SECTION 01000 (01 00 00)

GENERAL REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

A. Project Name and Location: [Name of project and address.]

B. Project Summary: [Describe or state building use, extent of new work, areas for remodeling, number of stories, gross area, number of floors, number of units, construction type from building code if determined, and similar descriptive information.]

C. Contract Type: (Architect to choose one at START of design phase and after consultation with the college)

1. Owner Contractor Agreement: AIA A101-1987, Stipulated Sum.
2. Owner-Contractor Agreement: AIA A107-1987, Stipulated Sum, For Construction Projects of Limited Scope.
3. Owner-Contractor Agreement: AIA A111-1987, Cost of the Work Plus a Fee with or Without a Guaranteed Maximum Price.
4. Owner-Contractor Agreement: AIA A117-1987, Cost of the Work Plus a Fee, For Construction Projects of Limited Scope, With or Without a Guaranteed Maximum Price.
5. Owner-Contractor Agreement: AIA A171-1990, Stipulated Sum for Furniture, Furnishings, and Equipment.
6. Owner-Contractor Agreement: AIA A177-1990, Abbreviated Form, Stipulated Sum for Furniture, Furnishings, and Equipment.

1.2 LOCAL REGULATIONS

A. The designer and / or contractor is required to obtain and conform to the latest Town of Hanover Regulations. The following is a current list of regulations with the appropriate town office and phone number. The list is not intended to be comprehensive, it is the responsibility of the designer / contractor to obtain all required permits and complete all required forms.

Regulation	Town Office	Phone Number
Hanover Site Plan Regulations	Planning & Zoning Office	603/643-0742
Hanover Zoning Ordinance Cover Sheet & Table of Contents	Planning & Zoning Office	603/643-0742
Hanover Bldg. Permit	Planning & Zoning Office	603/643-0742
Hanover Sign Permit	Planning & Zoning Office	603/643-0742
Hanover Zoning & Use Permit	Planning & Zoning Office	603/643-0742
Hanover Building Code Adoption Ordinance	Planning & Zoning Office	603/643-0742
Hanover Building Permit Inspection Requirements	Planning & Zoning Office	603/643-0742
Hanover Department of Public Works Excavation Permit & Guidelines	Public Works	603/643-3327
Notification of Intent to Install a Fire Alarm System	Fire Department	603/643-3424
Notification of Intent to Install a Sprinkler System	Fire Department	603/643-3424

B. The International Building code requires the review and enforcement of the seismic portions of the code. Dartmouth College expects the architect to take the lead to ensure that all provisions of these sections of the code are addressed and complied with in a timely manner. The Dartmouth Office of Planning, Development and Construction (PDC), in conjunction with the town building inspector, has developed forms to facilitate the inspection requirements of the code.

C. For contractor use, the Town and Dartmouth College has created a form that can be signed by Town officials when visiting the jobsite. This is titled “Building Inspection Log” and is located in Part Four of the DC Standards, “01000 (01 00 00) GENERAL REQUIREMENTS”.

1.3 ALLOWANCES

A. Architect is to provide a list of allowances in the bid form.

1.4 ALTERNATES

A. Architect is to provide a list and clear explanation of alternates in the bid form.

1.5 CONTRACT MODIFICATION PROCEDURES:

A. Minor Changes in the Work: AIA Document G710, "Architect's Supplemental Instructions" or the architect’s version of this form.

B. Proposal Requests: AIA Document G709 or the architect’s version of this form.

C. Change Orders: AIA Document G701.

D. Construction Change Directive: AIA Document G714.

1.6 UNIT PRICES

A. List unit prices and coordinate with Bid Form. It is customary for the college to establish unit pricing for labor and project specific work units during the bidding process in order to streamline the change order review process during construction. The Architect must include appropriate unit pricing line items as supplementary to the contractors bid on the bid form.

1.7 PAYMENT PROCEDURES

A. A Schedule of Values is to be required of the successful bidder prior to issuance of the first requisition for payment.

B. Applications for Payment: AIA Document G702 and AIA Document G703 Continuation Sheets or Contractor's computerized form that approximates the AIA G702 in format and content and as approved by the Owner as form for Applications for Payment.

