prior to the first application for payment.
- B. Schedule of Values: Break costs down into line items which will be comparable with line items in applications for payment.
 - 1. Coordinate line items in the schedule of values with portions of the contract documents which identify units or subdivisions of work; provide cross-referencing if necessary to clarify.
 - a. Specifically, correlate with the project manual table of contents.
 - 2. Divide major subcontracts into individual cost items.
 - 3. Where applications for payment are likely to include products purchased or fabricated but not yet installed, provide individual line items for material cost, installation cost, and other applicable phases of completion.
 - 4. The General Conditions line item shall be a percentage of General Conditions equal to the percentage of the total project completion.
 - 5. Show overhead and profit separately only if those items will be listed separately in applications for payment.
 - a. Major items which are not direct costs of putting the work into place, such as temporary facilities, may either be listed as individual line items or proportioned among direct cost items.
 - 6. Change Orders are to be listed in a separate schedule of values.
 - 7. Include the following information for each line item
 - a. Item name.
 - b. Applicable specification section.
 - c. Dollar value, rounded off to the nearest whole dollar (with the total equal to the contract sum).
 - d. Proportion of the contract sum represented by this item, to the nearest one-hundredth percent (with the total adjusted to 100 percent).
 - 8. Provide the following supporting data for each line item:
 - a. Subcontractor's name.
 - b. Manufacturer or fabricator's name.
 - c. Supplier's name.

- C. The architect will notify the contractor if schedule is not satisfactory; revise and resubmit acceptable schedule.
- D. Submit a revised schedule of values when modifications change the contract sum or change individual line items.
 - 1. Make each modification a new line item.
 - 2. Show the following information for each line item:
 - a. All information required for original submittal.
 - b. Identification of modifications which have affected its value.
 - 3. Submit prior to next application for payment.

3.2 APPLICATIONS FOR PAYMENT

- A. Application for Payment Forms: AIA Certificate for Payment G702
- B. Preparation of Applications for Payment: Complete form entirely.
 - 1. Make current application consistent with previous applications, certificates for payment, and payments made.
 - 2. Base application on current schedule of values and contractor's construction schedule.
 - 3. Include amounts of modifications issued before the end of the construction period covered by the application.
 - 4. Include signature by person authorized by the contractor to sign legal documents.
 - 5. Notarize each copy.
 - 6. Submit in 11 copies.
 - 7. Attach waivers of lien.
 - 8. Attach Affidavit for Construction Loan Draw.
 - 9. Attach revised schedule of values, if changes have occurred, unless application forms already show entire schedule of values.
 - 10. Also attach:
 - a. Updated schedule
 - b. Invoices for on-site stored material.
- C. Provide the following information with every application for payment which involves work completed on a time and material basis:
 - 1. Detailed records of work done, including:
 - a. Dates and times work was performed, and by whom.
 - b. Time records and wage rates paid.
 - c. Invoices and receipts for products.
 - 2. Provide similar detailed records for subcontracts.
- D. Transmit application for payment with a transmittal form itemizing supporting documents attached.
 - 1. Transmit to the architect.

3.3 WAIVERS OF LIEN

- A. Submit, with each application for payment, waivers of lien from every entity who performed work during the period covered by the previous application for payment, and who may be legally entitled to file a mechanic's or other lien against the work.
- B. Waiver of Lien Forms: Use forms acceptable to the owner.

3.4 FIRST PAYMENT PROCEDURE

- A. The first application for payment will not be reviewed until the following submittals have been received:
 - 1. Certificates of insurance.
 - 2. Performance and payment bonds.
 - 3. Schedule of values.
 - 4. List of subcontractors, principal suppliers, and fabricators.
 - 5. Contractor's construction schedule.
 - 6. Submittal schedule.
 - 7. Copies of building permit and other authorizations from governing authorities.
 - 8. All submittals specified to occur prior to first application for payment or prior to first payment.

3.5 MODIFICATION PROCEDURES

- A. Designate a single individual authorized to receive change documents and who will be responsible for informing others of changes to the work.
- B. Changes in cost resulting from modifications shall include only those costs specified elsewhere in the contract documents.
- C. When requested in writing, the contractor shall provide sufficient information for evaluation of proposed changes within 14 days
- D. Provide the following information for every change proposal request:
 - 1. The amount of change in the contract sum, if any.
 - 2. The amount of change in the contract time, if any, with explanation.
 - 3. Cost breakdown, using schedule of values line items, separated into material and labor costs, additions and deletions, and with overhead and profit handled in the same manner as specified for the schedule of values.
 - 4. The period of time within which the proposed changes in contract sum or time will be valid.

5. A statement describing the effect the change may have on the work of other prime contractors.
6. Upon request, provide the following information:
 - a. Quantities and unit costs of products, labor, and equipment.
 - b. Taxes, insurance, and bonds.
 - c. Overhead and profit.
- E. When changes are performed on a time and material basis, identify the applicable modification on the application for payment.
- F. Provide the following information with every claim for additional costs:
 1. Origin and date of claim.
 2. Detailed records as specified for time and material work.
 3. Separate accounting of all general requirement costs.
- G. The contractor may propose changes.
 1. Do not use change order form.
 2. Provide the information required for change proposal requests.
 3. Describe reasons for change.
 4. Document proposed substitutions as specified elsewhere.

3.6 SUBSTANTIAL COMPLETION PROCEDURES

- A. Request for inspection and application for payment may coincide.
- B. The architect will perform inspection for substantial completion, upon request of the contractor.
 1. Only one certificate of substantial completion will be issued for each building permit issued.
 2. Contractor to provide there one punchlist prior to Architect's inspection.
- C. Submit the following with application for payment following substantial completion:
 1. Contractor's affidavit of release of liens.
 2. Meter readings of all utilities services for which the contractor has been paying.
 3. Request for reduction or release of retainage.
 4. Consent of surety to reduction in or partial release of retainage.
 5. Final list of incomplete work.
 6. Other data required by the contract documents.

3.7 FINAL COMPLETION PROCEDURES

- A. Request for final inspection and final application for payment may coincide.
- B. The architect will perform inspection for final completion, upon request of the contractor.
 - 1. Submit the following with request for inspection:
 - a. Previous inspection lists indicating completion of all items.
 - b. If any items cannot be completed, obtain prior approval of such delay.
- C. Submit the following with the final application for payment:
 - 1. Certified copy of the previous list of items to be completed or corrected, stating that each has been completed or otherwise resolved for acceptance.
 - 2. Updated final statement, accounting for final changes to the contract sum.
 - 3. Consent of surety to final payment.
 - 4. Final liquidated damages statement.
 - 5. Meter readings of all utilities services for which the contractor has been paying after substantial completion.
 - 6. Certification that financial obligations to governing authorities and public utilities have been fulfilled.
 - 7. Description of unsettled claims.
 - 8. Other data required by the contract documents.

END OF SECTION 01025

SECTION 01200 - PROGRESS DOCUMENTATION AND PROCEDURES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract from the front of the Specification book, including General Conditions and Supplementary General Conditions, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Progress documentation requirements:
 - a. Contractor's construction schedule.
 - b. Progress reports.
 - 2. Progress procedures:
 - a. Progress meetings.
- B. Contract time is indicated elsewhere.
- C. Related Sections:
 - 1. Applications for payment: Elsewhere in Division 1.
 - 2. Schedule of values: Elsewhere in Division 1.
 - 3. Submittal schedule: Elsewhere in Division 1.
 - 4. Quality control activities schedule: Elsewhere in Division 1.

1.3 SUBMITTALS

- A. Contractor's Construction Schedule.
 - 1. Submit within 30 days after date established for the start of work.
 - 2. Submit revised schedule with application for payment.
- B. Progress Reports: Submit with each application for payment.
- C. Minutes of Progress Meetings.

1.4 FORM OF SUBMITTALS

- A. Schedules - General:
 - 1. Provide legend of symbols and abbreviations for each schedule.
 - 2. Use the same terminology as that used in the contract documents.
 - 3. When transparencies are submitted, use only media which will not fade or lose contrast over time.
 - 4. When opaque copies are submitted, submit a minimum of 3 copies.

- B. Bar Charts:
1. Provide individual horizontal bars representing the duration of each major activity.
 2. Coordinate each element on the schedule with other construction activities.
 3. Show activities in proper sequence.
 4. Show percentage of completion of each activity.
 5. Include cost bar at top of chart, showing estimated and actual costs of work performed at the date of each application for payment.
 6. Use vertical lines to mark the time scale at not more than one week intervals.
 7. Prepare on reproducible transparency.
 8. Use sheets of sufficient number and width to show the full schedule clearly.
- C. Reports - General:
1. Submit a minimum of 3 copies.

1.1 COORDINATION

- A. In preparation of schedules, take into account the time allowed or required for the architect's administrative procedures.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Prepare and submit a construction schedule.
- B. Provide construction schedule in the form of bar charts:
1. Use the same items of work as shown in the schedule of values.
 2. Where related activities must be performed in sequence, show relationship graphically.
 3. Coordinate with the submittal schedule specified elsewhere.
 4. Coordinate with the quality control activities schedule specified elsewhere.
 5. Show dates of:
 - a. Each activity that influences the construction time.
 - b. Preconstruction meeting.
 - c. All submittals required.
 1. Submittal dates may be provided in a separate list rather than on the schedule.
 - d. Completion of structure.

- e. Completion of permanent enclosure.
 - f. Substantial and final completion, with time frames for the architect's completion procedures.
 - g. Show dates required for:
 - (a) Delivery of owner-furnished products.
6. In developing the schedule take into account:
- a. Weather, including seasonal changes.
 - b. Need for temporary heating, ventilating, or air-conditioning.
- C. The architect will notify the contractor if schedule is not satisfactory; revise and resubmit.
- 1. Resubmit within 7 days.
- D. Make and distribute copies of schedule to the architect, to the owner, to subcontractors, and to other entities whose work will be influenced by schedule dates.
- 1. Hang a copy of the schedule up in each field office or meeting room.
- E. Update the schedule whenever changes occur or are made, or when new information is received, but not less often than at the same intervals at which applications for payment are made.
- 1. Indicate changes made since last issue; show actual dates for activities completed.
 - 2. Submit updated schedule with application for payment.
 - 3. Issue updated schedule with report of meeting at which revisions are made.
 - 4. Issue updated schedule in same manner as original schedule.

