



The University of Georgia
Office of University Architects for Facilities Planning

01 14 00
WORK RESTRICTIONS

1. GENERAL

- A. Contractor shall schedule and control all work persons employed on the project. Contractor shall instruct all workers to prevent tracking dirt and debris into existing buildings. Profanity, inappropriate dress or inappropriate conduct shall not be permitted on any project. Owner reserves the right to have the Contractor remove from the project anyone who, in the sole opinion of the Owner, exhibits such behavior.
- B. UGA Football Games: For projects in Athens- Clarke County the Contractor shall stop all work commencing at 3:00 pm Friday before UGA home football games and shall not work the Saturday of home football games. The construction site shall be secured to prevent unauthorized persons from entering the site. See the UGA Athletic Association webpage, www.georgiadogs.com to obtain information concerning the current schedule.



01 14 13

ACCESS TO SITE – RIGHT OF ENTRY

1. GENERAL

- A. The Owner retains the right to enter the construction limits to inspect and/or repair existing utilities, structures and property whenever necessary. Owner shall coordinate non-emergency access 24 hours in advance.
- B. For projects in Athens-Clarke County, Contractors shall fill out the temporary ID card request form below to receive security access to existing UGA buildings that require a UGA ID access card.
- C. The Contractor shall make the construction site available and accessible UGA FMD and any other Owner retained Contractors to complete work within the site to include repairs and renovation of existing buildings, utilities, hardscape and landscape. Contractor shall coordinate his schedule with other Contractors as approved by Owner to ensure a complete and usable facility.



**REQUEST FOR
TEMPORARY ID CARD
CONTRACTOR**

Sponsor Name: _____
Sponsor Department: _____
Department Address: _____
Sponsor Telephone: _____
Sponsor MyID: _____@uga.edu

REQUIRED SPONSOR INFORMATION

RETURN TO: **UGACard Office**
309 Tate Student Center

FAX: 706 542-0070

Contractors for the University campus whose stay is for an extended but defined period of time, generally from one month to one year, and for a specific academic or administrative purpose, similar to work being performed by regular UGA faculty or staff, will be eligible for a sponsored Contractor ID badge.

Included in this category would be individuals whose work is based on campus but who are not part of the UGA master payroll/personnel data base. (Those excluded from this category would include students, conference participants, entertainers, law enforcement agencies, and most state and federal employees.) Individuals in this category are not eligible for University services (Contractors are not eligible for discounted athletic tickets). Contact the specific service provider if there are any questions concerning the use of this card. Some University services require a participation fee.

UGACard DATABASE INFORMATION

Full Name of Contractor: _____
Last First MI

Date of Birth _____ **Gender** _____ **Social Security Number:** _____

***Assigned Number:** _____

For foreign contractors:
Country of citizenship _____ **Has a social security number been applied for?** _____

* The UGACard Office will assign special identification numbers to foreign visitors who do not apply for social security numbers.

Purpose of work on UGA Campus: _____

Job title or position: _____ **Contractor Company Name** _____

Dates Contractor Will Be On Campus: **Beginning Date** _____ **Ending Date** _____

Individuals in the Contractor Database may be renewed annually from July 1 through June 30.

UGA Campus Address _____ **Campus Phone #** _____

Department Head Approval: _____ **Phone:** _____ **Date** _____

Dean or Vice President Approval: _____ **Phone:** _____ **Date** _____

>>>Submit this request at least five days prior to coming to UGACard Office to have card made<<<

>>>Application will NOT be accepted without Sponsor MyID and Approving Signatures<<<

UGACard Office Use Only

Reviewed and Approved by: _____ **Date:** _____ **Photo Date:** _____

Entered in Database by: _____ **Date:** _____ **Revised 06/12**



01 29 00
PAYMENT PROCEDURES

1. GENERAL

- A. Related sections:
 - i. 01 29 73 – Schedule of Values
 - ii. 01 74 19 – Construction Waste Management & Disposal
 - iii. 01 81 00 – Facility Performance Requirements
- B. Prior to being able to receive compensation for services, Design Professionals and Contractors, who have not previously contracted with UGA, must complete the UGA new vendor form and be current in the UGA system. The new vendor form is available at <https://webapps.ais.uga.edu/UVDB-VP/home.seam>.
- C. Prior to the Design Professional receiving full compensation for Schematic Design and Design Development/Preliminary Design the requirements of 01 81 00 shall be met and the 01 81 00 Facility Performance Requirements Checklist submitted.
- D. Application for Payment Procedure for Construction Manager, Design-Build, and Design-Bid-Build project delivery methods:
 - i. Contractor shall submit a draft version of the Exhibit K Application for Payment (either electronically or in hard copy), and all associated back-up documentation as required by the Contract to the Design Professional and to the Project Manager for review/approval. In addition to Exhibit K Application for Payment form in the Contract, the Contractor shall provide an Application and Certificate of Payment in the America Institute of Architects (AIA) format with corresponding schedule of values breakdown. Exhibit K Application for Payment must be executed as per the Contract; however, the additional Application and Certificate for Payment in an AIA format is not required to be signed and notarized as it is provided as reference information to assist the Design Professional and Project Manager in reviewing Application for Payment back-up documentation.
 - ii. Within three days of receipt of the draft version of the Application for Payment, the Design Professional and the Project Manager will either approve the Application for Payment or will provide comments to be addressed by the Contractor.
 - iii. Once all comments are addressed to the satisfaction of the Design Professional and Project Manager, three originals of the approval copy of the Application for Payment will be sent by the Contractor to the Design Professional for signature. The Design Professional will retain one copy and forward two originals to the Project Manager. (Note: For Construction Manager or Design-Builder projects, the approval version of the Application for Payment only needs to include the Exhibit K coversheet and schedule of values in addition to the AIA Application and Certification of Payment form. The detailed back-up and copies of the invoices and subcontractor pay requests do not need to be re-submitted with the final Application for Payment forms.) The Design Professional will then sign and forward two originals of the Application for Payment to the Project Manager for processing and payment.
 - iv. Complete 01 74 19 Construction Waste Management & Disposal Report and include with monthly Application for Payment.



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- E. Application for Payment Documentation for Construction Manager and Design-Builder projects:
- i. For the draft version of the Application for Payment, the Contractor shall include with it copies of all invoices, labor billings, subcontractor applications for payment and executed subcontractor's interim lien releases.
 - ii. The Contractor shall maintain a Contingency Log that is updated and submitted with each Application for Payment that shows any costs that have been transferred from the contingency line item into all other line items with an explanation of each transfer.
 - iii. Upon approval of a Component Change Order or Change Order, the Contractor shall distribute all Component Change Order or Change Order costs among the respective line items against which the actual costs will be charged. Although Component Change Orders and Change Orders are frequently approved on a lump sum basis so as to be incorporated into the GMP, billing for the associated work is on a cost-plus basis with a maximum price and if the total value of the change order funds is not spent, the remaining value of the Component Change Order and / or Change Order will be returned to contingency funds.



01 29 73
SCHEDULE OF VALUES

1. GENERAL

- A. Related sections:
 - i. 01 29 00 – Payment Procedures
- B. The Contractor shall submit a draft of the Schedule of Values (SOV) to the Project Manager and Design Professional for approval prior to the first pay request being submitted.
- C. The SOV shall include the following column headings at a minimum: original scheduled value, change orders, revised schedule of values, previous billings, current billings, stored materials, total completed and stored to date, and retainage.
- D. Contractor Construction Overhead Costs (General Conditions) shall be listed as a separate line item within the SOV.
- E. Insurance shall be listed as a separate line item within the SOV.
- F. Performance and payment bonds shall be listed as a separate line item within the SOV.
- G. For projects implementing Building Information Modeling (BIM), there shall be a separate line item within the SOV for BIM related costs.
- H. The following items, specific to Construction Manager and Design-Builder project delivery methods, shall be listed as separate line items within the SOV:
 - i. Pre-construction Overhead Costs and Expenses (General Conditions)
 - ii. Pre-construction Fee
 - iii. Construction Fee
 - iv. Contractor Contingency
- I. For Construction Manager and Design-Builder projects, each line of the SOV shall correspond to the subcontract amount for only one subcontractor so that the required back-up subcontractor payment applications matches a specific SOV line item. In the event that there is more than one subcontract representing a scope of work (for example steel could possibly be subdivided into steel erection, steel fabrication and miscellaneous metals), the SOV should be subdivided accordingly.
- J. For Construction Manager or Design-Build projects, the change order amounts shall be distributed among each of the separate line items as appropriate to allow for the billings to be tracked against each corresponding subcontractor's pay request.
- K. For projects awarded on a lump sum basis, the change orders can be added as lump sums on a new line added below the total line for the original base contract amount.
- L. For projects awarded on a lump sum basis, the Fee shall be allocated on a percentage basis among each of the line items.
- M. For projects awarded on a lump sum basis, the SOV should be detailed enough to allow for proper review and analysis of percentages of work complete. For example, electrical should be subdivided into such categories as exterior power, exterior lighting, interior lighting, switchgear and panels, devices, conduit and wiring, telecommunications, fire alarm system, etc.



01 31 19.13

PRE-CONSTRUCTION MEETINGS

1. GENERAL

- A. The Contractor shall schedule at the convenience of the Owner a Pre-Construction Meeting at least fourteen calendar days prior to beginning any construction. The meeting shall include as a minimum the Contractor's authorized representative, the Design Professional and the Owner's authorized representatives. The Contractor shall invite the User, University utilities and infrastructure representatives as suggested by the Owner, Contractor, Contractor's Sub-contractors and the Owner's Testing Agency representatives. For projects with a Land Disturbance Activities permit and /or a NPDES permit, the University of Georgia Environmental Safety Division shall be invited to the pre-construction meeting. The conference shall be held at a time convenient to the Owner and held at the construction site. The conference agenda shall include introduction of key personnel and responsibilities; review of project schedule; job site logistics; contract specifications; contract administration; and University policies and procedures.



01 31 19.23
PROGRESS MEETINGS

1. GENERAL

- A. After every design meeting the Design Professional shall issue a meeting summary within seven calendar days after the meeting date. The meeting summary shall include a list of attendees, the meeting date, topic, and all action items and decisions. The meeting summary shall be emailed to the Project Manager as well as to others requested by the Project Manager.
- B. After every construction meeting the Contractor shall issue a meeting summary within seven calendar days after the meeting date. The meeting summary shall include a list of attendees, the meeting date, topic, and all action items and decisions. The meeting summary shall be emailed to the Project Manager as well as to others requested by the Project Manager.



01 31 23
PROJECT WEBSITE

1. GENERAL

- A. For Construction Manager and Design-Build project delivery methods:
 - i. The Contractor shall provide a secure website or File Transfer Protocol (FTP) system to allow transfer of electronic files between the Design Professional, Contractor, and UGA.
 - ii. The Contractor shall provide login and password information to UGA personnel as requested by the Project Manager.
- B. For Design-Bid-Build project delivery methods:
 - i. The Design Professional shall provide a secure website or File Transfer Protocol (FTP) system to allow transfer of electronic files between the Design Professional, Contractor, and UGA.
 - ii. The Design Professional shall provide login and password information to UGA personnel as requested by the Project Manager.
- C. The secure website or FTP system shall be maintained from project inception through Final Completion.
- D. As a minimum the Design Professional shall make available for download drawings and specifications at each review milestone and as requested by the Project Manager.
- E. After construction documents are issued for construction, the Design Professional shall make available for download any revisions including supplementary sketches and documents.
 - i. The drawings shall be both in a CAD file format “.dwg” and a portable document format “.pdf”. CAD files must have x-refs bound into the file.
 - ii. The specifications shall be able to be read with Microsoft Word and allow for a global search.



01 32 16

CONSTRUCTION PROGRESS SCHEDULE

1. GENERAL

- A. Related sections:
 - i. 01 35 46 – Indoor Air Quality – During Construction
- B. Schedules shall include timeframes required to insure that off-gassing is substantially complete prior to occupancy. Refer to 01 35 46 Indoor Air Quality – During Construction.
- C. Schedule shall include delivery and installation of furniture (regardless of whether it is Owner provided or Contractor provided) per direction of Project Manager.
- D. Schedule shall include final in place mock ups of interior paint samples with final light fixture and lamps in place.
- E. Schedule shall include date of required activation of data connections for the digital controls system.
- F. Schedule shall include adequate time for the completion of testing, adjusting, and balancing for HVAC prior to Material Completion. The Contractor shall take the time for resolution of these issues by the responsible party into account in the schedule. A ‘contingency’ of an additional week or two should be incorporated into the balancing plan schedule to accommodate additional time required for the responsible party to correct any minor issues preventing design performance of the building.
- G. The schedule shall include 80% and 100% fire marshal inspections.
- H. The schedule shall include training which shall be completed prior to Material Completion.
- I. The schedule shall include preparation and review of closeout submittals. Closeout submittals shall be submitted at or prior to Material Completion.



