





West Virginia University

Facilities Management – Construction Services

**Standard Operating Procedure (SOP)
Project Closeout**

SOP No.	DC-7100	Revision:	2
Department:	Design & Construction	Date:	6/11/09
Dept. Head Approval:	 9/10/09		
Director Approval:	 9/15/09		

Purpose

To establish guidelines for project managers closing out a project, ensuring that all electronic systems are closed properly, all project documentation is archived, and all appropriate departments are notified of the project being closed.

Responsibility

1. The following people are responsible for following this SOP:
 - 1.A. Managers
 - 1.B. Project Managers
 - 1.C. Project Coordinators
 - 1.D. Facilities Information Coordinator
 - 1.E. Document Control Supervisor
 - 1.F. Associate/Assistant Directors
 - 1.G. Supervisors
 - 1.H. Operations Managers
 - 1.I. Financial Analyst
 - 1.J. PM Administrative Support

Definitions

1. MAP: West Virginia University's financial system.
2. TMA: Facilities Management's computer maintenance management system/work order system.

Procedure

1. Project manager (PM) notifies facilities information coordinator of forecasted substantial completion date one month prior to reaching substantial completion.
2. PM completes the project information form (Exhibit A) and submits to the Facilities Information Coordinator.
3. Once substantial completion has been reached on a project, the PM enters the actual substantial completion date in TMA under the “user defined” tab in the field called “substantial completion.”
4. PM reviews Project Closeout Checklist and ensures all deliverables have been received.
 - 4.A. **Yes;** PM transmits deliverables to the appropriate department per the Project Closeout Checklist.
 - 4.B. **No;** PM notifies contractor or architect/engineer of requirements.
5. PM notifies Preventative Maintenance group of all equipment in the project including existing equipment that will be taken out of service. Equipment data will be added to the preventative maintenance schedule per the Data Collection SOP. (See Closeout Checklist – Exhibit E.)
 - 5.A. Include warranty information for all equipment.
6. PM, or A/E, completes room finish schedules including the following information: cleanable square footage, room type, type of flooring, paint colors, and any other pertinent finish information. PM sends this (electronic) data to Document Control and the Facilities Information Coordinator.
7. PM issues Project Hand-Off Notification (Exhibit B).
8. PM, or PM Administrative Support, should confirm that all Purchase Orders (PO) have been “received” and closed in TMA. This is accomplished by opening each requisition, entering the amount paid under “actual,” entering a date under “delivered” and checking box to “close” the requisition.
9. For open POs, the PM gets a written statement from the vendor stating that they have billed in full against their PO. This is only required if there is an unpaid balance (open encumbrance) on the PO.
10. PM forwards vendor statements to Facilities EBO.
11. Facilities EBO works with Procurement Services to close the open encumbrances.
12. PM reviews any open work orders linked to the project in TMA and requests the appropriate supervisors to have the work order closed.
13. PM reviews all closed work orders in TMA linked to the project and verifies all charges. If there are any charges that are incorrect, the PM will need to work with Resource Management to make the corrections.
14. Once all of the work orders have been closed, the PM submits the project closeout memo (Exhibit C) to Resource Management.
15. PM gathers all purchase order documentation from Operations Coordinator and includes in project files.
16. Financial analyst will reconcile the project costs between MAP and TMA.
17. Once project costs are reconciled, the project is closed in TMA and submitted to the Facilities EBO.
18. If the project total is **greater than** \$10,000.00, PM completes Customer Summary Sheet (Exhibit D), including contacts for future problems, and forwards to customer.

19. PM updates Lessons Learned database on I-drive and completes contractor and A/E evaluations.
20. PM has project files boxed and sent to archives and sends any electronic record documents to Document Control. PM moves electronic project file on I-drive to Archive folder.
21. Process complete.

*Notes: PM to complete 1-year walkthrough prior to expiration of warranties.

PM should ensure that all open punchlist items, commissioning action items lists, and any other action items have been completed and signed off. Submit final signed off lists to the Associate Director of Design and Construction.

