SUSTAINMENT MANAGEMENT SYSTEM (SMS)
ARMY FUNCTIONALITY

Friday, AUG 2nd, 2024

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AGENDA

- Overview of Functionality

- Army is Transitioning From ISR-I to ESMS for Functionality Assessments

- New Functionality Assessment:
  - Problem Statement
  - Objective
  - Milestones
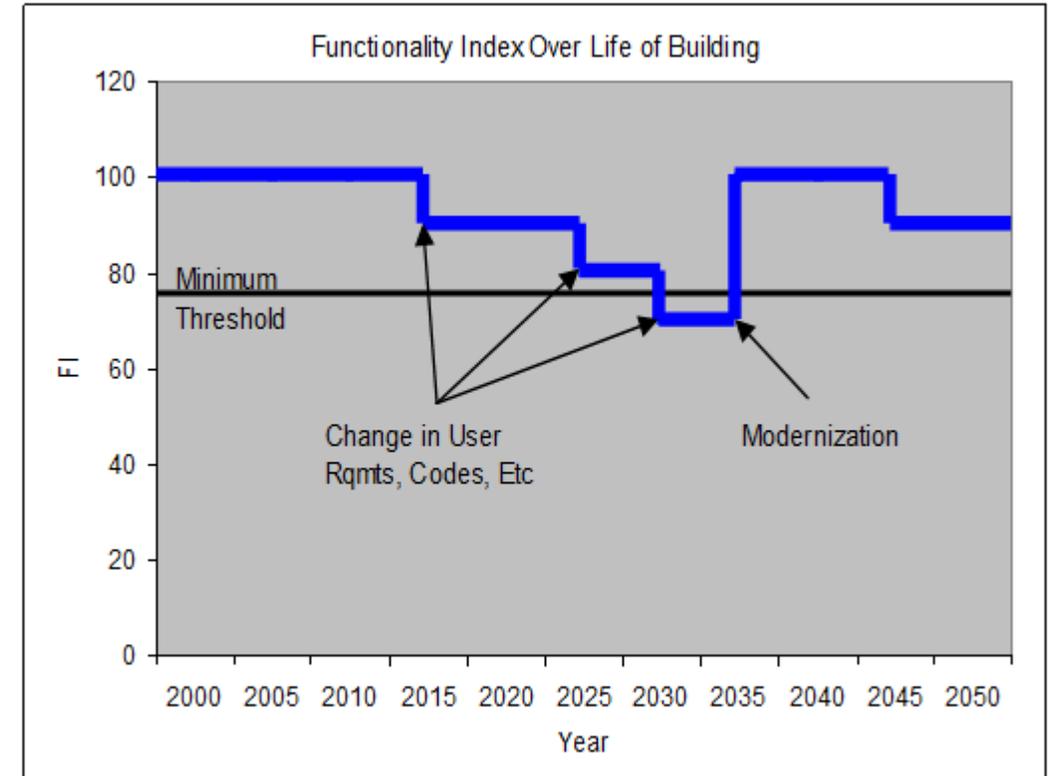 - Process
  - Approach

- Future Efforts

FUNCTIONALITY OVERVIEW

Mission Functionality is the code designating the **overall capability** of the real property asset **to perform its mission or function** given its current <u>configuration, function, condition, and siting</u> at the time of the inventory or asset review. (Defined by the DoD Real Property Inventory Data Element Dictionary-Version 11.0, data element ID 278)

