

Los Alamos

NATIONAL LABORATORY

EST. 1943

Delivering science and technology
to protect our nation
and promote world stability



Managed by Triad National Security, LLC for the U.S. Department of Energy's NNSA

LANL Infrastructure Statistics



- 37.8 Square Miles
- 894 Buildings and Trailers (leased and owned)
- 8,252,437 GSF Buildings and Trailers (leased and owned)
- 362,756 GSF in Leased Facilities (Buildings and Trailers)
- 237,794 GSF in 72 Excess Facilities



Land comparison of Washington, D.C. and the Los Alamos National Laboratory Site

Problem Statement:

“Improve Institutional Planning across priority mission activities and infrastructure”

Successful Planning at the Institutional level must be:

- **Continually characterizing and depicting** - existing conditions, constraints, challenges and opportunities
- **Frequently evolving** - based on changing priority, needs and conditions
 - Requires constant communication with key stakeholders
- **Graphically depicted (GIS)** - in order to easily communicate large amounts of data, ideas and concepts and enable data driven decision analysis
- **Data driven** – consistent with customer and internal data sets
- **Always changing** – An approved report will not suffice to successfully deliver an overall campus plan and institutional strategy for a campus as diverse and complicated and ever changing as Los Alamos

Planning Goals

- This Plan creates the first fully integrated plan for the future physical growth of Los Alamos National Laboratory facilities and infrastructure.
- The Plan will support the Laboratory's critical mission and will serve as the comprehensive and definitive document demonstrating the physical development needs and priorities across the site, and projects a time frame for construction.
- The Plan will directly support funding initiatives for infrastructure and new facilities.

Integrated Planning effort

The Plan will present a transformative vision for creating a true LANL campus.

- The campus idea establishes a commitment to the quality of the physical environment to match commitment to the quality of science and the quality of operations. The latter are hallmarks of excellence at LANL and should be equaled by the physical site.
- Campus development will support sustainability and, most importantly, the well-being of all who work at and visit the Laboratory.

Integrated Planning effort

OBJECTIVE

Develop a data driven, continually evolving visualization system to present the comprehensive investment strategy for the overall Los Alamos Campus that includes Facility and Utility projects such as:

Recapitalization *Major Maintenance* *Modernization* *D&D projects*
New Construction *Asset transfers* *Lease actions*

***Notional* Institutional Vision**

- Present a transformative vision for creating a true LANL campus
- Build new facilities and infrastructure
- Modernize key existing facilities and infrastructure
- Exit and Demolish sub-standard facilities
- Sustain existing facilities
- Create efficient, safe, secure work places to recruit and retain staff

Notional Planning Principles

- Create a transformative vision for the creation a true LANL campus
- Develop quality work environments that are safe, secure, reliable and aesthetically pleasing
- Integrate and Institutionalize planning efforts across the Laboratory
- Design facilities and infrastructure that maximize flexibility, operational efficiency and that minimize overall life cycle cost
- Integrate Sustainability and Environmental Stewardship into planning and design process
- Continue to steward Historic facilities

Institutional Owners

Executive Owner:

Bret Simpkins

Internal Planning team members

Planning Team

GIS team

Utilities & Transportation

Sustainability

Site Support Program Office (Indirect projects portfolio)