3.2 PROGRESS REPORTS

- A. Progress Reports: Prepare a narrative report describing the general state of completion of the work and describing in detail the following:
- 1. Actual and anticipated delays, their impact on the schedule, and corrective actions taken or proposed.
 - 2. Actual and potential problems.
 - 3. Status of change order work.
 - 4. Effect of delays, problems, and changes on the schedules of other prime contractors.
 - 5. Outstanding change proposal requests.
 - 6. Status of corrective work ordered by the architect.

3.3 PROGRESS MEETINGS

- A. Schedule and conduct periodic progress meetings during construction period.
 - 1. Have meetings once a month at the same time as application for payment.
 - 2. Notify the architect and the owner at least one week in advance of date of meeting; the architect and the owner may attend.

- B. The following are required to attend:
 - 1. Project superintendent.
 - 2. Major subcontractors and suppliers.
 - 3. Others who have an interest in the agenda.
 - 4. Owner's Representative.
 - 5. The Architect.

- C. Prepare and distribute agenda prior to meetings; cover the following topics when applicable:
 - 1. Review minutes of previous meeting.
 - 2. Status of submittals and impending submittals.
 - 3. Actual progress of activities in relation to the schedule.
 - 4. Actual and anticipated delays, their impact on the schedule, and corrective actions taken or proposed.
 - 5. Actual and potential problems.
 - 6. Status of change order work.
 - 7. Effect of proposed changes on schedule and coordination.
 - 8. Status of corrective work ordered by the architect.
 - 9. Progress expected to be made during the next period.
 - 10. Status of inspections.
 - 11. Clarifications and interpretations.

- D. Record minutes and distribute copies within 5 days. to the architect, to the owner, to all participants, and to all entities affected by decisions made.

END OF SECTION 01200

SECTION 01210 - ALLOWANCE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements governing allowances.
 - 1. Certain materials and equipment are specified in the Contract Documents by allowances. The intent of this allowance is to cover the work associated with the items listed. If necessary, additional requirements will be issued by Change Order.
- B. Types of allowances include the following:
 - 1. Lump-sum allowances.
- C. Related Sections include the following:
 - 1. Division 1 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders.

1.3 SELECTION AND PURCHASE

- A. When conflicts are discovered, obtain proposals for each allowance for use in making final decisions. Include recommendations that are relevant to performing the Work.

1.4 SUBMITTALS

- A. Submit proposals for work included in allowances, in the form specified for Change Orders.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine area covered by an allowance for conditions related to each allowance. Review with architect.

3.2 PREPARATION

- A. Coordinate allowance materials with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. 1: Include in the Contract for the project an allowance to cover the furnishing and installation of upgraded finishes in the common areas. These shall include, but not be limited to Corridors, Lobbies, Elevator Lobbies, Vestibules and Elevator Cab interiors.
 - 1. Amount: \$30,000
- B. Allowance No. 2: Include in the Contract for the project an allowance to cover the furnishing and installation of awnings at the locations shown on the exterior building elevations.
 - 1. Amount: \$16,000
- C. Allowance No. 3: Include in the Contract for the project an allowance to cover the furnishing and installation of storage bins as laid out on the floor plans. These shall include a cage type enclosure with a lockable door. At the locations designated provide Canoe/Kayak storage racks to provide stacked storage. All materials shall be noncombustible in compliance with Type I construction required for the First Floor.
 - 1. Amount: \$30,000

END OF SECTION 01210

SECTION 01250 – DOUGHNUTS AND COFFEE

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract from the front of the Specification book, including General Conditions and Supplementary General Conditions, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Doughnuts and pastries.
 - 2. Beverages.
- B. Related Sections:
 - 1. Progress documentation and procedures: Elsewhere in Division 1.
- C. Negotiations:
 - 1. This is a non negotiable item. In no way can it be deleted from the contract or altered in any way. When contractor signs this contract with the Owner he is bound by the terms of this Section.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's specifications, installation instructions, and general recommendations. Include data substantiating that products to be furnished comply with requirements of the contract documents.
- B. Contractor shall submit full range of samples to the Architect, prior to construction start up, for product approval as a better quality substitute.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Obtain required products from a single manufacturer. Firm with not less than 5 years of successful baking experience.
 - 2. Baked goods shall be fresh and baked no longer that 4 hours prior to installation.
 - 2. Maintain throughout duration of the work a crew who are fully qualified to satisfy requirements of the specifications.

3. Accessories: Provide accessory products only as produced or recommended by manufacturer of primary products.

1.5 WARRANTY

- A. Special Project Warranty: Submit a written warranty signed by the manufacturer and the contractor guaranteeing to correct failures in materials and workmanship which occur within the warranty period, including those attributable to abnormal aging, without reducing or otherwise limiting any other rights to correction which the owner may have under the contract documents.
 3. The warranty shall include responsibility for obtaining and replacing products as necessary to restore satisfaction to the slob stuffing their face.
 4. Warranty period: 24 hours after time of installation.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials in manufacturer's original containers bearing manufacturer's name, contents, nutritional data, date of expiration, and installation instructions.
- B. Storage:
 1. Store bakery materials in a dry place and weathertight container.
 2. Maintain 40 degrees F for beverages Do not allow materials to freeze.
 3. Maintain secure containment of products to prevent vandalism or stealing of products.

1.7 PROJECT CONDITIONS

- A. Provide products only under the following environmental conditions:
 1. All air borne contaminants are removed from area.

1.8 COORDINATION

- A. General: Time delivery of baked goods for freshness and beverages for proper installation temperature.

PART 2 - PRODUCTS

- 2.1 BAKED GOODS: Products noted here are only considered as a basis of design. Products of Krispy Kreme and Mike's Donuts shall be submitted for all attendees to sample and then vote on which manufacturer shall be supplied for the duration of the project. Products of local bakeries shall be submitted for approval also. The contractor shall seek out these bakeries and provide products from these local manufacturers. (Architect's are well aware that the Contractor's have specially trained noses for finding excellent bakeries and dinners.) Products larger than specified or of more variety shall be provided.
- A. The design is based on the following product: "Dunkin Donuts", Raised Donuts.
 - 1. Materials: Raised Dough.
 - 2. Diameter: 4" or greater.
 - 3. Minimum of 6 Honey Dip per dozen container.
 - B. The design is based on the following product: "Dunkin Donuts", Cake Donuts.
 - 1. Materials: Cake Dough.
 - 2. Diameter: 3" or greater.
 - 3. Minimum of 2 doughnut of Owner's preference.
 - C. The design is based on the following product: "Dunkin Donuts", Coffee Rolls.
 - 1. Materials: Raised Dough.
 - 2. Diameter: 5" or greater.
 - 3. Core: Cinnamon Sugar in spirals
 - 4. Minimum of 2 per delivery.
 - D. The design is based on the following product: "Dunkin Donuts", Pastries.
 - 1. Materials: Flakey Dough.
 - 2. Diameter: 4 1/2" or greater
 - 3. Minimum of 3 different flavors per delivery. At least one cheese flavored.

2.2 Fruit: Contractor shall keep abreast of seasonal availability of all commonly available fruits. Contractor shall seek out local produce stands for high quality fruits as a better substitute for products listed here. The following is to be considered a basis of design.

- A. The design is based on the following product: Local Groceries Store Produce Department.
 - 1. Ripe with excellent color.
 - 2. Juicy and succulent.

2.3 BEVERAGES: Products noted are a basis of design. Products of better quality shall be provided where possible. Owner shall be the final judge of a products quality when submitted. Prior to first meeting contractor shall obtain beverage preferences of all attendees and provide such.

- B. The design is based on the following product: "Dunkin Donuts", Black Coffee.
 - 1. Materials: Dry Roasted Coffee.
 - 2. Minimum size: 1 large per serving.
 - 3. Thinner: Cream where required.
 - 4. Texturizer: Sugar where required.

- B. The design is based on the following product: "Garelick Farms", Whole Milk.
 - 1. Materials: Dairy Milk.
 - 2. Minimum size: 1 pint per serving.

- C. The design is based on the following product: "Tropicana", Juice.
 - 1. Materials: Orange Juice, substitution of other flavors may be submitted for approval.
 - 2. Minimum size: 1 pint per serving.

- D. A beverage of the agents preference shall be provided to any government agent in attendance of the meeting. The beverage shall be provided prior to any meeting business.

2.3 ACCESSORIES

- A. Napkins, stirrers, cups as necessary to properly install products.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Inspect conditions under which the work of this section will be performed, and verify that surfaces are clean and properly prepared for the work of this section. Do not proceed with the work until unsatisfactory conditions have been fully resolved.

3.2 SEQUENCING

- A. Prior to first Progress Meeting obtain from attendees preferred baked goods and preferred beverages as specified.
- B. Preferred products shall be delivered to the site immediately prior to all Progress Meetings, Substantial Completion Inspection, Substantial Completion Meeting, Closeout Meeting, Nine Month Inspection and Twelve Month Inspection.

3.3 INSTALLATION

- A. General: Comply with manufacturer's instructions, except where more stringent requirements are shown or specified, and except where project conditions require extra precautions or provisions to ensure satisfactory performance of the work.
- B. Tolerances: Install products of this section to within the following tolerances:
 - 1. Doughnuts shall not vary in size more than 1/4" from average size.
 - 2. Pastries shall not vary in size more than 1/2" from average size.
 - 3. Fillings may not vary more than .25 oz. from average.
 - 4. Coverings shall full cover baked good. No holidays permitted.
 - 5. Beverages as measured shall meet weights and measures of authority having jurisdiction over location of project.

3.4 CLEANING

- A. Following the work, remove from project site all discarded materials, rubbish, and debris resulting from the work.

END OF SECTION

SECTION 01300 - SUBMITTALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract from the front of the Specification book, including General Conditions and Supplementary General Conditions, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Preparing and processing of submittals for review and action.
 - 2. Preparing and processing of informational submittals.
- B. Submit the following for the architect's review and action:
 - 1. Shop drawings.
 - 2. Product data.
 - 3. Samples.
 - 4. Refer to individual Sections of the Specification for specific items required for the submission of submittals.
 - 5. Refer to the end of the section for a list of submittals
- C. Submit the following as informational submittals:
 - 1. Structural design information required by the contract documents.
 - 2. Certificates.
 - 3. Coordination drawings.
 - 4. Reports.
 - 5. Qualification statements for manufacturers/installers.
 - 6. Coordination Drawings.
 - 7. Qualification/Experience Statements for installers and manufacturers.
 - 8. Field Samples which are to be kept for future evaluation in case of failure.
 - 9. Test reports.
 - 10. Inspection reports.
 - 11. Certificates.
 - 12. Submittals for which procedures are not defined elsewhere.
- D. Specific submittals are described in individual sections.
- E. Do not commence work which requires review of any submittals until receipt of returned submittals with an acceptable action.