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01 33 00
SUBMITTAL PROCEDURES

1. GENERAL

- A. Related sections:
 - i. 00 00 03 Modifications to General Requirements for BOR Contracts
 - ii. 01 77 00 Project Closeout
- B. Any costs associated with submittals shall be included in the Contractor Overhead Cost or Base Bid.



01 35 13.01

SPECIAL PROJECT PROCEDURES – UTILITY & SYSTEMS OUTAGES

1. GENERAL

- A. Connections To Existing Utilities: All utility work involving connections to existing utility systems (including but not limited to: electrical, communications, water, gas, steam, chill water, storm water & sanitary systems) shall be coordinated with the Owner. Contractor shall inform the Owner prior to any proposed shutdown, outage or work of any nature which will interrupt or disturb any building utility system or equipment served by that system. A minimum of 72-hours notice is required for the Owner to make all necessary arrangements for this work, and such shutdowns shall be scheduled at the convenience of the Owner.
- B. Fire Alarm And Fire Sprinkler Deactivation (Less Than 4 Hours At One Time): If the project has an existing fire alarm system and or fire sprinkler system that will be encountered during the Work that will from time to time require temporary deactivation (for less than 4 hours), the Contractor shall contact the Owner's Representative a minimum of 72 hours in advance to coordinate deactivation request. The Contractor shall also make the following notifications for projects in Athens-Clarke County:
 - i. University of Georgia Environmental Safety Division, Fire Safety (706) 369-5706
 - ii. University of Georgia Police Department (706) 542-5813
 - iii. University of Georgia Fire Alarm Monitoring Company, Fire Protection Associates (706) 548-8659
 - iv. University of Georgia specific facility affected
- C. Fire Alarm And Fire Sprinkler Deactivation (More Than 4 Hours At One Time): If a sprinkler or fire alarm system on the campus of the University of Georgia is out of service for more than four hours, a fire watch must be implemented according to the following procedures.
 - i. Notifications for projects in Athens-Clark County:
 - a. University of Georgia Environmental Safety Division, Fire Safety (706) 369-5706
 - b. University of Georgia Police Department (706) 542-5813
 - c. University of Georgia Fire Alarm Monitoring Company, Fire Protection Associates (706) 548-8659
 - d. University of Georgia specific facility affected
 - ii. Fire Watch Duties
 - a. Person(s) on fire watch duty should not have any other responsibility during the time the fire watch is in effect and must keep a cell phone in his/her possession at all times during the fire watch.
 - b. Patrol the entire area affected by the service outage every 30 minutes and look for any signs of fire, smoke and any activities that could create a fire.
 - c. Keep a log of all fire watch patrols.
 - d. Maintain fire watch for one hour beyond the last time that welding operations occurred.
 - e. If a fire is discovered:
 - 1) Activate the building alarm system if in service.



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- 2) Call 911 to report the fire
 - 3) If the building fire alarm system is out of service, ask the campus police to assist in the evacuation of the building.
 - 4) Notify others on the floor of the fire.
 - 5) Do not attempt to fight the fire unless you have been trained on the use of portable fire extinguishers.
- f. Once the need for a temporary fire watch has passed and the fire protection system has been fully restored, the person on fire watch duty will cancel the fire watch by contacting the UGA Environmental Safety Department, the UGA Police Department, the UGA Fire Alarm monitoring company and the UGA specific facility that is affected by the fire watch.
- iii. All costs associated with the fire watch shall be included in the Cost of the Work or Base Bid.



01 35 13.02

SPECIAL PROJECT PROCEDURES – ROOFING & HOT WORK

1. GENERAL

- A. Related sections:
 - i. 00 00 03 – Modifications to General Requirement of BOR Contracts
- B. Hot work permits are not required for new construction or full building renovations (i.e. renovations during which the building is completely vacated and turned over to the Contractor).
- C. Roofing & Hot Work for Additions & Renovations: To complement the requirements of previously cited NFPA-241, regarding Contractor's duties during the execution of work under this contract, the Owner requires that the Contractor comply with the following guidelines for all roofing projects, additions and renovations, and all other projects which require hot work. Hot work includes any construction activity that presents a source of ignition, such as welding, burning/cutting, heating, brazing and soldering. Contractor shall, prior to the start of work at the site, develop a documented fire safety plan for all areas included under this contract. Such plan shall be the result of a complete assessment by the Contractor to minimize the potential for damage as a result of an uncontrolled fire and must be submitted to the Owner's designated fire safety representative for review and approval. The fire safety plan must include, but need not be limited to, the description and documentation of each of the following elements:
 - i. Control Of Combustibles
 - a. Contractor shall visually inspect entire project location to identify combustible and non-combustible construction. Contractor shall identify sealed, inaccessible combustible spaces.
 - b. Contractor shall identify and relocate all movable combustibles at least 35 feet horizontally from the work site. Where not possible, Contractor shall protect such combustibles with flame-proof covers or otherwise shield them with metal fire resistant guards or curtains.
 - ii. Control Of Combustibles
 - a. Contractor shall comply with the Owner's documented hot work permit system, including the following minimum requirements:
 - 1) Contractor shall identify names and locations of fire watches for all hot work operations.
 - 2) Contractor shall identify timing and duration of all proposed hot work. Permits shall be valid for time specified on permit, as appropriate for the project needs.
 - 3) Contractor shall employ dedicated fire watches, which shall be located in direct visual contact of all areas of hot work operations including the underside of combustible attic spaces. If area of proposed work is not accessible from beneath, Contractor shall not under any circumstances use torches or direct flame.
 - 4) Contractor shall maintain a daily log of activities, including accurate project records of all fire watch activities.
 - 5) Contractor shall assign responsibility for overseeing fire watches to specific individual(s) whose only duty is to watch for and to



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- prevent fires occurring due to hot work. This individual(s) shall be listed on permit as responsible.
- 6) Each Contractor's fire watcher shall employ an operable cellular phone for immediate notification of fire department in the event of a fire.
 - 7) Contractor shall be responsible for immediate fire department notification in case of fire.
 - 8) Contractor shall continue fire watches for at least one hour after any hot work operations are completed.
 - 9) Notify building occupants of fire or expected fire.
- b. Contractor shall comply with the following minimum suppression requirements
- 1) Contractor shall provide 10 lb. multi-purpose dry chemical fire extinguishers within 20 feet of the operation.
 - 2) Where hot work, if approved by the Owner's designated fire safety representative, is necessary near combustibile attic spaces, Contractor shall provide a charged hose line from building standpipe or hydrant. This requirement shall be coordinated with the Owner's fire safety coordinator to insure standpipe or hydrant are available and that person(s) operating the charged hose line is properly trained and qualified to operate the hose.
 - 3) Contractor's fire watchers shall have fire extinguishing equipment readily available, and shall be trained in the proper use of all such equipment; proof of such training shall be included in fire safety plan.
- iii. Fire Watch: If fire watches are required to be employed, the Contractor shall retain an independent consultant to provide a system of documented audits of compliance with fire watch provisions and NFPA 241. Contractor shall select the consultant from a list of approved firms furnished by the Owner at the pre-construction meeting. The cost for fire watch provisions, if applicable, shall be included in the Contractor Overhead Cost or Base Bid. Contractor shall note that the approval of the Contractor's fire safety plan by the Owner's fire safety representative does not relieve the Contractor from any duty to protect the Owner's property during the execution of work under this Contract. The Owner shall make available to the Contractor, upon written request, all documented information in the Owner's possession concerning the construction of the building or buildings included under this contract. The Contractor is ultimately responsible for minimizing the potential for fire damage while performing all work under this contract. If fire watch is approved, Contractor shall provide the fire watch contact information to University of Georgia Police Department 24 hours in advance of the fire watch.



01 35 23

OWNER SAFETY REQUIREMENTS – SAFETY BARRIERS

1. GENERAL

- A. Contractor shall provide barriers and warning signs to delineate the construction area and to designate the “Danger” area. This danger area shall be the area immediately surrounding the location where the Work is being completed. The exact location of the barriers shall be determined by the Contractor and coordinated with the Owner prior to beginning construction. The barriers shall be placed by the Contractor to warn and protect persons from any hazards, which may occur during the course of construction. The Contractor may elect to erect a fence to protect the limits of construction and to secure materials kept on site. Associated costs shall be included in the Contractor Overhead Cost or Base Bid.



01 35 46

INDOOR AIR QUALITY PROCEDURES – DURING CONSTRUCTION

1. GENERAL

A. Related sections:

- i. 01 32 16 – Construction Progress Schedule:
- ii. 06 00 00 – General Wood, Plastics, and Composites Requirements
- iii. 09 00 00 – General Finishes Requirements
- iv. 09 20 00 – Plaster and Gypsum Board
- v. 09 60 00 – Flooring
- vi. 09 68 00 – Carpeting
- vii. 09 91 23 – Interior Painting
- viii. 12 00 00 – General Furnishings Requirements

B. Tobacco Free

- i. In accordance with the Tobacco and Smoke-Free Campus Policy of the Board of Regents of the University System of Georgia, the use of all forms of tobacco products is prohibited on property owned, leased, rented, in the possession of, or in any way used by the University. “Tobacco Products” is defined as cigarettes, cigars, pipes, all forms of smokeless tobacco, clove cigarettes and any other smoking devices that use tobacco such as hookahs or simulate the use of tobacco such as electronic cigarettes. Further, this policy prohibits any advertising, sale, or free sampling of tobacco products on University property unless specifically stated for research purposes. This prohibition includes but is not limited to all areas indoors and outdoors, buildings and parking lots owned, leased, rented or otherwise by the University. The use of tobacco products is prohibited in all vehicles—private or public—located on University property. Additionally, all events hosted by the University or by outside groups on behalf of the University shall be tobacco-free. Failure to comply with this policy by contractor or its subcontractors shall constitute a material breach of these terms.

2. PRODUCTS

- A. Low volatile organic compound (VOC) materials shall be used within the interior weatherproofing of the facility; zero when available. Provide documentation to the Project Manager as requested. If there is a conflict between the VOC identified listed in the documents listed below, the one that allows the least VOCs shall apply.
 - i. Architectural coatings shall not exceed VOC limits established by the South Coast Air Quality Management (SCAQMD) Rule 1113, in effect January 1, 2004.
 - ii. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, and any other primers shall not exceed VOC limits established by the South Coast Air Quality Management (SCAQMD) Rule 1168, in effect January 1, 2004.
 - iii. Paints and coatings shall not exceed VOC limits established in the Green Seal Standard GS-11 Paints and Coatings, Third Edition, August 17, 2011.
 - iv. Anti-corrosive paints and coatings shall not exceed VOC limits established in the Green Seal Standard GC-3 Environmental Criteria for Anti-Corrosive Paints, Second Edition, January 7, 1997.



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- v. Hard surface flooring products shall be FloorScore certified (current as of the date of this Standard).
- vi. Carpeting, including pad or backing, shall meet or exceed the requirements of Green Label Plus, set by the Carpet and Rug Institute.
- vii. Composite wood and agrifiber products that are part of the base building elements (not furniture or seating) shall not contain any added urea-formaldehyde resins.
- viii. New furniture and seating shall be certified by GREENGUARD Environment Institute.

3. EXECUTION

- A. Maintain minimum MERV 8 air filters during construction.
- B. Fumes
 - i. During the performance of work under this Contract, the Contractor may elect to engage in activities, or to use methods and materials, that result in fumes being generated and dispersed in occupied areas. In addition to complying with all codes and ordinances having jurisdiction, Contractor shall perform his work in a manner that shall minimize or completely eliminate the probability of such an occurrence. However, if fumes of any nature are generated or released by the Contractor to occupied portions of the building, such fumes shall be contained and exhausted from the spaces in accordance with previously cited codes and ordinances. If any Contractor-generated or Contractor-released fumes spread to occupied spaces, Contractor shall:
 - a. Stop work causing fume generation or release.
 - b. Contact the Owner's Representative (for information only).
 - c. Determine the nature and extent of fume release.
 - d. Purge all areas of these fumes; clean up areas if fumes deposited dirt or particulate matter.
 - e. Change work methods to eliminate fumes.
 - f. Continue working after steps 1 to 5 have been accomplished.
- C. For facilities that will have portions remain occupied during construction, the Contractor shall develop an indoor air quality management plan in compliance with Sheet Metal and Air Conditioning Contractor's National Association (SMACNA) Indoor Air Quality Guidelines for Occupied Buildings Under Construction, 2007.
- D. For projects over 10,000 square feet, per the requirements of this section, either building flush-out or demonstration of compliance with indoor air quality air testing requirements is required prior to occupancy. All interior finishes shall be installed. It is preferable for moveable furnishings and partitions, desk systems and workstations to be in place, however, this is not required.
 - i. Building flush out:
 - a. Building flush out is required prior to occupancy. If End-Users will begin inhabiting the renovated areas or new facility at Material Completion than building-flush out shall be complete prior to Material Completion. If End-Users will not begin inhabiting the renovated areas or new facility prior to Final Completion, then building flush out shall be complete prior to Final Completion.
 - b. Building flush out shall be performed after all interior finishes are installed.



