



Welcome



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The Future of PRV

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PRV and FCI Primer

History

- Facility Condition Index, pioneered in Higher Education, was effectively established as a mandate for Federal asset management programs with Executive Order 13327 in 2004
- Relies on Deferred Maintenance and Replacement Value
 - PRV-Plant Replacement Value
 - RPV-Replacement Plant Value
 - CRV-Current Replacement Value
- Early metric for establishing KPIs, calculating catch-up costs, tracking condition drift over time.
- BUILDER evolves the equation inputs

$$FCI = \left(1 - \left(\frac{\text{Deferred Work}}{\text{Current Replacement Value}} \right) \right) \times 100$$



FCI and PRV in BUILDER and Beyond

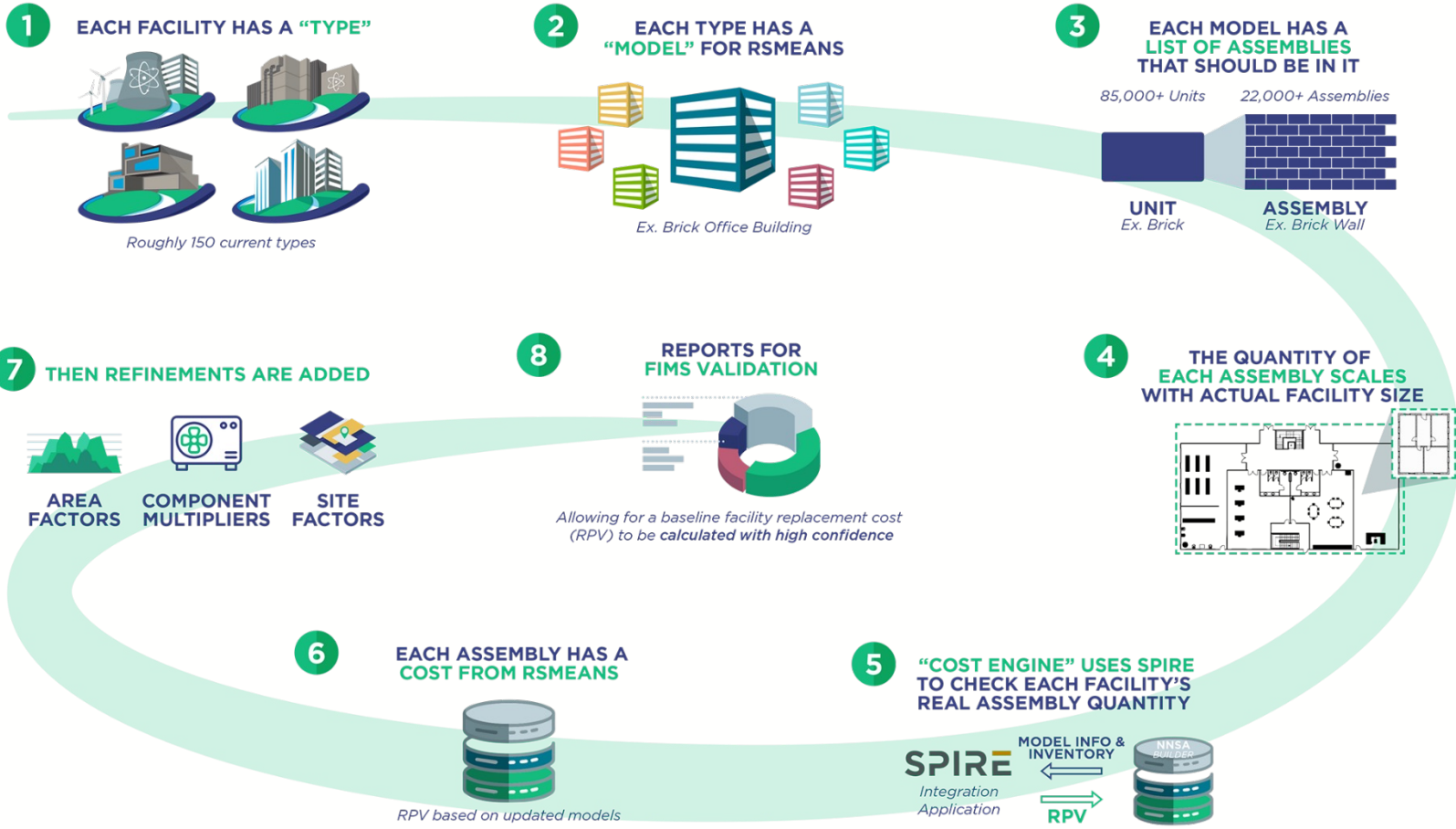
- BUILDER has refined the numerator, how do we refine the denominator?
- Is FCI still relevant? Is BCI better?
- What other applicability does PRV have?
 - As a benchmark for ongoing maintenance investments (2-4% of PRV has been a historic standard)
 - For evaluating maintain vs. replacement decisions
 - For budgetary estimating of replacement facilities
- Upcoming National Academies study points to the need for better modeling tools, including for PRV.