Decommission & Demolition Program

GPP/IGPP Program

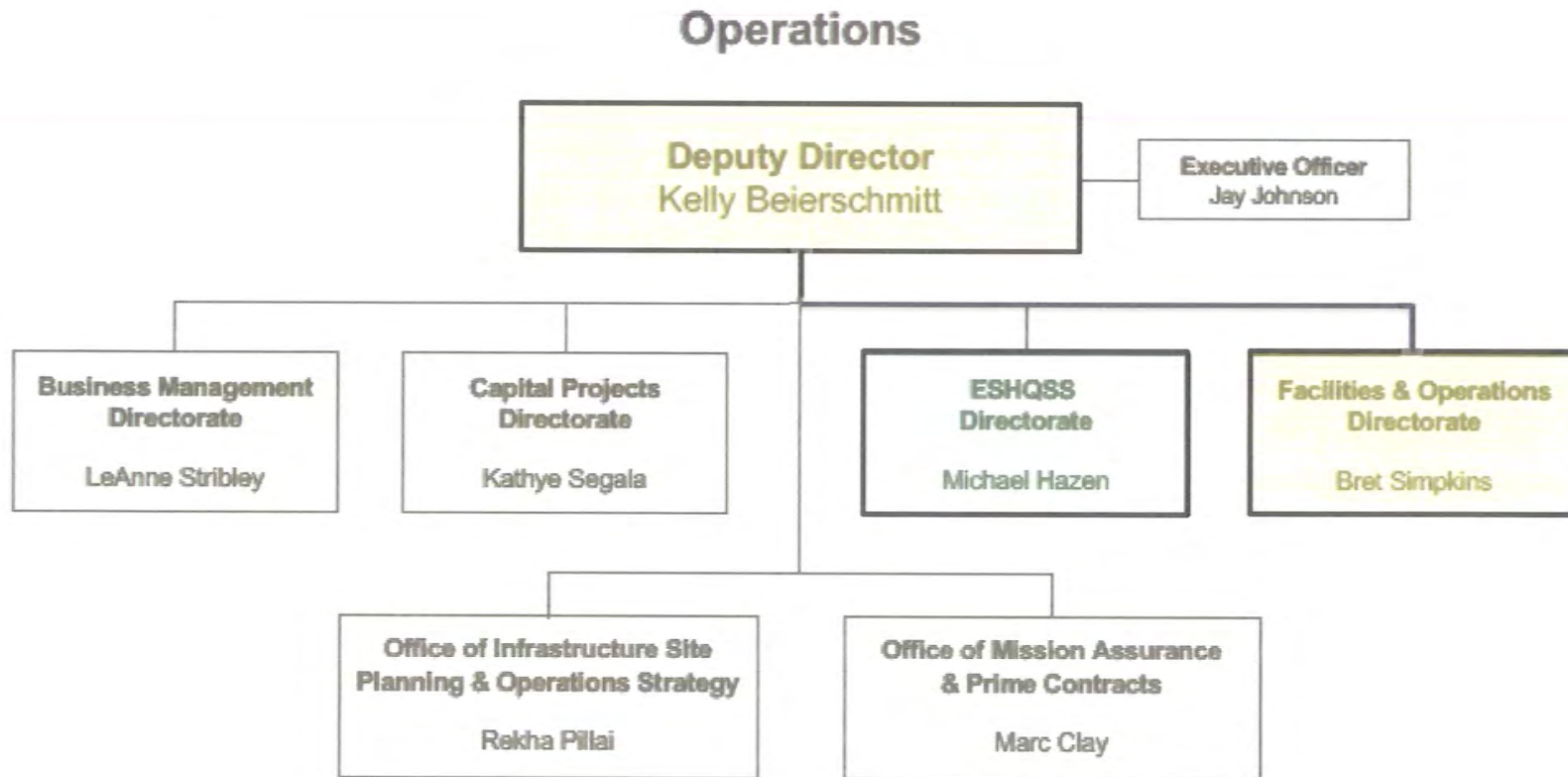
Leasing

Space Management

ES&H