C. Lien Waivers:
1. Submit waivers of lien on forms acceptable to Owner. These lien releases will be provided for all major subcontractors and suppliers on a monthly basis for moneys previously paid by the college to the contractor. The list of subcontractors and suppliers that require monthly lien releases will be established at the outset of the construction work.
2. Submit final Application for Payment with or preceded by final waivers from every entity on the list of subcontractors, principal suppliers and fabricators. Submit the list for Owner's approval.

1.8 PROJECT MANAGEMENT AND COORDINATION

A. Submittals will be routed as required by AIA contract documents and will include the involvement of the college FOM engineering department. The FOM project representative will review submittals concurrently with the design team and will offer immediate timely comment within the schedule that the design team is committed to.

B. Project Meetings: These meetings will be required as a minimum.
1. Pre-construction Conference.
2. Construction progress meetings held weekly.
3. Pre-installation Conferences: Critical areas of Work as determined between the college and general contractor at the pre-construction meeting. These will include as a minimum; concrete, structural systems, masonry, roofing, HVAC systems and controls, and electrical.
4. Coordination Meetings: Regular Contractor/Subcontractor meetings will be required.
5. Commissioning meetings between FOM and the mechanical and electrical subcontractors will be held regularly once the systems are installed and being prepared for start-up.

C. The Contractor shall be required to establish and maintain an email address for the project manager and project superintendent. There may be other options, which will serve the contractor adequately for this requirement.

D. Automatic Temperature Control (ATC) Systems have become a large segment of the construction process. It is highly recommended that ATC systems be contracted with the General Contractor / Construction Manager rather than the mechanical sub-contractor.

1.9 CONSTRUCTION PROGRESS DOCUMENTATION

A. Contractor's Construction Schedule that will be required.
   1. CPM Schedules for major projects displaying all critical path items.
   2. Bar-Chart Schedule for smaller projects.
   3. The contractor will provide an ongoing 2-week “look ahead”.

B. Submittals Schedule must be provided within 30 days following contract signing.

1.10 SUBMITTAL PROCEDURES

A. Project Submittals:
   1. As required for Architect / Engineer review with the input of FOM as noted above in paragraph 1.7 A.
   2. A current professional liability certificate of insurance shall accompany all contractor submittals that require an engineer’s stamp.

B. Record Documents as required by AIA General Conditions A201 and as noted in section 01000 (01 00 00) 1.22 CLOSEOUT PROCEDURES, subsection Record Documentation. All design team changes documented by the design team during construction shall be electronically added to the project drawing files prior to plotting of the set of record drawings.

1.11 QUALITY REQUIREMENTS

A. Testing Agency: Independent testing agency engaged and paid for by Owner.

1.12 REFERENCES

A. Provide lists of definitions and industry standards.

1.13 TEMPORARY FACILITIES AND CONTROLS

A. Temporary Utility Service: The contractor may be permitted to use the Owner's existing utility services for minor renovation projects. Design team needs to confirm availability before issuing bid documents.

B. Temporary Utility Service: the contractor for all major projects will install new temporary utility services.

C. Temporary Facilities: Temporary construction, support facilities, and security measures.
   1. Enclose construction area within an 8’ high chain link fence with visual and dust protection screening. Coordinate product with owner.
   2. Provide self-contained toilet units for all types of projects.
   3. Field Offices: Provide separate offices for Contractor and the colleges Clerk of the Works. Local permitting for office trailer use is the responsibility of the Contractor.
   4. Telephone and data lines may be available through the college network. The contractor shall obtain Internet service through a provider other than the college. One popular and local ISP is Valley.net @ (603)-643-7567. The contractor shall provide an email address

for the project site superintendent and the contractor's home office, both of which will be checked throughout the day on each business day.

D. Temporary parking:
   1. Each subcontractor shall be provided one parking space on the site if space allows contingent upon permission granted by the general contractor.
   2. Parking for the workers shall generally be available at "H" lot at the Dartmouth College Medical School. Workers will need to be shuttled to the site as needed. The contractor, with the prior approval of the Dartmouth College Representative is required to make all arrangements for shuttle services with Dartmouth College Parking Operations.
   3. All vehicles parked in the college lots must have valid parking permits. These permits are available through the college's Parking Operations office after prior approval by the Dartmouth Representative. Parking Permits are to be paid for by the Contractor.
   4. Other parking arrangements on the site may be made by the general contractor in control of the project site.
   5. No vehicles will be allowed to park on grass areas unless specifically authorized by the Dartmouth College representative responsible for that project. The contractor shall not store vehicles, equipment or material on college property without approval of the DC representative.
   6. Each site at the college has unique requirements for student and faculty safety and convenience that will impact the location and type of construction safety fencing, barricades, signage, etc. The bid documents shall require that the contractor prepare a plan for these items for review with the project manager before commencing with the project. Project temporary parking clause shall be reviewed with the Dartmouth project manager prior to issuing the bid documents to the bidders.

