



Planning a Condition Assessment Survey





Agenda

- ▲ Introductions
- ▲ Pre-Assessment Planning
- ▲ Field Operations
- ▲ Post Assessment
- ▲ Q&A



Introductions

- ▲ John Carroll – Civil Engineer, P.E.
 - Director of Capital Asset Management Group (CAMS)
- ▲ Jared Risbourg
 - DOE Project Manager
- ▲ Nelson Engineering Co., a Salas O'Brien Company
 - Address: 5455 N. Courtenay Pkwy., Merritt Island, FL, 32953



Capital Asset Management Services

▲ Assessment Totals

- 1,000 + buildings, 250 support structures
- 50 million square feet

▲ Full Suite of Engineering Services

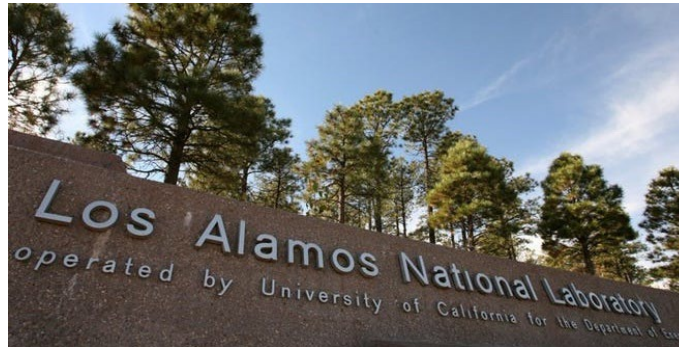
- Facility Condition Assessments (FCA)
- Sustainability/Energy Assessments
- Master Planning
- 5-year/10-year Capital Investment Plans
- Reliability and FMEA Analysis
- Non-Destructive Testing Investigations

Clients





**DEPARTMENT OF ENERGY (DOE)
IDAHO NATIONAL LABORATORY**



**TRIAD NATIONAL SECURITY LOS
ALAMOS NATIONAL LAB (LANL)**



**SLAC NATIONAL ACCELERATOR LAB
STANFORD LINEAR ACCELERATOR**

FCA and Capital Planning Solutions

- Assessed 705 buildings, 410 support structures/utility infrastructure
- 7.1 million square feet (cumulative)
- Infrastructure Capacity Baseline Evaluations
- Estimated 20-year O&M Costs for leased buildings
- Campus wide energy/water evaluations

- LANL is a U.S. Department of Energy (DOE), National Nuclear Security Administration (NNSA) facility operated by Triad National Security, LLC (Triad).
- LANL spans 40 square miles of DOE-owned property and has over 850 facilities with 13 nuclear facilities.
- Documented the inventory and inspection data in BUILDER SMS to provide access to comprehensive real property data and conducted pre-assessment and post-assessment briefings.

- We have performed annual condition assessment surveys (CAS) for SLAC since 2017.
- Combined, the contracts covered CAS inspections of 186 buildings/trailers totaling 1,737,264 square feet, and 129 other structures and facilities.
- Our assessment process provided SLAC with an accurate and thorough condition assessment of their real property assets.



Types of Assessments



In House Facility Managers

Inconsistency
Manpower – Operational Impact
Bias
Site Knowledge
POC/Training



Contracting A&E Firm

Consistency
Minimal Operational Impact
Unbiased
Upfront Cost/ROI
Security Access/Training



Pre-Assessment Planning – How Do We Prepare?

- ▲ Overall Project Kick Off
- ▲ Logistics
- ▲ Site/Assets Information
- ▲ Security Access
- ▲ Assessment Schedule
- ▲ Personal Property Vs. Real Property
- ▲ Training
- ▲ Tools & Equipment



