

## 1. Overview

The following document outlines the close out standards for construction projects at The Ohio State University.

All sections apply to projects with a total project budget of \$200,000 or greater. This close out standard is referenced in Specification Section 01 77 19 – “Close Out Requirements”

Projects under \$200,000 shall only be required to follow Section 6 “File Naming Convention & Format”. The OSU Project Manager shall determine the method of file transfer.

A/E, CM-A/CM-R, DB are responsible for managing the close out delivery as described in this document.

## 2. Deliverable Submission

All close out deliverables shall be submitted via eBuilder

## 3. Instructions: Electronic Cloud-Based Close Out Delivery Process

- **Start of Construction:** The A/E in consultation with the OSU PM shall schedule a meeting with the OSU Close Out Coordinator to discuss protocols for the eBuilder submittal module.
- **1-4 Months prior to Certificate of Occupancy (Partial or Permanent/Final):** The A/E in consultation with the OSU PM shall schedule the Pre-Close Out meeting with the OSU Close Out Coordinator.
  - OSU's Close Out Coordinator shall continue to meet with the project team until all close out deliverables have been submitted to ensure the workflow and the deliverables conform to OSU's standards
- **Close Out Completion:** Complete and submit all close out deliverables within the number of days based on the Close Out Deliverable Due Date Table below or other period as mutually agreed by the Owner

Close Out Deliverable Due Date Table		
Project Budget	\$200,000 - 3.9M	\$4M Or Over
Deliverable Final Due Date (Calendar Days)	150 days after Certificate of Occupancy (Partial or Permanent/Final)	180 days after Certificate of Occupancy (Partial or Permanent/Final)

## 4. Deliverable Milestones

	Milestone	Checklist
1.	Interim Close Out Deliverables (Typically 1-4 Months prior to Certificate of Occupancy (Partial or Permanent/Final))	<input type="checkbox"/> BIM deliverables <i>(per section 4.3.3 Design and Construct Final Turnover of the BIM Project Delivery Standards (for BIM projects only))</i> <input type="checkbox"/> Space Data <ul style="list-style-type: none"> <li>▪ Room schedule</li> <li>▪ Overall Floor Plan</li> <li>▪ Site and Landscape Plan</li> </ul> <input type="checkbox"/> Start uploading O&Ms and other close out deliverables

2.	Close Out Deliverables at Certificate of Occupancy (Partial or Permanent/Final)	<input type="checkbox"/> BIM deliverables <i>(per section 4.3.3 Design and Construct Final Turnover of the BIM Project Delivery Standards (for BIM projects only))</i> <input type="checkbox"/> Certificate of Substantial Completion <input type="checkbox"/> For Wexner Medical Center Projects: <ul style="list-style-type: none"> <li>▪ Testing and Balancing (TAB) Reports</li> <li>▪ Water Purification Reports / Piping Purification Inspection</li> <li>▪ Medical Gas Testing Reports</li> <li>▪ Special Testing Reports</li> </ul>
3.	Close Out Deliverables at Deliverable Final Due Date (refer to table in Section 3)	<input type="checkbox"/> All remaining BIM Deliverables <i>(per section 4.3.3 Design and Construct Final Turnover of the BIM PDS (for BIM projects only))</i> <input type="checkbox"/> Contract Completion Checklist <input type="checkbox"/> All other deliverables as identified in the Contract Completion Checklist

### 5. Schedule of Values (SOV)

The GC/DB/CM shall appropriately identify the following close out line items on the SOV. The total of the close out line items shall be based on the Schedule of Value Percent Table at the end of this section, or as negotiated with the University Project Manager. The costs for close out line items below shall be broken out of the GC/DB/CM fee.