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- c. Following the U. S. Green Building Council guidelines, perform a building flush out that provides 14,000 cubic feet of outdoor air per square foot while maintaining a minimum interior temperature of 60 degrees with a relative humidity of less than 60%.
- d. The Design Professional shall calculate how much outside air will be required for flush out and include in the specifications the number of days required for the project mechanical system to flush out the facility and the Contractor shall include the required days in the construction progress schedule.
- e. Prior to building flush install all new filtration media.
- ii. Air testing:
 - a. Use protocols consistent with the EPA Compendium of Methods for the Determination of Air Pollutants in Indoor Air.
 - b. Documented compliance with the following indoor air quality requirement is required prior to occupancy. If End-Users will begin inhabiting the renovated areas or new facility at Material Completion than air testing compliance shall be complete prior to Material Completion. If End-Users will not begin inhabiting the renovated areas or new facility prior to Final Completion, then air testing compliance shall be complete prior to Final Completion.
 - c. Air testing shall demonstrate that the following maximum concentrations are not exceeded:
 - 1) Formaldehyde 27 parts per billion
 - 2) Particulates (PM 10) 50 micrograms per cubic meter
 - 3) Total VOCs 500 micrograms per cubic meter
 - 4) 4-Phenylcyclohexine 6.5 micrograms per cubic meter
 - 5) Carbon monoxide 9 parts per million



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01 41 00

REGULATORY REQUIREMENTS

1. GENERAL

- A. Contractor shall comply with all applicable provisions of National Fire Protection Association (NFPA) Section 241, Standard for Safeguarding Construction, Alteration and Demolition Operations, latest edition.



01 41 26.01

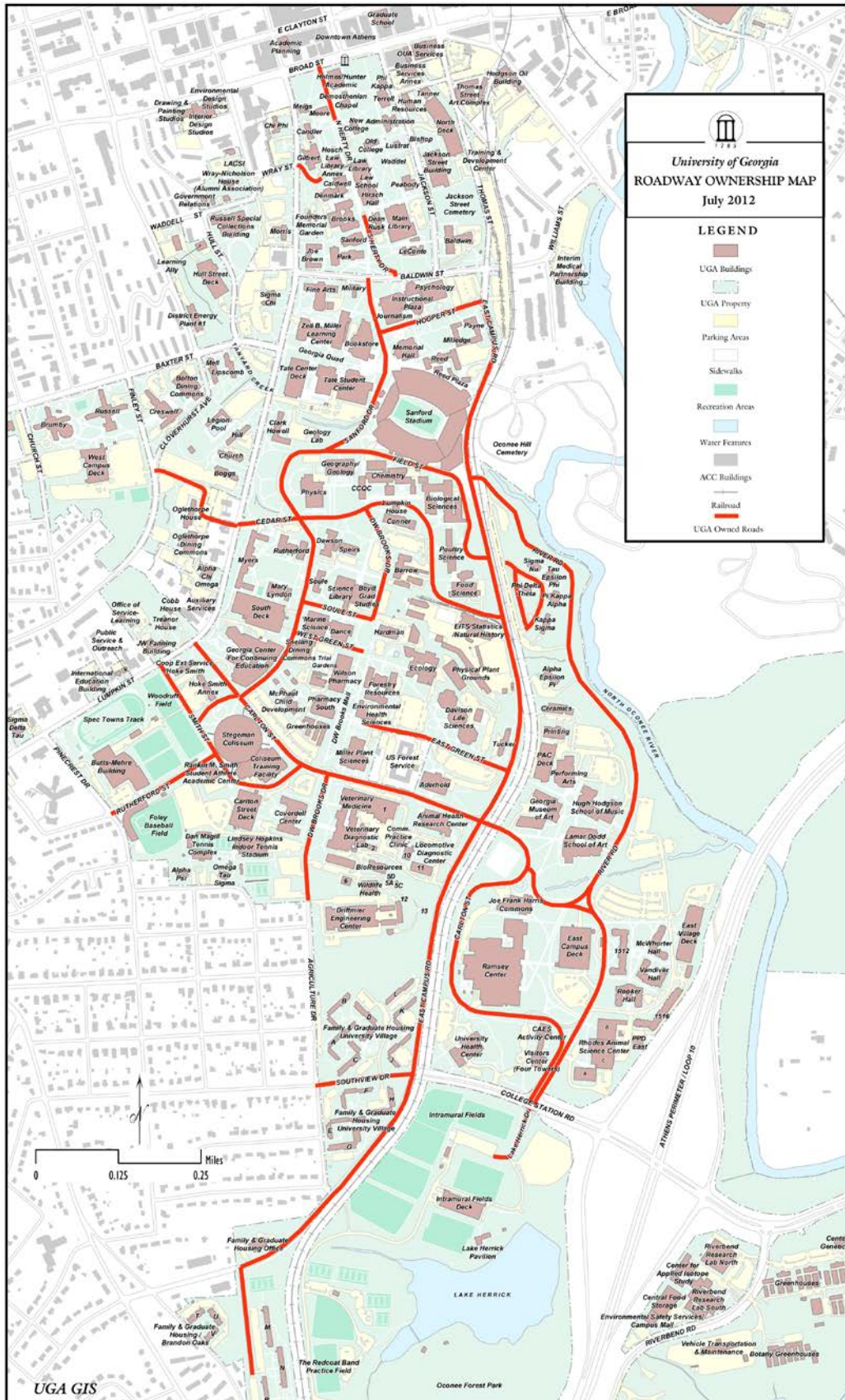
RIGHT OF WAY ENCROACHMENT / ROADWAY OWNERSHIP

1. GENERAL

- A. Right of way (ROW) Encroachment / Driveway Permit
 - i. The Design Professional is responsible for verifying the sidewalk, driveway, and roadway ownership in the location of the project. Work in or adjacent to a road that is not owned by the BOR may require a ROW Encroachment permit and / or a Driveway permit. The Design Professional is cautioned that many BOR campuses and other groups of areas that appear to be large masses of land owned by BOR, often have roadways with associated right of ways through those land masses that are not owned by the BOR.
- B. Roadway Ownership – UGA Athens Only
 - i. The Design Professional can review the map of which roads at the UGA main campus in Athens, Georgia are owned by Athens-Clarke County. The map is located at the end of this section.



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01 41 26.02

LOCAL UTILITY INFORMATION & LOCATE

1. GENERAL

- A. Related sections:
- i. 33 00 00 – General Utilities Requirements
 - ii. 33 10 00 – Water Supply Backflow Preventer Assemblies
 - iii. 33 30 00 – Sanitary Sewerage Utilities – Sanitary Sewer Collection Systems
- B. The Design Professional is responsible for identifying which various reviews and permits related to utility permits are required and meeting the design requirements of the entity having jurisdiction for the location of the project. The Design Professional shall apply for and submit documents for all applicable permits and make design revisions as required until the permits can be obtained.
- C. Utility Owner's at The UGA, Athens, Georgia Campus
- | | |
|---------------------------|--|
| Water | ACC Public Utilities or University of Georgia |
| Sanitary Sewer | ACC Public Utilities or University of Georgia |
| Septic Sanitary System | University of Georgia |
| Storm Sewer | University of Georgia |
| Electric Power | Georgia Power Company or University of Georgia |
| Natural Gas | Atlanta Gas Light Company or University of Georgia |
| Steam | University of Georgia |
| Chilled Water | University of Georgia |
| Data Communications | University of Georgia Enterprise Information Technology Services (EITS) |
| Voice Communications | AT&T or EITS |
| Television Cable | Charter Communications or EITS |
| Fire Alarm Systems | University of Georgia (maintenance contract with Fire Protection Associates) |
| Security & Access Systems | University of Georgia Public Safety Division |
| Irrigation | University of Georgia Facilities Management Division Grounds Department |
- D. Locator Notification
- i. The Contractor's attention is directed to the fact that there are active utilities within the work area. Utilities are owned by the University of Georgia and other public utility companies. 72 hours in advance of digging, the Contractor shall contact:
 1. Public Underground Utility Locator Service at 1-800-282-7411 or 811 as required by Georgia State Law.
 2. For projects on the University of Georgia, Athens, Georgia campus, University of Georgia Facilities Management Division Grounds Department at (706) 542-7450 to locate irrigation lines.
 - ii. The Contractor shall be liable for all repair costs if he fails to properly notify utility locators as described above. Any utility line damaged by the Contractor which was marked or identified by the Owner of the utility shall be repaired by the Contractor at his own expense. In the event the Owner of the utility elects



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to make the repairs with his own work force, the Contractor shall reimburse the Owner of the utility for the cost of repairs.

E. Utilities Furnished

- i. Certain utilities, if owned and operated by the University of Georgia, required for work to be performed under this contract shall be furnished by the Owner at the Contractor's expense. However, these utilities shall be furnished at the point and in the capacity that they are available adjacent to the construction site. Any utility of different pressure, capacity, type, etc. required by the Contractor that is not available within the area shall be arranged for by the Construction Manager at his own expense. Any expense involved to the Contractor in extending the utilities from the present location to the point required shall be at the Contractor's expense and included in the Cost of the Work or the Base Bid.

F. Water Utilities – Public Water Distribution System

- i. Any work on the public water distribution system must be approved and inspected by applicable local government offices and must be performed in accordance with the local governmental regulations. In Athens-Clarke County, most water mains, fire hydrants and water meters are under the jurisdiction of The Unified Government of Athens-Clarke County (ACC). All connections to the ACC water distribution system shall be approved and inspected by ACC Public Utilities. The current version of the construction specifications published by ACC Public Utilities (available at www.athensclarkecounty.com) regarding water main construction are incorporated into this contract. The Contractor subcontractor constructing the water distribution system improvements described in this contract shall be on the ACC list of approved contractors. Final approval, acceptance and payment for work completed on the water distribution system will be contingent on acceptance of the improvements by the ACC Public Utilities. All costs associated with compliance of the water main construction requirements shall be included in the Cost of the Work or Base Bid.

G. Water Supply Backflow Preventer Assemblies

- i. Any work on backflow preventers must be approved and inspected by applicable local government offices and must be performed in accordance with the local governmental regulations. In Athens-Clarke County the Double-Check Backflow Preventer for the fire main connection and Reduced Pressure Zone (RPZ) Backflow Preventers for the domestic water connections are under the jurisdiction of The Unified Government of Athens-Clarke County (ACC). The current version of the construction specifications published by ACC (available at www.athensclarkecounty.com) regarding cross-connection / back flow are incorporated into the standards. All costs associated with compliance of the cross-connection / back flow construction requirements shall be included in the Cost of the Work or Base Bid.

H. Sanitary Sewerage Utilities – Sanitary Sewer Collection System

- i. Any work on the public sanitary sewer collection system must be approved and inspected by applicable local government offices and must be performed in accordance with the local governmental regulations. In Athens-Clarke County, most sanitary sewer mains and man-holes are under the jurisdiction of The Unified Government of Athens-Clarke County (ACC). All connections to the ACC



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wastewater system shall be approved and inspected by ACC Public Utilities. The current version of the construction specifications published by ACC Public Utilities (available at www.athensclarkecounty.com) regarding wastewater system construction are incorporated into the standards. For work within ACC, the Contractor subcontractor constructing the wastewater system improvements described in the standards shall be on the ACC list of approved contractors. Final approval, acceptance and payment for work completed on the water distribution system will be contingent on acceptance of the improvements by the ACC Public Utilities. All costs associated with compliance of the water main construction requirements shall be included in the Cost of the Work or Base Bid.



