

GOLD SPONSORS



SILVER SPONSORS



PAGE & TURNBULL

Thornton
Tomasetti



PMA Consultants

HDR



PERKINS+WILL

BRONZE SPONSORS





2019

SCHOLARSHIP GOLF CLASSIC

REGISTRATION FORM

Hiddenbrooke Golf Club 1095 Hiddenbrooke Pwy, Vallejo, CA

Registration is open and Sponsorships are available!

Proceeds fund CMAA Scholarships for pursuing a CM career.

**Golden State Sponsors- \$1,500
(6 Available)**

Sponsorship includes:

- 1 foursome
- Compete for best hole (originality counts)
- Website and Program Recognition

Hole in One- \$1,500 (1 Available)

Sponsorship includes:

- 1 foursome
- Hole sign with company logo
- Hole-In-One Insurance
- Website and Program Recognition

Longest Drive - \$1,250 (4 Available)

Sponsorship includes:

- 1 foursome
- Hole sign with company logo
- Website and Program Recognition

JOIN CMAA NORCAL



- **15,000+ Members Nationally/ 1,000+ NorCal**
- **3,000+ Certified Construction Managers**
 - CM/PM Practitioners:
 - Individual (join solo from co): \$350 OR Sole Proprietor (self employed): \$450
 - Early Career Professional (under 28): \$130
 - Corporate Members:
 - Small Corp: \$1,625 for 4 members OR Mid-Size Corp: \$3,250 for 8 members
 - Large Corp: \$6,500 for 16 members
 - Owners: Public and Private
 - Individual (join solo from co): \$120
 - Owner Orgs: \$1,200 for 12 members OR \$3,000 for 30 members
 - Associate Members (not practicing CM: \$600)
 - Academic (Full-Time Student: \$25)

Membership Chair : Mary.Toutouchi@railpros.com

Visit : <https://www.cmaanet.org/membership/join>

Upcoming Programs



July 22 – 2019 Professional CM Course:

Three days of course instruction and 24 Continuing Education Credits.

July 24 – CMAA NorCal Special Event:

Successful Management and Resolution of Loss Productivity Claims

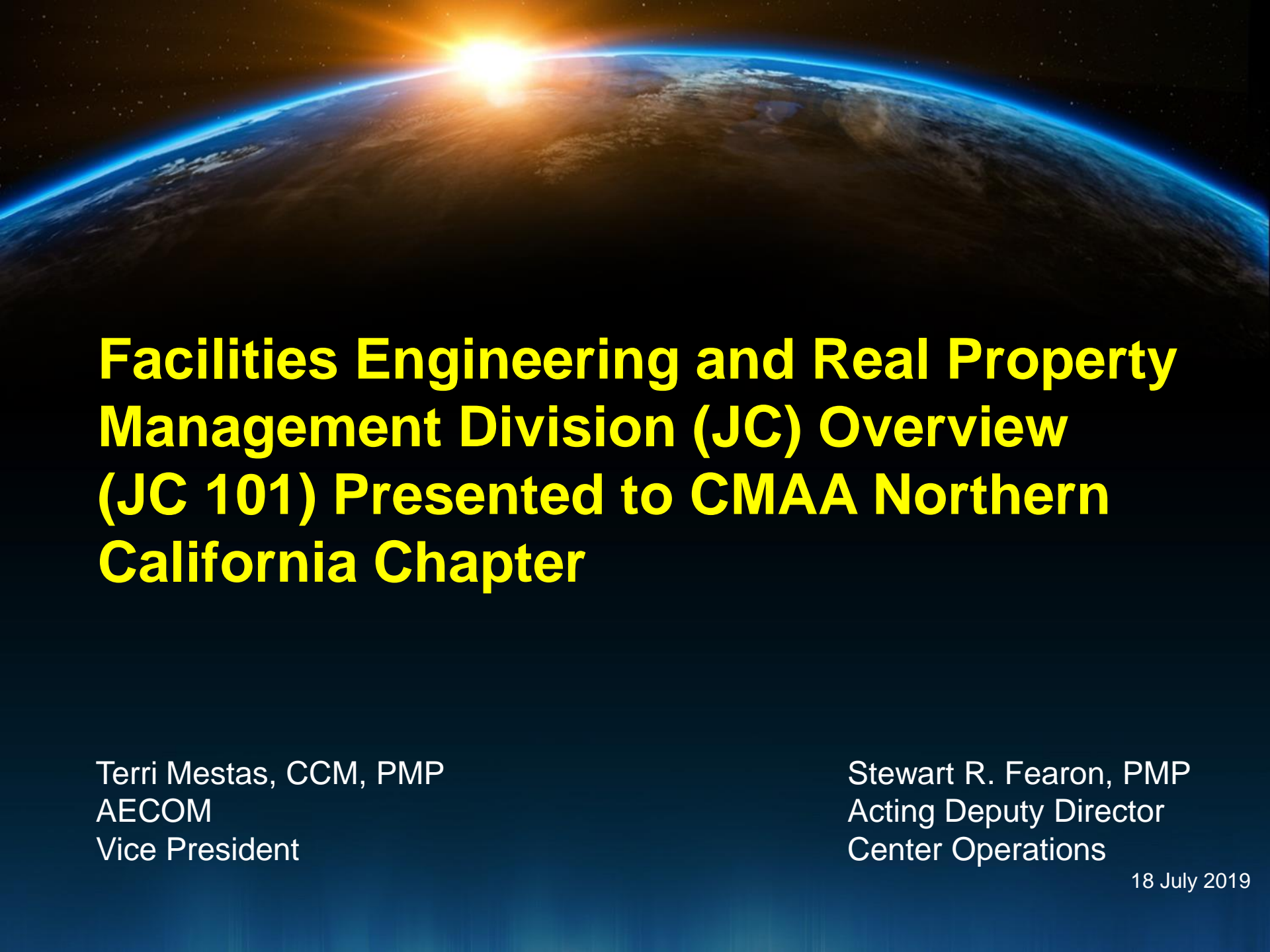
Sept. 12 – Breakfast Program:

UC Davis, CSU Sacramento, UC Davis Medical Center



SILICON
VALLEY

AMES RESEARCH CENTER



Facilities Engineering and Real Property Management Division (JC) Overview (JC 101) Presented to CMAA Northern California Chapter

Terri Mestas, CCM, PMP
AECOM
Vice President

Stewart R. Fearon, PMP
Acting Deputy Director
Center Operations

18 July 2019

Agenda

- Purpose
- Moon to Mars (M2M) Video
- Ames Core Competencies
- Mission
- Master Plan
- Capital Improvement Program
- Opportunities
- Question

Purpose

Provide an overview of the NASA Ames Research Center with an emphasis on the Facilities Engineering and Real Property Management Division mission, master plan and Capital Improvement Program.