E. Temporary Signage:
   1. The contractor shall provide and maintain a sign that restricts access to the site of all persons not employed by the contractor or authorized by Dartmouth College agents or employees.

F. Use of premises:
   1. Truck Traffic:
      a. Cover bodies of trucks when transporting materials to or from site.
      b. No truck use on Saturday or Sunday without prior consent from the college and prior notification to the town planning department.
   2. Scrubbers shall be constructed on the access onto the college or public streets prior to trucking material on and off site. The town uses water and a sweeper on the road. Coordinate with the town.
   3. There is a town Zoning ordinance regarding noise control. It is the contractors' responsibility to adhere to all requirements of the noise ordinance. The contractor shall review the noise ordinance with all subcontractors as a requirement of their subcontracting.
   4. The project working hours are to be Monday through Friday and are to begin no earlier than 7:30 AM and shall continue no later than 6:00 PM without prior approval by Dartmouth College. The contractor shall be required to notify the Dartmouth College Project Manager a minimum of 48 hours prior to performing any work earlier than 7:30 am or later than 6:00 PM. The property abutters must be notified by the Dartmouth College Project Manager as required by the Town of Hanover site plan approval, police department policies, and zoning ordinances. There are "reading periods" throughout the school terms that are designated for test preparation by the students. During these periods, the contractor is on notice that any disruptive work may be called to cease immediately by complaint through the Office of Residential Life or other authorized Dartmouth College

personnel. There are exceptions to the Town of Hanover noise ordinance relating to drilling and blasting and pile driving.

1.14 PRODUCT REQUIREMENTS

A. Substitution Requests: Allow for substitution requests only during bidding period. Any substitutions must be accepted by the Architect and Facilities Planning Office.

B. The general contractor shall provide a list of all major subcontractors and suppliers to the Dartmouth College Project Manager at the outset of construction. This list shall be provided in tabulated format with telephone numbers. Addresses, email addresses, and 24-hour contact persons and telephone numbers. This list shall be included in the Operation and Maintenance Manual.

C. Where applicable, products and systems that are typically tested by independent testing agencies shall be tested by UL (Underwriters Laboratories) or FM (Factory Mutual), or other US nationally recognized testing laboratory. This specifically applies to electrically operated equipment and roofing systems.

1.15 EXECUTION REQUIREMENTS

A. The contractor for major projects must provide Field Engineering.

B. Owner Provided and Contractor Installed Products:
1. Toilet Accessories.
2. Architect to confirm this and other college supplied equipment prior to issuing bid documents.

C. Progress Cleaning shall be required of the contractor to a level that is satisfactory to the college project manager.
1. The contractor shall not use college telephones except in an emergency or when authorized by the DC representative. If a telephone is needed for larger jobs, a temporary line can be installed at contractor expense.
2. The contractor shall not use college rest facilities on a routine basis unless authorized by a DC representative. In no case shall a contractor use dormitory rest facilities unless the dormitory is the building being renovated. When required, the contractors shall provide their own temporary sanitary facilities located at a mutually agreeable location.
3. The contractor shall not use college-owned tools, equipment or machine shop facilities without the agreement of a DC representative.

1.16 CUTTING AND PATCHING

A. Maintain and install new through-penetration firestop systems as described in the appropriate section of these standards.

B. Provide for cutting and patching conference.

C. Lead – DC expects all contractors on renovation projects to self-monitor and comply with regard to NH/OSHA regulations. The college will conduct lead testing as requested, but contractors should assume that older painted surfaces at the College contain some amount of lead.

D. When building infrastructure services are inadvertently interrupted or need to be moved, the contractor must contact FO&M to have the system repaired or to obtain assistance from FO&M. contact FO&M Work Control at 646-2508 or after hours the troubleshooters at 646-2344.

1.17 DARTMOUTH COLLEGE CONTRACTOR SAFETY POLICY

A. In cases where the public is provided access to the construction or a renovation area, the contractor must make any and all arrangements to ensure safety. The public includes any: employee, faculty member, student, visitor or other non-job-site employee.