- F. Do not allow submittals without an acceptable action marking to be used for the project.
- G. Submit all submittals to the architect.
- H. Do not submit substitute items that have not been approved by means of the procedure specified elsewhere.
- I. Do not include requests for substitution (either direct or indirect) on submittals; comply with procedures for substitutions specified elsewhere.
- J. Related Sections: The following are specified elsewhere in Division 1:
 - 1. Quality control submittals:
 - a. Inspection reports.
 - b. Test reports.
 - 2. Product submittals:
 - a. Product option submittals.
 - b. Requests for substitution.
 - c. Operating and maintenance data.
 - d. Warranties.
 - e. Maintenance materials and tools.
 - 3. Contract closeout submittals:
 - a. Equipment and systems demonstration reports.
 - b. Certificate of occupancy.
 - c. Project record documents.
 - 4. Other administrative submittals:
 - a. Layout data.

1.3 DEFINITIONS

- A. Shop Drawings: See General Conditions.
 - 1. Shop drawings also include:
 - a. Product data specifically prepared for this project.
- B. Product Data: See General Conditions.
 - 1. Product data submittals also include:
 - a. Selection data showing standard colors.
- C. Samples: See General Conditions.
- D. Informational Submittals: Submittals identified in the contract documents as to be submitted for information only.

1.4 FORM OF SUBMITTALS

- A. Large Sheets or Pages:
 - 1. Sheet size: 24 by 36 inches, maximum for drawings.
 - a. Exception: Full size pattern or template drawings.
 - 2. Number of copies:
 - a. Submittals for review:
 - (1) 1 copy or, if submittal requires engineer's review, 2 copies of blue- or black-line prints, plus quantity required by the Contractor and Owners final submittal set.
 - (2) All but 1 copy for architectural review, 2 copies for engineer's review will be returned.
 - b. Informational submittals:
 - (1) 2 copies of opaque prints.
 - (2) No copies will be returned.
- B. Small Sheets or Pages:
 - 1. Maximum sheet size: 8-1/2 by 11 inches.
 - 2. Maximum sheet size for opaque copies: 8-1/2 by 11 inches.
 - 3. Number of copies:
 - a. Opaque copies:
 - (1) For review: 1 copy or, if engineer's review is required, 2 copies plus quantity required by the Contractor and Owners final submittal set.
 - (2) All but 1 copy for architectural review, 2 copies for engineer's review will be returned.
 - 4. Informational submittals: 2 copies. No copies will be returned.
- C. Samples: 3 sets of each.
 - 1. 2 sets will be returned.
- D. If additional sets are needed by other entities involved in work represented by the samples, submit with original submittal.
- E. Copies in excess of the number requested will not be returned.
- F. Provide additional copies, if required for operating and maintenance data, marked to indicate their purpose.
- G. Provide additional copies for project record documents.

1.5 COORDINATION OF SUBMITTALS

- A. Coordinate submittals and activities that must be performed in sequence, so that the architect has enough information to properly review the submittals.
- B. Coordinate submittals of different types for the same product or system so that the architect has enough information to properly review each submittal.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 TIMING OF SUBMITTALS

- A. Transmit each submittal at or before the time indicated on the approved schedule of submittals.
 - 1. Prepare and submit for approval a schedule showing the required dates of submittal of all submittals.
 - 2. Organize the schedule by the applicable specification section number.
 - 3. Incorporate the contractor's construction schedule specified elsewhere.
 - 4. Submit within 30 days after commencement of the work.
 - 5. Revise and resubmit the schedule for approval when requested.
- B. Deliver each submittal requiring approval in time to allow for adequate review and processing time, including resubmittals if necessary; failure of the contractor in this respect will not be considered as grounds for an extension of the contract time.
- C. Deliver each informational submittal prior to start of the work involved, unless the submittal is of a type which cannot be prepared until after completion of the work; submit promptly.
- D. If a submittal must be processed within a certain time in order to maintain the progress of the work, state so clearly on the submittal.
- E. Allow a minimum of 2 weeks, (plus one additional week if the review requires the review of the reviewer's engineer) for the first processing of each submittal. Allow more time when submittals must be coordinated with later submittals.

- F. Allow a minimum of 1 week, (plus one additional week if the review requires the review of the architect's engineer) for processing of resubmittals.
- G. If a submittal must be delayed for coordination with other submittals not yet submitted, the architect may at his option either return the submittal with no action or notify the contractor of the other submittals which must be received before the submittal can be reviewed.

3.2 SUBMITTAL PROCEDURES - GENERAL

- A. Contractor Review: Sign each copy of each submittal certifying compliance with the requirements of the contract documents.
- B. Notify the architect, in writing and at time of submittal, of all points upon which the submittal does not conform to the requirements of the contract documents, if any.
- C. Preparation of Submittals:
 - 1. Label each copy of each submittal, with the following information:
 - a. Project name.
 - b. Date of submittal.
 - c. Contractor's name and address.
 - d. Architect's name and address.
 - e. Subcontractor's name and address.
 - f. Supplier's name and address.
 - g. Manufacturer's name.
 - h. Specification section where the submittal is specified.
 - i. Numbers of applicable drawings and details.
 - j. Other necessary identifying information.
 - 2. Pack submittals suitably for shipment.
 - 3. Submittals to receive architect's action marking: Provide blank space on the label or on the submittal itself for action marking; minimum 4 inches wide by 5 inches high.

- D. Transmittal of Submittals:
1. Submittals will be accepted from the contractor only. Submittals received from other entities will be returned without review or action.
 2. Submittals received without a transmittal form will be returned without review or action.
 - a. Project name.
 - b. Submittal date.
 - c. Transmittal number.
 - d. Specification section number.
 - e. To:
 - f. From:
 - g. Contractor's name.
 - h. Subcontractor's and supplier's names.
 - i. Manufacturer's name.
 - j. Submittal type (shop drawing, product data, sample, informational submittal).
 - k. Description of submittal.
 - l. Action marking.
 - m. Comments.
 3. Fill out a separate transmittal form for each submittal; also include the following:
 - a. Other relevant information.
 - b. Requests for additional information.

3.3 SHOP DRAWINGS

- A. Content: Include the following information:
1. Dimensions, at accurate scale.
 2. All field measurements that have been taken, at accurate scale.
 3. Names of specific products and materials used.
 4. Show compliance with the specific standards referenced.
 5. Coordination requirements; show relationship to adjacent or critical work.
 6. Name of preparing firm.
- B. Preparation:
1. Reproductions of contract documents are not acceptable as shop drawings.
 2. Identify as indicated for all submittals.
 3. Space for architect's action marking shall be adjacent to the title block.

3.4 PRODUCT DATA

- A. When product data submittals are prepared specifically for this project (in the absence of standard printed information) submit such information as shop drawings and not as product data submittals.
- B. Content:
 - 1. Submit manufacturer's standard printed data sheets.
 - 2. Identify the particular product being submitted; submit only pertinent pages.
 - 3. Show compliance with properties specified.
 - 4. Identify which options and accessories are applicable.
 - 5. Include recommendations for application and use.
 - 6. Show compliance with the specific standards referenced.
 - 7. Show compliance with specified testing agency listings; show the limitations of their labels or seals, if any.
 - 8. Identify dimensions which have been verified by field measurement.
 - 9. Show special coordination requirements for the product.

3.5 SAMPLES

- A. Samples:
 - 1. Provide samples that are the same as proposed product.
 - 2. Where unavoidable variations must be expected, submit "range" samples, minimum of 3 units, and describe or identify variations among units of each set.
 - 3. Where selection is required, provide full set of all options.
- B. Preparation:
 - 1. Attach a description to each sample.
 - 2. Attach name of manufacturer or source to each sample.
 - 3. Where compliance with specified properties is required, attach documentation showing compliance.
 - 4. Where there are limitations in availability, delivery, or other similar characteristics, attach description of such limitations.
 - 5. Where selection is required, the first submittal may be a single set of all options; after return of submittal with selection indicated, submit standard number of sets of selected item.
- C. Keep final sample set(s) at the project site, available for use during progress of the work.

3.6 REVIEW OF SUBMITTALS

- A. Submittals for approval will be reviewed, marked with appropriate action, and returned.
- B. Informational submittals: Submittals will be reviewed.

3.7 RETURN, RESUBMITTAL, AND DISTRIBUTION

- A. Submittals will be returned to the contractor by mail.
- B. Perform resubmittals in the same manner as original submittals; indicate all changes other than those requested by the architect.
- C. Distribution:
 - 1. Distribute returned submittals to all subcontractors and suppliers involved in work covered by the submittal.
 - 2. Maintain one copy for inclusion in the Owner's manual.

END OF SECTION 01300

SECTION 01400 - QUALITY CONTROL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract from the front of the Specification book, including General Conditions and Supplementary General Conditions, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. General quality control activities.
 - 2. Procedures for the following:
 - a. Preparation and maintenance of schedule of quality control activities.
 - b. Design performed by contractor.
 - c. Testing and evaluation of test results.
 - d. Inspections.
 - 3. Procedures for quality control activities performed by:
 - a. Public authorities having jurisdiction.
 - b. Independent testing agencies.
 - c. Contractor.
 - 4. Procedures for submittal of quality control documentation.
- B. Quality control activities required are specified in other sections.
- C. See General Conditions for additional requirements for testing, inspections, and approvals.
- D. Related Sections:
 - 1. Contractor's construction schedule: Elsewhere in Division 1.
 - 2. Submittal procedures: Elsewhere in Division 1.
 - 3. Concrete Testing: Division 3.
 - 4. Wood Truss Design: Division 6.
 - 5. Sprinkler Design: Division 15.

1.3 CONTRACT CONDITIONS

- A. Independent testing agencies, whether employed by the owner or the contractor, may not change the requirements of the contract documents and may not approve any portion of the work.

- B. Employment of testing agencies, by the contractor or the owner, shall not relieve the contractor of his obligation to perform the work in accordance with the contract documents.

1.4 DEFINITIONS

- A. Installer: Any entity who performs a construction activity, whether an employee, subcontractor, or sub-subcontractor of the contractor.
- B. Reference Standard: Any document incorporated into the specification by reference rather than by inclusion of complete text; including, but not limited to, voluntary specifications prepared by standards organizations and industry organizations.