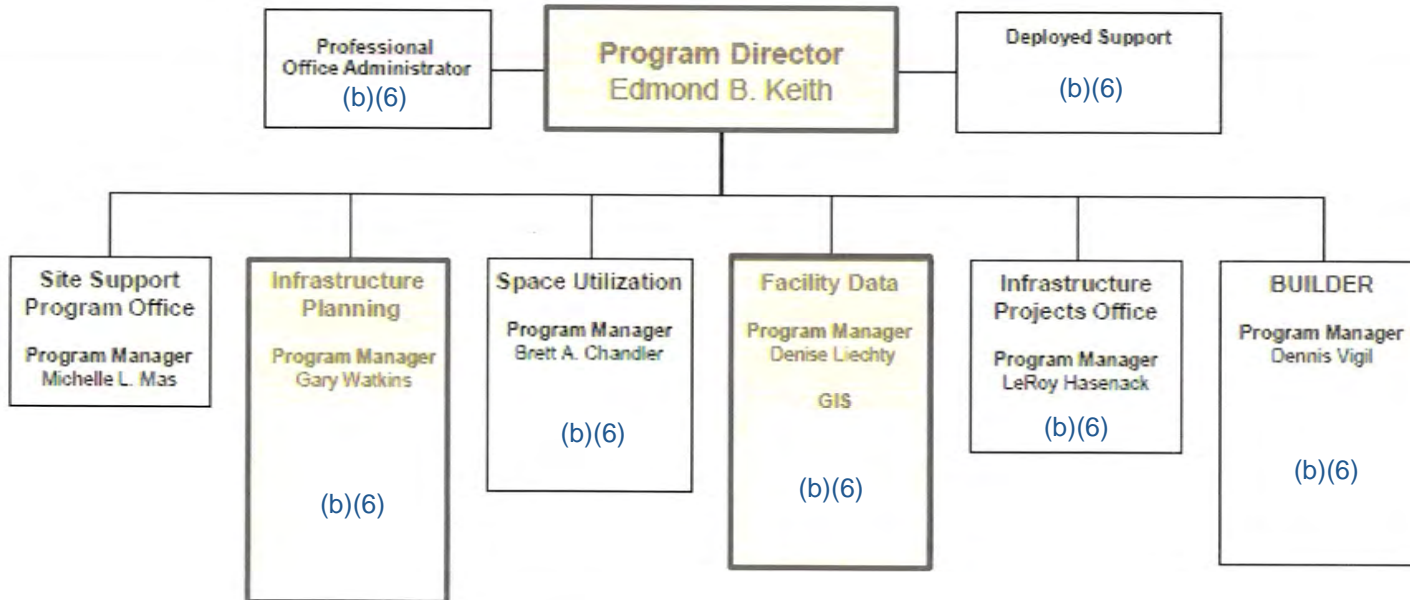
Security

Organizational Information



Organizational Information

Infrastructure Programs Office (IFPROG)