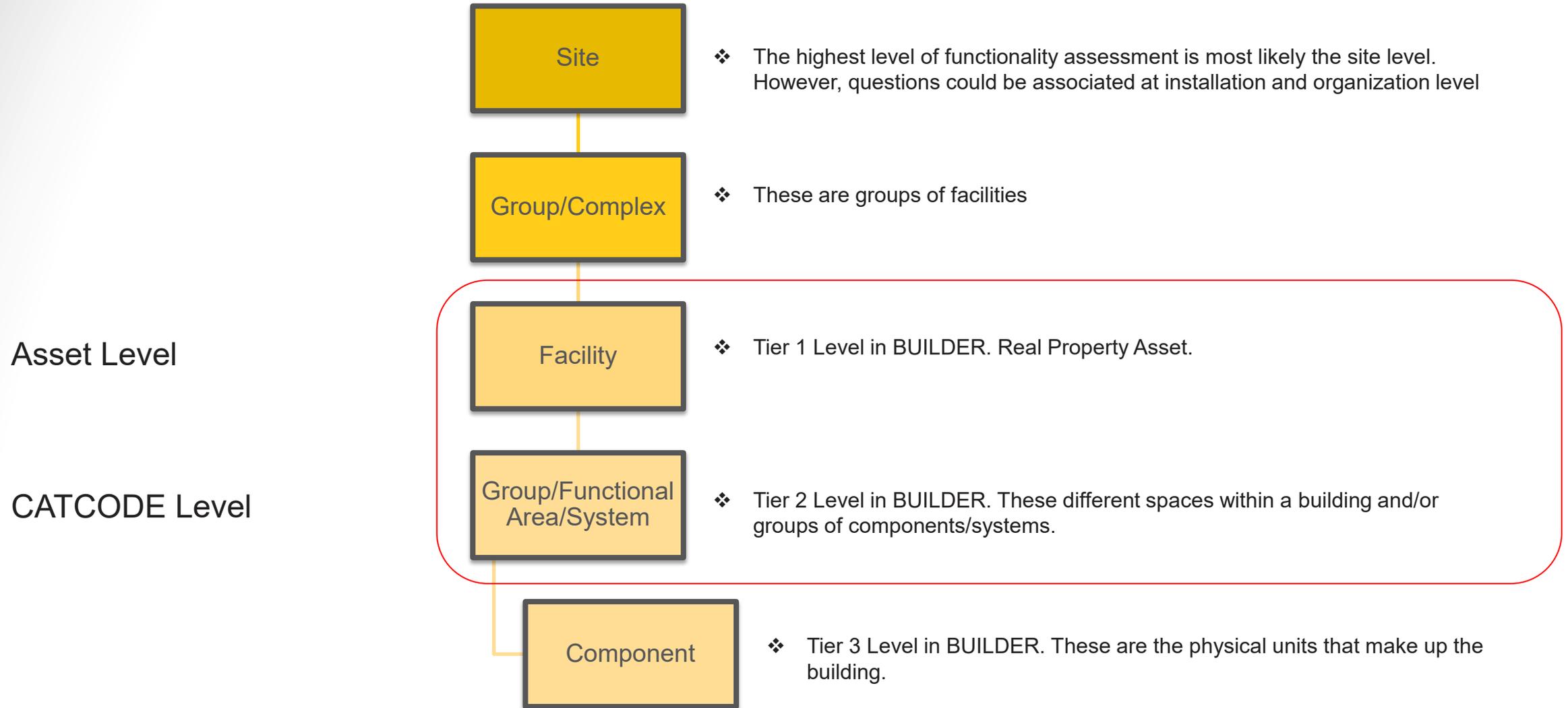May experience a loss in functionality over time due to changes in:
— Occupant requirements
— Newly available materials or technology
— Updated Codes/Regulations

Facility Functionality is improved through Facility Modernization Investments
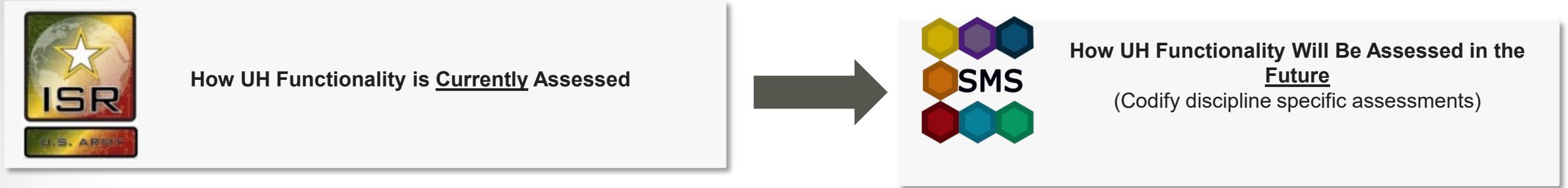(vs Condition being improved via Repair Investments)

FUNCTIONALITY OVERVIEW

Site

❖ The highest level of functionality assessment is most likely the site level. However, questions could be associated at installation and organization level

Group/Complex

❖ These are groups of facilities

Asset Level

Facility

❖ Tier 1 Level in BUILDER. Real Property Asset.