1.5 REFERENCE STANDARDS

- A. Reference Standards - General:
 - 1. Comply with edition of standard in effect as of:
 - a. Date of agreement.
 - 2. Compliance with standards which are revised or reissued after that date will not be required unless incorporated into the contract documents by modification.
 - 3. Where applicable codes, laws, or regulations require editions of different dates, obtain instructions from the governing authorities as to which edition is required.
- B. The requirements of reference standards are binding on the contractor, just as if they were copied into the contract documents, but no provisions of reference standards shall alter the contractual relationship of the parties to the contract.
- C. Keep at the site a copy of each reference standard specified.

1.6 SUBMITTALS

- A. Schedule of Quality Control Activities:
 - 1. Submit within same time period as required for contractor's construction schedule.
 - 2. Distribute to:
 - a. The owner.
 - b. The architect.
 - c. Each entity performing work for which quality control activities are specified.

- B. Design Data: As specified in individual sections.
 - 1. Unless otherwise indicated, submit for review by the architect.

- C. Reports: Provide certified copies of reports.
 - 1. Unless otherwise indicated, submit for information only.
 - 2. Submit reports within 1 week after execution of quality control activity, but not later than the date of application for payment for the work to which the quality control activity relates.
 - 3. Reports shall be prepared by the entity performing the quality control activity.
 - 4. Submit copies directly to governing authorities when so directed.
 - 5. When the contractor employs an independent testing agency, submit copies directly to the architect.
 - 6. Include the following information in all types of reports:
 - a. Date of report.
 - b. Project name (and number, if applicable).
 - c. Description of the quality control activity.
 - d. Name, address, and telephone number of entity performing activity.
 - e. Date quality control activity was performed.
 - f. Specification section(s) involved.
 - g. Basis for evaluation (test method, etc.).
 - h. Results or conclusions, including evaluations and interpretations.
 - i. Title, name, and signature of person performing activity.
 - 7. Include the following information in all test reports:
 - a. Locations from which samples were taken, if any.
 - b. Ambient conditions at time of activity.
 - c. Recommendations for retesting, if any.

1.7 QUALITY ASSURANCE

- A. Qualifications of Structural Design Personnel: As indicated in individual sections; if not indicated, provide services of a professional engineer licensed in the state in which the project is located.

- B. Qualifications of Manufacturers: As indicated in individual sections.
 - 1. The term "experienced," unless otherwise indicated, means having 5 years of successful production of products similar to those to be used on this project.
 - 2. Where qualifications are required to be submitted but no specific qualifications are specified, use only experienced manufacturers.

- C. Qualifications of Installers: As indicated in individual sections.
 - 1. The term "experienced," unless otherwise indicated, means having satisfactorily completed similar work on 5 projects of similar scope and complying with applicable requirements of governing authorities.
 - 2. Where qualifications are required to be submitted but no specific qualifications are specified, use only experienced installers.

- D. Qualifications of Testing and Inspection Personnel:
 - 1. As indicated in individual sections.
 - 2. Independent Testing Agency Qualifications: When employed by the contractor:
 - a. A firm independent from the contractor's organization.
 - b. Approved by the architect.
 - c. Authorized to conduct business in the state in which the project is located.

- E. Testing Equipment: Calibrated at reasonable intervals with devices of an accuracy traceable to either the National Bureau of Standards (NBS) standards or to accepted values of natural physical constants.

1.8 COORDINATION WITH OTHER ENTITIES

- A. Cooperate with other entities performing quality control activities.
- B. Provide samples of materials and design criteria as indicated and when requested.
- C. Provide other assistance, equipment, tools, and storage facilities as specified.
- D. If desired, make arrangements with those entities and pay for additional similar or related testing or inspection required for the contractor's use or convenience.

1.9 SEQUENCING AND SCHEDULING

- A. Prepare a schedule of quality control activities required.
 - 1. Provide the following information for each activity:
 - a. Specification section number.
 - b. Description of the activity.
 - c. Identification of test or inspection methods.
 - d. Enumeration of results required.
 - e. Number of tests required.
 - f. Number and type of samples to be taken, if any.

- g. Starting time of activity.
 - h. The date that the work will be ready for the owner's testing agency access.
 - i. Elapsed time required for activity.
 - j. Entity responsible.
 - k. Special requirements for activity.
- B. Coordinate quality control activities to avoid delay and to make it unnecessary to uncover work for testing or inspection.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 GENERAL

- A. Provide work of the specified quality; where quality level is not indicated, provide work of quality customary in similar types of work.
1. Where codes, laws, or regulations require work of higher quality or performance, provide work complying with those codes, laws, and regulations.
 2. Where two or more quality provisions of the contract documents conflict, comply with the most stringent requirement; where requirements are different but apparently equal, and where it is uncertain which requirement is most stringent, obtain clarification from the architect before proceeding.
 3. Actual quality may exceed the specified quality; verify that such differences are acceptable to the owner (other criteria may make excessive quality undesirable).
- B. Where the contractor is required to complete the design, use accepted methods and procedures resulting in work of the specified quality.
- C. Control products, suppliers, manufacturers, site conditions, installers, and workmanship in such a manner as to produce work of the specified quality.
- D. Comply with manufacturers' instructions and recommendations.
1. Keep a record of instructions and recommendations which supplement or conflict with the manufacturer's written instructions.
 2. When manufacturers' instructions and recommendations conflict with the contract documents, obtain clarification from the architect before proceeding.

- E. Use installers who are capable of producing work of the specified quality.
- F. Perform all quality control activities specified unless indicated to be performed by other entities.

3.2 TESTING

- A. Perform tests specified.
- B. When results of tests are unsatisfactory, make whatever changes or repairs are necessary and retest.
- C. Submit written report of each original test and of each retest.

3.3 INSPECTING

- A. Perform inspections specified.
- B. When inspections reveal unsatisfactory work, make whatever changes or repairs are necessary and reinspect.
- C. Submit written report of each original inspection and each reinspection.

3.4 PROTECTION AND REPAIR

- A. When work is uncovered during quality control activities, provide protection from damage.
- B. Correct work damaged by quality control activities; where repair is indicated as an unacceptable method, replace the work.

END OF SECTION 01400

SECTION 01500 - TEMPORARY FACILITIES AND SERVICES

PART 1 -GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract from the front of the Specification book, including General Conditions and Supplementary General Conditions apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Temporary utilities.
 - 2. Temporary construction.
 - 3. Protective facilities.
 - 4. Employee facilities.
 - 5. Administrative facilities.
 - 6. Temporary services.
 - 7. Construction equipment.
 - 8. Required temporary facilities and services include but are not limited to:
 - a. Access roads.
 - b. Drinking water facilities.
 - c. Dust control services.
 - d. Fire protection facilities, other than piped utilities.
 - e. Ice and snow removal.
 - f. Janitorial services.
 - g. Meeting room.
 - h. Project identification sign(s).
 - i. Public protective facilities required by law.
 - j. Telephone service.
 - k. Temporary enclosures for general building heating.
 - l. Temporary enclosures for protection from weather.
 - m. Use of new permanent elevators for construction.
 - n. Dumpster on site.
 - o. Water supply.
 - p. Use of permanent water service.
 - q. Heating and cooling.
 - (1) Include cost of fuel and power used.
 - r. Use of permanent heating, cooling, and ventilating systems.
 - s. Electrical service, except extension cords.
 - (1) Include electric service usage charges.

- 9. Temporary lighting.
- 10. Use of permanent electrical systems.

B. Related Sections:

- 1. Access to site: Elsewhere in Division 1.
- 2. Regulatory requirements: Elsewhere in Division 1.
- 3. Storage and protection of materials and equipment: Elsewhere in Division 1.

C. FM P7825 -- Approval Guide 1992; Factory Mutual System; 1992.

1.3 DEFINITIONS

- A. Temporary Facilities: Construction, fixtures, fittings, and other built items required to accomplish the work but which are not incorporated into the finished work.
- B. Temporary Utilities: A type of temporary facility; primary sources of electric power, water, natural gas supply, etc., obtained from public utilities, other main distribution systems, or temporary sources constructed for the project, but not including the fixtures and equipment served.
- C. Temporary Services: Activities required during construction which do not directly accomplish the work.
- D. Construction Equipment: A type of temporary facility, consisting of fixed equipment used to accomplish the work, determined by the method the contractor chooses to accomplish the work.

1.4 SUBMITTALS

- A. Copies of permits required by public authorities.

1.5 QUALITY ASSURANCE

- A. Comply with requirements of governing authorities, as to type, quantity, location, and use of temporary facilities.
- B. Comply with requirements of governing authorities, as to type and frequency of temporary services.
- C. Comply with requirements of public utilities affected.

1.6 PROJECT CONDITIONS

- A. Obtain easements where required.

- B. Use of permanent facilities prior to substantial completion is subject to the owner's approval and conditions.
 - 1. Each permanent facility used for construction purposes shall be operated, maintained, and protected during such use by the original installer.
 - 2. Specified warranties shall not be reduced or voided by temporary use.

1.7 SEQUENCING AND SCHEDULING

- A. Maintain required facilities until not needed or until shortly before substantial completion; remove facilities before substantial completion.
 - 1. Exception: Where use of permanent facilities is allowed.
- B. Change over to use of permanent facilities, when applicable, as soon as possible, except when use of permanent facilities is not allowed.

PART 2 -PRODUCTS

2.1 MATERIALS

- A. General: Provide materials which are both suitable for the use and durable enough to withstand the use and abuse to be expected.
- B. Temporary Heating Units: UL or FM labeled for the fuel used; do not use gasoline-burning, open burning, or solid fuel heaters or salamanders.
 - 1. Use equipment that is known to be safe and that will not damage work in progress.

2.2 EMPORARY UTILITIES

- A. Temporary Water Service:
 - 1. Provide water adequate for demand of construction operations.
 - a. Take precautions to prevent damage due to leaks and spills inside building.
- B. Temporary Power:
 - 1. Provide electricity adequate for demand of construction operations.
 - 2. Electrical service:
 - a. Obtain temporary service from local utility.
 - b. Provide disconnect at connection to service.
 - c. Provide service conductors and equipment.
 - d. Provide metering equipment.
 - (1) Other temporary facilities specified.
 - e. Provide service to other temporary facilities specified.

2.3 PROTECTIVE FACILITIES

- A. Fire Protection Facilities: Provide at least the temporary facilities required by the authorities having jurisdiction.
 - 1. Fire extinguishers to be installed in the completed building shall not be used during construction.
 - 2. Put permanent facilities into operation as soon as possible.