B. Contractor must comply with and manage all activities for applicable OSHA, EPA, Federal, State and local standards and appropriate College policies. Appropriate College Policies include:
1. Confined Space Entry
2. Electrical Safe Work Practices

C. The contractor shall furnish to DC their safety guidelines/rulebook prior to the start of any work. This shall include but not be limited to procedures on lock out/tag out, confined space entry, trenching, hazardous material handling, etc. The on-site supervisor shall be fully aware of these and other applicable OSHA safety regulations. If the contractor has no such manual, a discussion of safety issues must take place with the responsible DC representative.

D. It is the responsibility of the department contracting this activity (e.g.: FO&M, DMS or PDC) to ensure that all components of this policy are followed and that the criteria are established as part of the contractual arrangement.

E. The contractor shall have a designated supervisor/foreman on site anytime work is being performed. This individual shall report to the assigned DC representative prior to each workday to review the work, unless other arrangements have been agreed to.

F. The contractor shall provide their employees, and subcontractors if necessary, with all required safety equipment. Hard hats are required in the Power Plant and in utility manholes. The college will not provide any safety items such as ventilators, goggles, hard hats or manhole stands.

G. The contractor shall have a suitable first aid kit on site, which is readily available to their crew.

H. The contractor shall provide an appropriate fire extinguisher when and as required by OSHA.

1.18 DARTMOUTH COLLEGE ON SITE REQUIREMENTS

A. The contractor shall inform all their employees that any lewd actions, verbal or physical, and any racial or sexual comments directed towards any individual is strictly prohibited. Any confirmed incident of this type will result in the permanent, immediate dismissal of the employee (or employees) involved from the job site. Repeat offenses by a contractor's employees (not necessarily the same employee) may lead to the dismissal of the contractor and/or removal of the contractor from future bid considerations at Dartmouth College.

B. All employees at the site shall wear T- shirts at all times.

C. All accidents involving a member of the public or affecting the environment must be reported to the Dartmouth College Representative and to the Office of Integrated Risk Management and Insurance. Each of these accidents must be accompanied by a follow-up investigation report and a list of actions taken to prevent a recurrence.

D. Contractors must provide the required insurance certification as set forth by the Office of Integrated Risk Management and Insurance.

E. If contract work requires the de-energizing and/or re-energizing of any central utility system including: steam, electric, condensate, water, sewer, chilled water, energy management system, security or fire alarm, prior to work being performed, FO&M must first be contacted for direction.

F. Contractors shall not energize and de-energize electric circuits or operate valves in buildings without approval from FO&M.

G. Contractors when transporting workers to and from the job site shall not ride in the back of a pick-up truck while on Dartmouth College property.

H. When a contractor encounters asbestos, oil contaminated soil, or other suspected hazardous waste, the DC project Manager and DC EH&S should be contacted immediately.

I. Smoking by contractor personnel is not allowed in buildings or on the staging surrounding the buildings and the power plant, or any place where it causes a hazard or inconvenience to non-smokers. Under special exceptions, the DC supervisor can permit smoking in areas identified specifically for smoking that does not impact non-smokers.

J. The contractor shall provide a minimum twenty-four hour notice requesting a shut-off or turn-on of college utilities, such as electric power, fire alarm, steam, water, or communications. FO&M will perform this work for the contractor. Prior to the commencement of any work requiring the temporary disconnection of services, the contractor must confirm that the disconnection has actually taken place. Appropriate lock out/tag out procedures shall be performed by both FOM & the contractor. The contractor shall have the DC representative arrange for the fire alarm to be disabled at the start of a work day if they will be doing any type of work that can cause an alarm, such as welding or cutting. The contractor shall notify DC to enable the alarm at the end of each workday.

K. The contractor shall clean up the job site and remove all rubbish from the site on a daily basis.

L. The contractor shall keep open access to all operating equipment so college personnel can access such equipment.

1.19 DARTMOUTH COLLEGE HOT WORK PERMIT REQUIREMENTS

A. Scope and Application

1. This policy applies to all cutting and welding activities at Dartmouth College. Contractors working on behalf of the College are expected to have trained personnel, a cutting and welding program of their own. Each contractor must obtain, complete and return a Dartmouth supplied hot work permit as required by this policy.
2. Provide evidence of a welding safety program, hot work permit system and trained workers to their respective project officer before beginning work on campus. Help with this is available from the Dartmouth College Office of Environmental Health & Safety (EHS).