CATCODE Level

Group/Functional Area/System

❖ Tier 2 Level in BUILDER. These different spaces within a building and/or groups of components/systems.

Component

❖ Tier 3 Level in BUILDER. These are the physical units that make up the building.

TRANSITIONING FROM ISR-I TO ESMS

How UH Functionality is <u>Currently</u> Assessed

SMS

How UH Functionality Will Be Assessed in the <u>Future</u>
(Codify discipline specific assessments)

1. Transition current Assessment capabilities from ISR-I to ESMS (interim)
   – ISR-I assessments are completed on excel-based workbooks.
   – Workbooks cover facility types (domains) that are selected for visual inspection.
   – Results are manually entered into ISR-I to calculate a F rating (Mission Rating).
   – The Goal of the ESMS effort:
     • Configure ESMS with a modernized ingestion tool (no more manual data entry).
     • Leverage / Use ISR-I models for calculating F ratings and modernization costs.

2. **Develop new Functionality Assessments for ESMS** (long term)
   • Develop new assessment questionnaires by facility types (domains) based on SME & Community of Practice input.
   • Develop new models for calculating F ratings and modernization costs that are specific to a facility's Category Code.
   • **Currently Developing a new Functionality Assessment for Army Unaccompanied Housing (Barracks)**

NEW ASSESSMENT: PROBLEM STATEMENT

Problem Statement: UH mission readiness (functionality) is currently assessed via a variety of isolated efforts including ISR-I workbooks, Command driven Quality of Work Environment assessments, EXORDs & OPORDs for barracks assessments, and Environmental Health Assessments *RESULTING IN* disparate efforts to identify problems, communicate risk, and prioritize resources to mitigate risk and maximize mission readiness.

Mission Disruption

Funding Disruption

Less Effective Management

Impacts of Disparate Assessment Processes

NEW ASSESSMENT: OBJECTIVE

Objective: The Army requires a modern UH functionality assessment process which can be incorporated into the Enterprise Sustainment Management System (ESMS) and used as a basis for developing modernization cost models. The Army UH CoP will utilize their expertise to review current assessments conducted on UH, standard designs, and other input to identify functionality assessment components and develop the new assessment.

Functionality Assessment Criteria

Future Functionality Assessments

NEW ASSESSMENT: MILESTONES

QTR 1 | QTR 2 | QTR 3 | QTR 4

CoC identifies all required Action Officers

CERL Deep-Dives:
- EXORD Garrison Barracks Safety and Security Data Call
- USACE
- DHA-PH
- HQDA
- USARC
- TRADOC
- TSGO

Site Visit: Identify Assessment Types

Site Visit Out Brief

Assessment Type and Question Alignment:
- Identify Components
- Identify Disciplines of Responsibility
- Identify Component Questions

Brief process, inputs, and outputs.

G-9 Staffing Mission Function Assessment. (GOSC TBD)

Key
- CoC Involvement
- Action Officer Involvement
- CERL Coordination

IDENTIFY SME & COMMUNITY OF PRACTICE

	HQDA G-9	HQDA G-1*	USACRC*	AMC	IMCOM	USAR	ARNG	Installation	DHA-Public Health*	USACE*
Policy	AR420-1, Para 3-4d,g,h; AR 600-20, Para 1-4f; AR385-10	AR420-1, Para 3-4e; AR 40-5, Para 2-6; AR 600-20 proponent	AR385-10, Para 2-4d	ARMY DIR 2020-11; AR 40-5, Para 2-23; AR 600-20, Para 1-4g; AR385-10	AR420-1, Para 3-4i; AR 40-5, Para 2-16, 23; AR 600-20, Para 1-4i; AR385-10	AR420-1, Para 3-2g; AR 40-5, Para 2-10, 23; AR 600-20, Para 1-4h; AR385-10	AR420-1, Para 3-2f; AR 40-5, Para 2-4, 23; AR 600-20, Para 1-4h; AR385-10	AR420-1, Para 1-4u, 3-4j; AR 40-5, Para 2-20, 21, 23, 24; AR 600-20, Para 1-4i; AR385-10	AR 40-5, Para 2-19	AR420-1, Para 3-4f(2); AR 40-5, Para 2-11, 23; AR 600-20, Para 1-4i; AR385-10
GOSC Level										
CoC Level										
Action Officer Level										

POC information is identified early in the process

NEW ASSESSMENT: APPROACH

Approach: Analysis of the ISR-I UH workbook/assessment and other UH assessments to develop discipline specific assessments in ESMS, and to develop a roll up methodology for an F-Rating (Mission Rating).