Account Code	Description	Current SOV	Retainage %	Phase*	Location*	CSI Division	CSI Detail (L2)	Line Type
02-0210 - Construction	Interim Close Out Items – Material	0.00	0			99 00 00 – Professional Service Agreement	01 77 20 - Interim Close Out Items	Material
02-0210 - Construction	Close Out Items at Certificate of Occupancy - Material	0.00	0			99 00 00 – Professional Service Agreement	01 77 30 - Close Out Items at Certificate of Occupancy	Material
02-0210 - Construction	Close Out Items at Deliverable Final Due Date - Material	0.00	0			99 00 00 – Professional Service Agreement	01 77 40 – Close Out Items at Deliverable Final Due Date	Material

**Total of Close Out items = Project Cost Percentage from the Schedule of Value Percent Table**

- Items listed in GENERAL CONDITIONS ARTICLE 9 - COMPENSATION AND PAYMENT (Section 9.3.2.8 (General Contracting) 9.2.10.2.8 (CM at Risk) 9.2.9.2.8 (Design-Build), such as Punch List Work, Project Record Document Submittals, delivery of attic stock, as well as specified demonstrations and training should be grouped into the following SOV close out line items as follows:
- - Interim Close Out Items – Material
    - Start of Project Record Document Submittals
    - Start of specified demonstrations and training
  - Close Out Items at Certificate of Occupancy – Material
    - Start of Punch List Work
  - Close Out Items at Deliverable Final Due Date – Material
    - Completion of Punch List Work
    - Completion of Project Record Document Submittals
    - Delivery of attic stock
    - Completion of specified demonstrations and training

\*For multi-phase or multi-building projects, the close out line items shall be subdivided per Certificate of Occupancy (Partial or Permanent/Final)



Schedule of Value Percent Table				
Total Project Cost	\$200,000 - 3.9M	\$4M-20M	\$21M-100M	Over \$100M
Percent of Contract Value	5%	4%	3%	1-2%

**6. File Naming Convention & Format: Overall Requirements for Deliverables**

- All PDFs submitted to the university, regardless of type, shall be
  - The most recent version of Adobe Acrobat
  - Unlocked and not password protected
- All AutoCAD \*.DWG files shall be
  - Currently available file format version minus 1
  - All externally referenced drawing files, blocks and raster images (photos) shall be bound to their respective drawings. If copyrights prohibit this, such reference files shall not be used on the project.
  - Use standard fonts included with AutoCAD
  - Each title block must be intact
  - No drawing information outside the title block borders
  - Shall strictly adhere to the current published AIA guidelines for layering standards.

**6.1 File Naming Convention & Format**

Item numbering corresponds with deliverables listed in the Contract Completion Checklist. The Contract Completion Checklist shall be established by the Close Out Coordinator after the Pre-Close Out Meeting

Unless specified otherwise, deliverables do not have standardized OSU naming convention.

**01 Product Data/O&Ms/ Warranties/ Shop Drawings/Startup Testing & Reports**

Operation and Maintenance Manuals:

- Shall be delivered in searchable Adobe Acrobat \*.PDF format

The items 02-07 shall be submitted in PDF format

**02 Commissioning**

**03 Balance Reports**

**04 Permits and Inspections**

**05 Third Party Agreements – for OSU Project Managers only**

**06 Completion Certificate**

**07 Punch list items**

**08 Record Drawings & Specifications**

Record Drawings

- Note on each drawing file “RECORD DRAWINGS”.
- Shall be delivered in both
  - AutoCAD \*.DWG (One file per drawing sheet)
  - Adobe Acrobat in \*.PDF format (One multi-page file per bid package, phase, or volume)

Project Manual / Technical Specification

- Shall be delivered in searchable Adobe Acrobat in \*.PDF
- One multi-page file per bid package, phase, or volume



**09 Building Information Modeling** - for BIM Projects only

Refer to the BIM Execution Plan and BIM Project Delivery Standards (PDS) for file format and naming conventions.

**10 Space Data**

Room Schedule: Shall be delivered in database file format such as .xlsx

Room Number	Room Name/ Description	Floor/Level	Area ( <i>BIM projects only</i> )
3-6 characters (OSU developed)		Refer to BIM Execution Plan Section 10 for floor/level naming conventions / samples	

Overall Floor Plan: Shall be delivered in AutoCAD \*.DWG

Site and Landscape Plan: Shall be delivered in AutoCAD \*.DWG