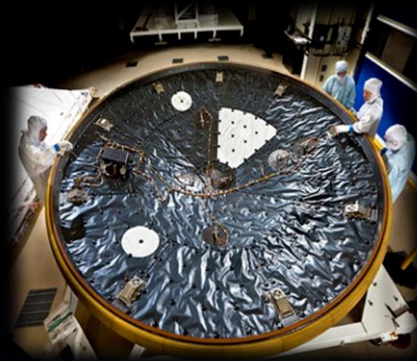
Moon2Mars

- Moon to Mars

Ames Core Competencies



Air Traffic
Management



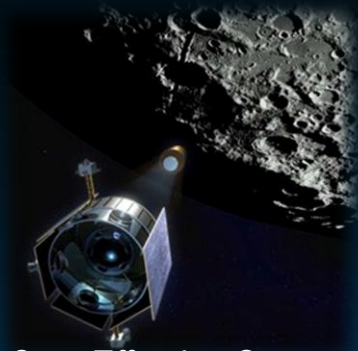
Entry Systems



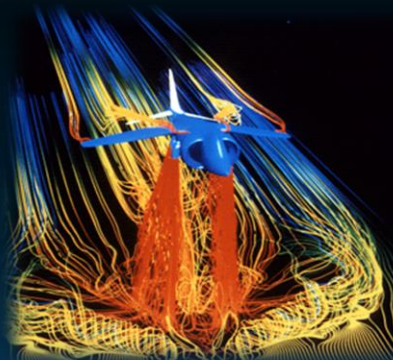
Advanced Computing-IT Systems



Intelligent-Adaptive
Systems



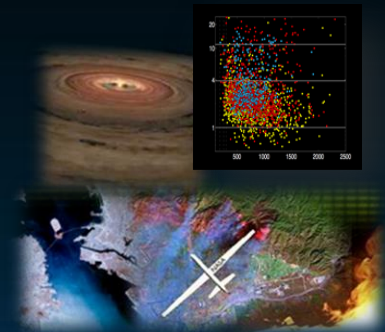
Cost-Effective Space
Missions



Aerosciences



Astrobiology and
Life Science



Space and Earth
Sciences

JC Mission

- Administer the Ames Research Center's facilities and real property consisting of 1,900 acres, 5.1 million square feet of facilities, worth over \$4.5 billion.
- Provide facility engineering (engineering analysis, design, and construction), center maintenance, grounds care, energy conservation, minor construction, facility planning, facility utilization, real property management, and support to over 2,500 personnel.
- Directly supports the historic preservation and development of Moffett Field, special events, emergency services, environmental programs and the Ames Disaster Assistance Recovery Team.

Master Planning

- Master planning, real property disposition strategy, leasing and transactional support, and development of policies and procedures
- Historic and cultural resource studies
- Conceptual engineering studies including analysis of facility operating cost and manpower; continuity of operations and shutdown constraints; displacement of people and/or equipment; and health, environmental and safety issues.