2.4 EMPLOYEE FACILITIES

- A. Temporary Lighting: Provide at least the lighting required by law.
- B. Toilet Facilities: Provide temporary toilet facilities.
 - 1. Clean and maintain toilet facilities.
 - 2. Provide toilet tissue for each facility.

2.5 ADMINISTRATIVE FACILITIES

- A. Meeting Room: Provide space in one of the contractor's field offices on site.
 - 1. Provide heating and insulation sufficient to maintain minimum of 70 degrees F interior temperature in winter.
 - 2. Provide air conditioning sufficient to maintain maximum of 75 degrees F interior temperature in summer.
 - 3. Provide following furnishings:
 - a. Conference table.
 - b. 8 chairs.
 - c. Plan table.
- B. Telephone Service:
 - 1. Provide at least one telephone on site.
 - 2. Provide pay telephone for employees' use.
 - 3. Display construction-related phone numbers at each phone.
 - a. Fire emergency number.
 - b. Rescue emergency number.
 - c. Physician.
 - d. Contractor's home office.
 - e. Owner's representative.
 - f. Architect's representative.
 - g. Major subcontractors' home offices.

- C. Project Sign(s): Provide 1.
 - 1. Posts: PVC, Metal or treated wood.
 - 2. Size: 4 x 8 feet.
 - 3. Material: 3/4" exterior grade plywood.
 - 4. Color: White with teal lettering.
 - 5. Provide the following information on sign:
 - a. Project name.
 - b. Owner's name.
 - c. Architect's name.
 - d. Contractor's name.
 - e. Financing agency's name.
 - 6. Project sign: See drawings.
 - 7. Submit sign to the city for review and approval in accordance with their city sign ordinance.
 - 8. No other signs or advertisements will be allowed to be displayed without the written approval of the Owner.
 - 9. Locate where visible to the public.

2.6 TEMPORARY CONSTRUCTION

- A. Access Roads: Provide temporary roads as required.
 - 1. Provide traffic surfaces which are adequate for the loadings expected and which will be durable in normal weather conditions.
 - 2. Provide paving at well-traveled routes and delivery areas.
- B. Temperature Control and Ventilation Facilities: Provide adequate facilities:
 - 1. To provide proper conditions for installation.
 - 2. For drying and curing of completed work.
 - 3. For protection from deterioration due to high or low temperatures and humidity.
 - 4. To provide suitable working conditions.
 - 5. Provide heating after building is enclosed, adequate to maintain minimum of 60 degrees F.
 - 6. Permanent equipment and facilities may be used.
- C. Temporary Enclosures for Heating: When general building heating is required for construction operations before completion of building enclosure, provide temporary construction to close openings in building enclosure.
- D. Temporary Enclosures for Weather Resistance: When building enclosure is not yet complete but interior construction may be damaged by weather, provide temporary enclosures adequate to keep out weather.

2.7 TEMPORARY FENCING

- A. Provide six foot high chain link fence with pedestrian and vehicular gates to prevent unauthorized entry to construction areas. The fencing shall allow for Owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition. Location of fence to be coordinated with Owner. At a minimum the fence shall enclose the area of new work and paving shown on the site plan.
- 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 plant life designated to remain. Replace damaged plant life.
- D. Protect non-owned vehicular traffic, stored materials, site and structures from damage.

PART 3 - EXECUTION

3.1 GENERAL

- A. Cooperate with other contractors in location of temporary facilities.

3.2 TEMPORARY SERVICES

- A. Fire Prevention: Provide a dumpster on the site. Empty dumpster when it is full.
- B. Janitorial Services:
 - 1. Clean toilet facilities at least once a week.
 - 2. Clean meeting room at least once a week.
- C. Dust Control Services: Keep down dust on roads regularly.
- D. Ice and Snow Removal: Remove ice and snow regularly.

3.3 TERMINATION AND REMOVAL

- A. Remove temporary facilities when no longer needed, or when use of appropriate permanent facility is approved, but not later than substantial completion.
 - 1. Exception: When longer usage is requested by the architect or owner.

- B. Complete permanent work delayed until removal of temporary facilities.
- C. Permanent Facilities Used during Construction: Clean; replace parts that are worn in excess of that expected during normal usage.
- D. Dispose of project sign(s) not claimed by the owner.

END OF SECTION 01500

SECTION 01600 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract from the front of the Specification book, including General Conditions and Supplementary General Conditions, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. General product requirements, including:
 - a. General specification requirements for all products.
 - b. Product options.
 - c. Procedures for substitution requests.
 - d. General requirements and procedures for maintenance materials and tools.
 - 2. General requirements for product documentation, including:
 - a. Requirements and procedures for schedule of products.
 - b. General requirements for operation and maintenance data.
 - c. General requirements for warranties.
 - 3. General procedures for products including:
 - a. Procedures for transportation and handling.
 - b. Procedures for delivery and receiving.
 - c. Procedures for storage.
- B. Related Sections:
 - 1. Submittal transmission, handling, and action procedures: Elsewhere in Division 1.
 - 2. General installation procedures: Elsewhere in Division 1.
 - 3. Owner instruction for equipment and systems: Elsewhere in Division 1.
 - 4. Project record documents: Elsewhere in Division 1.

1.3 DEFINITIONS

- A. Damage: Any sort of deterioration whether due to weather, normal wear and tear, accident, or abuse, resulting in soiling, marring, breakage, corrosion, rotting, or impairment of function.

1.4 SUBMITTALS

- A. Schedule of Products: Submit for approval.
- B. Final Schedule of Products: Submit for project record.

- C. Operation and Maintenance Data: Submit for information only.
- D. Warranties: Submit for project record.
- E. Receipts for maintenance materials and tools.

1.5 WARRANTIES

- A. Warranties are specified in each section. Where not specified and the minimum warranty on a component of the project shall be warranted for at least two years from the date of substantial completion. All components installed with in the project are to be "Year 2000 Compliant."

PART 2 - PRODUCTS

2.1 GENERAL

- A. Components required to be supplied in quantity within a specification section shall be identical, interchangeable, and made by the same manufacturer.

2.2 MAINTENANCE MATERIALS AND TOOLS

- A. Maintenance Materials: Parts and materials for repair and maintenance; specific items required are specified in product sections.
 - 1. Provide products and tools which are identical to those used in the work; if necessary to obtain identical items, order at the same time as products to be installed or tools to be used in the work.
- B. Package appropriately and label to show type and quantity of contents.
- C. Deliver, handle, and store in the same manner as products to be installed.
- D. Do not turn over to the owner until date of substantial completion, unless otherwise approved by the owner.
- E. Deliver to the owner; unload.
- F. Obtain receipt prior to final payment.

PART 3 - EXECUTION

3.1 PRODUCT OPTIONS

- A. It is the contractor's responsibility to select products which comply with the contract documents and which are compatible with one another, with existing work, and with products selected by other contractors.
 - 1. Verify that electrical characteristics of products are compatible with electrical systems; notify architect of all discrepancies.
- B. No substitute products will be considered, except in the event of unavailability of the specified product through no fault of the contractor.
- C. Definition of Substitute Product: Any product which does not meet the requirements of the contract documents, whether in product characteristics, performance, quality, or manufacturer or brand names, is considered a substitute.
- D. Product Options: Where products are specified using more than one method, such as description with a manufacturer list, use a product meeting the requirements of both specification methods.
- E. Products Specified by Reference Standard: Use any product meeting the specification. Provisions of reference standards shall not modify the responsibilities of the owner or architect as defined in the contract documents.
- F. Products Specified by Description: Use any product meeting the specification.
- G. Products Specified by Listing a Brand Name Product as the "Basis of Design": Provide a product equivalent to the product specified within the limits of variation specified; submit substitution request for all products other than that listed as basis of design.
- H. Products Specified by Listing Brand Names(s): Provide one of the products listed; no substitutions will be allowed.
- I. Products Specified by Listing Manufacturer(s): Provide a product meeting the specification and made by one of the manufacturers listed.

3.2 SUBSTITUTION PROCEDURE

- A. Submission of request for substitution shall constitute a representation by the contractor that he:
 - 1. Has investigated the proposed product and determined that it is equal to or better than the specified product. Absence of an explicit comparison of any characteristic of the proposed product to the specified product shall constitute a representation that the proposed product is equal to or better than the specified product with regard to that characteristic.
 - 2. Will provide the same warranty for the proposed product as for the specified product.
 - 3. Will coordinate the installation and make other changes which may be required for the work to be complete in all respects, including:
 - a. Redesign.
 - b. Additional components and capacity required by other work affected by the change.
 - 4. Waives all claims for additional costs and time extensions which subsequently may become apparent and which are caused by the change.
 - 5. Will reimburse the owner for additional costs for evaluation of the substitution request, redesign if required, and reapproval by authorities having jurisdiction if required.
- B. Substitutions will not be considered when acceptance would require substantial revision of the contract documents.
- C. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals without separate written request.
- D. Substitution requests will not be considered when submitted directly by subcontractor or supplier.
- E. Substitution Request Procedure: Submit written request with complete data substantiating compliance of the proposed product with the requirements of the contract documents.
 - 1. Submit request to the architect.
 - 2. Submit 3 copies of each request and accompanying data.
 - 3. Submit all requests on a standard form.
 - 4. Only one request for substitution will be considered for each product.

- F. Data Required with Substitution Request: Provide at least the following data:
 - 1. Identify product by specification section and paragraph number.
 - 2. Manufacturer's name and address, trade name and model number of product (if applicable), and name of fabricator or supplier (if applicable).
 - 3. Complete product data.
 - 4. An itemized comparison of the proposed product to the specified product.
 - 5. Net amount of change to the contract sum.
 - 6. List of maintenance services and replacement materials available.
 - 7. Statement of the effect of the substitution on the construction schedule.
 - 8. Description of changes that will be required in other work or products if the substitute product is approved.
- G. The architect will determine acceptability of the proposed substitution.
- H. When the proposed substitution is not accepted, provide the product (or one of the products, as the case may be) specified.

3.3 SCHEDULE OF PRODUCTS

- A. Prepare a complete schedule of major products used, including the following for each product:
 - 1. Manufacturer's name.
 - 2. Brand or trade name.
 - 3. Model number, if applicable.
 - 4. Reference standard, if more than one is applicable.
 - 5. Arrange products in the schedule by specification sections; indicate paragraph where specified.
- B. Prepare and submit a preliminary schedule within 30 days after award of contract ; resubmit when revised; submit final schedule prior to final payment.
- C. Schedule of products shall not be used to obtain approval of substitute products; make separate request for substitution.