Scope of this project

How UH Functionality is Currently Assessed

How UH Functionality Will Be Assessed in the Future
(Codify discipline specific assessments)

Future PMP

Develop Cost Estimates (FY25)

Component	Cost
Component	Cost
Component	Cost
.	.
.	.
.	.
	Total Cost

Other UH Assessments / Guidance

AMC Quality Work Environment	ATFP
GAO Report	Environmental Health
Army Regulations	ABMP Handbook
Standard Design	CNA Criteria
WBDG	EXORDs & OPORDs for Mold

Assessment Types

- DPW
- Fire Protection
- Design Standard / Configuration
- Accessibility (ABA)
- Seismic
- Sustainability
- Conveyance (Elevator, etc.)

Roll Up

F - Rating

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
1	CATCODE Agreement		ISR-I, EXORDS/OPORDS
2	Site Plan & Construction	Location-Suitable Location for Mission Performance, no limitations to mission based on site.	ASD, ISR-I, BUILDER, S&S
2	Site Plan & Construction	Location-excessive noise	ASD, ISR-I, BUILDER
2	Site Plan & Construction	Size/Configuration - supports occupant interaction	ASD
2	Site Plan & Construction	Parking (POV) Functionality	ASD, ISR-I, BUILDER
2	Site Plan & Construction	Enclosures & Visual Screens (dumpsters, emergency generators, fuel tanks, transformers, HVAC units)	ASD, ISR-I, BUILDER

Primary Sources: *ISR-I*, Standard Design Criteria (*ASD*), *BUILDER*, *EXORDS* / *OPORDS*, Barracks Safety and Security (*S&S*) Review Tasker Data Call, Army Audit – Maintenance of UH (*Audit*), GAO Reports (*GAO*)

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
2	Site Plan & Construction	Dumpster Pads	ASD, BUILDER
2	Site Plan & Construction	Waste Management	ASD, ISR-I, BUILDER
2	Site Plan & Construction	Landscaping	ISR-I, BUILDER
2	Site Plan & Construction	Vehicular Circulation	ASD, BUILDER
2	Site Plan & Construction	Paved Sidewalks	ASD, ISR-I, BUILDER

*Primary Sources: *ISR-I*, Standard Design Criteria (*ASD*), *BUILDER*, *EXORDS* / *OPORDS*, Barracks Safety and Security (*S&S*) Review Tasker Data Call, Army Audit – Maintenance of UH (*Audit*), GAO Reports (*GAO*)

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources
3	Facility Design & Construction	Size/Configuration – Overcrowded	ASD, BUILDER, EXORDS/OPORDS, S&S
3	Facility Design & Construction	Structural Capability to support seismic, wind, snow and mission related loads.	ASD, BUILDER
3	Facility Design & Construction	Aesthetics (suitability of interior & exteriors building appearance)	ASD
3	Facility Design & Construction	Signage	ASD, ISR-I, BUILDER
3	Facility Design & Construction	Maintainability (Ease of maintenance for operational equipment)	ASD, BUILDER

*Primary Sources: **ISR-I**, Standard Design Criteria (**ASD**), **BUILDER**, **EXORDS** / **OPORDS**, Barracks Safety and Security (**S&S**) Review Tasker Data Call, Army Audit – Maintenance of UH (**Audit**), GAO Reports (**GAO**)