Exhibit A: FISNET Project Information Form

Fill in the blanks with appropriate information. Use N/A to indicate that no information applies or is available

Project Information:

Project # _____
Title of Project _____
Project Start Date _____
Projected Substantial Complete Date _____
Project Manager _____ Phone: _____
Total Cost of Project: _____
Estimated Building Replacement Value _____
Estimated Replacement Value - Contents _____

Building/Room Information:

Building Number and Name _____
Address: _____
Street _____
City/State _____
Zip Code _____
Architect _____
General Contractor _____
Building GSF _____
Foundation Type _____
Exterior Wall Type _____
Roof Type _____
HVAC _____
Sprinkled (Yes/No) _____
Life Safety Information (type of alarms) _____
* Room Finish Schedule provided _____ Yes / No
Provided electronic floor plans _____ Yes / No

*Room schedule should have the following included for each room: Room Number, Net Square Footage, Room type, Department occupying space, Wall Finishes, Floor Finishes, Ceiling Finishes, Ceiling Height, Lighting Type, Sprinkled (y/n), ADA Accessible (y/n), fixed seating (y/n), and Special Technology (y/n).

Exhibit B: Project Hand-Off Notification



West Virginia University

Facilities Management

Notification of Building Hand-off

TO: FM Associate Director Maintenance
FM Associate Director Operations
Director of Public Safety

FROM: Project Manager

CC: FM Assistant Vice President
Director of Construction
Associate Director Construction Services / Associate Director In-House
Construction

DATE:

SUBJECT: Project Name—Building Hand-Off

The subject project is substantially complete and is ready to be transferred from the Construction Phase to the Operation and Maintenance (O&M) phase. The units below will be responsible for routine building operation and maintenance on the specified dates.

Transfer Date (Operations/Custodial): _____

Transfer Date (Maintenance): _____

Transfer Date (Roads and Grounds): _____

Comments/Exceptions:

Attachments:

Punch list

Project Closeout Checklist

Exhibit C: Project Closeout Memo

TO:

FROM: FM Central Admin Support

SUBJECT: Charge Verification

DATE:

The attached Project and/or Work Order # _____ is complete.

Please verify charges and **sign and date this cover letter and all attached work order(s)** if cost meets your approval.

If you have any questions or concerns, please contact me at 3-6262 at your earliest convenience.

Thank you.

Approval to close Project/Work Order: _____
Signature/Date

Exhibit D: Customer Summary Sheet



West Virginia University
Facilities Management

Project Number: _____

Project Name: _____

Project Manager: _____

Date: _____

Description of Project:

Start Date: _____ Project Completion Date: _____

Budget:

Start of Construction: \$ _____

Approved Increases: \$ _____

Total Project Budget: \$ _____

Change Orders:


Total Submitted: \$ _____ Total Approved: \$ _____

Final Project Cost: \$ _____

Gross Construction Cost (per/sq.ft): \$ _____

Please contact Facilities Management Help Desk (3-HELP) for service or warranty issues. The Project Manager will remain involved through the warranty period. The warranty for this project expires one year after the Project Completion Date listed above, unless otherwise noted.

Exhibit E: Closeout Checklist

	Project Name:	
	Project Number:	
	Project Manager:	
	Project Inspector:	

Activity	Responsible Party	Target Completion Date	Actual Completion Date	Notes
Project Closeout Requirements:				
Activities Required for Substantial Completion:				
<i>Building Automation System Tie-in</i>	WVU/GC			
<i>Fire Alarm System Tie-in</i>	WVU/Secure US			
<i>Flush Sprinkler System</i>	GC/State Fire Marshal			
<i>Sprinkler Pressure Inspection</i>	GC/State Fire Marshal			
<i>Sprinkler Trip Test</i>	GC/State Fire Marshal			
<i>Fire Alarm Test</i>	GC/State Fire Marshal			
<i>Final Electrical Inspection</i>	GC/ Electrical Contractor			
<i>Test and Balance HVAC system</i>	GC/ HVAC Contractor			
<i>Elevator Inspection</i>	GC/State Elevator Inspector			
<i>State Fire Marshal (SFM) Final Inspection</i>	GC/State Fire Marshall			
<i>Install Knox Box Keys/Cover for Siamese Connection</i>	WVU/Local Fire Department			
<i>Certificate of Occupancy</i>	GC/State Fire Marshall			
<i>Restroom Maintenance Supplies</i>	WVU FM			
<i>Electronic Card Access Programming/Verification</i>	WVU/GC			
<i>Verify Operation of Telecommunications</i>	WVU/GC			
<i>Door Keying/Turnover key blanks</i>	WVU/GC			
<i>Substantial Completion Certificate</i>	WVU/Architect/GC			
<i>Building Final Cleaning</i>	GC			
Punch Lists				
<i>GC Punchlist</i>	GC			
<i>Punch list Inspection By Architect</i>	Architect			
<i>Punch list Inspection by Engineers</i>	Engineers			
<i>Complete Equipment Data Sheets for new equipment - (To be entered into TMA)</i>	WVU/GC			
Items Needed Prior to Building Turnover (Maint/Ops):				
Commissioning				
<i>HVAC commissioning</i>	Testing Agency			
<i>Electrical commissioning</i>	Testing Agency			
O&M Manuals				
<i>HVAC Manuals</i>	GC/ HVAC Contractor			
<i>Electrical Manual</i>	GC/ Electrical Contractor			
<i>Elevator Manuals</i>	GC/ Elevator Contractor			
<i>Plumbing Manuals</i>	GC/ Plumbing Contractor			
<i>Submit Manuals to Document Control</i>	WVU			