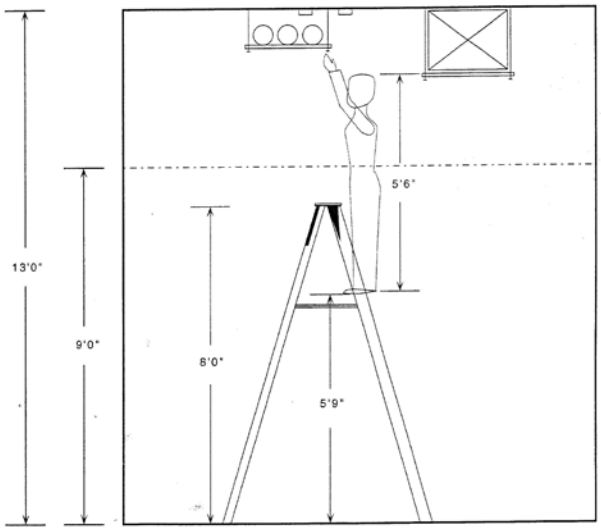
B. Permits are required when:
   1. When welding outside of a properly designated area.
   2. When welding inside a building (outside of a properly designated area). Construction and renovation are typical examples.
   3. When welding outside in proximity to any utility source (fuel, electricity, telecommunications, etc.).
   4. When welding in a confined space (as defined in the College's Confined Space Program).

C. Cutting and Welding Permits
   1. All welding and cutting operations that take place outside of a properly designed area must be documented with the use of a Cutting and Welding Permit (also called a Hot Work Permit).
   2. Contractors working on behalf of the College must obtain a permit from EHS. Numbered permits with the letter "B" are intended for use by Contractors working on behalf of the College. These must be completed and returned to EHS at the end of each work day.
   3. Obtain Hot Work Permits from Dartmouth College Environmental Health & Safety, 37 Dewey Field Road, Hanover, NH. 603/646-1762.

D. Fire Protection
   1. A "fire watch" must be performed. Obtain the latest rules from EHS when obtaining a permit.

1.20 ACCESS REQUIREMENTS

A. The graphic illustrates access requirements to perform routine procedures in ceiling cavities. The consultant shall consider these dimensions relating to the design of ceiling cavity utilities for new and renovated spaces. This graphic is not intended to revise the requirements of the National Electric Code relating to access of junction boxes and equipment connections.



B. Clearances above and in front of Variable Frequency Drives and panels for Automatic Temperature Control Systems shall be the same as dictated by the National Electric Code requirement for power panels.

1.21 DESIGN CRITERIA – SPECIALTY LOCATIONS

A. TELEPHONE / DATA / COMMUNICATION ROOMS

1. The designer shall obtain and design the tel/data rooms in accordance with the most recent version of ANSI/TIA/EIA 569-A standard. The standards may be obtained by contacting:
   Telecommunications Industry Association
   Standards and Technology Department
   2500 Wilson Boulevard
   Arlington, VA 22201
2. Tel/data rooms need to be located as near the center of the building as possible to minimize cable runs.
3. The ANSI/TIA/EIA 569-A standard has specific requirements regarding HVAC and electrical systems. Designers are expected to conform with these requirements.
4. Tel/data rooms shall not have ceilings (except wood framed joists, which needs a sheetrock finish). The walls need to be full height terminating tight to the structure above. Cleanliness is a paramount concern; hence, the floor/wall/ceiling detail must be carefully detailed.

B. HOUSEKEEPING ZONE CLOSETS & CENTRAL STORAGE ROOM

1. Provide at least one custodial work space on every floor level measuring at least 6 feet by 10 feet. Each space shall be centrally located on each floor to support approximately 20,000 square feet of space. Housekeeping closets shall be accessible directly from corridors through at least a 36” wide door. The following shall be standard equipment in each housekeeping closet (specified in the appropriate divisions of the Dartmouth College Standard):
   a. 36" X 36" floor mounted pre-cast mop sink.
   b. Shelf above mop Receptor.
   c. Mop strip above mop Receptor.
   d. Mop sink faucet shall have threaded spout with pail hook and 6-foot hose with bracket.
   e. One additional water source for Solution Center.
   f. One GFI electrical outlet.
   g. One light fixture switched at door opening.
   h. Floors and walls (to at least 4'-0" high above finished floor) shall be covered with hard, water proof surfaces, preferably ceramic tile or FRP panel.
   i. One additional closet (60 sq. ft.) with exhaust shall be provided that is large enough to house an automatic scrubber in buildings of 40,000 GSF or larger. The College uses battery-powered units.
   j. Only equipment identified in this section shall be located in custodial closets. Installation of HVAC, electrical, telephone, roof hatches or plumbing equipment is not acceptable.