AMES TODAY

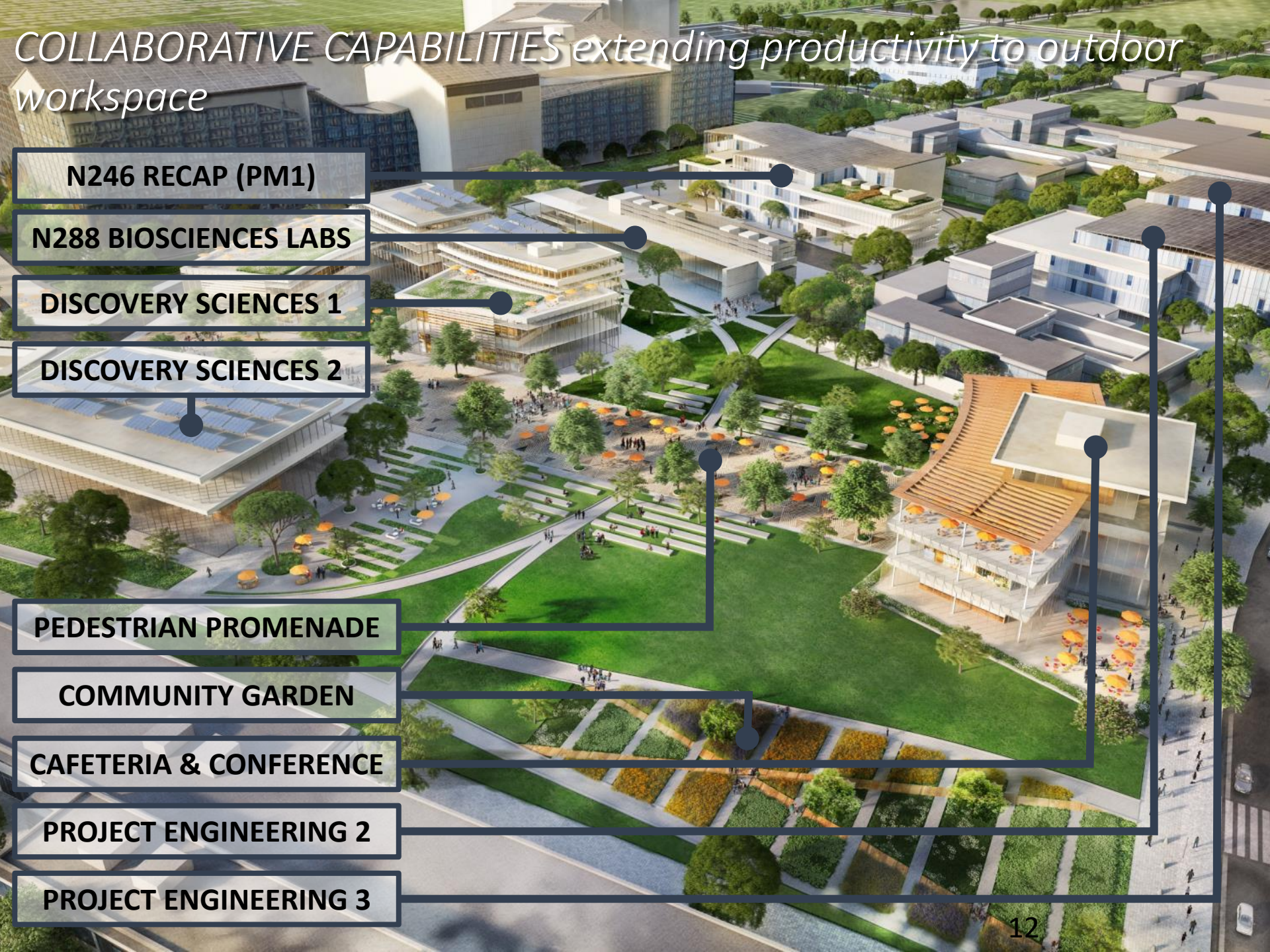


AMES CAMPUS OF THE FUTURE



OPEN SPACES TO CONNECT WORK NEIGHBORHOODS AND PROMOTE A HEALTHY WALKING ENVIRONMENT





N246 RECAP (PM1)