Owner Training on New Systems				
<i>Training on HVAC system</i>	GC/ HVAC Contractor			
<i>Training on Electrical system</i>	GC/ Electrical Contractor			
<i>Training on Other systems</i>	GC			
Owner Orientation/Walk-through				
<i>Local Fire Department</i>	WVU/GC			
<i>FM Electrical Shop</i>	WVU/GC			
<i>FM HVAC Shop</i>	WVU/GC			
<i>FM Plumbing Shop</i>	WVU/GC			
<i>WVU Fire Control</i>	WVU/GC			
<i>FM Roads and Grounds</i>	WVU/GC			
<i>FM Custodial</i>	WVU/GC			
<i>WVU DPS</i>	WVU/GC			
<i>WVU-OIT</i>	WVU/GC			
<i>Building Users</i>	WVU/GC			
<i>Notification of Building Hand-off</i>	WVU			
Items Needed Prior to Final Completion:				
Punch Lists				
<i>Punch list Completion</i>	GC			
As-Built Drawings				
<i>CAD As-built Drawing files</i>	GC/ Architect			
<i>Hard copy record set of drawing</i>	GC/ Architect			
<i>Submit To Document Control</i>	WVU			
Warranties				
<i>All Warranties Received</i>				
<i>Roof Warranties</i>	GC			
<i>Submit To Document Control</i>				
Final Commissioning Report	Commissioning Agent			
LEED/Sustainability Documentation	GC/ Architect			
Items needed to be given to Owner	WVU			
<i>Owner given Attic stock</i>	GC			
<i>Notify FM about Maintenance Supplies</i>	WVU			
Project Documentation Tracking				
<i>Milestone tracking for project design and construction with schedule and budgets</i>	WVU			

Exhibit F: Architect/Engineer Evaluation Form

All scoring is based on a scale of 1 (Poor) to 5 (Excellent).
 (Enter 3 if item is Not Applicable)

Score 1 to 5

Project Name: _____
 A/E Name: _____
 Date: _____

Design Grading Criteria:

Project design met WVU's Programming Requirements	5.0
Project design was within original budget	5.0
Project bids were within revised budget	5.0
Creativity and innovation by A/E during design	5.0
A/E incorporated end user group feedback into design	5.0
A/E maintained design schedule	5.0
Overall responsiveness to inquiries and issues	5.0
Utilization of WVU Design Guidelines	5.0
Overall quality of deliverables	5.0
Complete and accurate bid documents	5.0
<i>Architectural</i>	5.0
<i>Structural</i>	5.0
<i>MEP</i>	5.0
<i>Tele/Data</i>	5.0
<i>Civil</i>	5.0
<i>Landscaping</i>	5.0
<i>Geotech</i>	5.0
Accuracy of design estimates	5.0
Value Engineering Process	5.0
Total Score	60.0
<i>Value is 50% of total Evaluation</i>	50.0

Construction Administration Criteria:

Assistance/Input evaluating project schedule	5.0
Preparation, distribution, and accuracy of meeting minutes	5.0
Accuracy and input on payment applications	5.0
On-site construction activities	5.0
<i>Inspections</i>	5.0
<i>Resolutions of issues or questions</i>	5.0
<i>Overall construction knowledge</i>	5.0
Provides submittals in timely manner	5.0
Timely response to RFI's	5.0
Timely response to submittals	5.0
Quality of communications with SFM	5.0
Change Orders	5.0
<i>A/E input on COR's</i>	5.0
<i>A/E's assist negotiating cost on COR's</i>	5.0
<i>Change order % resulting from E/O</i>	5.0