C. HOUSEKEEPING CENTRAL STORAGE ROOM

1. A 200 GSF storage room (minimum) located adjacent to a loading dock or service entry is required in buildings of 40,000 GSF or larger.

D. HOUSEKEEPER'S ROOM- HOUSEKEEPER'S OFFICE

1. Provide one 100 GSF room per building (minimum), located adjacent to housekeeping central storage room. This room should be equipped with telephone and data.
2. The size of this room increases in increments of 15 GSF for each additional 20,000 GSF of building.
3. Installation of HVAC, electrical, telephone, roof hatches or plumbing equipment in this room is not acceptable.

E. LOCATING HOUSEKEEPING ZONE CLOSET & STORAGE AREAS

1. Zone Closets are the basic work and supply room for individual housekeepers and should be located adjacent to restrooms. Housekeeping Central Storage is the storage room for the building and should be convenient to the service entry, loading dock, and the elevator. Housekeeper Room is the lunch, meeting, and office facility. It should be adjacent to the Central Storage Room.

F. ELEVATOR MACHINE ROOMS

1. All elevator machine rooms must have a containment system for the hydraulic oil or a minimum four-inch curb at the entry door.
   a. This requirement is waived if the fluid used in the elevator is non-flammable.
2. The elevator machine room must have a sprinkler head if the building is sprinklered. If not in a sprinklered building, provide a fire alarm detection device.

G. BUILDING ATTIC STOCK STORAGE

1. All buildings shall have a designated space for the storage of attic stock materials. The space shall be rectangular, minimum 8′ x 14′, or 0.25% of the building square footage, whichever is larger. Room size may need to be enlarged if the structure has an inordinate number of different products. Two doors shall be provided for the room with one door being centered on the short wall. The room shall be situated in the building in such a location to allow 12′ long rolls of carpet to be easily transported.

1.22 CLOSEOUT PROCEDURES

A. Punch List and Final Inspection:

1. Contractor shall advise Architect and owner in writing a minimum of 10 calendar days in advance of his projected date of Substantial Completion. The practicality of work to be completed prior to Architect issuing certificate of Substantial Completion will be reviewed with Contractor after receipt of this written notification. Contractor shall perform his own inspection and evaluation of all aspects of the work and areas of the building prior to requesting the Architect's punch list. Contractor shall furnish Architect with a typewritten report enumerating all deficient work shall be prepared. Items of interior work shall be organized by room number.
2. Work shall be considered ready for Architect's punch list inspections when all elements of work are in place and serving as intended and after contractors punchlist has been established. Intent of the punch list is to avoid inspecting a new work after punch listing. Final inspection should relate only to correction of punch list items. The Owner's insurance company may wish to inspect and comment on new roof systems, reroof systems, or roof cover systems, as well as fuel fired equipment and sprinkler systems. DC Project Manager shall arrange this inspection.

3. In order to allow for extended commitment of time required by Architect and his Consultants for punch listing, Contractor shall give a minimum of three (3) weeks' written notice of the date on which he requests punch-listing to begin. To avoid duplicate effort, Architect shall be provided with three (3) copies of the Contractor's report noted above on which to make additions or deletions.

4. Final inspection shall be performed when punch list items are rectified. Contractor shall provide Construction Manager and Architect with copies of complete punch list marked to indicate items which are completed in his estimation. Architect shall perform final inspection, report for which will serve as basis for determining final retainage at time of Substantial Completion.

5. Prior to final Inspection and acceptance of building, all movable and operating items of equipment and systems shall be thoroughly examined, serviced, and carefully adjusted so as to leave them in satisfactory condition.

B. Certificate of Occupancy:

1. Prior to issuance of final Certificate of Completion Contractor shall obtain and submit Certificates of Occupancy to Owner, as well as all other certificates required by Federal, State, or Town law and all materials required to be submitted by the various subcontractors to Owner through Architect.

