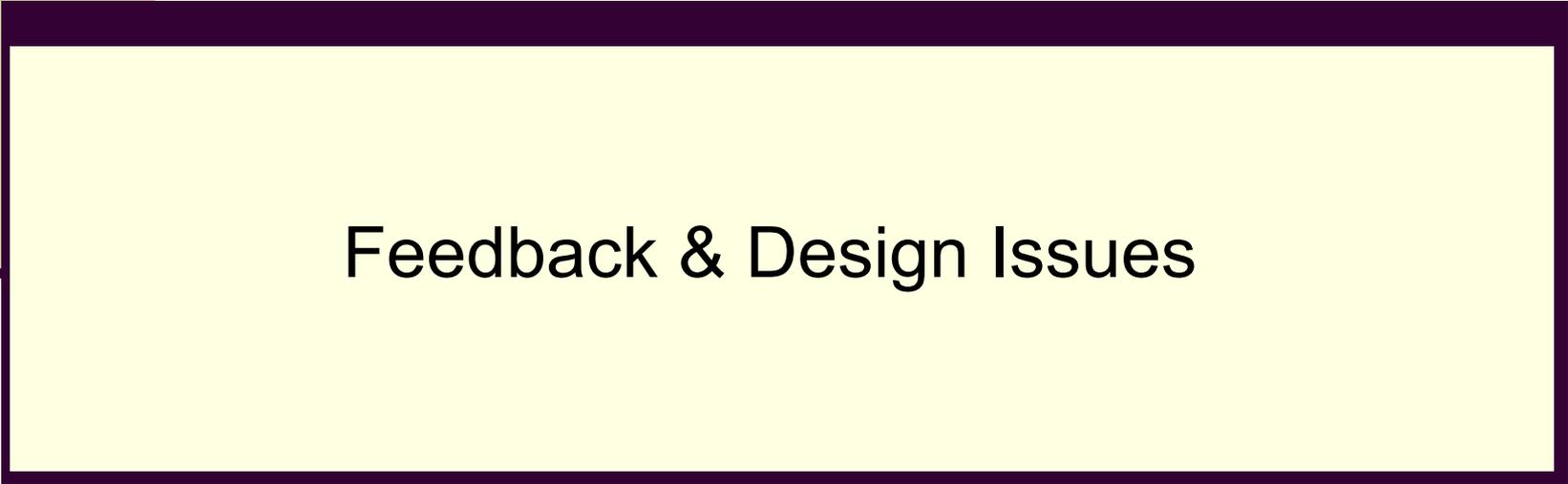




# Sustainment Topics



Feedback & Design Issues

# Notes:

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- Sustainment has been the “hot” topic for the last several months. NTS and OEM requested development of a model patterned after the RS Means draft model proposed at a Santa FE CAIS Users mtg. Whitestone and Vfa have sustainment models. All model methodology use the RS Means Facility Maintenance & Repair cost data to estimate sustainment costs. The RS Means concept links their RPV model assemblies to the Mean’s M&R costs. The sustainment formula is defined in the RPAM order. **“Sustainment includes regularly scheduled maintenances as well as anticipated major repairs or replacements of components that occur periodically over the expected service life of the facilities.”**
- The maintenance & repair costs, preventive costs and replacement costs are estimated for each year in a 50 year cycle. The resulting spread sheet is quite large so a summary sheet was developed that has the totals for each cost by year. From the summary sheet an annual indexed sustainment cost profile can be created for the 50 year cycle. The E25 Warehouse model is included for your viewing.
- The unique features of this model which can be readily seen in the model cost report. The cost report permits the sites to modify M&R costs and replacement and repair frequencies to site specific experiences. The frequencies can be used to take into account the age of the asset for estimating sustainment costs.
- A draft Maintenance/Repairs Report is also included that presents the maintenance cost picture for an asset that would have sustainment costs, deferred maintenance with projections on when the major replacement with projected costs will take place.
- The presentation is very straight forward and easy to follow. Our objective was to obtain direction from the 13 sites in attendance on automating the model development. We received our directions from the CAIS users. RS Means quoted a \$30k price to accomplish the automation.
- Discussion comments on various bullets are in *italics*.

# Sustainment Model Development Importance

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- Major element in a good maintenance management program.
- Identifies the maintenance and repair requirement that sustains the assets to meet program missions in a safe and cost effective manner.

# Sustainment Model Concept

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- Links RS Means Facilities Maintenance & Repair (M&R) costs to CostWorks assemblies.
- Calculates life cycle maintenance costs based on assemblies design life and M&R frequencies.
- Permits site modification of M&R costs and frequencies to site specific values.

# Sustainment Model Concept Benefits

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- Comprehensive real property facilities and infrastructure assessment information.
- Model customization to site maintenance program conditions.
- Costs are based on standardized, nationally recognized estimating system.

# Sustainment Model Feedback

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- Models to Date:
- *Housing* – none
- *Industrial Bldg:*
  - N17 Process Bldg. Small
- *Municipal/Institutional:*
  - E15 Small Off. Bldg.

# Sustainment Model Feedback

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- *R&D:*

- N23 Chemistry (5050)
- N24 Physics/Computer (5050)
- N2 Communication Center/Telephone

- *Service Bldgs:*

- N2 Machine Shop
- N14 High Bay
- E25 Warehouse Storage

- *Storage:*

- E25 Warehouse Storage

# Sustainment Model Feedback

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- Are more models necessary for concept development? *No*
- What are they?
- When are they needed?

# Automated Sustainment Model Design

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- **Goal:**
- Sustainment model should be compatible with RPV model regarding assemblies makeup and replacement costs.
- Permit site customization of design life, M&R and Preventive costs.

# Automated Sustainment Model Design

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- Should it cover buildings & OSFs or just buildings and OSF plant models? *Both buildings and OSFs.*
- What costs should it cover? *No custodial costs.*
- How long a cycle... 100, 75, 50, 30, 25 or site flexible? *100 year cycle.*
- How do we adjust for the “age” of the asset? *Use frequency columns (Next column) in the Cost Report for replacement times and M&R schedules.*
- What fields should be variable, site specific, headquarters specific? *Inflators set by HQ; use same inflators as CostWorks. Sites can change remaining fields.*
- Where should sustainment models be housed... CAIS or CostWorks or both? *Vast majority want it in CostWorks.*

# Automated Sustainment Model Design

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- What should be in the sustainment report...Cost details, summary table and a chart? *To be determined.*
- How is the report going to be used? *To be determined.*
- Should it be exportable? To what applications? *CAIS, FIMS, 10 year site plan and other applications to be determined.*

# Automated Sustainment Model Design

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- Design Process:

- Phase 1

- Concentrate on “concept” models with no frills.

*Develop model to test against the “concept” models with automatic links to RS Means FM&R cost book.*

- Phase 2

- Incorporate customization features and logic sequences.

- Incorporate an asset “age” adjustment in the cost calculations. *Automate the frequency and M&R customization feature for sites to use. Standardize report formats and linkages to other databases.*