

# Mission, Risk & Data Sustainment

Mission-Centric Results, Tactical Data Sustainment and Strategic Relevance

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Jacobs

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# What are we aspiring to?

<u>https://www.youtube.com/watch?v=xGc5in2F\_Rg&list=PPS\</u>





## Video Relevance



Friends in the industry all trying to:

- Maximize constrained resources
- Enhance operational effectiveness
- Streamline decision making by leveraging existing data
- Effectively communicate the current state and the future trajectory
- Identify mission risk







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# Simple Approach to Mission Risk using BUILDER



- 1. Link the missions to the facilities
- 2. Determine which asset types have the highest consequence of failure
- 3. Filter BUILDER's workplan requirements to the desired mission and the assets that pose the greatest risk







## **Step 1**: Link Missions to Facilities



**BUILDER Summit 2023** 

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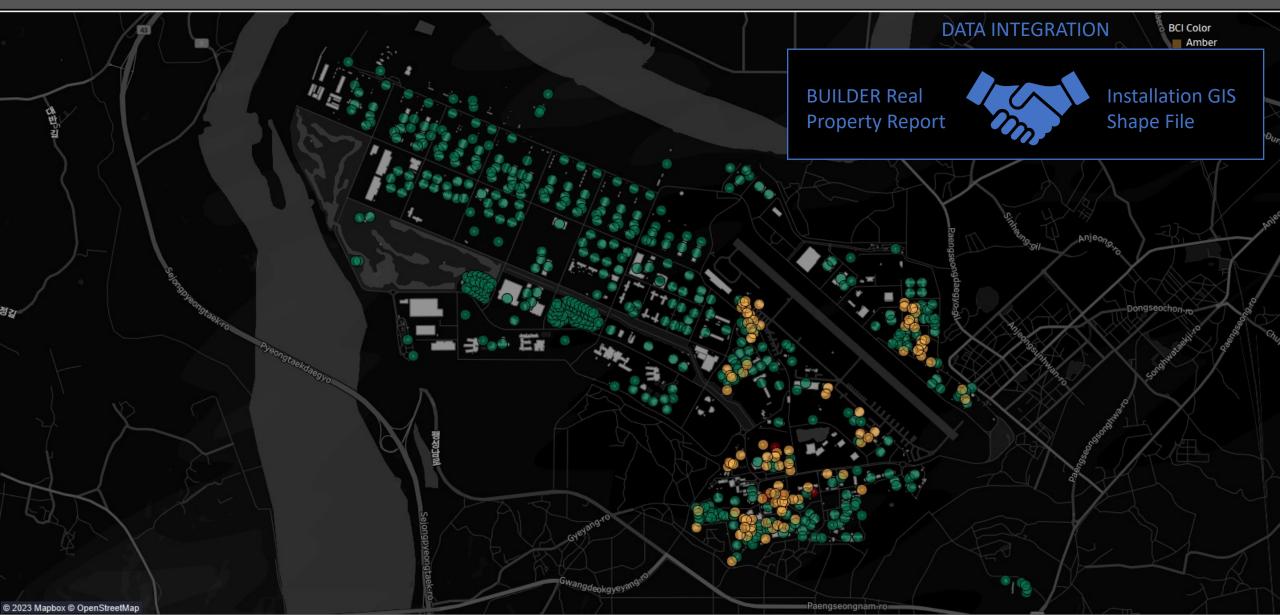
### EXAMPLE INSTALLATION SHOWING ALL BUILDINGS