2. If a portion of project is accepted and occupied by Owner, Contractor shall obtain a Certificate of Occupancy for that portion of project at that time.

C. Final Project Clean Up:

1. Contractor shall provide for the final clean up of phases of project at completion of each phase (See Section 01-0030). The project shall be prepared for occupancy of each phase by a thorough final cleaning throughout by Contractor, including washing, or cleaning by other approved methods, all surfaces on which dirt or dust has collected and by washing all glass on both sides. Glass shall be washed and polished by window cleaning Contractor specializing in such work. Provide and maintain adequate runner strips of non-staining reinforced Kraft building paper on finished floors for protection. All equipment shall be left in undamaged, bright, clean, polished condition. This cleaning shall be done when and as directed by Architect. Re-cleaning will not be required after work has been inspected and accepted unless later operations of Contractor, in opinion of Architect, make re-cleaning of certain portions necessary.

2. Upon completion of all work contractor shall remove from the vicinity of work all plant, rubbish, concrete forms, unused and other materials belonging to him or used under his direction during construction or impairing the use or appearance of the property and shall restore such areas affected by the work to their original condition or as required by Architect.

3. If contractor does not complete final clean-up as required in timely manner, the same shall be performed by others under the college’s direction and at the expense of the contractor. The cost of this work will be deducted from the contractor’s final payment.

D. Record Documentation:

1. The deliverable as built drawings provided to the owner shall be one reproducible Mylar set and an electronic CD-Rom.

2. Two sets of O&M Manuals shall be provided.

3. The O&M binder shall have a cover letter stating project name, contractor name, address, phone number, e-mail address, and date of acceptance by DC. This operation and maintenance manual shall be provided in draft form to the Owner no later than 75% completion of construction. No further progress payments will be made to the contractor until this draft O&M manual is received.

4. O&M manual shall be indexed per specification sections and as a minimum contain the following information:
   a. Copies of Final approved submittals
   b. Company address, phone number, contact person, from which the equipment was purchased.
   c. PO# used for the purchase.
   d. Warranties.
   e. Description of function, normal operating characteristics and limitations, performance curves, engineering data and tests, and complete nomenclature and commercial numbers of replacement parts.
   f. Start-up test reports when performed by manufacturer's rep or independent test agency.
   g. Manufacturers printed operating procedures to include start-up, break-in, and routine and normal operating instructions; regulation, control, stopping, shutdown, and emergency instructions, and summer and winter operating instructions.
   h. Maintenance procedures for routine preventative maintenance and troubleshooting; disassembly, repair, and re-assembly, aligning and adjusting instructions.
   i. Servicing instructions and lubrication charts and schedules.
   j. Programming instructions.
   k. Emergency generator operation and service documentation shall include all manufacturers' service and repair publications and shall include set-up procedures for unit and system components.

5. One copy of the firestopping book, in loose leaf binder format, containing the various systems, products, and sign off sheets.

6. Provide 11x17 floor plans indicating addresses and location of all fire alarm sensors.

7. Provide 11x17 colored floor plans showing the areas served by the various air handlers and exhaust fans.

8. Valve tag charts.

9. Refer to DC Standard 16742 (27 05 00) for project close out requirements of data systems.

E. Demonstration and Training: Professionally produced videotape of mechanical instructional sessions will be required of the contractor.

F. Warranty Repairs:

1. All replacement parts shall carry a full one -year warranty including all required parts and labor from the time of replacement at no cost to the college.

2. The warranty period shall begin at the date of Substantial Completion.

3. The college will be involved in any warranty replacement part decisions made by the contractor such as manufacturer, supplier, schedule of work, etc.

4. The cost of all equipment, labor, material, and incidentals for all warranty repairs shall be the responsibility of the contractor.

PART 2 NOT USED

PART 3 NOT USED

PART 4 FORMS

4.1 BUILDING INSPECTION LOG

Project:	
GC/CM:	DC-OPDC Representative:
Electrical Contractor:	DC-FOM Representative:
Mechanical Contractor:	Page of

Date	Type	Area Inspected	Signature

Inspection Types:

ST – Footings & Foundations	PB - Plumbing	EL - Electrical
FS – Fire Stop	FW – Fire Separations	FI - Final
SP - Specialties	PW – Public Works	FD – Fire Department

END OF SECTION 01-0000