01 41 26.03

PERMIT REQUIREMENTS – CONSTRUCTION PERMITS

1. GENERAL

- A. Related sections:
 - i. 00 00 08 – Design Professional Documentation Requirements & Deliverables
 - ii. 01 41 26.04 – Fire Marshal Construction Inspection Requirements
- B. The state of Georgia Office of the Insurance and Safety Fire Commissioner (Georgia State Fire Marshal) has jurisdiction on Board of Regents Property located in the state of Georgia, unless noted otherwise. Design Professionals should not contact the local building authority, unless guided otherwise. For state owned property, the State Fire Marshal has jurisdiction related to construction permits, 80% and 100% inspections, certificate of occupancy, etc. Note: Local site development and utility work may require permits through the local city / county authority.
- C. Leased property: When the BOR leases property outside state owned property the construction permit will be obtained from the local city/county authority having jurisdiction.
- D. Variance: In the instance that modifications need to be made, which, therefore, deviates from the approved permit by the Georgia State Fire Marshal, the Design Professional can only request for a Georgia State Fire Marshal variance with the written approval by the Associate Vice President of OUA and Office of Fire Safety.
- E. UGA Office of Fire Safety: For renovation projects where the cost of the renovation is up to 50% of the assessed value of the structure as determined by the insured value by the records of the State Department of Administrative Services, the University of Georgia shall provide the following services on all University owned and operated or occupied buildings and structures on behalf of the Office of the Insurance and Safety Fire Commissioner and the Safety Fire Division:
 - i. Conduct plan reviews, provide comments and approvals, and issue building permits for renovation project.
 - a. One copy of the “UGA Fire Safety Form 354” and two sets of drawings and specifications shall be submitted to the Project Manager to forward to the UGA Office of Fire Safety. The form is included at the end of this section for reference and posted for download on the “Standards” website at:
www.architects.uga.edu/standards.
 - b. The transmittal form and drawings and specifications shall be submitted at minimum of four weeks prior to the date of commencement of the scheduled date of construction.
 - ii. Plan reviews and inspections are of small renovations that involve life safety code features including (but not limited to) egress and exiting, fire alarm systems, incidental changes to sprinkler systems, occupancy changes for incidental use areas, egress lighting, emergency lighting and other relevant life safety and building code features. This also includes adding or eliminating doors and walls, egress corridors or exit discharge.
 - iii. Conduct field inspections when a project has reached 80% completion and 100% completion and conduct site consultative inspections.



01 41 26.04

FIRE MARSHAL CONSTRUCTION INSPECTION REQUIREMENTS

1. GENERAL

- A. Related sections:
 - i. 00 00 03 – Modifications to General Requirements for BOR Contracts
 - ii. 01 41 26.03 – Permit Requirements – Construction Permits
- B. Contractor shall prepare paperwork in advance of inspections and organize in a tabbed three ringer binder that will be given to UGA Office of Fire Safety.
- C. The requirements contained in this section are the minimum requirements and additional requirements per the Authority Having Jurisdiction may be requested. For projects managed by GSFIC, 'Authority Having Jurisdiction' shall mean the State Fire Marshal.
- D. All requested signatures shall be signed in blue ink and letters shall be on company letterhead.
- E. In addition to 80% and 100% inspection, the Contractor shall contact Project Manager and request inspection / visual witness of tests by UGA Fire Safety, a minimum of 24 hours in advance, for the following as applicable to Project:
 - i. Visual confirmation of ball drip valve prior to cover up.
 - ii. On site visual observation of all Fire Pump tests.
 - iii. On site visual observation of flushing of underground waterlines of fire sprinklers system.
 - iv. On site visual observation of flushing of aboveground waterlines of fire sprinkler system.
 - v. On site visual observation of light leak test for cooking hood exhaust systems, light bulb being run through duct work (during non-daylight hours).
- F. Contractor shall provide documentation as applicable to Project:
 - i. Fire sealant test data and installation data sheet for specific products used.
 - ii. Building structural member spray-on fireproofing with third party testing certification.
 - iii. Certification of purchase of gypsum board and / or CMU fire resistive material for structural or fire barrier purposes.
 - iv. Clean agent system: provide installer certification and completion in accordance with applicable codes, license to practice in the State of Georgia, special hazard certification as required for interconnection into other building equipment, blue tag on equipment.
 - v. Commercial hood fire suppression system: provide installer certification and completion in accordance with applicable codes, license to practice in the State of Georgia, special hazard certification as required for interconnection into other building equipment, blue tag on equipment.
 - vi. Fire Sprinkler:
 - 1) Below ground sprinkler test certificate.
 - 2) Above ground sprinkler test certificate.
 - 3) Site supervision form signed by certificate of competency holder.
 - 4) For welded sprinkler piping on-site, provide the fire sprinkler piping welding certification(s), welders marks, and the fire sprinkler piping welder letter of certification for disc or coupon retrieval (these are the



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- plugs that are burned/cut out when a branch line is welded to a main line).
- 5) For fire pump, installation acceptance testing data and flow graph.
 - 6) Fire sprinkler certification for any specialized interconnection to pre-action systems or deluge systems.
 - 7) Copy of Sprinkler contractor's license to practice work in the State of Georgia.
 - 8) Certificate of completion of work in accordance with NFPA 13 (or other applicable codes).
- vii. Plumbing / Site Utility (from each contractor if there are separate plumbing and site utility contractors):
- 1) Certificate of completion of work in accordance with the International Plumbing Code edition applicable to the Project (or other applicable codes).
 - 2) Copy of Plumbing Contractor's license to practice work in the State of Georgia.
 - 3) Installation data for boiler equipment.
 - 4) Backflow preventer test certificates.
- viii. HVAC/Mechanical Items:
- 1) Certificate of completion of work in accordance with the International Mechanical Code edition applicable to the Project (or other applicable codes).
 - 2) Copy of HVAC/Mechanical Contractor's license to practice work in the State of Georgia.
 - 3) If there is a smoke shutdown system, provide a letter of certification indicting the proper operation of this system.
- ix. Electrical
- 1) Certificate of completion of work in accordance with the National Electrical Code 2010 and NFPA 72 (or other applicable codes).
 - 2) Copy of Electrical Contractor's license to practice work in the State of Georgia.
 - 3) Fire alarm system battery calculations indicating the minimum amps per hour required to run the system in accordance with NFPA 72.
 - 4) Fire alarm system record of completion and certification.
 - 5) Copy of Fire Alarm Contractor's license to practice work in the State of Georgia (required if fire alarm contractor is not the same as the electrical contractor).
 - 6) Fire alarm certification for interconnection to auxiliary systems such as kitchen hood suppression system, air handling duct detectors, smoke removal systems, exhaust fume hoods, chemical fume hoods, elevator recall systems, fire exit door releases.
 - 7) If there is a generator, provide electrical generator acceptance test.



01 41 26.05

ROCK REMOVAL – ROCK BLASTING

1. GENERAL

- A. If the concept to use explosives to remove rock is approved by the Project Manager, then the Contractor, a minimum of seven calendar days prior to commencing blasting activities shall provide the Project Manager with:
 - i. The proposed blasting schedule.
 - ii. A complete and executed 'UGA Blasting Checklist' which is located at the end of this section.
- B. The Project Manager will forward the blasting schedule and 'UGA Blasting Checklist' to UGA Office of Fire Safety who will in turn coordinate with the State Fire Marshal. The Project Manager and Contractor must receive written authorization of approval from UGA Office of Fire Safety prior to authorizing the commencement of blasting.



UGA Blasting Checklist

**** This form is to be submitted and approved prior to all blasting activities ****

Project Name: _____

Contractor Responsible: _____

Trade Contractor Responsible: _____

Blasting Company Responsible: _____

Scheduled Date / Time of Blasting: _____

Notifications (one week in advance):

- 1. UGA Office of Fire Safety (call 706-369-5706)

Date/Time Notified _____ Contact Person _____

- 2. UGA Police (call

Date/Time Notified _____ Contact Person _____

- 3. Local Police/Fire Department (For Athens-Clarke County call 706-542-2200)

Date/Time Notified _____ Contact Person _____

Day of Blast: _____

- 2. Local Utilities Department (For Athens-Clarke County call 706-613-3470 Admin)

Date/Time Notified _____ Contact Person _____

- 3. Department Notifications
(Coordinate list and Contact with Owner's Representative)

Department Name: _____ Date/Time Notified _____

Checklist

- 1. Blaster certification card on file / Georgia license #:

- 2. Pre-blast seismic survey completed prior to blast _____

Surveying Company _____ Survey Date _____

- 3. 6' of earth cover confirmed on site _____

- 4. Blast mats in place _____

- 5. Crushed stone used to fill boring holes _____

- 6. Perimeter verified & staffed by blaster and WT with radio communication – 200' from blast zone _____

- 7. Verify no charges are within 10' of existing utilities _____

- 8. Immediately prior to blasting administer 3 quick sirens and 1 long siren with air horn _____



UGA Blasting Checklist (Continued)

9. Seismograph in place and functional _____
10. Post-blast seismograph reading _____ Time of Reading _____
11. Blaster checks detonation tail cap to verify all explosives have discharged before anyone can re-enter site _____

Trade Company Responsible Signature _____ Date: _____

Trade Company Responsible Printed Name _____

Contractor Signature _____ Date: _____

Contractor Printed Name _____

Approval to Proceed Signature by UGA Office of Fire Safety Prior is required prior to Blasting. This will insure that State Fire Marshal is appropriately contacted.

Authorization to Proceed with Blasting by UGA Office of Fire Safety:

Signature _____

Printed Title: _____

Date: _____



01 41 26.06
FOOD SERVICE

1. GENERAL

- A. Related sections:
 - i. 00 00 08 – Design Professional Documentation Requirements & Deliverables
- B. The UGA Environmental Safety Division shall be involved in the design development and reviews, permitting, and inspections for all new or renovated food service areas where food is being prepared in UGA owned or leased facilities. The Design Professional shall work through the Project Manager to coordinate meetings as required.
 - i. Catering kitchens are exempt from this requirement.
- C. Programming: As soon as a food service operations is identified within a project program, a meeting should be coordinated with the Design Professional, Project Manager, ESD, and UGA Food Services to further discuss the scope and refine the program.
- D. Schematic Design and Design Development: As part of these milestone design reviews, the Project Manager will coordinate meetings with the Design Professional, ESD, and UGA Food Services to review the documents to date and provide input and guidance.
 - i. ESD will review the drawings and ESD will forward preliminary concept drawings to the authority having jurisdiction for food safety permitting and share any review comments with the Project Manager.
- E. Construction Documents: The Project Manager will coordinate meetings with the Design Professional, ESD, and UGA Food Services to review the documents to date and provide input and guidance.
- F. Submission to Health Department for Permit
 - i. The Design Professional shall not submit any documents directly to the authority having jurisdiction for the project.
 - ii. ESD will coordinate with the appropriate entity (UGA Food Services, Stadium Concessionaire, etc.) to complete the application and the entity responsible for preparing the food will submit the application.
 - iii. The Design Professional shall supply all necessary information to complete the forms as part of the contract Basic Services.
 - iv. Reference resource: <http://dph.georgia.gov/food-rules-and-regulations> and <http://dph.georgia.gov/food-service-design-installation-and-construction-manual>.
 - v. The documents that will be submitted as part of the food service application shall include as a minimum (may vary per jurisdiction having authority):
 - 1. Physical address of the building
 - 2. Location of building onsite showing access roads, alleys, and streets.
 - 3. Location of outside equipment as applicable:
 - a. Dumpsters and compactors
 - b. Well
 - c. Septic System
 - 4. Plan drawn to scale showing location of kitchen equipment.
 - 5. Detail drawings of any walk-in refrigerators / freezers, if applicable.
 - 6. Square footage for eatery including dimensions.
 - 7. Cubic footage of dry storage, if applicable.



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8. Manufacturer specification sheet for each piece of equipment shown on the plan.
9. Manufacturer specification sheet for water heater.
10. Manufacturer specification sheet for grease trap.
11. Plan drawing(s) for plumbing.
12. Plan drawings(s) for electrical.
13. Plan(s) for mechanical ventilation including:
 - a. Mechanical hood ventilation detail drawing if applicable with:
 - i. Filters and / or extraction devices.
 - ii. Square footage.
 - iii. Fire protection.
 - iv. Air capacity in cubic feet per minute.
 - v. Air makeup in cubic feet per minute.
14. Finish schedule. Refer to the already approved finishes listed in Section L of the Rules and Regulations Food Service – Chapter 290-5-14 Manual for Design, Installation and Construction: <http://dph.georgia.gov/food-service-design-installation-and-construction-manual>.
15. Plumbing connections. Refer to Section N of the Rules and Regulations Food Service – Chapter 290-5-14 Manual for Design, Installation and Construction: The plumbing connection for each item in the table below is required.

	Air Gap	Air Break	Integral Trap	P Trap	Vacuum Breaker	Condensate Pump
Toilet						
Urinals						
Dishwasher						
Garbage Grinder						
Ice Machine						
Ice Storage Bin						
Sinks <ul style="list-style-type: none">▪ Mop▪ Janitor▪ Handwash▪ 3 Comp.▪ 2 Comp.▪ 1 Comp.▪ Water▪ Station						
Steam Table						



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Dipper Well						
Refrigeration Condensate Drain Lines						
Hose Connection						
Potato Peeler						
Beverage Dispenser w/ Carbonator						
Other						

G. Inspections

- i. The Contractor shall not submit requests for inspections directly to the authority having jurisdiction for the project.
- ii. ESD or Food Services will notify the Project Manager of proposed food service area inspection dates, will coordinate the inspection and will typically have personnel on site during all inspections.



