



**FEFPA 2022 WINTER
CONFERENCE
CONTINUING EDUCATION
PROVIDER-APPROVED # 666**

**Tips for project managers for designing existing and
new educational facilities.**

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PROJECT MANAGER

1. What is a Project Manager?

The position which has the ownership to the project and sees the project from inception to completion. He or She will have close communication, team work, and complete on time and within budget.

2. How will the PM succeed?

- Develop quality scope validation
- Ensuring budget is maintained
- Ensuring design time accommodates construction Schedule
- Allocating resources
- Communication
- Response time

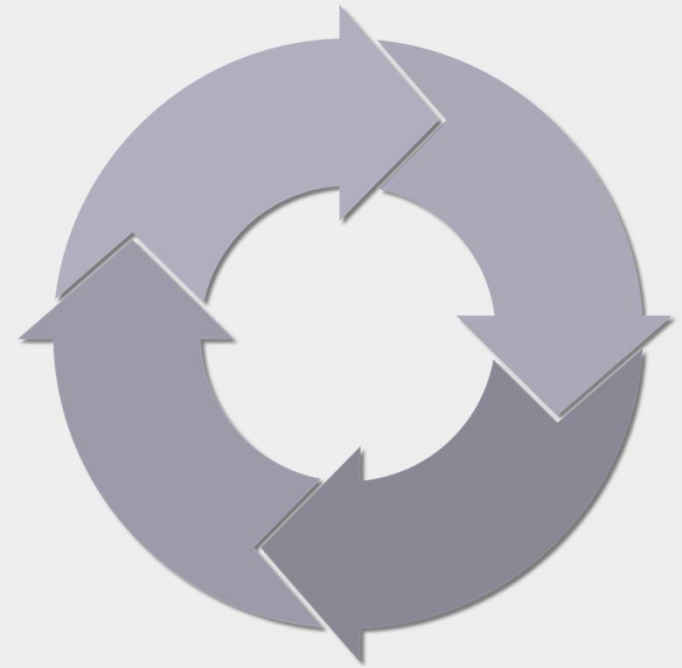
HVAC MEP APPROACH TO EXISTING VS. NEW FACILITIES

Things to consider:

- Building Assessment
- Trends and Market Technology
- Product Availability

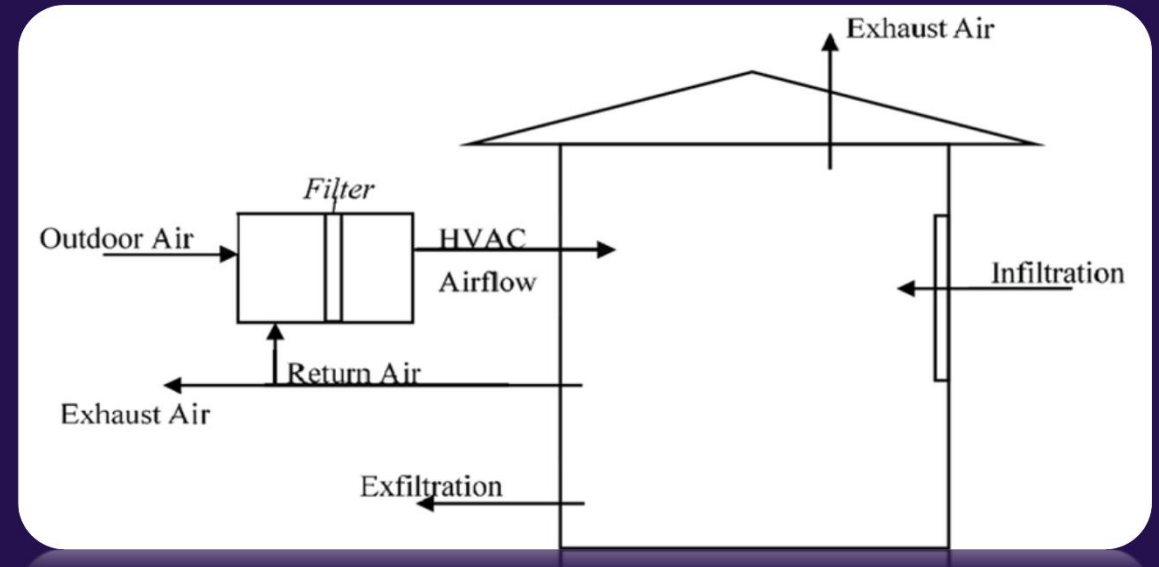
BUILDING ASSESSMENT:

1. If possible – conduct a Retro-Commissioning, or TAB on existing system
2. Provide a Life Cycle Cost Analysis based on 15-20 years life expectancy



THINGS TO CONSIDER:

- **Building envelope – Make sure it stays positive pressure**
CFM of fresh air intake through air handling units– CFM of exhaust fans = CFM by 10% minimum++
- **Trends & market technology** - 16F Delta T for AHUs and 14F Delta T for chillers selections
- **Minimum MERV 13 filters**
- **Product availability** – Supply chain issues – Use state commodity contracts and/or recommend early package

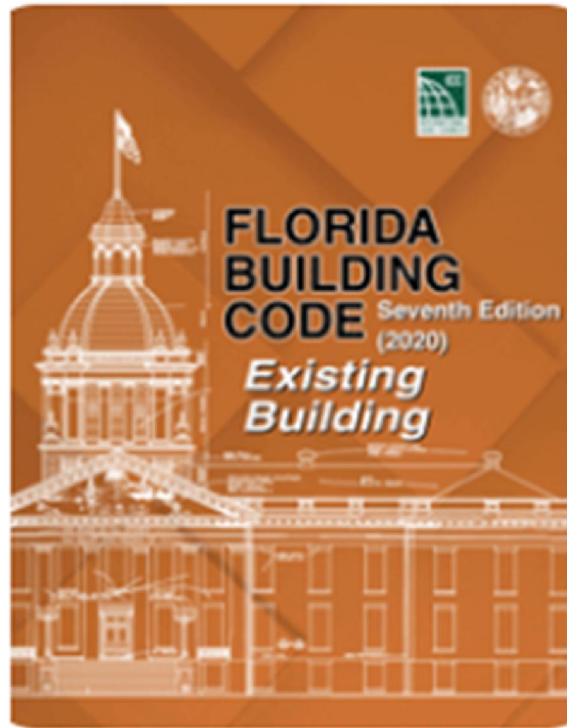


BUILDING ASSESSMENT

Evaluation of MEP existing systems:

1. Life Expectancy
2. Condition
3. Current codes
4. Owner Standards
5. Capacity





2020 Florida Building Code, Existing Building, 7th Edition

[A] 101.2 Scope.

The provisions of the *Florida Building Code, Existing Building* shall apply to the *repair, alteration, change of occupancy, addition to and relocation of existing buildings*.

Exception: For the purpose of public educational facilities and state licensed facilities, see Chapter 4, Special Occupancy, of the *Florida Building Code, Building*.

YOU TOUCH IT, YOU OWN IT!

FBC 453

453.5.7 MAINTENANCE AND REPAIR.

The upkeep of educational and ancillary plants including, but not limited to, roof or roofing replacement, short of complete replacement of membrane or structure; repainting of interior or exterior surfaces; resurfacing of floors; repair or replacement of glass and hardware; repair or replacement of electrical and plumbing fixtures; repair of furniture and equipment; replacement of system equipment with equivalent items meeting current code requirements providing that the equipment does not place a greater demand on utilities, structural requirements are not increased, and the equipment does not adversely affect the function of life safety systems; traffic control devices and signage; and repair or resurfacing of parking lots, roads, and walkways. Does not include new construction, remodeling, or renovation, except as noted above.

453.5.13 REMODELING.

The changing of existing facilities by rearrangement of space and/or change of use. Only that portion of the building being remodeled must be brought into compliance with the *Florida Building Code* and *Florida Fire Prevention Code* as adopted by the State Fire Marshal unless the remodeling adversely impacts the existing life safety systems of the building.

453.5.14 RENOVATION.

The rejuvenating or upgrading of existing facilities by installation or replacement of materials and equipment. The use and occupancy of the spaces remain the same. Only that portion of the building being renovated must be brought into compliance with the *Florida Building Code* and *Florida Fire Prevention Code* as adopted by the State Fire Marshal unless the renovation adversely impacts the existing life safety systems of the building.