$$FCI = \left(1 - \left(\frac{\text{Identified Work}}{\text{Current Replacement Value}} \right) \right) \times 100$$



Current PRV Calculation Options

	BUILDER Component Rollup	Cat Code or FAC Code square foot costs (Top-down parametric)	Commercial Cost Models (Bottom-up parametric)	Custom Cost Models + Cost Engine (Bottom-up parametric)
Advantages	<ul style="list-style-type: none">• Alignment with BUILDER inventory and identified work	<ul style="list-style-type: none">• Aligned to DOD standard• Rooted in real costs	<ul style="list-style-type: none">• Configurable parametric costs• Predictive costs available	<ul style="list-style-type: none">• Agency-specific cost models for unique building types• Configurable in alignment with agency options• Integrate with BUILDER inventory for more accurate PRV
Disadvantages	<ul style="list-style-type: none">• Uninventoried assets• Remove and Replace cost basis• Doesn't account for changing use, building codes & technology, etc.• General/other/Unknown	<ul style="list-style-type: none">• Aligned to DOD standard• Based on historic rather than current market costs• Lack of recent construction projects leaves gaps in cost models	<ul style="list-style-type: none">• Model components may not reflect agency building standards• Integration effort required	<ul style="list-style-type: none">• Higher investment costs





Is the Juice Worth the Squeeze?

It is not necessary to calculate the CRV of a particular facility with great accuracy because (a) agencies ordinarily combine the CRVs for many facilities to determine the M&R budget for the entire agency or a major division; consequently, errors in the CRVs for individual facilities tend to cancel one another; and (b) small cumulative errors become negligible when the overall CRV is multiplied by 2 to 4 percent to set the overall M&R budget. Nevertheless, agencies cannot treat the calculation of CRVs too cavalierly since facility managers will be tempted to inflate CRVs in order to increase their M&R budgets.

National Academies of Sciences, Engineering, and Medicine. 1996. Budgeting for Facilities Maintenance and Repair Activities: Report Number 131. Washington, DC: The National Academies Press.



Panel Discussion

In the evolution of Federal asset management, Plant Replacement Value has been used for a variety of purposes: as the denominator in tracking Facility Condition Index, as a benchmark to establish Maintenance and Repair budgets, and as a parametric budgetary number for capital renewal or whole facility replacement costs.

From your perspective, which of these is still relevant and how is the relative importance evolving? What is your current focus for utilization of PRV?



Panel Discussion

What are the challenges of calculating accurate PRVs in BUILDER and how are you addressing them in your BUILDER implementation(s)?

Merits of using rollup component inventory vs. modeled PRVs

How do BUILDER users address PRVs when there is a lack of complete inventory?

Does the remove and replace cost basis create challenges?

Has the pandemic-intensified trajectory of WFH and resultant facility transformation impacted our view?

Are there any unique challenges with linear assets?



Panel Discussion: Future Focus

What is the right level of fidelity for PRVs? How can we “right-size” fidelity vs. work effort?

What sources of PRV data do you utilize? How do you approach categorization and are there industry standards that you align to? Are the tools currently available adequate?

How does PRV intersect with MILCON or Capital project budgeting and estimating and tools? What is the role of DOD-defined Cat Codes and associated Unit Costs?

How has recent construction market volatility and supply chain constraints influenced your view of or adaptation of PRVs?

How do we deal with issues of modernization, functional obsolescence, new building codes, transformation of use, changes in capacity expectations, etc?

How does the technical functionality of BUILDER need to evolve to support better PRV methodologies?



Thank you

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