



**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 Design Professional 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 by a third-party company, unless directed otherwise by the Project Manager.
- 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.
    - e. Multivista shall be engaged to incorporate the simplified floor plans for each project into the campus maps under a 'client-use o&m manual'



location. The contractor will be responsible for adding color-coded electronic push-pins onto these maps and linking all product data and o&m data to these pins that correspond to the equipment and shut-off valve locations. The o&m training videos will also be linked to these maps to be located in the general 'video' file. The color coding of the push-pins is as follows:

- 1) Dark Blue - Chilled Water/Hot Water piping associated with HVAC system
  - 2) Light Blue - Domestic, potable water systems associated with the plumbing system
  - 3) Red - Electrical
  - 4) Yellow - Gas, Oil, Steam
  - 5) Green - Sewer
  - 6) Brown - Storm
  - 7) Telecom/Data - Orange
  - 8) Pink (South Arrow) - Fire Extinguishers
  - 9) Pink - Access Control/Security
  - 10) Purple - Irrigation and Fire Protection
  - 11) Grey - HVAC/Mechanical Systems (except Chilled water/hot water)
  - 12) Black - Elevator
- 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 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 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. Simplified Site and Building Plan indicating Emergency Utility Shut off devices
  - d. Finish Schedule including color samples and codes for each coating and color used on the project.
  - e. Light Fixture 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.
- vi. Site and Utility Plan: Within 30 days of Material Completion, the Contractor shall provide a layered site plan drawing per OUA Standards to indicate site and utility conditions as constructed. Updates to the Record Drawings to document any field modifications or an as-built survey of site utilities and other features is required to fulfill this closeout documentation. A Simplified Site Plan CAD template including the relevant site features as layers can be downloaded here: <https://www.architects.uga.edu/standards> .
- a. The submitted site plans shall be an AutoCAD (.dwg) file 2007 release or later. All survey information shall be included in the drawing as an External Reference and should be submitted as a separate (.dwg) file. All submitted drawings drawing shall be referenced to NAD 83 State plane coordinates system or to a suitable state plane coordinate system depending on its location. The electronic AutoCAD (.dwg) drawing file shall be submitted via e-mail to the Project Manager.
  - b. As-built site information shall also provide the size and layout of stormwater management appurtenances including, but not limited to, storm and footer drain laterals.
- 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
<b>CONTRACTOR</b>	<b>Contractor Marked-up Construction Documents</b>	0 - For OUA 0 - For FMD 0 - For End-User	0 - For OUA 0 - For FMD 0 - For End-User	1 - For OUA 1 - For FMD 1 - For End-User	
	<b>Contractor Marked-up Project Manual &amp; Specifications</b>	0 - For OUA 0 - For FMD 0 - For End-User		1 - For OUA 1 - For FMD 1 - For End-User	
	<b>Shop Submittals &amp; Construction Submittals</b>	0 - For OUA 0 - For FMD 0 - For End-User		1 - For OUA 1 - For FMD 1 - For End-User	
	<b>Operations &amp; Maintenance Manuals</b>	0 - For OUA 0 - For FMD 0 - For End-User		1 - For OUA 1 - For FMD 1 - For End-User	
	<b>Fire Marshal Approved Permit Drawings (Originals)</b>	0 - For OUA 0 - For FMD 0 - For End-User			
	<b>Test &amp; Balance Report</b>	0 - For OUA 0 - For FMD 0 - For End-User		1 - For OUA 1 - For FMD 1 - For End-User	
	<b>Contractor Training Videos</b>			1 - For OUA 1 - For FMD 1 - For End-User	
	<b>For EITS (in addition to above) Refer to Section 27 00 00 - Communications</b>	0 - For OUA 0 - For FMD 1 - For EITS		0 - For OUA 0 - For FMD 1 - For EITS	
	<b>For CTL (in addition to above) Refer to Section 27 41 00.01 - Audio-Visual Control System</b>	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
<b>CONTRACTOR</b>	<b>Contractor Marked-up Construction Documents</b>	0 - For FMD 0 - For End-User		1- For FMD 1 - For End-User	
	<b>Contractor Marked-up Project Manual &amp; Specifications</b>	0 - For FMD 0 - For End-User		1- For FMD 1 - For End-User	
	<b>Shop Submittals &amp; Construction Submittals</b>	0 - For FMD 0 - For End-User		1- For FMD1 - For End-User	
	<b>Operations &amp; Maintenance Manuals</b>	0 - For FMD 0 - For End-User		1- For FMD 1 - For End-User	
	<b>Fire Marshal Approved Permit Drawings (Originals)</b>	0 - For OUA 0 - For FMD 0 - For End-User			
	<b>Test &amp; Balance Report</b>	0 - For FMD 0 - For End-User		1- For FMD 1 - For End-User	
	<b>Contractor Training Videos</b>			1- For FMD 1 - For End-User	
	<b>For EITS (in addition to above) Refer to 27 00 00 - Communications</b>	0 - For FMD 1 - For EITS		0 - For FMD 1 - For EITS	
<b>For CTL (in addition to above), Audio-Visual Control System Refer to Section 27 41 00.01 - Audio-Visual Control System</b>	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 USB, DVD, or Portable Hard Drive	Other
Design Professional	Design Professional Electronic Files Record Documents Construction Drawings and Project Manual	0 - For OUA 0 - For FMD 0 - For End-User	0 - For OUA 0 - For FMD 0 - For End-User	1 - For OUA 1 - For FMD 1 - For End-User	