01 45 33
SPECIAL INSPECTIONS

1. GENERAL

- A. The Owner will contract directly with the Owner's Testing Agency.
- B. Design Professional to prepare schedule of special inspections for the Project.
- C. Testing
 - i. The Owner reserves the right to employ the services of a testing agency ("Owner's Testing Agency"). Owner's Testing Agency shall perform tests as mandated by the Owner and the Contract Documents. For testing identified in the Contract Documents, the Contractor is responsible for notifying Owner's Testing Agency 24 hours in advance of time and date testing is required. If the CM/GC requests the Owner's Testing Agency on site and is not ready for the Owner's Testing Agency's services, the Contractor shall reimburse the Owner for the Owner's Testing Agency's complete cost for the site trip including mileage, travel time, and time spent on site waiting for the Contractor to be ready for the Owner's Testing Agency's services. The Contractor shall reimburse the Owner for any re-test due to failure of initial testing.



01 52 19

SANITARY FACILITIES – TOILET FACILITIES

1. GENERAL

- A. The Contractor shall provide from the beginning of work washing and temporary enclosed toilet facilities for use of workers on the job. Such facilities shall be maintained in a clean and sanitary condition meeting all local and state health standards throughout their use. The Contractor shall not permit any sanitary nuisance in or about the work. Toilet facilities for the Contractor's workers shall be provided by the Contractor as part of the Contractor Overhead Cost or Base Bid. University toilet facilities shall NOT be made available to the Contractor's workforce.



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01 55 00.01

ROADWAY, SIDEWALK, AND PARKING LOT CLOSURES

1. GENERAL

- A. Roadway, sidewalk, and parking lot use, blocking and closing shall be subject to approval by the Owner. The Contractor shall coordinate through the Project Manager. A minimum of 72-hour notice is required for the Owner to make all necessary arrangements for this work, and such work shall be scheduled at the convenience of the Owner. Roadways, sidewalks, and parking lots shall not be blocked for extended periods of time.



01 55 19

TEMPORARY PARKING AREAS

1. GENERAL

- A. This work is being performed on the Owner's property and parking is restricted and regulated. Contractor and workers shall park only in areas designated by the Owner.
- B. For projects in Athens-Clarke County only: The Contractor is required to purchase "Contractor Parking Permits" from University of Georgia Parking Services (706-542-PARK). Contractor shall include the cost of parking permits in the Contractor Overhead Cost or Base Bid. Any costs associated with parking permits shall be included in the Cost of the Work by each subcontractor as applicable. Designated 'laydown' area taken from an existing permitted parking area shall not be used as a 'free parking' area. However, the Contractor may park some (around 10) vehicles within the designated construction site that do not require permits. Abuse of this free parking allowance may result in the UGA Parking Services requiring the purchase of permits or immediate reduction of parked vehicles. Parking spaces directly adjacent to the project site are not guaranteed. It is the responsibility of the Contractor to coordinate parking availability outside of the project fence with University of Georgia Parking Services. The Contractor is responsible for paying for all fines related to parking violations at Contractor sole cost and the Contractor shall not be allowed to pay for fines from the Contractor Contingency or as part of the Cost of the Work or as a Change Order.
- C. A permit is not required for parking construction related vehicles and/or personal vehicles driven by those working on the construction site within the staging area. It is ultimately up to the Contractor to decide how to utilize available space within their staging area.



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01 55 26
TRAFFIC CONTROL

1. GENERAL

- A. Contractor shall provide adequate traffic warning methods and devices in accordance with Georgia Department of Transportation standards to warn motorists and pedestrians of any obstructions within the Right-of-Way of the roadway. Contractor shall coordinate with the Project Manager and obtain land and road closure permits as required by the Owner and the local Public Works Department. The cost of all traffic control and associated permits shall be included in the Base Bid or Overhead Cost.



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01 55 29

STAGING AREAS – STORAGE

1. GENERAL

- A. The Contractor shall coordinate and use only the area(s) designated by the Owner for job site office, storage of materials and equipment, parking and staging operations. These areas and grounds shall be left clean and shall be restored to the same condition as when accepted by the Contractor. Construction and staging are limited to the designated areas.



01 56 39

TEMPORARY TREE & PLANT PROTECTION

1. GENERAL

A. Related sections:

- i. 32 01 90.23 – Pruning
- ii. 32 90 00 – Planting
- iii. 32 91 00 – Planting Preparation
- iv. 32 91 13.16 – Mulching
- v. 32 92 00 – Turf and Grasses
- vi. 32 93 00 – Plants
- vii. 32 94 13 – Landscape Edging

B. Scope

- i. All existing trees and shrubs in or near an area to be planted shall be protected from soil compaction, equipment damage and stockpiling of materials such as sand, gravel and topsoil. This includes any adjoining areas in which planting materials or equipment (including vehicles) will be stored. In order to prevent damage to trees and tree root systems, protective barriers shall be installed before bed preparation.
- ii. The tree canopy/tree root zones of trees designated to be preserved shall be protected during the entire construction process.
- iii. Tree trunks and branches shall not be damaged by equipment or workers. Tree roots shall be protected from soil compaction, damage by trenching or excessive grade changes, and hazardous materials or waste products.
- iv. Any anticipated or required pruning shall be performed by the UGA Grounds Department.
- v. A Tree and Plant Protection Map, shall be prepared by the design professional, which identifies all areas affected by the project. The Tree and Plant Protection Map must show the location, species and size of all existing trees and landscape that may be negatively impacted by the project. The map must indicate which trees and shrubs are to be removed, and which ones are to remain. The plan shall include protection measures for all tree and landscape impacts, including all utility connections for the project or new facility. Plants scheduled to be removed shall be evaluated for relocation as approved by the UGA FMD Grounds Department.

C. Tree Canopy/Tree Root Protection Zones

- i. Prior to the start of any site work the Contractor will erect fencing around trees which are to be preserved and sensitive root zones which are to be protected within the construction site.
- ii. The Contractor shall meet with the UGA Grounds Department representative and Project Manager prior to beginning any site work to review and verify all Work procedures, trailer location, stockpiling and staging areas, access and haul routes, and equipment operation methods with respect to the required tree canopy/tree root protection measures.
- iii. Trees indicated on the plan to remain shall be protected from injury to their branches, trunks, and root zones during the entire construction period.



Protection of tree canopy/tree root zones shall be by the placement of temporary fencing as outlined.

- iv. No removal or encroachment into tree protection enclosures shall be permitted unless coordinated with the Project Manager.
 - v. The Contractor shall be responsible for installation and maintenance of all tree protection fencing. Protective fencing shall remain undisturbed until all site work has been completed. The Contractor shall remove fencing at completion of project.
 - vi. If protective fencing is damaged, the Contractor shall immediately execute the necessary repairs to re-establish the protective fencing to the original configurations.
 - vii. The Contractor shall be held liable for any damages to protected trees and root zones caused by unauthorized intrusions into the protected areas during construction activity.
 - viii. Any pruning of protected trees that may be required during the course of construction shall be performed by the UGA Grounds Department. Coordinate pruning requests with the Project Manager.
 - ix. Erosion control devices shall be installed as per contract drawings with particular emphasis on preventing siltation and/or erosion from occurring within the tree root protection zone.
- D. Tree Canopy and Tree Root Zones Allowed Disturbance
- i. In situations where the Design Professional has received written approval from the Project Manager to allow work that will compromise tree root zones, the Contractor will be responsible for the follow up and shall be included in the Cost of Work or Bid:
 - a. Watering affected tree as prescribed by the Design Professional or UGA Grounds Department.
 - b. Air spading by certified arborist.

2. PRODUCTS

A. Protective Fencing

- i. Protective fencing shall be 6' high chain link fencing. Support posts for chain link fencing shall be metal posts with a minimum of 2" diameter and full height of fencing. Use 9 gauge top and bottom wires between posts to support chain link fencing. Attach fencing to posts and top and bottom wires with 9 gauge wire ties.

B. Geotextile Fabric

- i. Filter fabric shall meet the requirements for GADOT Type 3 engineering fabric, Class A.

C. Mulch

- i. Coarse chipped or ground wood mulch shall be approved prior to application by the Project Manager.

3. EXECUTION

A. General

- i. The Contractor shall locate utilities prior to installing chain link fence support posts into the ground.
- ii. Trees to be removed that have branches extending into the canopy of trees to be preserved shall be removed by a certified arborist and not by the



- Contractor or a demolition sub-contractor. The certified arborist shall remove the tree in a manner that causes no damage to the protected trees and landscape to remain after construction is completed.
- iii. Trees to be removed shall be felled so as to fall away from protective zones and to avoid pulling and breaking of tree roots indicated on the plan to remain.
 - iv. Any brush clearing required within or around the tree canopy protection zone shall be accomplished with hand operated equipment.
 - v. The Contractor shall be held liable for damages incurred to any tree branches that extend over protective fencing and to any trees or other plant material located on the site and indicated on the plan to remain. The Contractor shall notify the Project Manager when any overhanging branches or other plant material is interfering with or risks damage due to construction activity.
 - vi. If work causes an existing tree to be removed that is not shown on plans as planned demolition, the UGA Grounds Department shall be consulted with to evaluate and determine future viability of the existing tree(s) located within the area(s) of proposed construction excavation.
 - vii. Final evaluations shall be coordinated with the Project Manager to determine if tree should remain, be relocated, or be removed if unable to survive encroachment of new revised design and construction.
- B. Scope of Work Within or Around Tree Root Protection Zone
- i. Any grading, construction, demolition, remedial measures or other work that is expected to encounter tree roots shall be made in consultation with the Project Manager.
 - ii. No machine digging shall take place within a radius of one and one-half foot for each 1 inch diameter at breast height (DBH) of the tree. DBH is defined as the diameter of the trunk measured at 54 inches above grade.
 - iii. Any roots 2 inches in diameter or less that sustain damage during construction shall be exposed to sound tissue and cleanly pruned close to the tree side of the trench. Clean cuts shall be made at all times.
 - iv. For construction projects requiring access or haul roads that must pass over the root area of trees to be retained, a roadbed shall be installed using 4 inches (minimum) of mulch or wood chips covered with approved logging mats. Approval shall be given by the Project Manager. The roadbed shall be replenished and maintained as necessary to provide desired root zone protection. For projects requiring materials storage within the root area of trees to be retained or protected, this area shall be constructed using an approved geotextile base covered with 4 inches (minimum) of coarse wood mulch or chips. The area shall be replenished as necessary to maintain a 4 inch (minimum) depth.
 - v. No material shall be stored or piled within a radius of 2 feet for each 1 inch DBH (minimum) of the designated tree root zone or as directed by the Project Manager. No gasoline, fuel oil, harmful chemicals, etc., or other deleterious materials shall be stored, spilled or deposited on the ground within this limit.
 - vi. There shall be no vehicular traffic or parking permitted under the drip line/canopy of any tree to be retained or protected within the construction site unless approved tree root protection measures have been installed.



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- vii. Foot traffic shall be kept to a minimum under the drip line/canopy. If temporary foot traffic must be directed over the root zone of trees to be retained or protected, a pathway shall be installed using an approved geotextile base covered with 3 inches (minimum) or mulch or wood chips. The pathway material shall be replenished as necessary to maintain a 3 inch (minimum) depth.
- viii. Installation of curbs and sidewalks shall be completed in a manner least damaging to trees and tree root systems. An approved geotextile fabric shall be considered a viable alternative to the specified sub-base in sensitive root zones. When unique site conditions not addressed in the contract drawings result in the opportunity for an alternative solution or a potential modification to the plan, the Contractor may present a proposal to the Project Manager.
- ix. For an existing landscape with an irrigation system that requires protection, the Contractor shall either maintain operation of the irrigation system at all times or hand water at rate and schedule approved by the Project Manager.

C. Liability

- i. The Contractor shall be held liable for any damage to protected trees. A dollar value shall be determined by following criteria contained in A Guide for Plant Appraisal. (Council of Tree and Landscape Appraisal, Latest Edition).
- ii. The Contractor shall be held liable for all remedial measures required to treat broken limbs, or damaged trees and roots, or for unauthorized removal of existing trees or plant material, etc. All tree surgery and remedial treatments will be accomplished by a certified arborist.
- iii. Contractor will protect all trees, shrubs and grass in the project site that will not be removed as part of the scope of Work. Any damages to these live plants will be repaired or replaced by the Contractor at the Contractor's sole cost before final payment will be issued by the Owner.
- iv. The actual damages are difficult to ascertain. Therefore, in addition to the above, the Contractor shall pay the Owner as liquidated damages and not as a penalty, \$500 per day for each day that the Owner and /or Design Professional documents violation(s) of the requirements within this section UGA Design & Construction Special Conditions 01 56 39 Temporary Tree & Plant Protection. Such liquidated damages shall be paid to the Owner through a unilateral deductive change order to the Contractor's Contract.



01 58 13

TEMPORARY PROJECT SIGNAGE

1. GENERAL

- A. The Contractor shall install an official Project Construction Sign at a location agreed upon with the Owner. The sign shall be installed prior to beginning construction on site. The cost shall be included in the Contractor Overhead Cost or Base Bid. The sign shall be a 4'x8' sheet of plywood with black lettering and white background. The Owner may elect to include a full color rendering of the project and will provide the approved artwork to the Contractor. The Contractor shall provide a proof to the Owner for review and approval prior to fabrication. The official Project Construction Sign shall include the following information:

THE UNIVERSITY OF GEORGIA
The Board of Regents of the University System of Georgia
Project Name
(Project Number)
Name of Contractor or Logo
Name of Design Professional or Logo
Administered by the Office of University Architects for Facilities Planning

- i. Note: in the case of projects administered by FMD, the bottom line of the Project Construction Sign shall state: "Administered by the Facilities Management Division" as directed by Project Manager.
- ii. For Georgia State Financing and Investment Commission (GSFIC) funded projects, include GSFIC logo.
- B. The Contractor may provide and install signage as required to direct deliveries. No additional Contractor, subcontractors or supplier signs may be installed on site without prior authorization. It is the intent of the Owner to not allow signs that advertise for the Contractor, design professional, subcontractors, or suppliers.



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01 60 00
PRODUCT REQUIREMENTS

1. GENERAL

- A. Under no circumstances shall any asbestos, formaldehyde or lead containing material be installed under this Contract. New materials shall not contain asbestos, formaldehyde or lead in any form or quantity (i.e. zero asbestos, formaldehyde or lead). Manufacturers shall submit certification to the Owner of zero-asbestos, formaldehyde or lead for all materials used on this project prior to request for final payment.



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01 65 00

PRODUCT DELIVERY REQUIREMENTS

1. GENERAL

- A. The Owner can NOT accept delivery of any materials. Contractor shall unload his equipment and materials and move them to the site of the Work.



01 74 19

CONSTRUCTION WASTE MANAGEMENT & DISPOSAL

1. GENERAL

- A. Related sections:
 - i. 01 29 00 – Payment Procedures
 - ii. 01 77 00 – Project Closeout
 - iii. 01 81 00 – Facility Performance Requirements
- B. The University of Georgia has implemented recycling and waste management policies for all waste materials removed from its campus as a result of construction and demolition activity. The materials that should be recycled include:
 - i. Asphalt
 - ii. Concrete, concrete block, concrete masonry units (CMU), slump stone (decorative concrete block), and rocks
 - iii. Brick
 - iv. Paper, including bond, newsprint, cardboard, mixed paper, packing materials, and packaging
 - v. Glass
 - vi. Plastics
 - vii. Fluorescent Light Tubes, per EPA regulations
 - viii. Green materials (i.e. tree trimmings and land clearing debris)
 - ix. Metals (ferrous and non-ferrous) including, but not limited to, stud trim, ductwork, piping, reinforcing steel (rebar), roofing, other trim, steel, iron, galvanized sheet steel, stainless steel, aluminum, copper, zinc, lead, brass, and bronze.
 - x. Wood (non-pressure/chemically treated wood) including, clean dimensional wood, pallet wood, plywood, oriented strand board (OSB, particle board.
- C. The Contractor should make an attempt to recycle or provide for re-use the following additional materials to the extent practical (this includes contacting UGA's recycling coordinator to determine what materials can be re-purposed on campus):
 - i. Cement Fiber Products, including shingles, panels, siding
 - ii. Paint
 - iii. Carpet
 - iv. Gypsum Wallboard
 - v. Ceiling Tiles
 - vi. Porcelain Plumbing Fixtures
 - vii. Vinyl Composition Tile
- D. The Contractor is required to account for all waste materials removed from the project, and to recycle, salvage, or reuse, to the maximum extent practical, all of the materials listed above if this can be done within 20 miles of the construction site. If there is a cost premium associated with recycling (i.e., if a comingled dumpster must be used due to insufficient space on site for separate dumpsters), the Contractor should identify this cost premium to allow the Project Manager to assist making a decision regarding the best course of action to take for each project. Upon request, the Project Manager will provide assistance to the Contractor in identifying markets for recyclable materials. The Contractor shall make provision as practical for the Project Manager to utilize any recycled materials and processed waste materials on campus. If the Contractor believes



that recycling, salvage, or reuse of any of these materials is impractical, the Contractor should inform the Project Manager before commencement of construction.

- E. The Contractor will be required to supply to the Project Manager during the Pre-Construction Meeting a Waste Management Plan which documents procedures to recycle, salvage, or reuse the materials listed above, including 1) separation, hauling and recycling procedures, 2) material recovery facilities and their distance from job site; and 3) markets for each material recovered. This plan must also address training and communications, recordkeeping, and reporting requirements to assure that all waste materials are accounted for properly. At Material Completion, the Plan shall be updated and submitted to the Project Manager with the total quantities of each waste material that was reused, salvaged, recycled, or disposed of, and the markets to which these materials were directed, so that it provides documentation in a single source of waste management performance on the project.
 - F. During construction, the Contractor shall maintain records of a) each type of material removed from the job site (including materials that are not recycled), b) the name(s) of specific end destinations for all materials removed (whether recycled or disposed of), and c) weights or measures of all types of materials removed. Every load of waste material that leaves the site must be documented (including receipts, pictures or tickets from material hauler or recovery facility) and reported to the Project Manager on a monthly basis by including with monthly invoice. See 01 29 00.
 - G. UGA retains the right to inspect, and subsequently approve or disapprove any and all recycling end markets, reuse or salvage outlets, and/or waste disposal facilities that are involved in the receipt of recyclables and/or waste materials generated from the project. Disapproval of such a market or outlet may be based on past or current violations of federal or state environmental, health, or safety laws, improper disposal activities, risk or liability exposure, excessive distance from the job site, or any other reason deemed sufficient by UGA.
 - H. The Contractor shall include administrative and recordkeeping costs associated with Construction and Waste Management in the Contractor Overhead Cost and Base Bid. All other associated costs shall be included in the appropriate line item cost of the General Conditions for the Guaranteed Maximum Price.
2. **PRODUCTS** – Not used
3. **EXECUTION**
- A. The Contract shall complete and submit the Waste and Recycling Report located at the end of this section. This report is intended to assist UGA with tracking completion of sustainable design and facility performance requirements. Each project is required to address all aspects of the Standards whether included in this report or not.



01 74 19

**CONSTRUCTION WASTE MANAGEMENT & DISPOSAL
MONTHLY WASTE AND RECYCLING REPORT**

Date:
WASTE AND RECYCLING:
A Construction Waste Management Plan documenting procedures to recycle, salvage, or reuse materials was submitted by the Contractor and is dated _____.
Attach list of: a) Each type of material removed from the job site (including materials that are not recycled) <input type="checkbox"/> b) The name(s) of specific end destinations for all materials removed (whether recycled or disposed of), and <input type="checkbox"/> c) Weights or measures of all types of materials removed during this reporting period. <input type="checkbox"/> Every load of waste material that leaves the site must be documented (including receipts, pictures or tickets from material hauler or recovery facility) and reported to Owner's Representative on a monthly basis.
Total amount of materials sent to landfills to date:
Total amount of materials reused, salvaged, or recycled to date:



01 75 00
STARTING & ADJUSTING

1. GENERAL

- A. Related sections:
- i. 01 77 00 – Project Closeout
 - ii. 11 53 13 – Laboratory Fume Hoods
 - iii. 11 82 26 – Facility Waste Compactors
 - iv. 14 20 00 – Elevators
 - v. 21 00 00 – General Fire Suppression Requirements
 - vi. 23 05 14 – Variable Frequency Drive
 - vii. 23 09 23 – Building Automation & Temperature Control Systems (BAS)
 - viii. 23 20 00 – HVAC Piping & Pumps
 - ix. 23 21 23 – Hydronic Pumps
 - x. 23 22 16 – Steam & Condensate Heating Piping Specialties
 - xi. 23 25 00 – HVAC Water Treatment
 - xii. 23 64 16.13 – Air-Cooled Chillers
 - xiii. 23 64.16.16 – Water-Cooled Chillers
 - xiv. 23 65 00 – Cooling Towers
 - xv. 23 73 00 – Indoor Central –Station Air-Handling Units
 - xvi. 23 81 29 – Variable Refrigerant Flow (VRF) HVAC Systems
 - xvii. 26 09 43.19 – Addressable Fixture Lighting Control
 - xviii. 26 24 19 – Motor – Control Centers
 - xix. 26 32 00 – Packaged Generator Assemblies
 - xx. 28 13 00 – Access Control
 - xxi. 28 31 00 – Fire Detection & Alarm
- B. All documentation required in this section shall also be provided in the closeout submittal.
- C. The closeout manual shall include factory or authorized agent completed and signed start-up certification documentation.
- D. Chillers, condensing units, cooling towers, boilers, pumps, VSDs, Variable-Frequency Motor Controllers, AHUs, humidifiers, heat exchangers and water heaters, PRVs, controllers and controlled elements, meters, pre- insulated underground piping, etc., shall be field inspected and tested by the manufacturer or a factory trained authorized representative for installation in compliance with the manufacturer’s installation instructions and recommendations prior to start-up. The manufacturer or a factory trained authorized representative shall perform, or be present at, the start-up. Start-up documentation certifying proper installation and start-up shall be promptly forwarded to the Design Professional and Project Manager after successful start-up.
- E. Condenser, chilled water and heating hot water systems shall not be started until cleaning, flushing and pre-treatment has been done to the satisfaction of the water treatment contractor.
- F. Heating hot water systems shall be cycled through heat up and cool down and checked for leaks prior to handover. Inspection for leaks shall be performed by the TAB agency at the seasonal TAB.



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- G. Base mounted pumps shall be properly grouted and aligned by, or to the written approval, of a factory certified representative. Contractor shall submit written certification to this effect.



01 77 00
PROJECT CLOSEOUT

1. GENERAL

- A. Related sections:
 - i. 00 00 08 – Design Professional Documentation Requirements & Deliverables
 - ii. 01 33 00 – Submittal Procedures
 - iii. 01 74 19 – Construction Waste Management & Disposal
 - iv. 01 75 00 – Starting and Adjusting
 - v. 09 00 00 – General Finishes Requirements
- B. At the end of this section is the sample Contractor & Project Manager Project Close-Out Checklist to be used as a reference for closing out the Project.
- C. Closeout Meeting: The Contractor shall coordinate a Project Closeout Meeting with the Project Manager.
- D. Operations and Maintenance Training:
 - i. The Contractor shall coordinate with the Project Manager to schedule training of facility system.
 - ii. The Contractor shall submit O&M manuals for review simultaneously to the PM and to the Architect at least two weeks prior to O&M training dates. See below for more information regarding items in O&M manuals.
 - iii. There shall be at least a two week notice prior to the established training date(s).
 - iv. The Contractor shall prepare an agenda with times allocated for each training session.
 - v. All training sessions shall be videotaped.
- E. Closeout-Submittals Format Requirements:
 - i. Both the hardcopies and electronic copies shall be organized using the Construction Specifications Institute (CSI) numbering system utilized in the Project Manual. The documentation shall be organized with labeled tabs, and consolidated into one three ring binder to the extent possible. If there are multiple binders, the volumes shall be labeled.
 - ii. Electronic Deliverables:
 - a. Electronic file names shall be no longer than 15 characters using only Microsoft acceptable file names and shall be delivered by CD-Rom (s), flash drive, file download, or other acceptable deliverable.
 - b. For projects that do not require BIM, AutoCAD files shall be version 2007 or later and be whole and complete with NO Xrefs to symbols or other drawings.
 - c. All drawings and specifications shall be submitted in AutoCAD (.dwg), Revit (.rvt) (depending on if BIM is utilized), Microsoft Word (.doc), and Adobe PDF (.pdf) formats. All PDF files shall be searchable.
 - d. Drawings and specifications shall each be submitted as one PDF binder set and as separate files for each drawing sheet/specification section.
- F. Prior to submitting the final closeout documents, the Contractor shall forward one set of closeout submittals to the Design Professional and one to the Project Manager for simultaneous review. The comments generated by the Design Professional and Project Manager shall be collected by the Design Professional and consolidated prior to



returning to the Contractor for any required revisions. Once all comments have been received, the Contractor shall pickup both copies, address comments, and distribute final sets per information below.