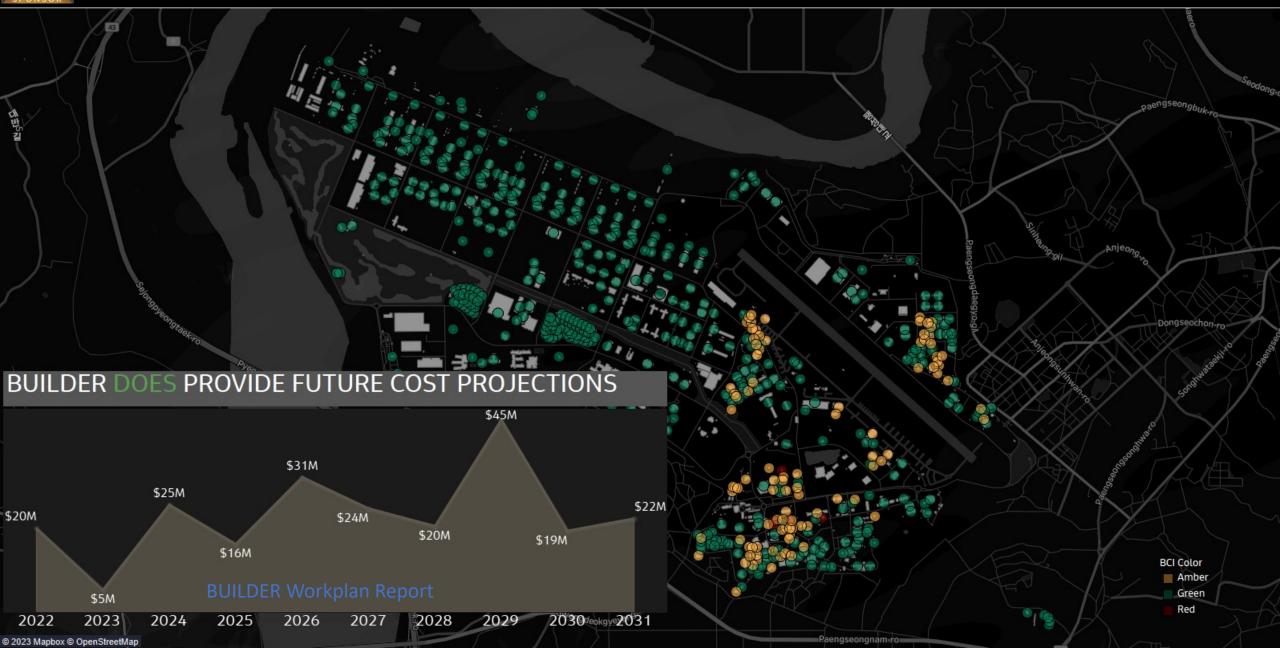


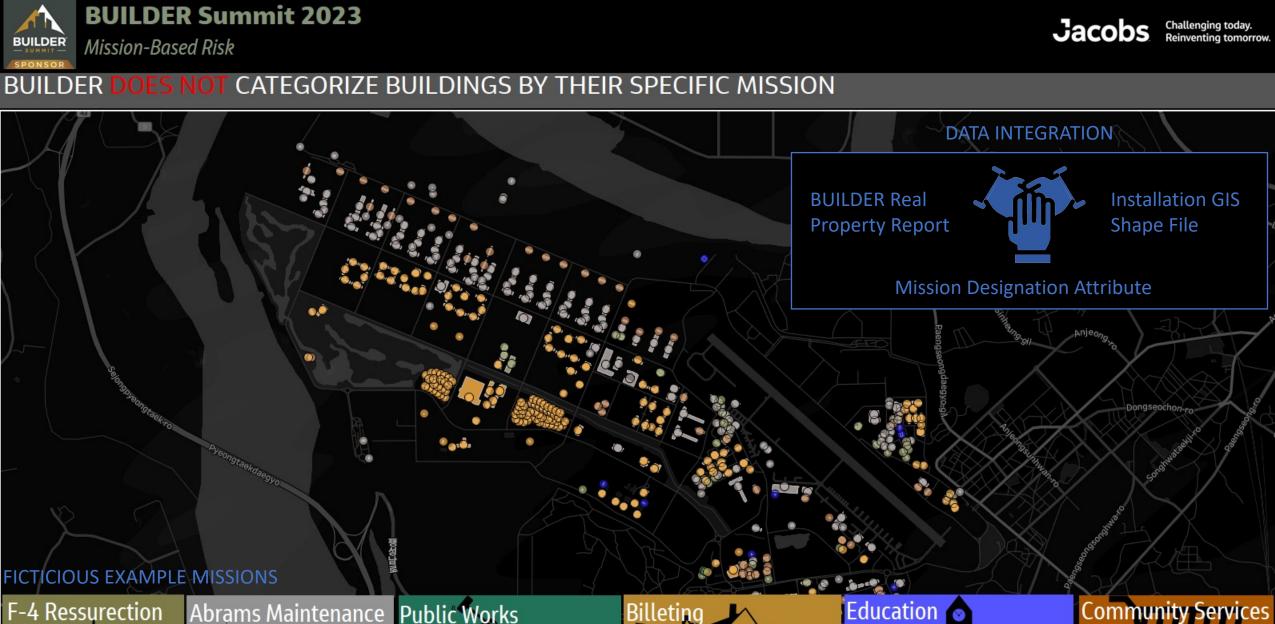
## BUILDER DOES PROVIDE OVERALL BUILDING CONDITION METRICS









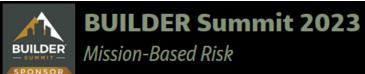


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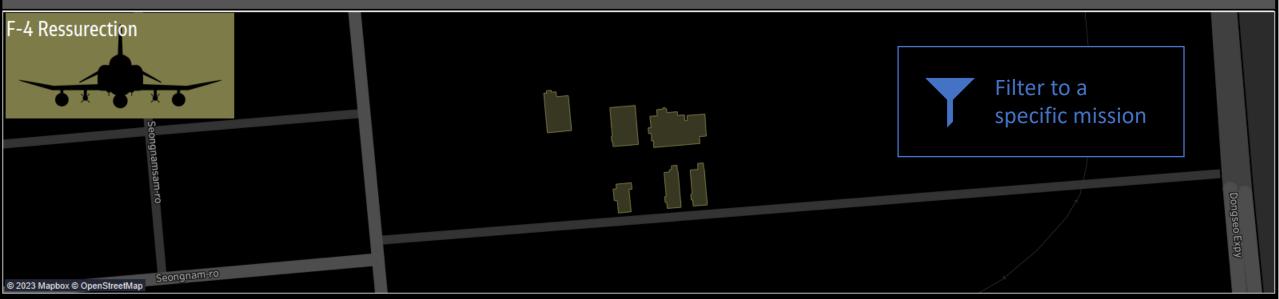
Abrams Maintenance Public Works 



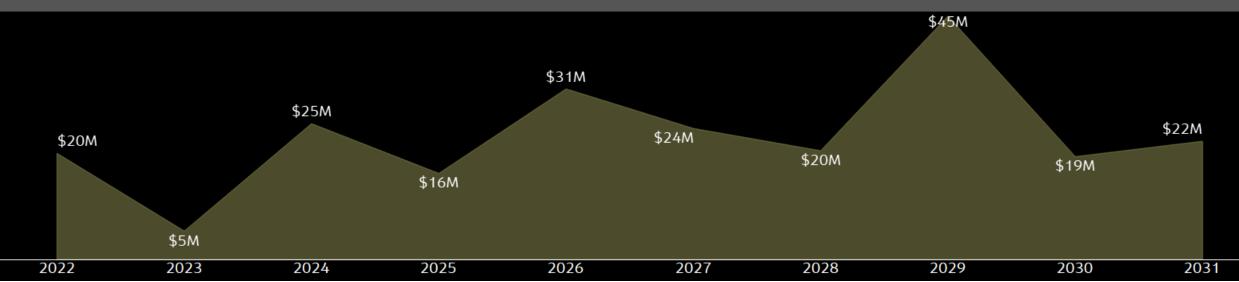


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### **BUILDINGS INCLUDED IN THE F-4 MISSION**

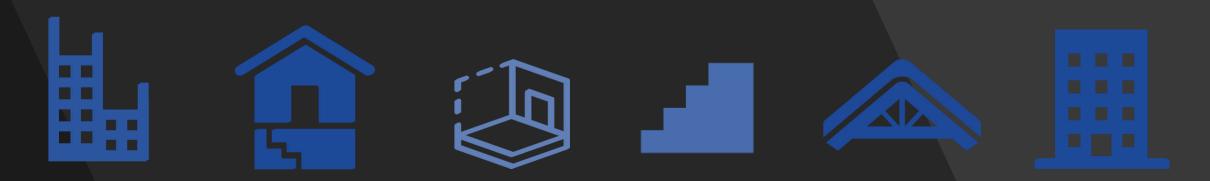


### F-4 MISSION-SPECIFIC 10 YEAR FINANCIAL PROJECTIONS



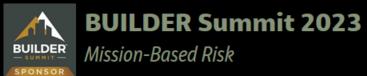


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# Step 2: Determine which asset types have the highest consequence of failure







### ASSET TYPES BY MISSION-SPECIFIC CONSEQUENCE OF FAILURE

		Abrams Maintenance	Billeting	Community Services	Education	F4 Mission	Public Works
B30 ROOFING	B3010 ROOF COVERINGS						