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
3	Facility Design & Construction	Facility Lobby entry, sidewalks, door, and lobby space are ABA compliant	ASD, ISR-I, BUILDER
3	Facility Design & Construction	Roof System meets current design guidance	ASD, BUILDER, EXORDS/OPORDS
3	Facility Design & Construction	Windows meet current design guidance	ASD, BUILDER
3	Facility Design & Construction	Doors and Frames meet current design guidance	ASD, ISR-I, BUILDER
3	Facility Design & Construction	Fire Prevention & Protection meets current Design Guidelines (Suppression System, Alarm System, Sprinkler System, Carbon Monoxide & Smoke Detectors, Fire Alarm, Fire Extinguishers, Standpipe System)	ASD, ISR-I, BUILDER
3	Facility Design & Construction	AT/FP meets current Design Guidelines (UFC 4-010-01) DoD Minimum Antiterrorism Standards For Buildings	ASD, ISR-I, BUILDER, S&S

*Primary Sources: *ISR-I*, Standard Design Criteria (*ASD*), *BUILDER*, *EXORDS* / *OPORDS*, Barracks Safety and Security (*S&S*) Review Tasker Data Call, Army Audit – Maintenance of UH (*Audit*), GAO Reports (*GAO*)

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
4	Safety & Security	Inspection - Fire & Emergency	CoP Site Visit, EXORDS/OPORDS
4	Safety & Security	Inspection – Antiterrorism Force Protection	CoP Site Visit, EXORDS/OPORDS
4	Safety & Security	Inspection – Elevator	CoP Site Visit, EXORDS/OPORDS
4	Safety & Security	Inspection - Escalator	CoP Site Visit, EXORDS/OPORDS
4	Safety & Security	Building Envelop Security Measures Standoffs	ASD, ISR-I, BUILDER, S&S
4	Safety & Security	Exterior Site Lighting	ASD, ISR-I, BUILDER, S&S
4	Safety & Security	Window and Door Placement	ASD

*Primary Sources: **ISR-I**, Standard Design Criteria (**ASD**), **BUILDER**, **EXORDS** / **OPORDS**, Barracks Safety and Security (**S&S**) Review Tasker Data Call, Army Audit – Maintenance of UH (**Audit**), GAO Reports (**GAO**),

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
4	Safety & Security	Doors and Hardware locking mechanisms	ASD, ISR-I, EXORD/OPORD, S&S
4	Safety & Security	Windows and Hardware locking mechanisms	ASD
4	Safety & Security	Grounds - landscaping does not present areas of risk by being overgrown, close to the building to promote areas for hiding.	ASD
4	Safety & Security	Key Management & Electronic Key Card Access System	ASD, EXORDS/OPORDS
4	Safety & Security	CC: TV, Security Cameras	ASD, BUILDER, EXORDS/OPORDS
4	Safety & Security	CQ Desk	ASD, EXORDS/OPORDS, S&S

*Primary Sources: *ISR-I*, Standard Design Criteria (*ASD*), *BUILDER*, *EXORDS* / *OPORDS*, Barracks Safety and Security (*S&S*) Review Tasker Data Call, Army Audit – Maintenance of UH (*Audit*), GAO Reports (*GAO*)

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
4	Safety & Security	Command Leadership Checks	Audit, GAO, S&S
4	Safety & Security	Mass Notification System	ASD
4	Safety & Security	Soldier Safety Surveys	GAO, EXORDS/OPORDS, S&S
4	Safety & Security	Collection & Evaluation of Crime Statistics & Safety Statistics (theft, property damage, broken windows, assault, sexual assault) associated with the building	GAO, S&S

*Primary Sources: *ISR-I*, Standard Design Criteria (***ASD***), ***BUILDER***, ***EXORDS*** / ***OPORDS***, Barracks Safety and Security (***S&S***) Review Tasker Data Call, Army Audit – Maintenance of UH (***Audit***), GAO Reports (***GAO***)

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
5	Primary Spaces	Module E1-E4	ASD, EXORDS/OPORDS
5	Primary Spaces	Module E5-E6	ASD, EXORDS/OPORDS
5	Primary Spaces	Living Room	ASD
5	Primary Spaces	Bedroom	ASD, ISR-I
5	Primary Spaces	Bedroom Closet	ASD, ISR-I, EXORDS/OPORDS
5	Primary Spaces	Bathroom	ASD, BUILDER, EXORDS/OPORDS
5	Primary Spaces	Kitchen	ASD, BUILDER, EXORDS/OPORDS
5	Primary Spaces	Kitchenette	ASD, BUILDER, EXORDS/OPORDS
5	Suite / Room Module / Room	Washer & Dryer	ASD