- G. The Contractor shall provide to the Project Manager the final closeout submittals including the following (see chart below for quantities and UGA distribution):
- i. Contractor Marked-up Construction Documents and Project Manual: For a Project not utilizing BIM, the Contractor shall provide the Project Manager and the Design Professional Marked-up documents (per quantities and formats in the tables later in this section) for both the drawings and specifications that incorporate all change orders, requests for information, and other as-built information per the Contract. For a Project that utilized BIM, the Design Professional and Contractor shall provide to the Project Manager Marked-up (per quantities and formats in the tables later in this section) for both the drawings and specifications that incorporate all change orders, requests for information, and other as-built information as agreed upon in the BIM Execution Plan.
 - ii. Shop Drawings and Submittals
 - iii. Operations and Maintenance Manual which includes as a minimum the following items. In addition, include all other items that are Project specific that may be necessary for the facility to be properly maintained.
 - a. All close out items
 - b. Contact List
 - c. Emergency Shut off Plan
 - d. Finish Schedule
 - e. Lamp Schedule
 - f. Schedule of all mesh sizes for all strainers used.
 - g. Test & Balance Report
 - h. Warranties and Affidavits
 - i. Contractor Training Videos
 - iv. Data / Telecommunications: In addition to above, break out separate sets of drawings, specifications, submittals, equipment list, specifically related to data / telecommunications as required in Section 27 00 00 General Communications Requirements.
 - v. Audio-Visual: In addition to above, break out separate sets of drawings, specifications, submittals, equipment list, specifically related to audio/ visual as required in Section 27 41 00.01 Audio-Visual Control System.
- H. Final Quantities and Distribution: Contractor shall deliver all copies of the closeout submittals to the Project Manager. Refer to charts below for 'Contractor Closeout Deliverables for OUA Project' and 'Contractor Closeout Deliverables for FMD Project' for quantities and types.



		CONTRACTOR CLOSEOUT DELIVERABLES FOR OUA PROJECT			
		Full Size Printed Drawing Set	Half Size Printed Drawing Set	Digital Files	Other
CONTRACTOR	Contractor Marked-up Construction Documents	0 - For OUA 1 - For FMD 0 - For End-User	1 - For OUA 0 - For FMD 0 - For End-User	1 - For OUA 1 - For FMD 1 - For End-User	
	Contractor Marked-up Project Manual & Specifications	0 - For OUA 1 - For FMD 1- For End-User		1 - For OUA 1 - For FMD 1 - For End-User	
	Shop Submittals & Construction Submittals	0 - For OUA 1 - For FMD 0 - For End-User		1 - For OUA 1 - For FMD 1 - For End-User	
	Operations & Maintenance Manuals	0 - For OUA 1 - For FMD 0 - For End-User		1 - For OUA 1 - For FMD 1 - For End-User	
	Fire Marshal Approved Permit Drawings (Originals)	0 - For OUA 1 - For FMD 0 - For End-User			
	Test & Balance Report	0 - For OUA 1 - For FMD 0 - For End-User		1 - For OUA 1 - For FMD 1 - For End-User	
	Contractor Training Videos			1 - For OUA 1 - For FMD 1 - For End-User	
	For EITS (in addition to above) Refer to 27 00 00 - Communications	0 - For OUA 0 - For FMD 1 - For EITS		0 - For OUA 0 - For FMD 1 - For EITS	
	For CTL (in addition to above) Refer to 27 41 00.01 - Audio-Visual Control System	0 - For OUA 0 - For FMD 1 - For CTL		0 - For OUA 0 - For FMD 1 - For CTL	



CONTRACTOR CLOSEOUT DELIVERABLES FOR FMD PROJECT					
		Full Size Printed Drawing Set	Half Size Printed Drawing Set	Digital Files	Other
CONTRACTOR	Contractor Marked-up Construction Documents	1- For FMD 0 - For End-User		1- For FMD 1 - For End-User	
	Contractor Marked-up Project Manual & Specifications	1- For FMD 0 - For End-User		1- For FMD 1 - For End-User	
	Shop Submittals & Construction Submittals	1- For FMD 0 - For End-User		1- For FMD 1 - For End-User	
	Operations & Maintenance Manuals	1- For FMD 0 - For End-User		1- For FMD 1 - For End-User	
	Fire Marshal Approved Permit Drawings (Originals)	0 - For OUA 1 - For FMD 0 - For End-User			
	Test & Balance Report	1- For FMD 0 - For End-User		1- For FMD 1 - For End-User	
	Contractor Training Videos			1- For FMD 1 - For End-User	
	For EITS (in addition to above) Refer to 27 00 00 - Communications	0 - For FMD 1 - For EITS		0 - For FMD 1 - For EITS	
	For CTL (in addition to above), Audio-Visual Control System Refer to 27 41 00.01 - Audio-Visual Control System	0 - For FMD 1 - For CTL		0 - For FMD 1 - For CTL	



DESIGN PROFESSIONAL DELIVERABLES FOR OUA AND FMD PROJECTS					
		Full Size Printed Drawing Set	Half Size Printed Drawing Set	Full Digital Files on CD, DVD, or Portable Hard Drive	Other
Design Professional	Design Professional Electronic Files Record Documents Construction Drawings and Project Manual	1 - For OUA 1 - For FMD 0 - For End-User	1 - For OUA 0 - For FMD 0 - For End-User	1 - For OUA 1 - For FMD 1 - For End-User	

Contractor & Project Manager Project Close-Out Checklist

No.	Description	Scheduled Completion	Actual Completion	Copy to be in Closeout	Comments
1	Obtain Certificate of Material Completion			✓	
2	Identify Start of Warranty Date				Date:
3	Verify Final Cleaning Satisfactory				
4	Obtain Operation & Maintenance Manuals (two weeks prior to date of training session)				
5	Obtain Certificate of Final Completion			✓	
6	Obtain Certificate of Occupancy from Fire Marshal			✓	
7	Obtain Attic Stock (if applicable)			✓	
8	Transfer of Utilities to UGA:				
	Electrical				
	Gas				
	Water				



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	Other:				
9	Transfer Insurance to UGA				
10	Sign off on Punch list Completion				
11	Establish Warranty Documentation Log/Procedure				
12	Signed Roof/Wall Bond			✓	
12a	Signed Roof Manufacturer's Warranties			✓	
13	Provide completed 01 74 19 Construction Waste Management Checklist			✓	
14	Obtain Keys/Key Cards from Contractor				
15	Identify Maintenance Agreements				
16	Acceptance of Final Test & Balance Report				
17	Acceptance of Final Commissioning Report				
18	Obtain As-built Documents;				
	Hard Copies				
	Electronic Copies				
19	Obtain Special Inspection Report				
20	NPDES: Obtain Notice of Termination (NOT)				
21	Training Complete				
22	Hold Close-out Meeting OUA/FMD for Transfer of Information/Documents				
23	Write Lessons Learned Memo and Modify Procedures Manual Accordingly				



01 78 46
EXTRA STOCK MATERIALS

1. GENERAL

- A. Related sections:
 - i. 09 00 00 – General Finishes Requirements
- B. UGA does not require extra stock materials (attic stock) unless space is designated in the completed building.
- C. Design Professionals shall coordinate any attic stock proposed by the Design Professional with the Project Manager and only provide the items required by the Project Manager.
- D. For new and large facilities, Contractor to assist with locating attic stock material in room designated by the Project Manager.
- E. Contractor shall label all attic stock with same nomenclature as in contract documents.
- F. All surplus materials stored by the Contractor (other than the Project Manager specified attic stock) shall be removed from UGA properties prior to project close-out.



01 81 00

FACILITY PERFORMANCE REQUIREMENTS

1. GENERAL

- A. Related sections:
 - i. 00 00 07 – Design Professional Design Process Requirements
 - ii. 00 00 08 – Design Professional Documentation Requirements & Deliverables
 - iii. 01 29 00 – Payment Procedures
 - iv. 01 74 19 – Construction Waste Management & Disposal
 - v. 12 46 33 – Interior Waste Receptacles
 - vi. 12 93 23 – Trash, Litter, and Recycling Receptacles
 - vii. 23 05 19 – Meters & Gages
- B. Introduction: The UGA requires and has been implementing efficient and sustainable designs for new construction and renovations for many years. Regardless of whether a project will utilize a third party green building certification system, the Design Professional shall present multiple scenarios with various levels of energy and water conservation options for the Project Manager’s review.
 - i. Not all Projects will have sufficient budgets to meet all of the requirements of this section 01 81 00 Facility Performance Requirements. It is the responsibility of the Design Professional and the Contractor (except for Design-Bid-Build delivery method) to provide cost estimates and detailed return on investment options during the Schematic Design and Design Development design phases for the Owner’s evaluation. If at the end of the Design Development phase, as directed by the Project Manager, all of the requirements of this section will not be met, the Design Professional shall submit a variance for approval to document which aspects will not be met.
 - ii. These Facility Performance Requirement evaluation and option services through Design Development shall be included in the Design Professional’s Basic Services and the Contractor’s Pre-Construction Overhead Costs and Pre-Construction Fee. The Owner may elect to fully follow this section or to only select portions of this section (due to budget constraints) for incorporation into Construction Documents, and the Owner will not incur any additional design services or Pre-Construction Overhead costs as long as the Facility Performance Requirements and associated systems selections are made and documented prior to the beginning of Construction Documents.
- C. Green Building Rating Systems: No specific green building rating system certification is required by UGA; certification is pursued on a per project basis. Based on experience, capital improvement projects that meet the intent and requirements of UGA Design & Construction Standards generally achieve Leadership in Energy & Environmental Design (LEED) Gold level certification or equivalent, Silver or equivalent at a minimum.
- D. The design and construction of a new building shall be for at least a fifty year life with emphasis on minimum life cycle costs rather than low first costs.
- E. Energy Performance:
 - i. The mechanical, electrical, and plumbing energy related design for all buildings shall comply with ASHRAE Standard 90.1 – 2010, with exception of programmable power receptacles.



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- a. Design Professional shall be held accountable for meeting 10% or greater energy savings over ASHRAE 90.1 – 2010 Appendix G.
 - ii. Computerized energy budget analysis, forecasting consumption in BTU/GSF/Year is mandatory for all new construction projects over 10,000 square feet that have heating and cooling.
 - iii. Computerized energy budget analysis, forecasting consumption in BTU/GSF/Year is mandatory for all renovation projects that renovate an entire building (not a portion of a building).
 - iv. Life cycle cost comparisons with return on investment calculations of different proposed mechanical systems shall be presented at the end of schematic design.
 - a. Design Professional shall develop narrative of each system with diagrams of major equipment locations and review with Project Manager prior to coordinating costing information.
 - v. Metering of all utilities (electricity, natural gas, steam, and chilled water) shall be provided at the building level and sub-metering of building systems as needed to isolate, manage and optimize building energy use at the system level. See section 23 05 19 Meters & Gages.
- F. Renewable Energy
 - i. For new construction and major renovations, the Design Professional shall identify and evaluate opportunities for on-site renewable energy generation including life-cycle cost analysis and return on investment calculations with a target of meeting up to 10% of the project's energy demand.
 - ii. Design Professional shall evaluate feasibility of solar-thermal water heating to meet hot water demand.
- G. Water Conservation
 - i. For new construction and major renovations over \$5M, provide design and cost options for the project to conserve 10% and 20% more water, not including irrigation, than the code requirement for the state of Georgia.
- H. Storm Water and Condensate
 - i. Options for collection and reuse of storm water and condensate are required for all new construction projects with special attention given to uses other than irrigation. Storm water best management practices shall be incorporated to exceed the Project jurisdiction storm water quality standards, with a preference for visible and vegetative storm water controls.
 - ii. Design Professional shall evaluate feasibility of rain water and condensate water collection, distribution and reuse to serve non-consumptive uses including but not limited to cooling tower make-up, toilet flushing and landscape irrigation.
- I. Waste & Recycling
 - i. The University of Georgia is committed to drastically reducing waste and diverting 65% or more of the campus waste stream from landfills. For new construction and major renovations, the project shall provide convenient facilities for recycling for building occupants and facilities management staff to reduce waste and increase collection of recyclables. See section 01 74 19 Construction Waste Management & Disposal.
- J. **For UGA Athens Campus only:** Use the following outdoor design conditions:
 - i. Winter, design dry bulb 10 °F



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- | | |
|---------------------------------------|---------------------------------|
| ii. Summer, design - cooling | 95 °F DB / 76 °F MCWB |
| iii. Summer, design - evaporation | 78 °F WB / 89 °F MCDB |
| iv. Summer, design - dehumidification | 75 °F DP / 135.3 HR / 82.3 MCDB |
| v. Degree days heating | 2,900 (base 65 °F) |
| vi. Degree days cooling | 1,700 (base 65 °F) |
| vii. Climate zone | Zone 3A |

K. Comfort Conditions:

- i. Indoor design conditions shall suit the process and user requirements.
- ii. For comfort conditions use 75 °F DB in summer and 70 °F DB in winter.
- iii. Cooling equipment shall be selected to achieve 50% RH at design cooling conditions and maximum space humidity shall not exceed 60% RH. Positive dehumidification control may be required for high outdoor air supply applications and/or specific process needs. The Design Professional shall determine and confirm in writing all indoor design conditions during Schematic Design.

L. Georgia Power Rebates:

- i. The Design Professional and Contractor shall meet with the Project Manager and Georgia Power and / or Georgia Power's delegated representatives to determine which, if any, Georgia Power rebates may apply to the Project. The Design Professional and Contractor shall supply all required documentation in a timely manner to assist the Owner with obtaining the rebates and any costs associated with the documentation shall be included in the Design Professional's Basic Services Fee and the Contractor's Base Bid or Overhead Costs.