<i>Timely completion of AIA 701A</i>	5.0
Effectiveness maintaining project schedule	5.0
Effectiveness as Owner's agent	5.0
Clarity/timeliness of communications	5.0
<i>Written directives/supplemental drawings</i>	5.0
<i>Conference calls</i>	5.0
<i>Email and electronic communications</i>	5.0
Development of punchlist	5.0
<i>Architectural interior</i>	5.0
<i>Architectural exterior</i>	5.0
<i>MEP</i>	5.0
<i>Landscaping</i>	5.0
Back punch	5.0
Project closeout	5.0
Total Score	145.0
<i>Value is 50% of total Evaluation</i>	50.0

Score 1 to 5

OVERALL SCORE

100.0

Additional Comments:

Exhibit G: Contractor Evaluation Form

All scoring is based on a scale of 1 (Poor) to 5 (Excellent).
 (Enter 3 if item is Not Applicable)

Score 1 to 5

Project Name: _____
 Contractor Name: _____
 Date: _____

Overall Performance of General Contractor:

Quality of work by General Contractor	5.0
Quality of work by Sub-Contractors	5.0
Overall Safety of construction site (Safety Plan, MSD Sheets on-site ect..)	5.0
Overall Cleanliness of construction project	5.0
Coordination with university and subcontractors	5.0
Management of subcontractors	5.0
Total Score	30.0
<i>Value is 15% of total Evaluation</i>	15.0

Schedule Evaluation:

Updates schedule and reviews schedule at job meetings	5.0
Quality of schedule	5.0
Ability to follow schedule	5.0
Accuracy of schedule provided (did they perform task in order shown on schedule)	5.0
Meet completion of project per scheduled date	5.0
Total Score	25.0
<i>Value is 20% of total Evaluation</i>	20.0

Contractor Project Execution:

Coordination and Management of Subcontractors	5.0
Coordination with WVU stakeholders	5.0
Coordination and Communication with Commissioning Agent	5.0
Coordination and Communication with WVU Inspectors	5.0
Coordinates traffic and pedestrian control	5.0
Communication with Sub-contractors (RFI answers distribution to subcontractors ect ..)	5.0
Complies with contract for shut down of utilities	5.0
Provides submittals in timely manner	5.0
Project Superintendent on-site at all times	5.0
Superintendent looks at least one week ahead on project	5.0
Superintendent has overall understanding of scope of work, drawing ,and specifications	5.0
Superintendent looks to solve problems and issues on project	5.0
Job site clean	5.0
Review of submittals prior to sending to Architect	5.0
Review of RFI's prior to sending to Architect (No Frivolous RFI's)	5.0
Review of Change Order requests prior to sending to Architect for review	5.0
Ensures work quality	5.0
Fair with change orders requests (does not nickel and dime project)	5.0
Provides correct pricing for change orders	5.0
Complaints with vendor (Enter 5 if none)	5.0

Total Score	100.0
<i>Value is 20% of total Evaluation</i>	20.0

Score 1 to 5

Contractor follows WVU Procedures and Standards:

Provides WVU required back-up for Change orders	5.0
Change orders have correct specified mark-ups	5.0
Provides WVU required breakdown of change orders	5.0
Complies with WVU standards for shut downs for utilities	5.0
Follows correct WVU procedures for RFI's	5.0
Total Score	25.0
<i>Value is 15% of total Evaluation</i>	15.0

Contractor Closeout:

Provides Punch list to WVU and Architect	5.0
Length of Punch list	5.0
Timely completion of Punch list	5.0
Sets up proper training for WVU employees	5.0
Provide O&M manuals in timely manner	5.0
Timely submission of As-Builts	5.0
Accuracy of Red Line Drawings	5.0
Total Score	35.0
<i>Value is 20% of total Evaluation</i>	20.0

Cost Evaluation:

Change Order cost are fair	5.0
Looks to save university money on changes	5.0
Accurate breakdown of cost for change orders	5.0
Follows WVU procedures for change orders	5.0
Total Score	20.0
<i>Value is 10% of total Evaluation</i>	10.0

OVERALL SCORE ***100.0***

Additional Comments:
