AOC Lessons Learned

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Things to consider when re-modeling an existing building vs. new construction

- It’s not just what’s above ground that will need attention
- What is involved to bring the building up to code?
- Is there the space to address each department’s specific needs?
- MEP constraints within the existing facility
What input should you expect from a good plan review?

• Each department should have noted comments on a plan review form
• Standardization of equipment to match the existing facilities
• Elevation details to include the proper coordination between sub-contractors
• Inadequate spec sections not clearly defined
• Is the space being utilized properly or will there be conflicts with tenants?
Building Automation Requirements

• Verify specifications in regards to type of communication devices needed
• Note individual department’s requirements
• Discuss sequencing and set-points with commissioning agents
• Can the systems be integrated?
What’s Missing?

• Missed equipment on the drawing or in the specs
• Functionality of the layout as designed
• Do the specifications list approved manufacturers or general specifications?
• Is there adequate attic stock provided for when the project is complete?

QUESTIONS???
During Construction
Construction Management

• Plans and specs: Ensure the plans and specs are being followed
• Owner Rep: Knowledgeable, know the project plans, specs, and contractual agreement. Enforces any non-compliance
• Quality Control: Ensure the project is being built correct and with good craftsmanship
• Make sure to get information to contractors in a timely manner to prevent delay. (RFI’s, ASI’s, CCD’s, etc...)
• Change orders
First Installs/Pre-Installs/Mock-Up

- Know the product review submittals. Refer to the specifications to ensure they match or an approved equivalent
- Create an agenda that matches the install
- Get all trades involved during these installs
- Start the commissioning discussions
- Inspect, list and correct any and all deficiencies
Asbuilts/Redlines

• Hold weekly meetings. Discuss changes, note the changes
• Use one set of plans for all trades to mark up
• Note major items, any lines/items that had to be moved or relocated due to routing issues or conflicts with other items.
• Note any existing/unforeseen conditions that aren’t correct on the construction drawings
• Don’t wait until last minute to think about doing asbuilts/redlines
Commissioning

• Start commissioning check lists early on
• Hold several meetings with all trades about commissioning before actual commissioning has started
• Create a schedule for items needing to be commissioned
• Get manufacturers involved
• Follow up with correction checklist
QUESTIONS???
Punch List Items

• Craftsmanship vs Design deficiencies
• When to conduct
• Who to invite
• Tracking items
• Do the specifications clarify final payment ad terms related to punch list
Training Agenda

• Do the specifications clearly define what training will be given?
• When is the best time to conduct - What about 2nd and 3rd shifts?
• Certification and approval training agenda/syllabus
• Certification and approval of proposed trainer
• Short-term and long-term customer support
Redlines, As-builtts, and O&M’s

• Manage all redlines/as-builtts daily
• Coordinate weekly meetings to address
• Specify owner rep to remain on the job to document and QC
• Validate O&M’s and validate warranty info matches specifications
Warranty Period

• When does it start? Occupancy, final punch list, owner acceptance, etc.
• Specifications clearly define warranty response time
• Best duration for the money-long term warranty and related costs
• Who responds-GC or equipment manufacturer-or both?
• Who enforces-what recourse do you haveretainage?
• Follow-up and track-notify all departments of impending warranty period expiration dates
QUESTIONS???