2. **PRODUCTS** – Not used.

3. **EXECUTION**

- A. The Design Professional shall complete the Facility Performance Requirement Checklist located at the end of this section. This checklist is intended to assist UGA with tracking completion of sustainable design and facility performance requirements. Each project is required to address all aspects of the Standards whether included in this checklist or not. The Design Professional completes as much as possible as for the Schematic Design deliverable and shall fully complete for the Design Development deliverable. See 01 29 00.



01 81 00
FACILITY PERFORMANCE REQUIREMENTS
CHECKLIST

PROJECT NAME:	DATE SUBMITTED:
DESIGN PROFESSIONAL:	MECHANICAL ENGINEER:
ELECTRICAL ENGINEER:	PLUMBING ENGINEER:
CONTRACTOR:	UGA PROJECT MANAGER:

EFFICIENT AND SUSTAINABLE DESIGN: <i>Check all that apply.</i>
<input type="checkbox"/> Contractor provided cost estimates and detailed return on investment options for energy and water conservation during the Schematic Design and Design Development design phases for the Owner's evaluation.
<input type="checkbox"/> All requirements of Section 01 81 00 – Facility Performance Requirements were met.
<input type="checkbox"/> Not all Facility Performance Requirements in Section 01 81 00 were met, and the Design Professional submitted a variance for approval to document which aspects would not be met.
<input type="checkbox"/> The facility is designed and constructed for at least a fifty year life with emphasis on minimum life cycles costs rather than low first costs.

GREEN BUILDING RATING SYSTEMS: (See section 1C)
Which Green Building Rating System framework is the project designing to?
Is the project pursuing 3 rd party certification? (Yes/No)
If yes, which level of certification is anticipated? (Note: If pursuing LEED-certification and the project achieved lower than Gold, explain primary factors that led to Silver rating or lower as opposed to Gold.)

ENERGY PERFORMANCE: (See section 1E) <i>Check all that apply and fill in the blank as needed.</i>
<input type="checkbox"/> Mechanical, electrical, and plumbing energy related design complies with ASHRAE Standard 90.1-2010, with exception of programmable power receptacles.
If not all requirements of ASHRAE Standard 90.1-2010 are met, list any requested and approved exceptions:



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<input type="checkbox"/> The project will achieve energy savings target of 20% or greater.
List anticipated energy savings (%):
<input type="checkbox"/> A computerized energy budget analysis, forecasting consumption in BTU/GSF/Year was completed. (Required for new construction projects over 10,000 square feet that have heating and cooling and renovation projects that renovate an entire building.
<input type="checkbox"/> Life cycle cost comparisons with return on investment calculations of different proposed mechanical systems were presented to Project Manager at the end of Schematic Design.
<input type="checkbox"/> Design Professional provided a narrative of each system with diagrams of major equipment locations and reviewed with Project Manager prior to coordinating costing information.
<input type="checkbox"/> Metering of all utilities (electricity, natural gas, steam, and chilled water) is provided at the building level.
<input type="checkbox"/> Sub-metering of building systems is provided to isolate, manage and optimize building energy use at the system level.
List all building systems that are not metered separately:

RENEWABLE ENERGY: (See section 1F) <i>Check all that apply and fill in the blank as needed.</i>
<input type="checkbox"/> The Design Professional identified and evaluated opportunities for on-site renewable energy generation including life-cycle cost analysis and return on investment calculations with a target of meeting up to 10% of the project's energy demand.
List renewable energy strategies evaluated and associated ROI of each:
List renewable energy strategies to be installed:
What percentage of the projects energy demand is being met by renewable energy?
Does the project incorporate solar-thermal water heating to meet hot water demand? (Yes/No) If not, explain why not:



WATER CONSERVATION: (See section 1G)

Check all that apply and fill in the blank as needed.

- The Design Professional provided design and cost options for the project to conserve 10% and 20% or more water, not including irrigation, than the code requirement for the state of Georgia.

List water conservation features installed:

What percentage of water conservation above Georgia code requirement is anticipated during typical building operation?

STORM WATER AND CONDENSATE: (See section 1H)

Check all that apply and fill in the blank as needed.

- Storm water and condensate water collection and reuse are included in this project.

Describe the system installed and list the intended uses for the reclaim water:

What percentage of building water demand is met by the storm water and condensate water collection system?

- Storm water best management practices are incorporated to exceed the Project jurisdiction storm water quality standards, with a preference for visible and vegetative storm water controls.

List storm water BMP's installed:

OUTDOOR DESIGN CONDITIONS (For UGA Athens Campus only): (See section 1J)

Check all that apply and fill in the blank as needed.

- The following outdoor design conditions serve as basis of design:
- Winter, design dry bulb: 10°F
 - Summer, design – cooling: 95°F DB/76° MCWB
 - Summer, design – evaporation: 78°F WB/ 89° MCDB
 - Summer, design – dehumidification: 75° DP/ 135.3 HR/ 82.3 MCDB
 - Degree days heating: 2,900 (base 65°F)
 - Degree days cooling: 1,700 (base 65°F)
 - Climate zone: Zone 3A

If not all of these criteria are met, explain any variations:



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COMFORT CONDITIONS: (See section 1K)

Check all that apply and fill in the blank as needed.

The Design Professional determined and confirmed in writing all indoor design conditions during Schematic Design.

The design conditions suit the process and user requirements.

Comfort conditions are 75°F DB in summer and 70°F DB in winter.
If not, please list conditions used:

Cooling equipment is selected to achieve 50% RH at design cooling conditions and maximum space humidity will not exceed 60% RH.

Is positive dehumidification control needed? Is it provided?

GEORGIA POWER REBATES: (See section 1L)

Check all that apply and fill in the blank as needed.

The Design Professional and Contractor met with the Project Manager and Georgia Power representatives to determine which, if any, Georgia Power rebates apply to the Project.

List anticipated rebates:

The Design Professional and Contractor supplied all required documentation in a timely manner to assist the Owner with obtaining the rebates at no additional cost.



01 91 13

GENERAL COMMISSIONING REQUIREMENTS

1. GENERAL

A. Related sections:

- i. 00 00 07 – Design Professional Design Process Requirements
- ii. 00 00 08 – Design Professional Documentation Requirements & Deliverables
- iii. 01 75 00 – Starting and Adjusting
- iv. 01 77 00 – Project Closeout
- v. 01 81 00 – Facility Performance Requirements
- vi. 02 22 00 – Existing Conditions Assessment
- vii. 22 00 00 – General Plumbing Requirements
- viii. 23 00 00 – General Mechanical Requirements (HVAC)
- ix. 23 09 23 – Building Automation and Temperature Control System
- x. 26 00 00 – General Electrical Requirements
- xi. 28 31 00 – Fire Detection & Alarm

B. Description of Commissioning: Commissioning (Cx) is the systematic process of insuring that building systems operate and perform according to the Owner's Project requirements and operational needs. The Commissioning process oversees, verifies and documents that the facility and its system and assemblies are planned, designed, installed, tested, operated and maintained as required to meet the Owner's functional intent and the Project Contract Documents. The Commissioning process does not take away from or reduce the responsibility of the Design Professional or Contractor to provide a finished and fully functioning product.

C. Timeline of Commissioning: For most projects at UGA, the Commissioning process will begin at the beginning of the Design Development stage of the design phase and continue through and conclude at the end of the first year warranty period.

D. Coordination:

- i. Commissioning Team. The members of the commissioning team consist of the Commissioning authority / agent (CxA), the Project Manager, the Contractor, the Design Professional and design consultants (particularly the mechanical engineer), the mechanical subcontractor, the electrical subcontractor, the TAB representative, the controls subcontractor and any other installing subcontractors or suppliers of equipment. The Owner's building or plant operator/engineer shall be included in the commissioning process.
- ii. Management. The CxA is hired by the Owner directly. The CxA directs and coordinates the commissioning activities and the reports to the Project Manager. All members of the commissioning team work together to fulfill their contracted responsibilities and meet the objectives of the Contract Documents. The CxA's responsibilities are the same regardless of who hired the CxA.
- iii. Scheduling: The CxA will work with the Contractor according to established protocols to schedule the commissioning activities. The CxA will provide sufficient notice to the Contractor for scheduling commissioning activities. The Contractor will integrate all commissioning activities into the master schedule. All parties will address scheduling problems and make necessary notifications in a timely manner in order to expedite the commissioning process. The CxA will provide the initial schedule of primary commissioning events at the



commissioning scoping meeting. The Commissioning Plan provides a format for this schedule. As construction progresses more detailed schedules are developed by the CxA. The Commissioning Plan also provides a format for detailed schedules.

- E. Commissioning scope of work may include the following phases as defined in ASHRAE 1.1:
- i. Pre-Design Phase: Outline the scope of design requirements and design intent, describe systems to be installed, outline the documentation requirements for each party involved in the commissioning process, define subsequent commissioning procedures and document the process. Interface with the design team to refine the construction phases and insure that the phasing of MEP systems is logical and appropriate. Develop commissioning specifications and functional testing requirements to be included in the bid documents.
 - ii. Design Phase: Continuation of Pre-Design and interface with the design team to refine the construction phases and insure that the phasing of MEP systems is logical and appropriate. Develop commissioning specifications and functional testing requirements to be included in the bid documents
 - iii. Construction Phase:
 - a. Early Construction: Complete commissioning plan at the beginning of the construction phase. Obtain project schedules and gather and review subcontractor submittals and operation and maintenance manuals. Work with subcontractors to develop detailed pre-functional check lists and performance test plans for each system and piece of equipment involved in the commissioning process.;
 - b. Construction: Conduct site visits to observe construction, noting details that might affect equipment and system performance or operation.
 - c. Pre-functional Start-up: Coordinate with various subcontractors start-up performance tests. Oversee all start-up tests and ensure that pre-functional performance and checklists are completed and all deficiencies resolved.
 - d. Field Verification/Inspection of Systems: Develop equipment and system functional performance test procedures. Observe and verify proper operation of equipment, systems, and controls based upon functional performance test plans. Verify that corrective measures are taken as needed
 - e. Operations and Maintenance Staff Training and Documentation: Reviews the O&M documentation and ensures the presence of complete operation and maintenance manuals. Determine the training needs of the building operation and maintenance staff. Reviews, pre-approve, and coordinate the training provided by subcontractors and verify that training was completed in accordance with training needs and project requirements. Refer to 01 77 00 Project Closeout.
 - f. Occupancy and Operations Phase: Warranty Review and Seasonal Testing: Coordinate and supervise seasonal or deferred testing and deficiency corrections and provide the final testing documentation for the commissioning record and O&M manuals.



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- F. CxA shall review design documentation for, inter alia, compliance with UGA Standards and shall clearly identify all deviations from the Standards
- G. Designs shall be reviewed critically for inclusion of design Intent, with metrics; shall be included in documents from the schematic design submittal. The design intent with metrics shall be included on the first construction drawing sheet of the associated service.
- H. The CxA shall verify that the HVAC design documents cover sheet contains at minimum the information listed in 01 00 05 Design Professional Design Process Requirements.
- I. General list of systems typically commissioned by the CxA may, depending on the project, include:
 - i. Building Envelope Systems (refer to 01 81 00 Facility Performance Requirements)
 - ii. Building Automation Systems (BAS), including links to remote monitoring and control sites and integration to other systems (refer to Building Automation and Temperature Control Systems 23 09 23.
 - iii. Laboratory Control Systems, including integration to the building automation system HVAC Equipment and Systems
 - iv. Energy Recovery Equipment and Systems
 - v. Smoke Evacuation Systems
 - vi. Water Reclaim Systems
 - vii. Utility Metering Systems
 - viii. Emergency Power Systems
 - ix. Depending upon the complexity of the specific project, other systems may be included within the CxA's
- J. The CxA shall verify that, at minimum, the HVAC design narratives is project specific, with metrics, shows major equipment locations, main duct and pipe routing, access paths for major equipment, HVAC system zoning and what provision is to be made for for 24/7 spaces.
- K. Metrics shall include system data in the form of sq-ft/ton; cfm/sq; steam lb/hr. gas cfh, lighting w/sq-ft, design temperature & humidity goals, etc. and various individual spaces metrics such as lighting w/sq-ft, number of people and cfm/person, cfm/sq-ft for zones, air change rates for lab and other specialized spaces, noise level goals, design temperature & humidity goals if different from overall building, Informative Annex K, ASHRAE Guideline 1 1.1-2007 provides example of metrics required. This shall be tailored to the specific project).
- L. The CxA shall be responsible for coordinating with the drive manufacturer/vendor controls contractor and the TAB agency to ensure that VSDs are adjusted so that harmonic frequencies are skipped.



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