Overall Project Kick-Off



Stakeholder
Introduction



Scope
Confirmation



Deliverable
Schedule



Special
Concerns



Logistics



Team Selection



Scheduling/Deployment
Site Access



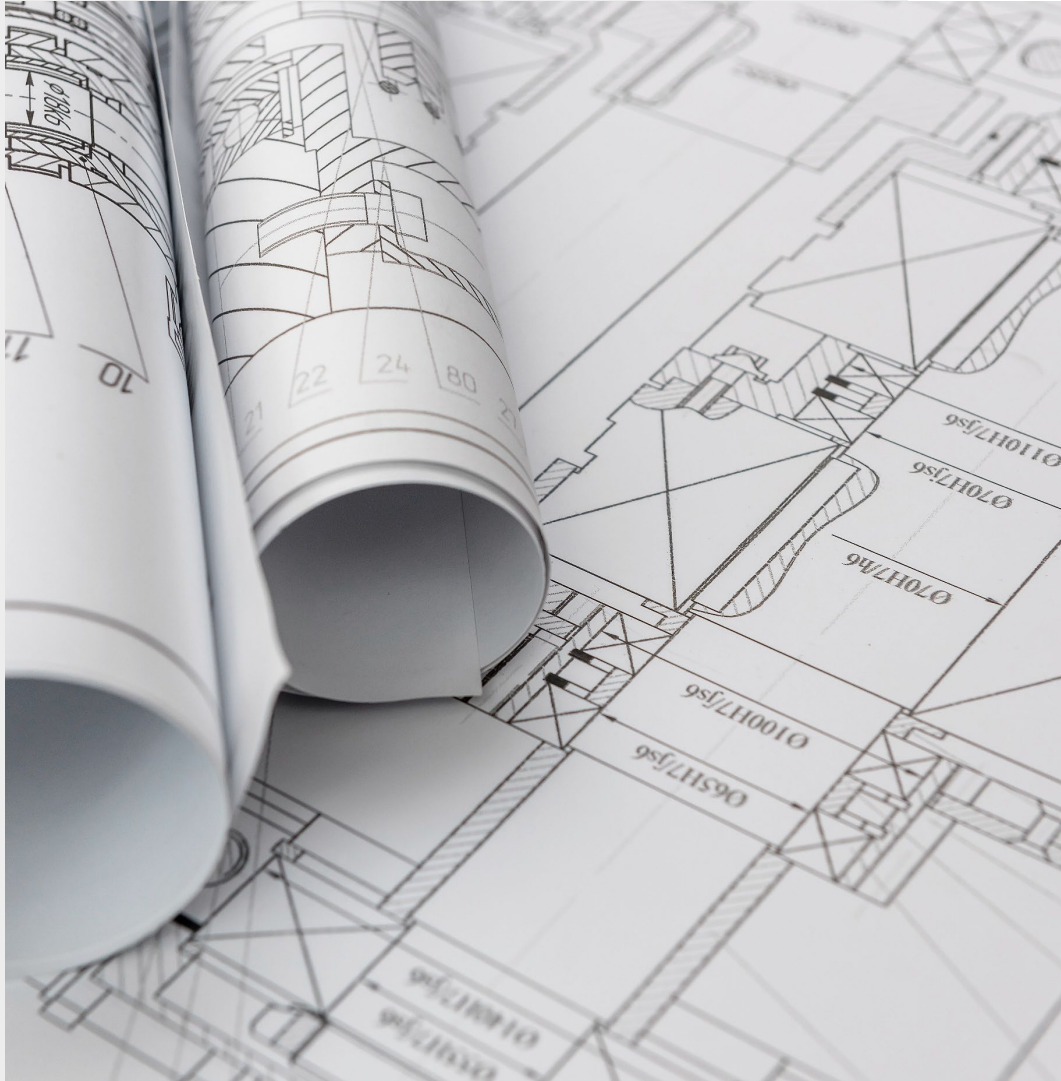
Flights, Hotels/Airbnb,
Rental Cars, Etc.



Security Access

- ▲ Security Badging Process
- ▲ Building Escorts
- ▲ Mechanical/Electrical Room Keys
- ▲ Dosimeters and Rad Training
- ▲ Special Equipment (Matterport, IR Thermography, ETC.)





Site/Assets Information

Gather all available site and building data before field assessment

- ▲ Drawings
- ▲ Maintenance Data
- ▲ Historical Assessment Reports



Personal Property Vs. Real Property

- ▲ Equipment that serves the experiment
- ▲ Equipment that serves the building
- ▲ Who is responsible for the components in question?
- ▲ Combat Misappropriation of Funds
- ▲ ASTM E2018-15 (American Society for Testing and Materials) - Standard Guide for Property Condition Assessments
- ▲ DOE O 430.1C, Real Property Asset Management



Assessment Schedule



Buildings/Day



SF/Day



Security
Photo Review



Daily Data
Backup



Occupant
Notification



Assessment Schedule Example

- Using Smartsheets to plan and track assessment progress.

