

Project Management –
Professional Development Series
Facilities and Campus Services
Engineering and Project Management
JANUARY 2019



Project Turnover – Large Projects

TEMPORARY
CERTIFICATE OF OCCUPANCY
(TCO/CO)

10 MONTH
WALK THROUGH

PROJECT
MANAGER

THE RED ZONE

Setting the
Project up for a
Successful
Transition

BREAK IN PERIOD

SCOPE
REQUESTS

WARRANTY

PUNCHLIST

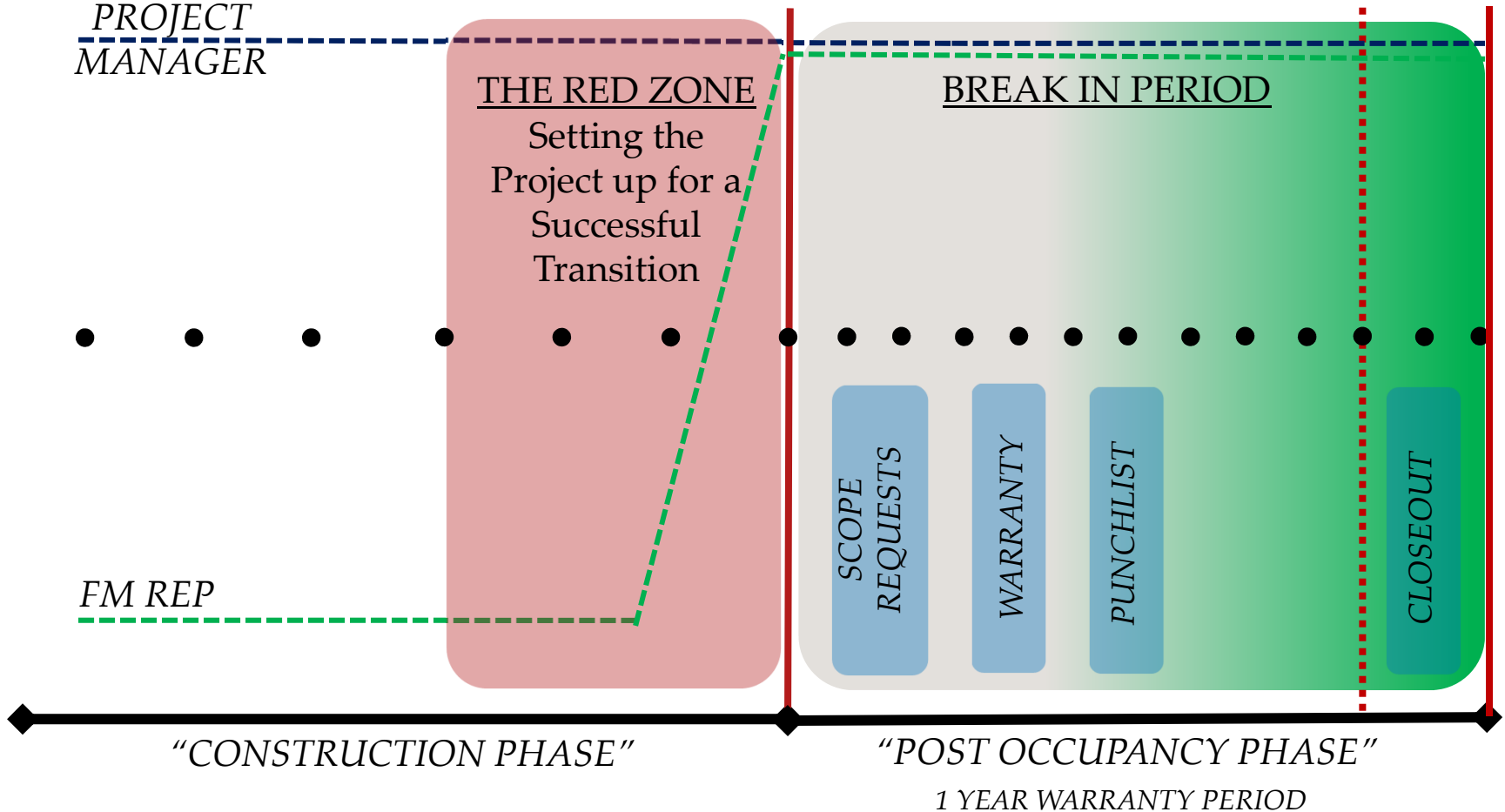
CLOSEOUT

FM REP

“CONSTRUCTION PHASE”