04/29/19

ALD Discussions

Vision for Future Campus

COLLABORATION OPPORTUNITIES

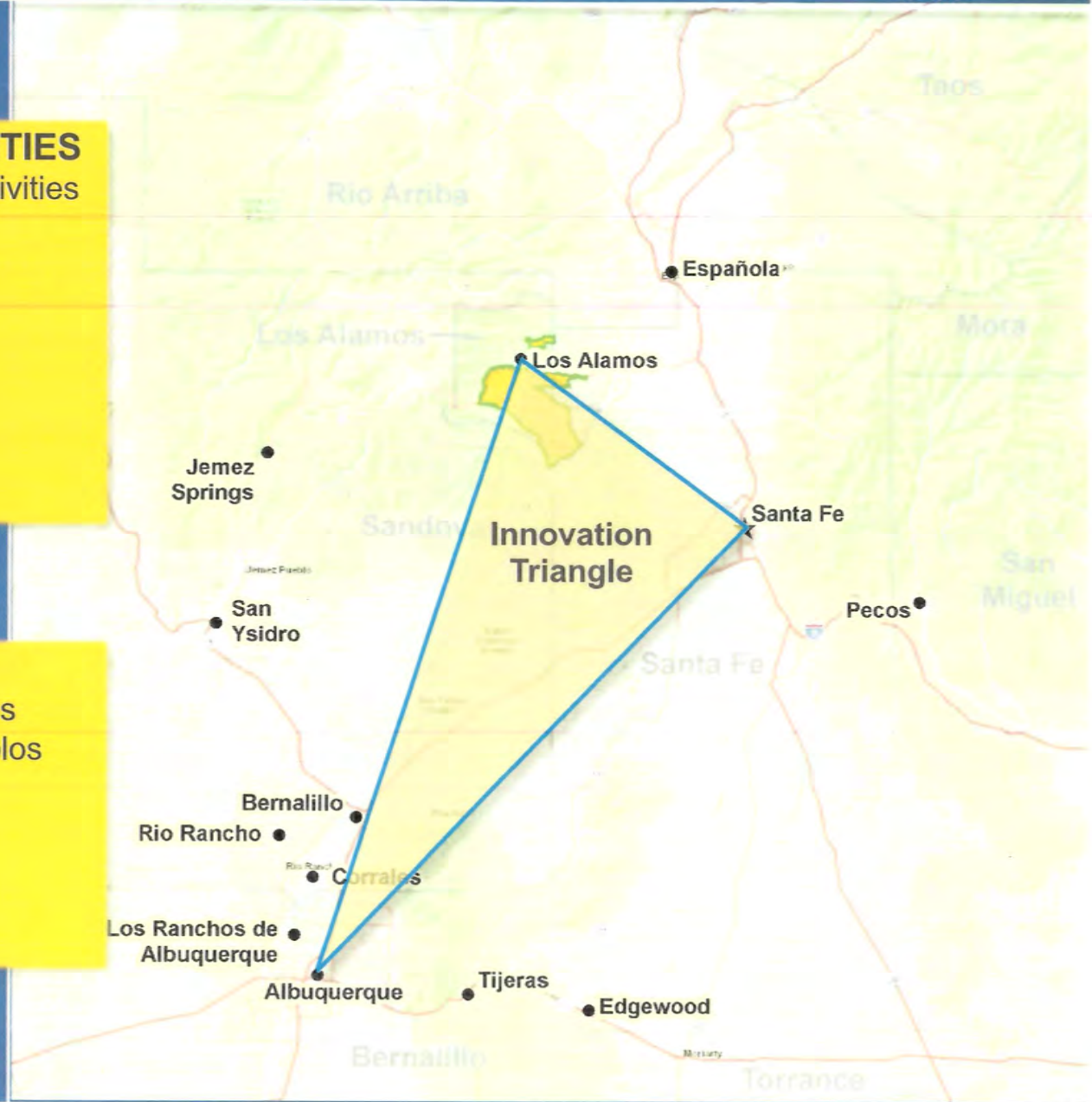
COLLABORATION OPPORTUNITIES

Identify and prioritize potential joint-activities locally, regionally, state-wide and national/international in the areas of:

- Employment/Retention
- Research
- Education
- Infrastructure
- Transportation
- Housing

REGIONAL PARTNERS

- New Mexico Colleges & Universities
- San Ildefonso & Neighboring Pueblos
- Texas A&M
- State of New Mexico
- Los Alamos County
- National Park Service
- Other Institutions



