No Child Left Behind

Facilities Improvement And Repair (FI&R)

Backlog

- A Backlog is a set of specific work items with an estimated cost $\geq$ \$2,500.00
- Backlogs are identified by categories and ranks
- Backlogs may be Direct Entry by the local Facilities Management Office or created through an Inspection.

Backlog

- Deferred Corrective Maintenance: Work to restore a damaged, broken or worn-out asset, asset component to normal operating condition.
- Deferred Recurring Maintenance: Planned preventive maintenance activity that recurs or a periodic and scheduled cycle of greater than 1 year but less than 10 years that was not completed as scheduled.
- Deferred Component Renewal: Planned preventive maintenance activity that recurs on a periodic and scheduled cycle greater than 10 years that was not completed as scheduled.

Backlog

- Backlog Categories
  - S – Health & Safety   P - Programmatic
  - M – Physical Plant   F- Fire
  - H – ADA Compliance   C – New Construction
  - E – Energy   X - Environmental
- Facilities Backlog Rank Codes
  - 1 – Serious threatening
  - 2 – Code of Standards violation
  - 3 – Functional
- Risk Assessment System (RAC)
  - Severity   Probability
    - I – Catastrophic   A – Frequent
    - II – Critical   B - Likely
    - III – Significant   C - Occasional
    - IV Minor   D - Rarely

FI&R Ranking Process

- FI&R Ranking Formula requirements:
  - Eligible Assets
  - Allowable Backlogs
  - Selected Parameters

FI&R Ranking Process

DOI Weighting Factors that IA-OFMC Use		
CHSdm	Critical Health and Safety Deferred Maintenance	Score 10
CHSci	Critical Health and Safety Capital Improvement	Score 9
EPHPSBci	Energy Policy, High Performance, Sustainable Buildings CI	Score 5
CMdm	Critical Mission Deferred Maintenance	Score 4
CCci	Code Compliance Capital Improvement	Score 4
Odm	Other Deferred Maintenance	Score 3
Oci	Other Capital Improvements	Score 1

DOI Weighting factors that are not used		
CRPdm	Critical Resource Protection Deferred Maintenance	Score 7
CRPci	Critical Resource Protection Capital Improvement	Score 6

FI&R Ranking Process

Category Weight Factor

CHSdm - Critical Health & Safety – Deferred Maintenance
- A facility deferred maintenance need that poses a serious threat
- Examples:
    - Repair Fire Alarm
    - Fire Sprinkler Protection System - Repair

FI&R Ranking Process

**Category
Weight Factor**

CHSci – Critical Health & Safety – Capital Improvement
- A condition that poses a serious threat and can only be abated by a capital improvement.
  - Examples:
    - Install a fire alarm or sprinkler system when one did not originally exist
    - Repair or replacement of a facility with structural failure

FI&R Ranking Process

**Category
Weight Factor**

CMdm – Critical Mission Deferred Maintenance
A facility deferred maintenance need that poses a serious threat to a Bureau's ability to carry out its assigned mission
  - Examples:
    - Replacement of a deteriorated generator that supplies power to a mission critical asset
    - Repair of deferred maintenance items that if not accomplished quickly compromises the public's investment in the structure.

FI&R Ranking Process

Category Weight Factor

Odm – Other Deferred Maintenance Need

- A facility deferred maintenance need that will improve public or employee safety, health or accessibility; complete unmet programmatic needs and mandated programs; protection of natural or cultural resources or to a Bureau's ability to carryout its assigned mission
  - Examples:
    - Facility repair or rehabilitation to increase program efficiency
    - Repair or maintenance of existing systems or system components

FI&R Ranking Process

Category Weight Factor

CCci– Code Compliance Capital Improvement

A facility capital improvement need that will meet compliance with codes, standards and laws