N288 BIOSCIENCES LABS

DISCOVERY SCIENCES 1

DISCOVERY SCIENCES 2

PEDESTRIAN PROMENADE

COMMUNITY GARDEN

CAFETERIA & CONFERENCE

PROJECT ENGINEERING 2

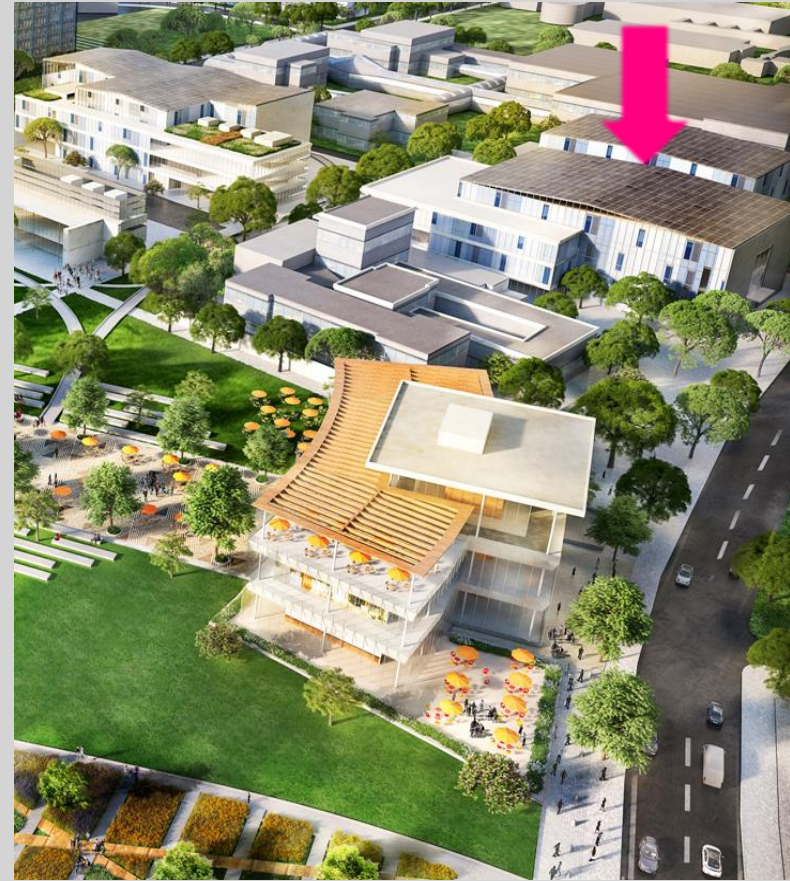
PROJECT ENGINEERING 3

REMOVE PHYSICAL BARRIERS TO ENABLE COLLABORATION AND INNOVATION



Ames Engineering Mission & Operations Facility, N278

- 60,000 sf
- Support Center core competencies and the Agency missions
- Consolidate engineering collaborative spaces, laboratories, engineering offices and support areas
- FY21 Construction
- NASA is working with GSA to develop programing and requirements



Next 6 months – N278 Study

- NASA Team works on tasks outside GSA Service Scope
 - NEPA Required Documents
 - Historical Preservation Act Section 106 Consultation Document (SHPO)
 - Preliminary Hazard Analysis (PHA)
 - Facility Safety Management Plan (FSMP)
 - Project Management Plan (PMP)
 - Engineering team continues to refine end-user requirements
- NASA Team to start Demolition scope for the new building once the site location is determined through the Feasibility Study

Ames Biosciences Collaborative Facility, N288

- 40,300 SF, Two Story Laboratory & Office Building. 21,000 sf Wet Laboratory & 15,300 sf Office and Conference Space.

Construction Schedule:

- 70% Complete
- Completion August 2019
- Occupancy October 2019



Best Practices

- ARC Processes:
<https://www.nasa.gov/centers/ames/DMS/>
- BIM – for Capital Improvement Projects (\$10M +)
- DB – for Capital Improvement Projects (\$10M +)
- Schedule and Budget – Innovation for adherence
- LEED Silver – NASA Requirement
- DUNS Number:
<https://www.grants.gov/applicants/organization-registration/step-1-obtain-duns-number.html>
- Register on SAM.gov

NASA Ames Contractor Council

- The ACC works to foster business relationships with large and small businesses.
- Visit NASA Office of Small Business Programs (OSBP) website (<http://osbp.nasa.gov/>) for small business programs, outreach efforts, business development and technology programs and awards and achievement
- ARC Procurement Office link can be found at this link Calendar: Upcoming Small Business Events:
<https://www.nasa.gov/ames/smallbusiness-schedule>

Opportunities

- AE Services – AECOM*
- AE Services Center wide – AECOM at Glenn*
- Operations and Maintenance – Jacobs*
- Multiple Award Construction Contract all Centers in the West – Multiple Firms*
 - West Coast Region \$500 million Multiple Award Construction Contract (MACC)
 - Projects initiated off Task orders , Armstrong Center is Procurement Office
 - 12 Pre-Approved Construction Contractors
 - DB and DBB

*Small Business Requirement

Multiple Award Contract (MAC)

- West Coast Region \$500 million Multiple Award Construction Contract (MACC)
- Projects initiated off Task orders , Armstrong Center is Procurement Office
- 12 Pre-Approved Construction Contractors

Multiple Award Contract (MAC)

- Southwestern Dakota, Inc
- Sea Pac Engineering, Inc
- Patriot Construction, Inc
- I.E. Pacific, Inc
- Lead Builders, Inc
- Optimum Operations
- Heffler Contracting Group
- Insight Pacific
- CJW Joint Venture
- Fed Con- VC Joint Venture
- Anna Lisa Luna Construction, Inc.
- Cutting Edge Construction Services, Inc
- Ironwood Commercial Builders, Inc

Summary

- Ames Capital Improvements Program
- How contractors can best support Ames
- Best Practices
- Upcoming Procurements and Timing
- Delivery Processes used by Ames



Questions?