D10 CONVEYING	D1010 ELEVATORS AND LIFTS		•				
	D1020 WEIGHT HANDLING EQUIPMENT	÷.					
D20 PLUMBING	D2010 PLUMBING FIXTURES		نعيا		<b>نون</b> .		
	D2020 DOMESTIC WATER DISTRIBUTION		نعيا	بغا	نعية		
	D2030 SANITARY WASTE		فيها	نغ	نعية		
D30 HVAC	D3010 ENERGY SUPPLY						
	D3020 HEAT GENERATING SYSTEMS						
	D3030 COOLING GENERATING SYSTEMS						
	D3040 DISTRIBUTION SYSTEMS						
D40 FIRE PROTECTION	D4010 FIRE ALARM AND DETECTION SYSTEMS		$\textcircled{\diamond}$		$\textcircled{\diamond}$		
	D4020 FIRE SUPP WATER SUPPLY / EQUIP		$\textcircled{\diamond}$		$\textcircled{\diamond}$		
	D4040 SPRINKLERS		$\textcircled{\diamond}$		$\textcircled{\diamond}$		
D50 ELECTRICAL	D5010 ELECTRICAL SERVICE & DISTRIBUTION	ţ	<b>y</b>	<b>y</b>	<b>y</b>	<b>y</b>	<b>*</b>
	D5020 LIGHTING & BRANCH WIRING		<b>y</b>	<del>y</del>	<b>y</b>		
	D5030 COMMUNICATIONS & SECURITY		<b>y</b>				
E10 EQUIPMENT	E1030 VEHICULAR EQUIPMENT	Š				Š	