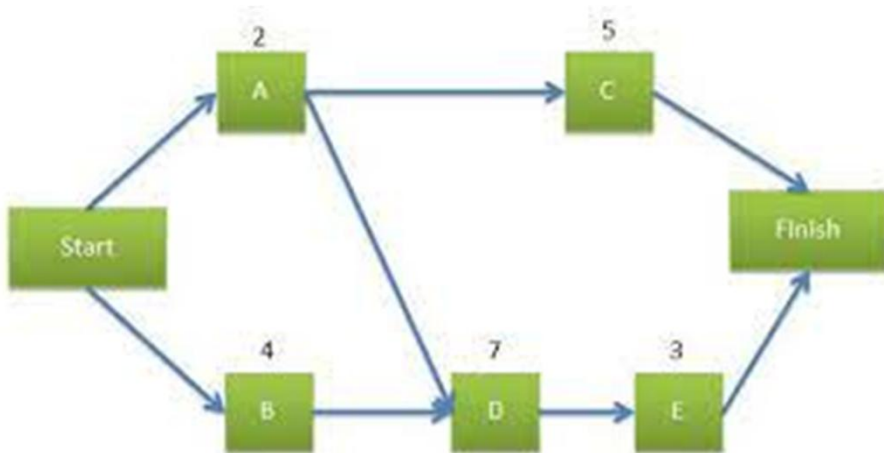
SCOPE DETERMINATION

“Go or No Go”

- Prioritize all scope items – “what fits the budget”
 - Life safety
 - Owner standards required
 - Current code
 - Energy savings & sustainability
 - LCCA
 - Nice to have



PHASING



Keys to success:

- Student and staff safety
- Maintain life safety systems
- Owners schedules
- Availability of materials and Subs
- Completion date

NEW BUILDING DESIGN

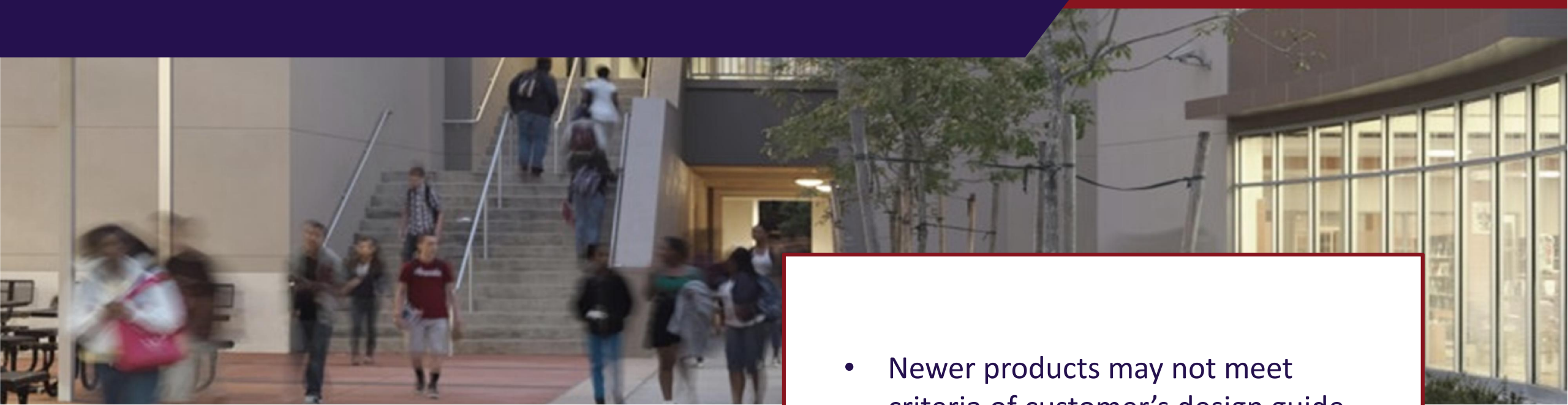
- Design for the future
- No compromise due to existing conditions
- Meet all Owner standards
- Comply with current codes
- Most energy efficient
- Sustainable
- Sequence of installation less important

CODE COMPLIANCE:

Design guides are to be reviewed for Code Compliance

- Common examples are lighting controls, light levels/conflict with fixture counts/types and conflict with Energy Conservation Code
- Responsibility of A/E to inform customer of violations of Code that are described in DG





TRENDS & MARKET TECHNOLOGY:

- Newer products may not meet criteria of customer's design guide
- Design guides may not be updated at a frequency to keep up with current trends/changes to the industry
- Development of prototype is great opportunity to present this

PRODUCT AVAILABILITY:



Challenges with supply chain

- Propose ODP
- Substitution requests



Obsolescence and discontinuation

- Stay in touch with vendors/suppliers
- Propose solutions

DISCONTINUED

CONCLUSION

Critical Factors:

- Exceptional project team
- Define goals and objectives
- Communication
- Weekly updates and managing milestones
- Safe & sustainable