Back up Slides

AECOM Technical Services

- Provide Architectural & Engineering Support Services
- IDIQ Contract, Firm Fixed Price (\$93M capacity)
- Preliminary and final A/E design
- Master and Long Range Planning
- Environmental Engineering & Impact Statements
- Project Management
- Construction Admin and Support Services
- Permits and Inspections
- 40 personnel on site but global reach
- GIS services
- Document Control/Archive/Storage

JACOBS

- Ames Facilities Support Services (AFSS)
 - Firm Fixed Price
 - 3-year Base/7 1-year Options
 - Indefinite Delivery Indefinite Quantity (IDIQ) Tasks
- Preventive Maintenance (PM)
- Programmed Maintenance (PGM)
- Predictive Maintenance (PdM)
- Reactive Maintenance – Trouble Calls (TC)
- Environmental and Emergency Support Services (Cost + Fixed Fee)
- Request for Task Order (RTO) and Contract Task Order (CTO)

DART Team

- Disaster Assistance and Rescue Team (DART)
- Six functional groups:
 - Search and Rescue
 - Damage and Utility Control
 - Structural Assessment
 - Emergency Communications
 - Medical
 - Logistics

Architect Engineering Services

- Space utilization, feasibility studies and analyze of user requirements to define projects.
- Design-Bid-Build drawings and specifications and Design-Build bridging documents
- Title II services including inspection, testing, RFI responses and submittal review, and record drawings
- Facility Hazard Analyses (FHAs) for facility renovations
- Functional Requirement Documents (FRDs), Preliminary Engineering Reports (PERs), and Final Procurement Documents including project plans, drawings, specifications, design calculations, permit/bidding documents, construction cost estimates, California Title 24 compliance, and life cycle cost analyses



Pressure System Certification



Certification of new, 480 active pressure systems, and 640 active pressure vessels) including high-pressure air, N₂ and Ar (2400-4500 psig) systems, 60,000 CF steam vacuum system, 250,000 pounds per-hour steam boiler, facility boilers, and shop and instrument air.

Electrical Power Reliability Office (EPrO)

Electrical Power Reliability Office (EPrO) Program, helping NASA ensure the integrity and protection of electrical transmission and distribution.



- Design for dual-voltage 13.8/7.2kV distribution systems.
- Coordination of arc flash settings, maintenance of relay protection devices, update baseline electrical drawings, and maintain the EPRO database.
- Engineering analysis including load flow, short circuit, harmonics, protective relays setting, and electro-magnetic transients program (EMTP) studies
- Assist with development of a comprehensive Reliability Centered Maintenance (RCM) program for NASA ARC in accordance with NPR 8831.2F.

GIS Services

- Maintain current and historical GIS data regarding site characteristics and vertical and horizontal infrastructure
- Survey monument control for entire site boundary
- Moffett field and surrounding area consisting of some 3000+ acres
- 600+ facilities and facility floor plans
- 5 million+ square feet of facilities
- 3,000 + personnel
- Nine underground utility systems
- Roads and horizontal surface features
- Landscape, and natural/man-made features



Building Floor Plans

JC Maintains and updates all ARC building floor plans. This is used in calculating space utilization, fire/emergency exit planning, search and rescue planning, as well as long term facilities planning. The space utilization data is reported to Headquarters yearly and is used to determine the funding for facilities.



Document Control Services

- Operate the Engineering Document Center (EDC), supporting 17 Branches and Codes at NASA. The EDC includes a centralized storage facility of engineering documents and information:
- 4D Database with meta data information on 135,000+ drawings
- Meridian with 100,000+ facility related construction drawings and photos from concept design to as-built drawings
- The two systems contain approximately 240,000+ drawings and information entries
- Centralized storage facility of engineering documents and information including change and version control.

SLAC Design & Construction

Capital Projects Brief for CMAA Luncheon

Paul Pollesch, P.E.