ID	Property Name	Locati...	Prope... Type	GSF	Trip	Date Inspected	BRED Compl... (A10 - C30)	BRED Compl... (D10 - D30)	BRED Compl... (D40 - D50)	All Upload... to BUILDER	Review...	Finalized
CF-701	CF-701 - CFA Landfil	CFA	OSF		0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CF-782	CF-782 - Water Store	CFA	OSF		0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAN-1612	Fire Water Pump Hou	TAN	Building	235	0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAN-1749	TAN-1749 - Water Ta	TAN	OSF		0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAN-1763	TAN-1763 SMC Wate	SMC	OSF		0	08/25/20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAN-610	Firewater Pump Hou:	TAN	Building	1,380	0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAN-612	Deepwell Pump Hou:	TAN	Building	208	0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAN-613	Deepwell Pump Hou:	TAN	Building	208	0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAN-614	Water Pump House	TAN	Building	914	0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAN-632	Pump House Well #1	TAN	Building	288	0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAN-639	Pump House Well #2	TAN	Building	292	0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAN-665	Firewater Pump hous	TAN	Building	845	0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAN-701	TAN-701 - Water Sto	TAN	OSF		0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAN-748	TAN-748 - Water Sto	TAN	OSF		0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRA-1641	Sump Pump House #	ATR	Building	80	0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRA-1642	Sump Pump House #	ATR	Building	80	0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRA-715	TRA-715 - TRA Warn	ATR	OSF		0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRA-716	TRA-716 - Evaporati	ATR	OSF		0	08/25/20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Tools & Equipment

- ▲ Tablets – Preloaded with drawings, legacy deficiencies, reports, equipment list, site maps, contact list
- ▲ Camera/Extra Batteries/SD Cards
- ▲ Clipboard/Note Taking
- ▲ Laser
- ▲ Measuring Wheel
- ▲ PPE



Training

- ▲ Project Scope
 - What components/systems are being assessed?
 - Deliverables
- ▲ Team Members Roles and Expectation
- ▲ Standardization and Consistency
- ▲ Post Training Calibration Assessment



Field Operations

- ▲ Onsite/Kickoff Meeting
 - Facility Managers/Escorts
 - Facility Manager/Maintenance Interviews
- ▲ Execute Field Assessment
 - Maintain Assessment Schedule
 - Daily Photo and Notes back up
 - Life Safety Hazards
- ▲ Communication!
- ▲ Assessment Close Out Meeting

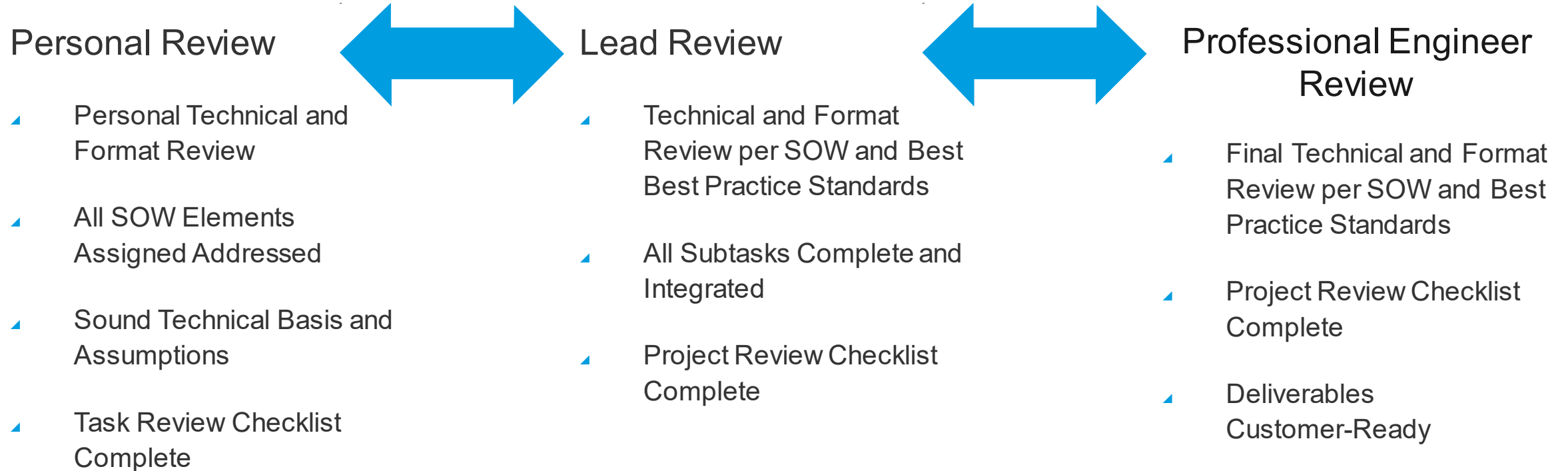


Post Trip Deliverables

- ▲ Data Organization
- ▲ Delegation of Tasks:
 - Asset/System Narratives
 - Deficiencies
 - Cost Estimates
 - Executive Summary
- ▲ QC/QA



Quality Assurance/Quality Control



Questions?

JOHN CARROLL

John.carroll@salasobrien.com | 321.223.3633

JARED RISBOURG

jared.risbourg@salasobrien.com | 985.640.7529