3.4 OPERATION AND MAINTENANCE DATA

- A. Provide operation and maintenance data as specified in individual product sections.
 - 1. Provide data sufficient for operation and maintenance by owner without further assistance from the manufacturer.
 - 2. Provide completed data in time for use during owner instruction.
- B. Data Required For Products - General:
 - 1. Name of manufacturer and product.
 - 2. Name, address, and telephone number of subcontractor or supplier.
 - 3. Local source of replacements.
 - 4. Local source of replaceable parts and supplies.
- C. Product Data: Where product data is specified for inclusion in operation and maintenance data, provide manufacturer's data sheets marked to indicate specific product and product options actually installed; delete inapplicable data.
- D. Project Record Documents: Provide an additional copy of applicable record documents for inclusion with the operation and maintenance data.
- E. Coordination Drawings: When coordination drawings are prepared, include a copy with the operating and maintenance data.
- F. Equipment: Provide at least the following information:
 - 1. Product data giving equipment and function description, with normal operating characteristics and limiting conditions.
 - 2. Starting, operating, and troubleshooting procedures.
 - 3. Cleaning and maintenance requirements and procedures.
 - 4. External finish maintenance requirements.
 - 5. List of maintenance materials required.
 - 6. List of special tools required.
 - 7. Parts list: List all replaceable parts, with ordering data.
 - 8. Recommended quantity of spare parts to be maintained in storage.
- G. Systems: Provide overall function description, with diagrams, prepared especially for this project.
- H. Form of Data: Prepare data in the form of an instructional manual.
 - 1. Arrange content logically, using section numbers and sequence of sections indicated on the table of contents of this project manual.

2. When multiple volumes are used, arrange by related subjects; identify contents in cover title.
3. Assemble into 3-ring binders with maximum 2-inch ring size.
 - a. Hardback, cleanable plastic covers.
 - b. Identify each book with title "Operation and Maintenance Instructions" and project name.
 - c. Page size 8-1/2 by 11 inches, maximum.
 - d. Prepare special typewritten data on minimum 20-pound paper.
 - e. Provide tabbed divider for each product and system.
 - f. Drawings: Bind large-size drawings separately.
4. Provide table of contents for each volume listing:
 - a. Name of the project.
 - b. Name, address, telephone number, and contact name of:
 - (1) Architect.
 - (2) Contractor.
 - c. Index of products and systems included in volume.

3.5 WARRANTIES

- A. Provide warranties as specified in individual product sections.
- B. Manufacturer Warranties: Manufacturer's standard product warranty running for the manufacturer's standard term, unless otherwise indicated.
 1. Submit copies of all manufacturer warranties which extend beyond the end of the contract correction period.
- C. Special Project Warranties: Written warranty commencing at date of substantial completion, running for the term indicated, and signed by the entities specified.
 1. Where completion of warranty item is materially delayed beyond the date of substantial completion, provide warranty commencing on date of acceptance.
 2. Submit each special project warranty.
- D. Provide documentation that the items installed are "Year 2000 Compliant"
- E. Provide at least 3 copies of each executed warranty.
- F. Show actual date of commencement on each warranty.

3.6 TRANSPORTATION AND HANDLING

- A. Require supplier to package finished products in a manner which will protect from damage during shipping, handling, and storage.

- B. Transport products by methods which avoid damage.
- C. Deliver in dry, undamaged condition in manufacturer's unopened packaging.
- D. Provide equipment and personnel adequate to handle products by methods which prevent damage.
- E. Provide additional protection during handling where necessary to prevent damage to products and packaging.
- F. Lift large and heavy components at designated lift points only.

3.7 DELIVERY AND RECEIVING

- A. Arrange deliveries of products to allow time for inspection prior to installation.
- B. Coordinate delivery to avoid conflict with the work and to take into account both the conditions at the site and the availability of personnel, handling equipment, and storage space.
- C. Clearly mark partial deliveries to identify contents, to permit easy accumulation of entire delivery, and to facilitate assembly.
- D. Promptly inspect shipments and remedy damage, incorrect quantity, incompleteness, improper or illegible labeling, and noncompliance with requirements of contract documents and approved submittals.

3.8 STORAGE

- A. No indoor storage areas are available on site.
- B. General Storage Procedures:
 1. Store products immediately on delivery.
 2. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible.
 3. Store in a manner to prevent damage to the stored products and to the work.
 4. Store moisture-sensitive products in weathertight enclosures.
 5. Store indoors if necessary to keep temperature and humidity within ranges required by manufacturer.
 6. Store unpacked and loose products on shelves, in bins, or in neat groups of like items.
 7. Arrange storage to provide access for inspection and inventory.

8. Periodically inspect and remedy damage and noncompliance with required conditions.
- C. Loose Granular Materials: Store on solid surfaces in well-drained area; prevent mixing with foreign materials.
- D. Exterior Storage:
1. Cover products subject to weather damage with impervious sheet covering; provide ventilation to avoid condensation.
 2. Provide surface drainage to prevent runoff or ponded water from damaging stored products.
 3. Prevent damage and contamination from refuse and chemically injurious materials and liquids.
 4. Store fabricated products on substantial platforms, blocking, or skids above the ground, sloped to drain.

END OF SECTION 01600

SECTION 01700 - CONSTRUCTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract from the front of the Specification book, including General Conditions and Supplementary General Conditions, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 1. General construction and installation procedures.
 2. Building Air infiltration and Blower Door Testing.
 3. Cutting procedures.
 4. Patching procedures.
 5. Correction of defective work.
 6. Cleaning during construction.
 7. Facility startup.
 8. Instruction of the owner's personnel.
 9. Project completion procedures.
 10. Final property survey.
 11. Final cleaning.
- B. Related Sections:
 1. Cleaning requirements for specific products and systems: Applicable product sections in Divisions 2-16.
 2. Final payment procedures: Elsewhere in Division 1.
 3. General product installation requirements: Elsewhere in Division 1.
 4. Testing, adjusting, and balancing of mechanical systems: Division 15.
 5. Waste removal services: Elsewhere in Division 1.

1.3 DEFINITIONS

- A. Concealed Spaces: Spaces which are not accessible after completion of construction.
- B. Cutting: Removal of material by cutting, sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation.
- C. Damage: Any sort of deterioration whether due to weather, normal wear and tear, accident, or abuse, resulting in soiling, marring, breakage, corrosion, rotting, or impairment of function.

- D. Debris: Rubbish, waste materials, litter, volatile wastes, and similar materials, with the exception of surplus materials which are to become the property of the owner.
- E. Furnish: Order and deliver noted item to the site as part of the project cost. Installed by others.
- F. Install: Install or construct item noted only as part of the project cost. Item to be furnished by others.
- G. Operational Elements: Equipment, moving parts, electrical conductors, sound and vibration control materials, waterproofing, vapor retarders, piping, ducts, tanks, and other similar materials and components which convey or retard the passage of liquids, gases, heat, light, persons, animals, or insects or which perform a similar function; not including structural elements.
- H. Patching: Restoration to completed condition by patching, repairing, refinishing, finishing, filling, closing up, and similar operations.
- I. Provide: Furnish and install item noted as part of the project cost.
- J. Replacement: Replace the entire element, surface, or product.
- K. Safety-Related Elements: Materials and assemblies whose principal function is the promotion of the safety of the building and its occupants, including fire and smoke barriers, fireproofing, emergency egress doors and windows, guardrails, equipment guards, and other similar construction.
- L. Spaces Not Normally Occupied: Accessible spaces such as roofs, accessible plenums and shafts, accessible spaces above ceilings, trenches, equipment vaults, manholes, accessible attics, and similar spaces, but not including the interior of duct or concealed spaces.

1.4 SUBMITTALS

- A. Proposals for Cutting and Patching: Submit request sufficiently in advance of the time the work is to be performed to obtain approval; include:
 - 1. Description of the nature of the work and how it is to be performed, including reasons why cutting cannot be avoided.
 - 2. Description of results expected, including impact on safety and on structural, operational, and visual qualities.
 - 3. If utilities are affected, describe the changes required and be specific as to how long service will be cut off.

4. If cutting of structural work results in the need for additional reinforcement, provide details and engineering calculations to show how that reinforcement satisfies the original structural requirements.

B. Field Correction Requests: Submit immediately upon discovery of deviation required; include a detailed description of the problem, recommended changes, and reasons it is not possible to comply with the contract documents.

1.5 QUALITY ASSURANCE

A. Qualifications of Property Surveyor: Registered land surveyor licensed in the state in which the project is located.

B. Qualifications of Surveyor: Registered land surveyor licensed in the state in which the project is located.

C. Cleaning: Perform cleaning in accordance with the recommendations of the manufacturer or fabricator of the product or system. Use only cleaning materials and tools which are specifically recommended, which are not hazardous to health or property, and which will not damage finishes.

1.6 PROJECT CONDITIONS

A. Take precautions to prevent fires and to facilitate fire-fighting operations.

1. Keep flammable materials in non-combustible containers; store away from potential fire sources; remove flammable waste regularly.

2. Keep temporary and permanent fire fighting facilities readily accessible; keep fire fighting routes open.

3. Do not allow smoking in areas where highly combustible or explosive materials are present.

4. Carefully supervise the operation of potential fire sources, including heating units.

5. Conduct welding operations in manner to prevent fire; comply with local regulations.

B. Take precautions to prevent accidents due to physical hazards:

1. Provide barricades, warning lights, or signs as required to inform personnel and the public of the hazard being protected against.

2. Safety barricades: Comply with regulations.

3. Provide temporary walkways where walking surfaces are hazardous.

4. Notify the owner before beginning work that involves hazardous operations, including use of explosives and the like.

- C. Take care to prevent pollution of air, water, and soil.
 - 1. Comply with environmental protection regulations.
 - 2. Limit effluent and rainwater runoff into waterways as required by regulations.
 - 3. Do not dump contaminants in areas that will result in contamination of waterways.
- D. Minimize discharge of effluent and rainwater runoff into sewers.
 - 1. Control sediment discharge into sewers; filter out construction debris, soil, and contaminants.
 - 2. Comply with regulations and orders of public utilities regarding use of sewers.
 - 3. Where disposal of effluent or rainwater by means of sewers is not lawful or is not possible, provide alternative methods of disposal.
- E. Prevent erosion due to rainwater runoff.
- F. Control windblown dust; prevent erosion to site and nuisance to neighbors.
- G. Prevent flooding of excavations, below-grade construction, and adjacent properties due to rainwater runoff.
- H. Protect existing property indicated to remain, including:
 - 1. Plants and trees, as indicated on the drawings.
 - 2. Any other items indicated on Drawings.
- I. Do not use tools or equipment which produce harmful levels of noise.
 - 1. Do not use noise-making tools or equipment between 6 p.m. and 7 a.m., weekdays and Saturday, and all day Sundays and holidays.
- J. Keep the site and adjacent public ways free of hazardous and unsanitary conditions and public nuisances.
- K. Control rodents and other pests; prevent infestation of adjacent sites and buildings due to pests on this site.
- L. Keep public streets free of debris due to this work.
- M. Provide adequate traffic control by means of signs, signals, and flagmen, as necessary.
- N. Provide temporary means of draining roofs where required.