Associate Director, Design & Construction Services

18 July 2019



U.S. DEPARTMENT OF
ENERGY

Stanford
University



Agenda



1. SLAC Overview
2. SLAC Capital Project Program
3. SLAC Project Delivery
 - Project Delivery Methods
 - Partnering with SLAC
 - Best Practices
4. Contact Info & Business Opportunities

SLAC is a vibrant multi-program laboratory located in Silicon Valley and operated by Stanford University

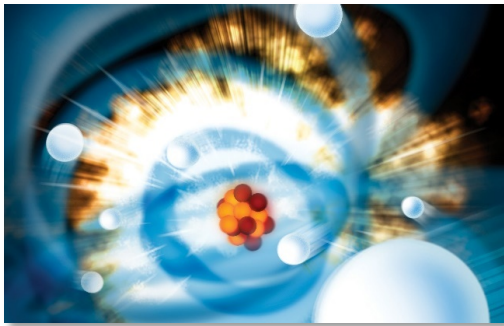
Our Mission

We explore how the universe works at the **biggest**, **smallest** and **fastest scales** and invent powerful tools used by scientists around the globe. Our research helps **solve real-world problems and advances the interests of the nation.**

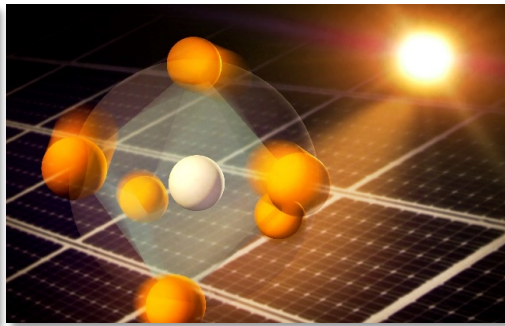
Our People

- 1,602 FTEs
- 22 Joint Faculty
- 22 Visiting Scientists
- 2,931 Facility Users
- 145 Postdocs
- 207 Grad Students
- 120 Undergrads
- ~\$600M annual BV

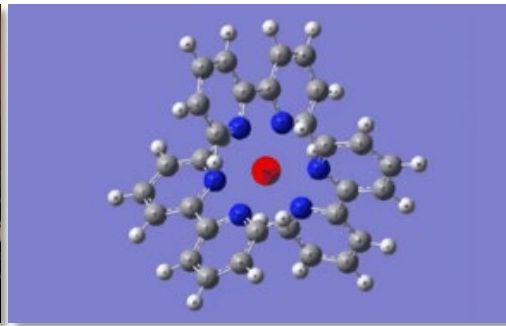
Strategic initiative 1: Be the world leader in X-ray and ultrafast science



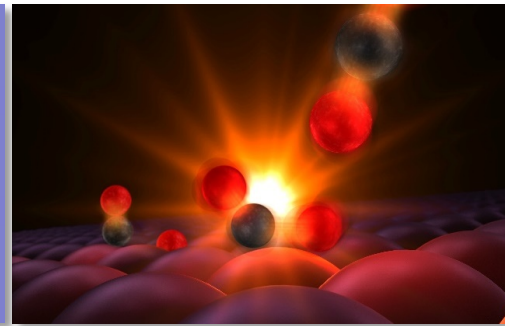
1. Unpeeling atoms and molecules from the inside out



2. Recording molecular movies of chemistry in action



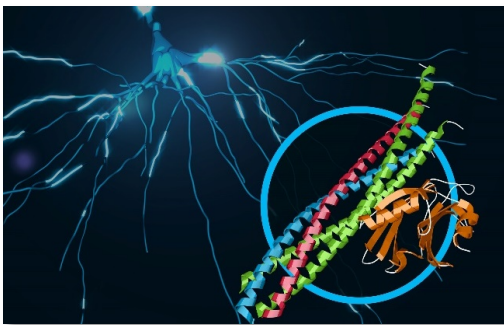
3. Watching molecules "breathe"



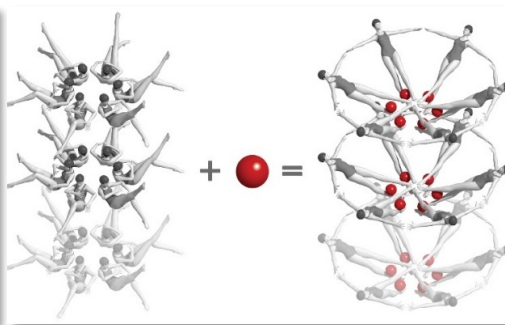
4. Catching the birth of chemical bonds



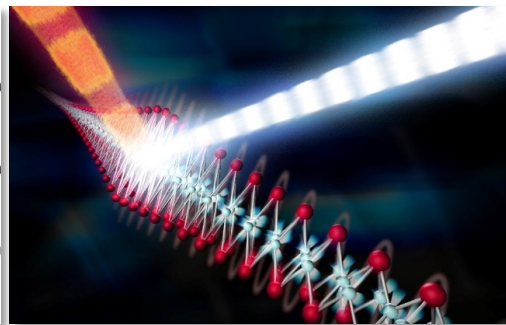
5. Cracking the mysteries of photosynthesis