- Examples:
  - Providing accessibility to comply with ADA

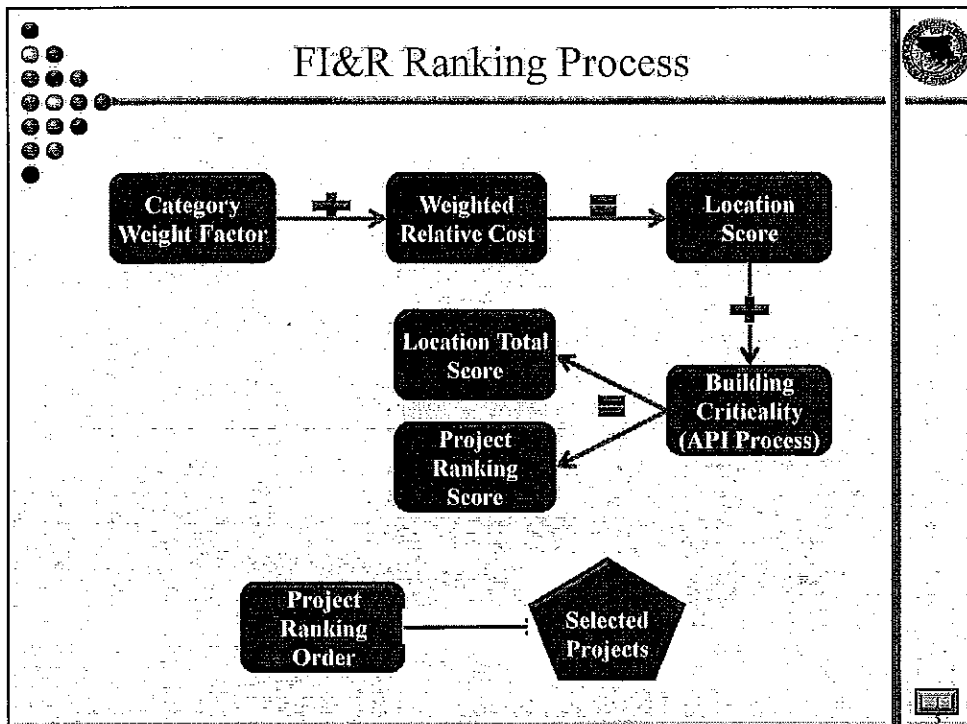## FI&R Ranking Process

**Category
Weight Factor**

Oci – Other Capital Improvement Need

- Other capital improvement is the construction of a new facility or the expansion or rehabilitation of an existing facility to accommodate a change of function or new mission requirements
  - Examples:
    - Construction of a new school or dormitory
    - Major alterations to a school dormitory to convert its function to academic classroom use

FI&R Ranking Process

**Ranking Category
Factor Score**

$$CHSdm \times 10 + CHSci \times 9 + CRPdm \times 7 + CRPci \times 6$$

$$Odm \times 3 + CMdm \times 4 + CCci \times 4 + EPHPSBci \times 5$$

$$Oci \times 1 = \textbf{TOTAL PROJECT SCORE}$$

FI&R Ranking Process

FI&R Ranking Process

Example:

Category	Rank	DOI Category	Weight Factor	# of Backlog	Backlog Cost	Weighted Relative Cost	Project Score
E	3	ERHPBSc	5	1	$6,667	0.49%	4.0550
H	1	CHSdm	10	4	$26,196	6.38%	53.1903
S	1	CHSdm	10	13	$342,778	83.52%	696.0030
M	2	CMdm	4	7	$44,049	4.29%	35.7762
M	3	Odm	3	0	$72,815	5.32%	44.3647
					$492,495	100%	833,379

FI&R Ranking Process

Weighted Relative Cost

- Weighted Relative Cost is the DOI total ranked category cost divided by total ranked backlog cost times the DOI ranking factor results in the score per category.

FI&R Ranking Process

Location Score

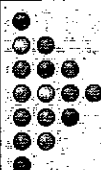- The Location Score is the sum of all category scores and results in the total location score

FI&R Ranking Process

Building Criticality (API Process)

- The API is a priority index of all assets that indicates the criticality of each asset to each Bureau's program mission accomplishment. The highest priority is maintaining the mission delivery capability of the Department's highest mission critical assets.
- The API score is derived by answering questions for each category, Mission, Operations, and Substitutability with A, B, C or D.

FI&R Ranking Process
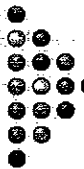
Building Criticality (API Process)

- A – High, scores 10 – absolutely essential
- B – Medium, scores 5 – substantial contributor
- C – Low, scores 33 – small direct contributor
- D – scores 0 – not a contributor

FI&R Ranking Process

Building Criticality (API Process)

- Mission is not to exceed 60%
  - A – Absolutely Essential
  - B – Substantial Contributor
  - C – Small Direct Contributor
  - D – Not a Contributor

FI&R Ranking Process

Building Criticality (API Process)

- Operations is not to exceed 20%
  - A – Absolutely Essential
  - B – Substantial Contributor
  - C – Small Direct Contributor
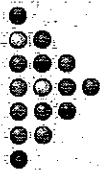 - D – Not a Contributor

FI&R Ranking Process

Building Criticality (API Process)

- Substitutability is not to exceed 20%
  - ▶ A – High Impact – Unique – substitution is not feasible
  - ▶ B – Moderate Impact – alternative may exist, but would have a moderate to negative impact on mission or cost
  - ▶ C – Little Impact
  - ▶ D – No Positive Impact

FI&R Ranking Process

Location Total Score

- The location score plus the API results yields the Location Total Score.
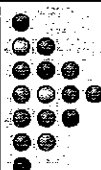- Also known as the **Project Ranking Score**.

FI&R Ranking Process

Project Ranking Order

- This is a two tier process:
  - ▶ Tier 1
    - ➤ Priority Projects: at least 50% of total Backlog Cost is comprised of health and safety factors. These backlog items correspond to the CHSdm (10) and CHSci (9)
  - ▶ Tier 2 – (Contingent on budget availability)
    - ➤ Remaining items on the backlog that amount to less than 50% of the total backlog cost.

Note: The ranking application automatically selects the Backlogs that satisfy the Tier 1 criteria.

FI&R Ranking Process

Selected Projects

- Selected projects are based on funding
- Five year plans completed based on ranking