- O. Conduct construction operations so that no part of the work is subjected to damaging operations or influences which are in excess of those to be expected during normal occupancy conditions.
- P. Conduct construction operations so that waste of power, water, and fuel is avoided.
- Q. Provide temporary supports as required to prevent movement and structural failure.
- R. Install products only during environmental conditions which will ensure the best possible results.

1.7 BUILDING AIR INFILTRATION AND BLOWER DOOR TESTING

- A. Building Air Infiltration :
 - 1. All components and systems are to be installed and constructed to prevent air infiltration through assemblies and around penetrations.
 - a. Manufacturer's installation instructions shall be strictly adhered to, where air infiltration is affected.
 - b. The annular space of all penetrations shall be sealed using fire stopping where it is already required or caulking and foam sealant where a fire rating issue is not present.
 - 2. At key stages of building construction an energy consultant and/or testing agent shall inspect the construction. The stages of construction for inspection shall be as follows. Additional inspections may be required as needed:
 - a. Completion of framing and windows installation.
 - b. Completion of rough-in installations.
 - c. Completion of insulation installation.
 - d. Completion of drywall and finish carpentry.
 - e. Completion of exterior siding and all exterior wall penetrations.
 - 3. Items indicated to be addressed shall be addressed to the satisfaction of the energy consultant or testing agent prior to installation of the next stage of construction.
 - 4. The costs of energy consultant inspection services shall be at the Owner's expense.
- B. Blower Door Testing:
 - 1. At the completion of the project a full building Blower Door Test and individual unit Blower Door Tests shall be conducted following ASTM E1827-96 (2002) or ASTM E779 as determined by the testing agency.
 - 2. The General Contractor shall assist in this testing by providing personnel to set systems and components as needed to conduct the testing.

3. The costs of standard Blower Door Testing services shall be at the Owner's expense.
4. The General Contractor prior to signing the contract for construction shall specifically agree to meet the following air infiltration performance values for the entire building and for each unit.
 - a. Air Infiltration Through Building Shell: .15 ACH or less.
 - b. Total Building Air Infiltration:
 - Building 1 : 1843 CFM or less
 - Building 2 : 1983 CFM or less
 - c. Effective Leakage Area per 100 Square Feet of Building Shell:
2 SF or less.
5. The General Contractor shall agree to assist in determining the deficiency in the building that is causing the building to fail to meet the performance standards stated here. If significant additional testing is needed to determine the deficiency, the cost at that testing shall be reimbursed to the Owner by the General Contractor.
6. The General Contractor shall agree to address and correct the deficiency as determined through collective review with the energy consultant or testing agent.

1.8 SEQUENCING AND SCHEDULING

- A. Install products only at the time and in the sequence which will ensure the best possible results.
- B. Coordinate required administrative activities with related construction activities.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Patching Materials: Identical to the materials of the work to be cut, unless indicated as specific materials specified in other sections.

PART 3 - EXECUTION

3.1 GENERAL EXAMINATION REQUIREMENTS

- A. Prior to performing work, examine the applicable substrates and the conditions under which the work is to be performed.
- B. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding.

- C. Conditions which could have been discovered by examination will not be allowed as cause for claims for extra work.
 - 1. In particular, verify the following:
 - a. Underground utilities.
 - b. Other underground construction.
 - c. Location and invert elevation of points of connection to piped utilities.
 - d. Abutters Fence.
- D. Verify that utility requirements of operating equipment are compatible with building utilities.
- E. Verify space requirements of items which are shown diagrammatically on the drawings.

3.2 GENERAL PREPARATION REQUIREMENTS

- A. Take field measurements as required to fit the work properly.
- B. Recheck measurements prior to installing each product.

3.3 GENERAL INSTALLATION PROCEDURES

- A. Accurately locate the work and components of the work; make vertical work plumb; make horizontal work level.
- B. See sections describing specific parts of the work for additional requirements.
- C. Where space is limited, install components to maximize space available for maintenance and to maximize ease of removal for replacement.
- D. In finished areas, conceal pipes, ducts, and wiring within the construction, unless otherwise indicated.
- E. Coordinate exact locations of fixtures and outlets with finish elements.
- F. Install work in such manner and sequence as to preclude, if possible, or at least to minimize, cutting and patching.
 - 1. Do not cut any operational elements.
 - 2. Do not cut safety-related elements.

3.4 CLEANING AND PROTECTION

- A. Remove debris from concealed spaces prior to enclosing the space.

- B. Keep the site and the work free of waste materials and debris.
 - 1. Remove waste from site periodically.
 - 2. When temperature exceeds or is expected to exceed 80 degrees F, remove waste at frequency necessary to prevent development of health hazards and nuisance odors.
 - 3. Keep hazardous and unsanitary materials in containers separate from other waste.

- C. Clean areas in which work is to be done to level of cleanliness necessary for proper execution of that work.
 - 1. Where dust would impair execution of work, broom- and vacuum-clean the entire interior area and keep clean.

- D. Keep installed work clean, and clean again when soiled by other operations.
 - 1. Provide periodic cleaning as required to prevent damage due to soiling.
 - 2. Remove liquid spills promptly.

- E. Protect installed work from soiling and damage.
 - 1. Provide protective coverings as required.
 - 2. Provide protective coverings for work which may be damaged by subsequent operations.
 - 3. Where heavy abuse is expected, use minimum of plywood for protection.
 - 4. Maintain protective coverings until substantial completion.

3.5 CUTTING AND PATCHING PROCEDURES

- A. Use specified cutting and patching procedures when cutting or patching is required for any of the following activities:
 - 1. Fitting the parts of the work together.
 - 2. Repairing existing work to remain.
 - 3. Installing ill-timed work.
 - 4. Removing and replacing defective and nonconforming work.
 - 5. Removing samples of work for testing.
 - 6. Making openings in elements of work for penetrations, such as for piping, conduit, duct, and the like.
 - 7. Uncovering work for observation.
 - 8. Repairing damage.

- B. Perform cutting and patching at earliest time feasible, unless otherwise indicated or directed by the architect.

- C. Use procedures specified in applicable product sections as well as those specified in this section:
 - 1. Use procedures recommended by original installer, when such information is available.
 - 2. Where required, obtain approval of procedures by the architect.
 - 3. Cut using methods that are least likely to damage adjacent work and work to remain and which will provide proper surfaces for patching.
 - 4. Make cuts neatly with minimum disturbance of adjacent work.
 - a. Use appropriate tools intended for sawing or grinding and not for chopping or hammering.
 - b. Do not use pneumatic tools without prior approval.
 - 5. Where installation of similar new work is included, perform patching in manner specified for installation of new work.
 - 6. Where new work is inserted into or through the work that is cut, fit the patched work tightly to the new work.
 - 7. Patch with seams which are durable and as invisible as possible.
 - 8. Repair substrate prior to patching finish.

- D. Employ skilled workers to perform cutting and patching work.
 - 1. Use the original installer of the work to perform cutting and patching of the following:
 - a. Any products so indicated in the applicable product section.

- E. Work Exposed to View: Do not cut or patch in a manner that would result in a lessening of the building's aesthetic value, as determined by the architect.
 - 1. Generally, cut from exposed side into concealed spaces to avoid unnecessary damage to finish.
 - 2. Do not cut and patch in a manner that would result in substantial visual evidence of cut and patch work.
 - 3. Restore exposed patched finishes in a manner which eliminates evidence of patching and refinishing.
 - a. For continuous surfaces, extend refinish to nearest intersection, with a neat transition to adjacent surfaces.
 - b. For assemblies: Refinish entire unit.
 - c. Painted piping, conduit, and duct: Clean and repaint.
 - 4. Remove and replace work which is patched in a visually unacceptable manner.

- F. Structural Elements: Maintain structural capacity; do not increase deflection under design load; provide reinforcing where required.
 - 1. See structural sections for additional requirements.
 - 2. Before cutting any structural member, obtain the architect's approval of the proposed method.

- G. Existing Construction:
 - 1. Patch existing work to match adjacent existing work to remain.
 - 2. Where specified procedures for similar new work are applicable, use those procedures for cutting and patching existing construction.
 - 3. Take precautions to avoid damage to unanticipated utilities and structural elements. If such elements are encountered, report nature and extent to the architect and request instructions as to how to proceed.
- H. Concealed Work: Uncover the concealed work, cut and patch, and patch the covering work.
- I. Concrete and Masonry: Use saws or drills which produce a neat cut; remove in small sections.
- J. Insulation: Replace insulation whenever it is cut in order to modify the element it is insulating.
- K. Slabs on Grade: Use methods that will not crack or disturb adjacent slabs or partitions.
- L. Protect that part of the project which is exposed during cutting and patching operations from adverse weather.
- M. Cover openings made whenever they are not in use.

3.6 INSTALLATION OF COMPONENTS

- A. Install all products in accordance with manufacturer's instructions and recommendations, whether conveyed in writing or not.
- B. Mounting Heights: Where mounting heights are not indicated, mount at heights directed by the architect.
- C. Separate incompatible materials with suitable materials or spacing.
 - 1. Prevent cathodic corrosion.
- D. Provide all anchors and fasteners required and use methods necessary to securely fasten work.
 - 1. Allow for thermal expansion and contraction, and for building movement.

- E. Joints in Exposed Work:
 - 1. Make joints of uniform widths.
 - 2. Where joint locations are not indicated, arrange joints for the best visual effect.
 - a. When in doubt, obtain the architect's instructions.
- F. After installation, adjust operating components to proper operation.

3.7 PROCEDURES FOR CORRECTION OF WORK

- A. The following must be replaced (repair is not acceptable):
 - 1. Damaged surfaces exposed to view which cannot be repaired without visible evidence of repair.
 - 2. Components which cannot be repaired to proper operating condition.
 - 3. Chipped and broken glass.
 - 4. Scratched transparent materials.
 - 5. Scratched reflective surfaces.
- B. Repair or Replace:
 - 1. Components which do not operate properly.
 - 2. Surfaces exposed to view which cannot be cleaned to original condition.
 - 3. Permanent facilities used during construction.
 - 4. Other defective work.
- C. Acceptable Repair Methods:
 - 1. Replacing parts.
 - 2. Refinishing.
 - 3. Touching up with matching materials.
 - 4. Proper adjustment of equipment.
- D. When it is necessary to deviate from the contract documents in order to accomplish corrective action, submit a field correction request.
- E. Restore permanent facilities used during construction to specified condition.