*Primary Sources: **ISR-I**, Standard Design Criteria (**ASD**), **BUILDER**, **EXORDS** / **OPORDS**, Barracks Safety and Security (**S&S**) Review Tasker Data Call, Army Audit – Maintenance of UH (**Audit**), GAO Reports (**GAO**)

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
6	Common Spaces	Vestibule	ASD
6	Common Spaces	Lobby (CQ desk & vending)	ASD, BUILDER
6	Common Spaces	Lobby Accessibility – ABA compliance (entry, restroom & water fountain)	ASD, ISR-I, BUILDER
6	Common Spaces	Mail Access	ASD
6	Common Spaces	Corridors	ASD, ISR-I, BUILDER
6	Common Spaces	Janitor Closet	ASD
6	Common Spaces	Mechanical, Electrical & Telecommunications Room	ASD

*Primary Sources: *ISR-I*, Standard Design Criteria (*ASD*), *BUILDER*, *EXORDS* / *OPORDS*, Barracks Safety and Security (*S&S*) Review Tasker Data Call, Army Audit – Maintenance of UH (*Audit*), GAO Reports (*GAO*)

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
6	Common Spaces	Stairs	ASD, ISR-I, BUILDER
6	Common Spaces	Dayroom/Lounge	ASD, ISR-I, BUILDER, EXORDS/OPORDS
6	Common Spaces	Kitchen (communal)	ASD, ISR-I, BUILDER
6	Common Spaces	Laundry (communal)	ASD, ISR-I, BUILDER, EXORDS/OPORDS
6	Common Spaces	Fitness Room	ASD, ISR-I, BUILDER, EXORDS/OPORDS
6	Common Spaces	Boot Wash & TA-50 Equipment Cleaning, Interior and/or Exterior Stations	ASD, EXORDS/OPORDS

*Primary Sources: *ISR-I*, Standard Design Criteria (*ASD*), *BUILDER*, *EXORDS* / *OPORDS*, Barracks Safety and Security (*S&S*) Review Tasker Data Call, Army Audit – Maintenance of UH (*Audit*), GAO Reports (*GAO*)

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
7	Building Services	Electrical – (Exterior)	ASD, BUILDER
7	Building Services	Electrical – Circuit Capability	ASD, ISR-I, BUILDER, EXORDS/OPORDS
7	Building Services	Electrical – Circuit Protection	ASD, ISR-I, BUILDER, EXORDS/OPORDS
7	Building Services	Electrical – Outlet Availability in Primary & Common Spaces	ASD, ISR-I, BUILDER
7	Building Services	Electrical – Stand-by/Emergency Generator	ASD, BUILDER
7	Building Services	HVAC – year-round heating & cooling capability	ASD, BUILDER, EXORDS/OPORDS
7	Building Services	HVAC – Ease of Access to Equipment for Maintenance	ASD

*Primary Sources: **ISR-I**, Standard Design Criteria (**ASD**), **BUILDER**, **EXORDS** / **OPORDS**, Barracks Safety and Security (**S&S**) Review Tasker Data Call, Army Audit – Maintenance of UH (**Audit**), GAO Reports (**GAO**)

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
7	Building Services	HVAC – Equipment for Primary Spaces	ASD, BUILDER,
7	Building Services	Thermostat Availability	BUILDER, EXORDS/OPORDS
7	Building Services	Air Circulation & Dehumidifier Tools	EXORDS/OPORDS
7	Building Services	Ventilation Equipment (kitchens, bathrooms & laundry)	ASD, BUILDER
7	Building Services	Potable Water – Quality	ASD, BUILDER
7	Building Services	Potable Water – Fixtures	ASD, BUILDER
7	Building Services	Waste Water – Toilets, Sinks, Showers & Tubs	ASD
7	Building Services	Communications (Phone service access, LAN or Wi-Fi service access – DPW constructs conduit. Contracted provider installs service. Soldier pays for these services)	ASD, BUILDER

*Primary Sources: ISR-I, Standard Design Criteria (ASD), BUILDER, EXORDS / OPORDS, Barracks Safety and Security (S&S) Review Tasker Data Call, Army Audit – Maintenance of UH (Audit), GAO Reports (GAO)