## Step 3: Filter BUILDER's workplan requirements to the desired mission and the assets that pose the greatest risk





### F4 MISSION BUILDINGS

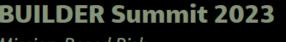




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Building Number	Building Name	Component	Description	Section Qty		
252	OPERATION BLDG	D5010 ELECTRICAL SERVICE &	Repair D5010 ELECTRICAL SERVICE & DISTRIBUTION KGS7-3 - PANEL LB D501004 PANELBOARDS Main lugs, 125 amp	1		
	1	DISTRIBUTION	Replace D5010 ELECTRICAL SERVICE & DISTRIBUTION D501005 ENCLOSED CIRCUIT BREAKERS Enclosed Circuit Breaker, 30-100 Amp			
-	* * * *		Replace D5010 ELECTRICAL SERVICE & DISTRIBUTION HALLWAY - PANEL LA D501004 PANELBOARDS Main lugs, 125 amp	1		
			Replace D5010 ELECTRICAL SERVICE & DISTRIBUTION NORTH D501004 PANELBOARDS Safety Switch, 100 Amp	1		
TOTAL F	INANCIAL REO	IREMENTS SHOW	ING HIGH RISK PORTION			
			\$31M \$31M Fisk Requirer			
\$201	M \$5M	\$25M \$16M	\$24M \$20M \$19M	\$22M		



Mission-Based Risk



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## Fitting the Intel

BUILDER is a great system, but sometimes you need to shim the outputs to fit your specific intelligence needs





## The Link to Data Sustainment

# Is the data trustworthy?



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# How do you intend to use BUILDER?

Strategic vs. Tactical

- Long-Range Financial Planning
- Identify Project Requirements
- Identify Risk
- Integrate with other Systems of Record

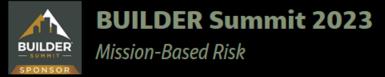


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# Where Should Tactical Data Sustainment Start?

 Formulate a Prioritization
Strategy

2) Analyze Data for Issues 3) DetermineLocation ofIssues





# 1) Formulate a Prioritization Strategy

VERY **Priority Description** HIGH MEDIUM LOW HIGH Affects Work Item Cost and Timeframe Affects Work Item Cost or Timeframe Affects Planning Detail, Clarity, or Data Structure Affects Comment Verbiage or Missing Photos





# 2) Identify the Types of Data Issues

Priority	Data Issue Type	
VERY HIGH	Asset Qty Is Missing Or 0	
	More Specific Asset Options Available	
	Asset Not In Scope	
HIGH	Section Qty Potential Errors	
	Asset Install Date is Before Bldg Construction Yr	
MEDIUM	Required Section Details are Missing	
	Required Inv Comment is Missing	
	Assets Cannot be Grouped	
	Poor Rating and No Insp Comment	
LOW	Missing Required Inspection Photos	
	Bldg Level Comments-Wrong Format	
	Exterior See Names Need Cardinal Direction	



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# 3) Identify the Locations of Data Issues

	Bldg Number	F	System	VERY HIGH
	147		A10 FOUNDATIONS	
			B10 SUPERSTRUCTURE	
			B20 EXTERIOR ENCLOSURE	
			B30 ROOFING	
			C10 INTERIOR CONSTRUCTION	
			C20 STAIRS	
14			C30 INTERIOR FINISHES	
			D10 CONVEYING	
			D50 ELECTRICAL	
		<i>81</i>		



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Strategic Relevance / Wrap-

Mission requirements are outpacing our ability to keep up with the sustainment of our infrastructure.

Requirements across installations as a whole have changed yet we don't yet understand the TRUE resource impacts.

Global challenges in supply chain, aging workforce, resourcing and construction/replacement material costs





# Thank you

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