3.8 FACILITY STARTUP

- A. Put each item of equipment and each system into full, satisfactory operation.

- B. Prior to Startup:
 - 1. Verify that equipment and systems are complete, correctly connected to utilities, and tested.
 - a. Comply with requirements of manufacturer.
 - 2. Inspect and test as required to ensure that work is installed as specified and to determine suitability for energizing.
 - 3. Provide power and fuel for startup and testing.
 - 4. Change over from temporary to permanent utility sources.
 - 5. Re-adjust and lubricate operating components as required to ensure smooth and unhindered operation.
 - a. Check drive rotations, belt tension, control sequences, and other features which might cause damage if not properly adjusted.
 - 6. When required by manufacturer, have manufacturer's representative prepare for startup or supervise such preparation.
- C. Notify the architect a minimum of 10 days prior to startup of each item and system.
- D. Execute startup under supervision of responsible personnel in accordance with the manufacturer's instructions.
 - 1. When required by manufacturer, have manufacturer's representative perform startup.
- E. After startup, adjust equipment and systems as required for proper operation.
 - 1. Where specified, perform tests or inspections to determine status of operation.
- F. Demonstrate the operation and maintenance of equipment and systems to personnel designated by the owner, prior to substantial completion.
 - 1. Have final operating and maintenance data available during demonstration.
- G. For equipment and systems which have different operation at different seasons, demonstrate operation during subsequent seasons until fully demonstrated.

3.9 INSTRUCTION OF THE OWNER'S PERSONNEL

- A. Instruct personnel designated by the owner in the operation and maintenance of equipment and systems, prior to final payment.
 - 1. Explain all modes of operation and types of maintenance required.
 - 2. Demonstrate all functions, including startup, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown.

3. Review terms of warranties and procedures for obtaining warranty service.
 4. Review maintenance agreements and other similar commitments which extend past final completion.
 5. Have operating and maintenance data available for use during instruction.
 - a. Review contents in detail.
 - b. Prepare and insert additional data when need for such becomes apparent during instruction.
- B. Arrange times and places of instruction with the owner.
- C. Provide instruction by qualified personnel of the contractor, unless otherwise specified.
- D. For equipment and systems which have different operation at different seasons, provide instruction during subsequent seasons until all modes of operation have been covered.

3.10 FINAL CLEANING

- A. Remove materials and equipment which are not part of the work and all debris from the site prior to substantial completion.
1. Remove all surplus materials which are to remain property of the contractor; obtain the owner's instructions as to disposition of surplus material remaining on site and deliver, store, or dispose of as directed.
 2. Remove protective coverings.
 3. Remove temporary facilities.
- B. Dispose of debris in a lawful manner.
1. Do not burn or bury debris on the site.
 2. Do not dispose of volatile wastes in storm or sanitary drains.
- C. Perform final cleaning prior to requesting inspection for substantial completion.
1. Use only professional cleaners.
 2. Clean to the level of cleanliness that would be expected by a commercial building owner from a janitorial service.
- D. Clean entire project site and grounds.
1. Clean up landscaped areas.
 2. Broom clean paved areas.
 3. Rake smooth all exposed earth surfaces.
 4. Remove snow and ice from building and site accesses.

- E. In spaces to be occupied, remove dirt, stains, and other foreign substances from all accessible surfaces and remove nonpermanent labels.
- F. Remove debris from roofs, gutters, downspouts, and roof drains.
- G. In spaces not normally occupied, remove debris and surface dust and wipe equipment clean, removing excess lubrication, paint, and other foreign substances.
- H. Remove paint and other coatings from permanent labels and from mechanical and electrical equipment nameplates.
- I. Leave the project clean and ready for occupancy.

3.11 PROJECT COMPLETION PROCEDURES

- A. Complete the work, prior to substantial completion, as required to obtain consent to occupancy from the governing authorities.
- B. GC to perform inspection and provide GC punchlist, in MS Word format and listed by room, to Architect prior to Architect/Owner substantial completion inspection. The GC punchlist to include all items yet to be completed. Areas to be inspected are to have final cleaning and in state ready for move in. No exceptions will be made to rush this inspection process.
- C. Arrange for final inspections by governing authorities to be accomplished prior to substantial completion.
 - 1. Obtain certificate of occupancy prior to substantial completion meeting.
- D. GC to make reservations and arrangements at a local restaurant, of the Owner's choosing, to have the substantial completion signing meeting. This can be a breakfast or lunch meeting and meal. GC to include all costs associated with the meal, for all attending the meeting, in the project costs. GC to obtain Owner's preferred restaurant well in advance of meeting. GC to assume a G-rated restaurant of type that will accept the type of people normally attending a construction meeting.
- E. Coordinate arrangements for a final property survey prior to substantial completion. This survey to be provided at the Owner's expense. :
 - 1. Show all significant built features on the site.
 - 2. Show locations and elevations of all new benchmarks.

3. Provide, on the survey, the surveyor's certification that the survey shows the accurate locations of the boundaries and the accurate locations and elevations of existing and new work.
- F. If temporary locking systems differ from permanent locking systems, change over to permanent systems prior to substantial completion.

END OF SECTION 01700

SECTION 01800 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract from the front of the Specification book, including General Conditions and Supplementary General Conditions, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Project record documents consisting of:
 - a. Record drawings.
 - b. Record project manual (specifications).
 - c. Record submittals:
 - (1) Shop drawings.
 - (2) Product data.
 - 2. Exceptions: The following are not required as project record documents:
 - a. Informational submittals.
 - b. Manufacturers' and installers' qualification statements.
 - c. Test reports.
- B. Related Sections:
 - 1. Operation and maintenance data: Elsewhere in Division 1.
 - 2. Warranties: Elsewhere in Division 1.

1.3 SUBMITTALS

- A. Project Record Documents: Submit prior to substantial completion.
 - 1. Record drawings: Submit in form of one set of mylar transparencies. Sepias not permitted.
 - a. Submit original marked-up print set.
 - b. Submit 2 additional opaque print copy sets.
 - c. Sets shall include all drawings, whether changed or not.
 - 2. Other record documents: Submit originals or good quality photocopies.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 MAINTENANCE OF PROJECT RECORD DOCUMENTS

- A. Do not use record documents of any type for construction purposes.
- B. Maintain record documents in a secure location at the site while providing for access by the contractor and the architect during normal working hours; store in a fire-resistive room or container outside of normal working hours.
- C. Record information as soon as possible after it is obtained.
- D. Assign a person or persons responsible for maintaining record documents.
- E. Record the following types of information on all applicable record documents:
 - 1. Dimensional changes.
 - 2. New and revised details.
 - 3. Depths of foundations.
 - 4. Locations and depths of underground utilities.
 - 5. Actual routings of piping and conduits.
 - 6. Revisions to electrical circuits.
 - 7. Actual equipment locations.
 - 8. Sizes and routings of ducts.
 - 9. Locations of utilities concealed in construction.
 - 10. Particulars on concealed products which will not be easy to identify later.
 - 11. Changes made by modifications to the contract; note identification numbers if applicable.
 - 12. New information which may be useful to the owner, but which was not shown in either the contract documents or submittals.

3.2 RECORD DRAWINGS

- A. Maintain a complete set of opaque prints of the contract drawings, marked to show changes.
- B. Where the actual work differs from that shown on the drawings, mark this set to show the actual work.
 - 1. Mark location of concealed items before they are covered by other work.

2. Mark either record contract drawings or shop drawings, whichever are best suited to show the change.
 3. Where changes are marked on record shop drawings, mark cross-reference on the applicable contract drawing.
- C. When the contractor is required by a provision of a modification to prepare a new drawing, rather than to revise existing drawings, obtain instructions from the architect as to the drawing scale and information required.
- D. Keep drawings in labelled, bound sets.
1. Mark with red pencil.
 2. Mark work of separate contracts with different colors of pencils.
 3. Incorporate new drawings into existing sets, as they are issued.
- E. Review completed record set with the architect.
- F. Upon authorization by the architect, prepare a full set of transparencies of contract drawings with all record changes marked.
- G. The architect will make the original contract drawings available to the contractor for printing transparencies.
- H. Where record drawings are also required as part of operation and maintenance data submittals, make copies from the original record drawing set.

3.3 RECORD PROJECT MANUAL

- A. Maintain a complete copy of the project manual, marked to show changes.
- B. Where the actual work differs from that shown in the project manual, mark the record copy to show the actual work.
1. Include a copy of each addendum and modification to the contract.
 2. In addition to the types of information required on all record documents, record the following types of information:
 - a. Product options taken, when the specification allows more than one.
 - b. Product substitutions.
 - c. Proprietary name and model number of actual products furnished, for each product, material, and item of equipment specified.
 - d. Name of the supplier and installer, for each product for which neither a product data submittal nor a maintenance data submittal was specified.

3.4 RECORD SUBMITTALS

- A. Maintain a complete set of all submittals made during construction, marked to show changes.
 - 1. Maintain submittals in cardboard file boxes, labeled to show contents.
 - 2. Sort submittals by applicable specification section and file in order of submittal identification number.
- B. Record Shop Drawings: Record the types of information specified for all record documents.
 - 1. Mark changes on record shop drawings only when contract drawing would not be capable of showing the change clearly or completely.
 - 2. Mark changes in manner specified for record drawings.
- C. Record Product Data Submittals: Record the types of information specified for all record documents.
 - 1. In addition, record the following types of information:
 - a. Changes in the products as delivered to the site.
 - b. Changes in manufacturer's instructions or recommendations for installation.

3.5 TRANSMITTAL TO OWNER

- A. Collect, organize, label, and package ready for reference.
 - 1. Provide cardboard file boxes for submittals.
 - 2. Provide cardboard drawing tubes with end caps for transparencies.
 - 3. Bind print sets with durable paper covers.
 - 4. Label each document (and each sheet of drawings) with "PROJECT RECORD DOCUMENTS - This document has been prepared using information furnished by ____" [insert the contractor's name], and the date of preparation.
- B. Submit to the architect for transmittal to the owner, unless otherwise indicated.

END OF SECTION 01800