“POST OCCUPANCY PHASE”

1 YEAR WARRANTY PERIOD



“The Red Zone” – Checklist

CORNELL UNIVERSITY E&PM

RED ZONE (TCO) CHECKLIST



CORNELL UNIVERSITY E&PM

RED ZONE (TCO) CHECKLIST



CONTRACTOR RELATED	
DOCUMENTATION	
	All Special Inspections Non-conformance items completed
	Final fire alarm test papers
	Final elevator test reports – including emergency power.
	Final electrical inspection
	Final plumbing inspection – need contractor certification and Cornell paperwork on RPZ's and Backflow preventers
	Final underground sprinkler papers – Part B
	Sprinkler stand pipe test results
	Need all of the forms from Sprinkler installer filled out and returned.
	Final hydro test on sprinklers and flushing – Part A – Flushing, Hydro
	Emergency generator test papers
	Smoke evacuation test report (IF REQUIRED)
	All O+M's turned in
FACILITY	
	Code required signage
	Clear egress with handicap access
	Need Knox box installed – Get from fire department
	Need FDC sign on the fire department connection
	Need exterior street address sign for fire department
	Need all fire extinguishers installed.
	Need to walk building and make sure that all sprinkler heads are uncovered.
	Need to have all exterior door hardware working – including push buttons.
	Black out test – with AHJ for emergency lighting
	Cane detection
	All owner training completed
	Owner stock turned over
ARCHITECT - CONSULTANT RELATED	
	Punchlist Issued
	Letter from Structural engineer certifying everything
	Letter from Mechanical/electrical engineer certifying everything.
	Letter of substantial completion with attached punch list
	Letter certifying energy code is met
	Obtain Special Inspection Testing Sign Off Letter(from the Testing Agency)

AUTHORITY HAVING JURISTRICITION RELATED	
	Contact Town/City/State before requesting TCO
	Schedule final walkthrough with AHJ - TCO / CO
FM ENGAGEMENT	
	Setup meeting with FM 8 weeks prior to TCO walkthrough
	Copy Zone Management with Punchlist
	Turnover all O&M's to FM
	Schedule Owner Training
	Turn over Attic Stock to FM
	Close out all Shop inspection items
	Invite FM to AHJ TCO/CO walkthrough
	Turnover all Warranties to FM
	Provide Fixed Equipment info to FM for MAXIMO
	Provide Roofing System info to FM for MAXIMO
	Provide System commissioning (completed, started and completing on date) to FM
	Issue turnover letter to Facilities Management

FM – Goals & Initiatives

Quality Assurance Quality Control

For projects that exceed \$250K Facilities Management will perform a chargeable QA/QC service which will include four phases:

- Contract document review
- Field inspections
- Discrepancy documentation review
- Training

Contract Documentation Review

- Facilities Management will distribute contract documents and drawings to the appropriate Zone and Operations teams for review.
 - The Zone and Operations teams will review the drawings during the review period.
 - Facilities Management will collate the information and present the documentation to the PM/CM, using the eBuilder template

Field Inspections

- Facilities Management will schedule and manage the weekly/bi-weekly inspections by insuring that the appropriate trades are scheduled and attend the inspections:
- Trades performing the inspections as determined by the Zone Facility Manager (ZFM) managing the trade:
 - Pipe – plumbing/heating
 - Insulation
 - Line crew
 - Sprinkler
 - Architecture hardware consulting
 - Emergency power systems
 - Sheet metal
 - Electrical
 - Fire alarm/card access
 - Controls
 - Roofing
- Facilities Management will document the discrepancies using the template in eBuilder

Discrepancy Documentation Review

- Facilities Management will aggregate the discrepancy documentation developed by the inspection process and facilitate the resolution of the discrepancies with the project team
 - Facilities Management will attend a discrepancy meeting with the Cornell project and contractor project teams. The project manager will decide how the discrepancies will be resolved.

Training

- Facilities Management will facilitate owner training and ensure that the appropriate trades attend the trainings.