Comprehensive Site Plan—Visioning Sessions

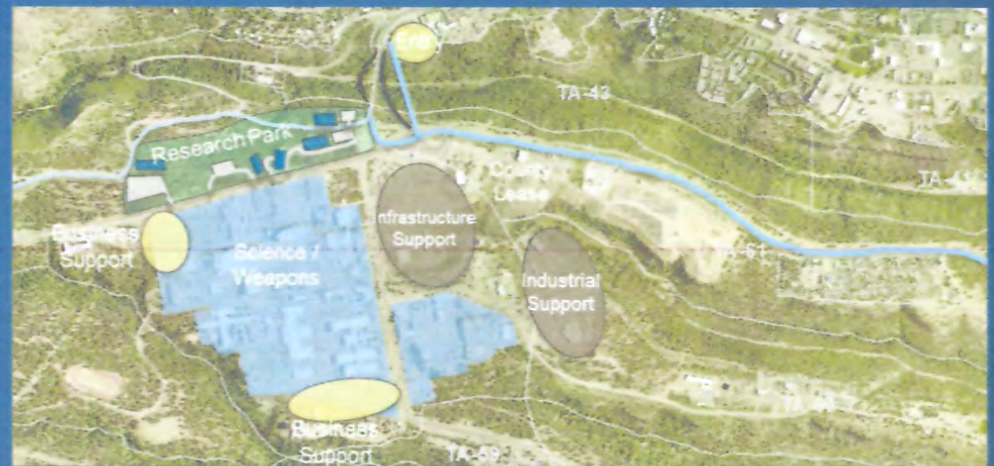
Weapons	Science	Operations
Pit Production	Lease Strategy	Pit Production
Office Space	Office/Lab Space	Space Management
Space Management	CMR Exit Strategy	Office Space
Zoning <ul style="list-style-type: none"> • Future of TA 35 • Target Fab relocated • Future of TA 3? • Tritium to TA 55 • HE from TA 16 to TA 15 • Future of SM 39? 	Quality of Life/Work <ul style="list-style-type: none"> • Parking • Child Care • Food Service • Wellness 	Secure the Lab <ul style="list-style-type: none"> • Badge Office • Shipping/receiving • Bypass Road • Road/VAP Realignment
Secure the Lab	Integrated Services	Zoning
Gateway to the Lab	Radiological Space	Gateway to the Lab
CMR Exit Strategy	HRL Exit Strategy	Quality of Life/Work
Housing	NPB/ECSE	Parking
(b)(5)		Housing
		Bridge Strategy

(b)(5)

Visioning Sessions with Weapons, STE, and OPS exposed common requirements, priorities, and themes

- Shared “Visioning”
 - Program Success (e.g. 30PPY)
 - Safety and Security
 - Quality of Work Life
 - Office space
 - Radiological space
 - General lab space
 - Facility maintenance
 - Parking
 - Food services
 - Efficiency and Effectiveness
 - Integrated support services
 - Exit old facilities (e.g., CMR, HRL)
 - Quality of Life
 - Housing
 - Child care
 - Wellness
- Action: NNSA/LANL Site Plan
 - “Zoning” for enhanced security and efficiencies
 - Quantify maintenance and new office (~1,000) and lab (~200) needs
 - Gateway Center
 - New bypass road; bridge
 - Multi-mechanism (lease, line, IGPP, etc...)

(b)(5)