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
8	Environmental/Life Safety	Signs of Moisture Intrusion in Common Spaces	ASD, ISR-I, BUILDER, EXORDS/OPORDS, Audit, GAO, S&S
8	Environmental/Life Safety	Signs of Moisture Intrusion in Primary Spaces	ASD, ISR-I, BUILDER, EXORDS/OPORDS, Audit, GAO, S&S
8	Environmental/Life Safety	Asbestos Assessment	ASD, BUILDER, EXORDS/OPORDS, S&S
8	Environmental/Life Safety	LBP Assessment	S&S
8	Environmental/Life Safety	Radon Assessment	EXORDS/OPORDS, S&S
8	Environmental/Life Safety	Vector Infestation/Integrated Pest Management Plan	ASD, EXORDS/OPORDS, S&S

*Primary Sources: *ISR-I*, Standard Design Criteria (*ASD*), *BUILDER*, *EXORDS* / *OPORDS*, Barracks Safety and Security (*S&S*) Review Tasker Data Call, Army Audit – Maintenance of UH (*Audit*), GAO Reports (*GAO*)

COMPONENTS AND ELEMENTS

#	Components	Elements	Primary Sources*
8	Environmental/Life Safety	Air Quality – Proper Ventilation of Combustible Equipment	BUILDER, S&S
8	Environmental/Life Safety	Air Quality – No Smoking or Vaping in Interior Spaces (how to assess / control – Soldier vs DPW – not funded with sustainment)	BUILDER, S&S
8	Environmental/Life Safety	Noise Control – Mechanical Equipment	ASD, BUILDER, S&S
8	Environmental/Life Safety	Noise Control – CQ Desk (Duty Officer) Quiet Hour Enforcement (how to assess / control – Soldier vs DPW – not funded with sustainment)	BUILDER, S&S
8	Environmental/Life Safety	DMO's related to Life, Health, & Safety	Audit, S&S

*Primary Sources: *ISR-I*, Standard Design Criteria (*ASD*), *BUILDER*, *EXORDS* / *OPORDS*, Barracks Safety and Security (*S&S*) Review Tasker Data Call, Army Audit – Maintenance of UH (*Audit*), GAO Reports (*GAO*)

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
9	Energy Efficiency	Electrical and HVAC on a Utility Monitoring Control System	ISR-I
9	Energy Efficiency	Smart Sensors	ISR-I
9	Energy Efficiency	Equipment – Energy Efficiencies	ASD, BUILDER
9	Energy Efficiency	Lighting – Energy Efficiencies	ASD, BUILDER
9	Energy Efficiency	Water Usage – Flow Restriction	BUILDER

*Primary Sources: ISR-I, Standard Design Criteria (ASD), BUILDER, EXORDS / OPORDS, Barracks Safety and Security (S&S) Review Tasker Data Call, Army Audit – Maintenance of UH (Audit), GAO Reports (GAO)

COMPONENTS AND ELEMENTS

#	Component	Element	Primary Sources*
10	Waivers	Design Standard Waiver	ASD, GAO
11	Basic Allowance Housing (BAH)	Assigned Unit(s) Utilize BAH	GAO, S&S
12	Barracks Manager	Assigned Unit(s) have Assigned Barracks Manager	Audit, GAO