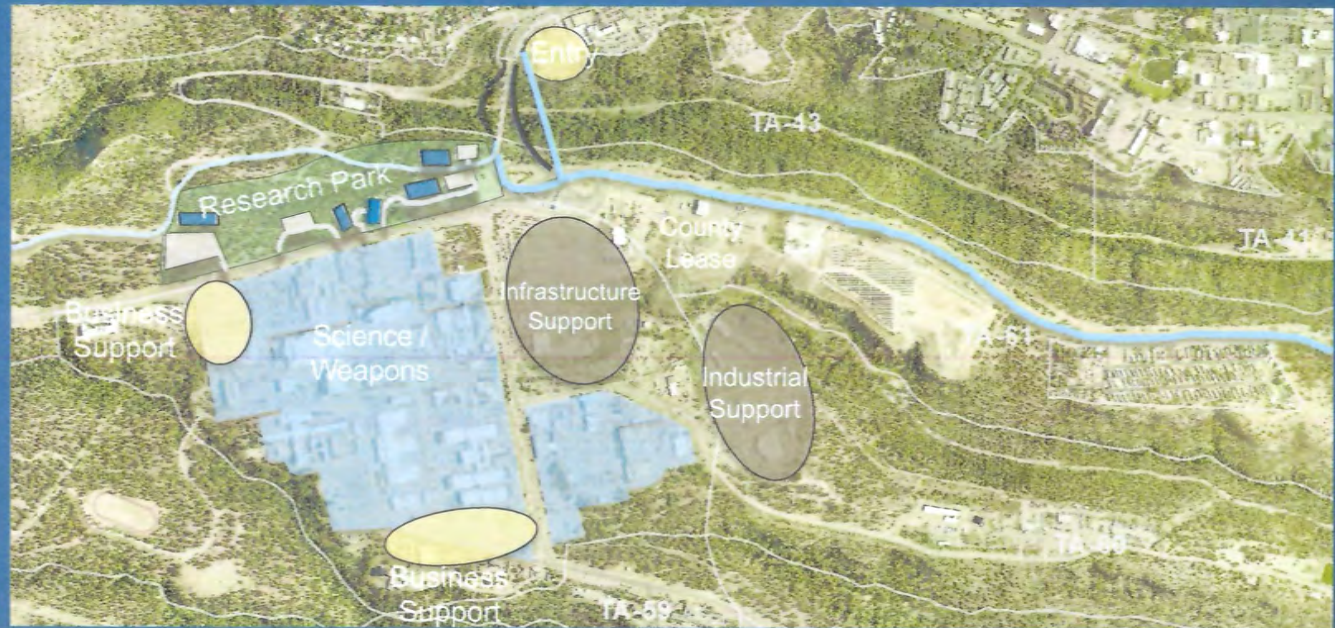


Campus Zoning – TA-03

- Evaluating Zoning Options for TA-03:
 - Relocate Business Support functions
 - Relocate Badging, HR, Finance, QA.....
 - Relocate Industrial Support from TA-03
 - New Maintenance Complex

(b)(5)

- Bulldoze from Otowi to LAFO
- Develop TA-03 as Science & Weapons Center of Excellence



Zoning drives future demolition & construction activities

Campus Zoning—HRL Exit strategy

- Evaluating a new strategy to exit the HRL facility:
 - Complete modifications and Readiness to enable successful operations of 03-1076 as a BSL-2 Facility.
 - Complete construction and occupy the CEFC
 - Relocate remaining laboratories and staff into (b)(5)

(b)(5)

Office Space—Modular Construction

- Three modular facilities are underway
 - CEFC (BSL II): 12,000 ft²; 6-10 labs; 20 Offices
 - SCIF: 8,200 ft²; 26 Secure Offices
 - MUOB: 22,000 ft²; ~100 Offices
- Pros and Cons:
 - Pros: When successful, designs could be repeated; Execution should improve with experience; Provides a path forward other than line item
 - Cons: GPP limited to \$20M which limits size of the facilities; Geographically intensive due to inability to go vertical; Can only support a modular every 18-24 months
- Next steps:
 - Radiological Support Facility



SCIF



MUOB



BSL II

(b)(5)

Modular Construction is an important tool but not fast enough

Office Space—Research Park

- Engaged with Los Alamos County Development Corporation (LACDC) on Research Park
 - One (1) building being constructed for the NM Consortium (potential 20,000 ft²)
 - Two (2) additional facilities at ~80,000 ft² per bldg
 - One (1) building for future development
 - Would provide ~600 offices & 50-75 labs
- DDOPS has engaged NA 50 & LAFO
 - ALDBUS developing leasing strategy
 - IFPROG supporting justification and analysis of alternatives
- Other leases being explored as well



Research Park



We need every tool to meet our Mission! Leases are an essential part of our strategy

Separate Public traffic from LANL Site

- Evaluating proposal to Secure the Campus:
 - New Bypass Road to segregate public traffic at the Omega Bridge.
 - Purchase existing Trailer Park
 - Establish new Gateway to Laboratory
 - Positive impact on TA-55 Safety Basis
 - Relocate Badging and associated Business support out of TA-03
 - Relocate Shipping/Receiving



Actions required to enable Triad to secure Campus

Housing

(b)(5)

(b)(5)

- Connector road from White Rock to Albuquerque
 - Provides an additional evacuation route
 - Provides safer material transportation route
 - Significantly reduces commute time from Albuquerque
 - Encourages housing development along the route

(b)(5)

Success with either of these proposals would be transformational for the region and the Laboratory

Accelerator Strategy

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(b)(5)

- Accelerator strategy under development

(b)(5)

- Weapons and Infrastructure Program Offices looking at all possible funding sources

(b)(5)

Future investment strategy under development

Investments in Pajarito Corridor



(b)(5)

TA-15: Project Planning Overview

(b)(5), (b)(7)f