*Primary Sources: *ISR-I*, Standard Design Criteria (***ASD***), ***BUILDER***, ***EXORDS*** / ***OPORDS***, Barracks Safety and Security (***S&S***) Review Tasker Data Call, Army Audit – Maintenance of UH (***Audit***), GAO Reports (***GAO***)
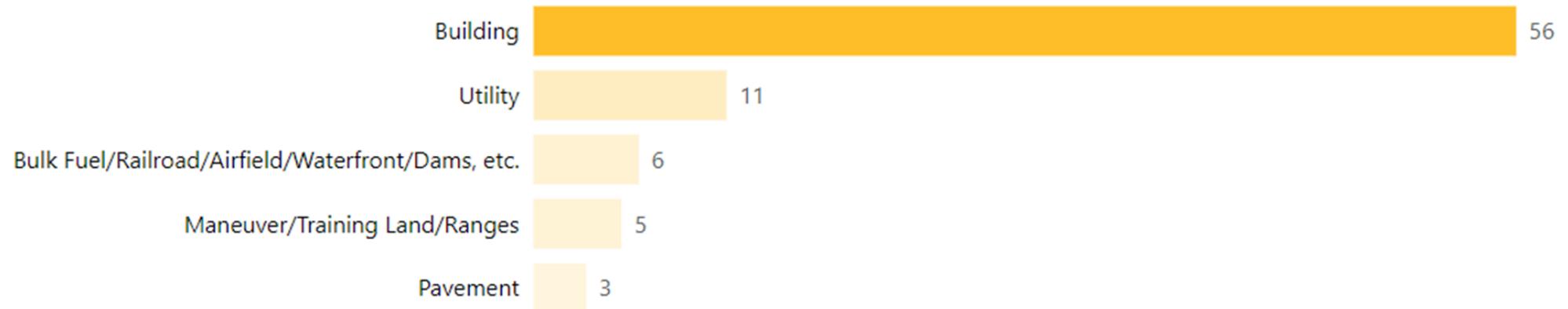
FUTURE EFFORTS: COST & NEW DOMAINS

**Modernization Cost
for Unaccompanied Housing**
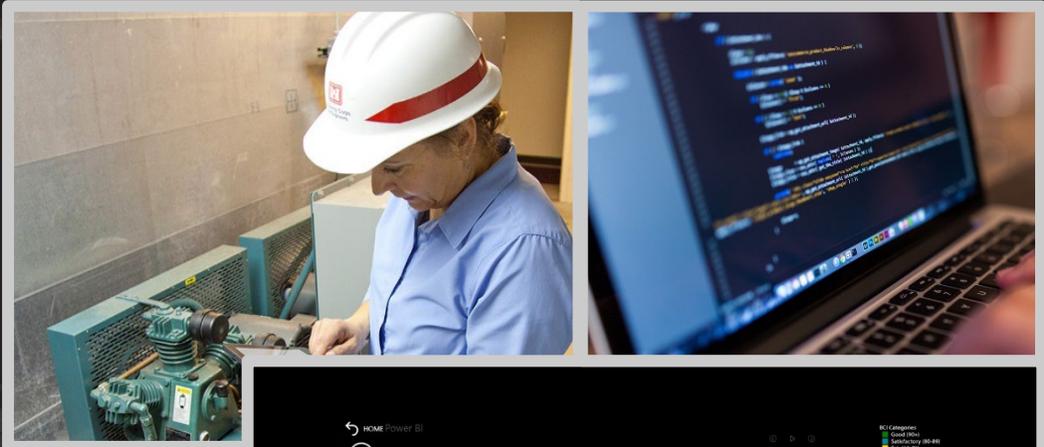
Develop Cost Estimates
(FY25)

Component	Cost
Component	Cost
Component	Cost
.	.
.	.
.	.
	Total Cost

Remaining ISR-I Workbook Facility Types

Facility Type	Count
Building	56
Utility	11
Bulk Fuel/Railroad/Airfield/Waterfront/Dams, etc.	6
Maneuver/Training Land/Ranges	5
Pavement	3

THANK YOU!

QUESTIONS?

US Army Corps
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NEW ASSESSMENT: OTHER ASSESSMENTS

These assessments will continue per their current policy/guidance.
(outside the scope of this project)

Defense Health Agency – Public Health
Environmental Health Assessments - Upon request of tenant or medical provider.
Data source: Defense Occupational and Environmental Health Readiness System (DOEHRS)

Fire Department
Mandatory Assessments (common spaces) & Tenant Mandatory Fire Prevention Assessments
Data source: Enterprise Emergency Reporting & DA 5381 (Building - Fire Risk Management Survey)

G-9, IMCOM, Installation Barracks Management
DoD Housing Community driven inspections and data entry
Data source: Enterprise Military Housing (eMH)

ATFP
Mission Assurance (MA) Assessments, Centrally Managed Assessments & Tenant Assessments
Data source: SIPR and the Security Management System

CSM/SGM Installation Quality of Life
Data source: Monthly submission of DA 7380 (Installation Quality of Life Issue)

USCRC
Inspections/Assessments based on Dept. of Labor annual requirements
Data source: Army Safety Management Information System (AMSIS)

Future consideration: data use agreements