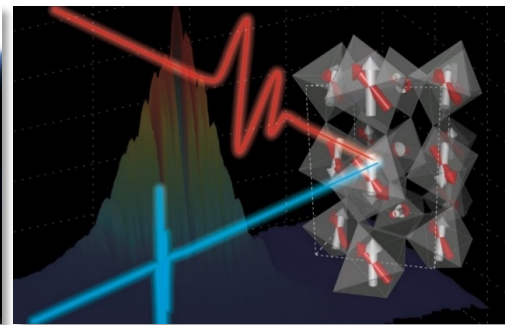
6. Mapping drug targets in motion



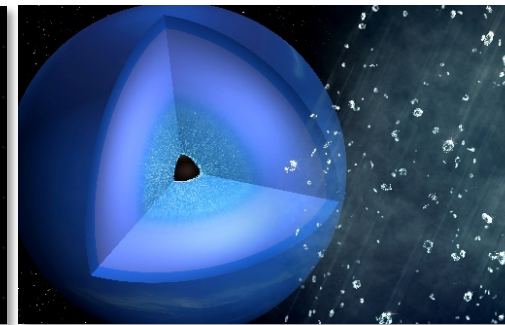
7. Uncovering the mechanics of biological machines



8. Chasing room-temperature superconductivity



9. Harnessing magnetism and electron behavior



10. Probing materials in extreme environments

10 ways SLAC's X-ray laser has transformed science

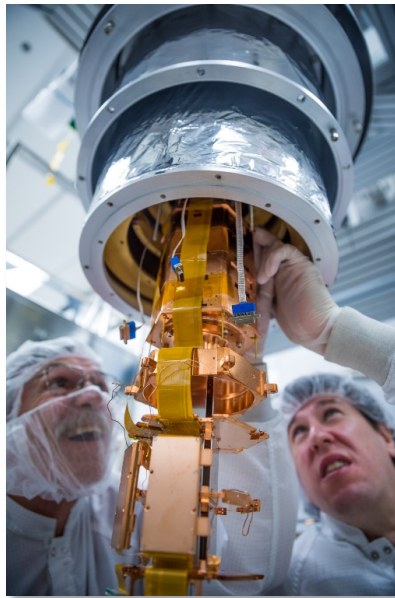
Strategic initiative 2: Foster a frontier program in the physics of the universe

Dark Energy



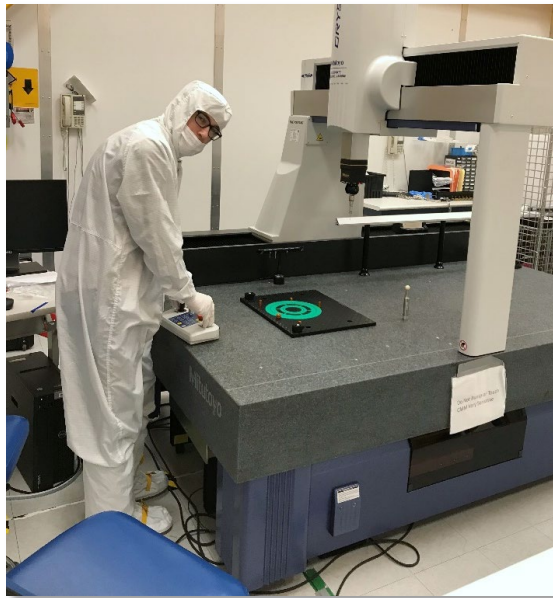
Large Synoptic Survey
Telescope camera

Dark Matter



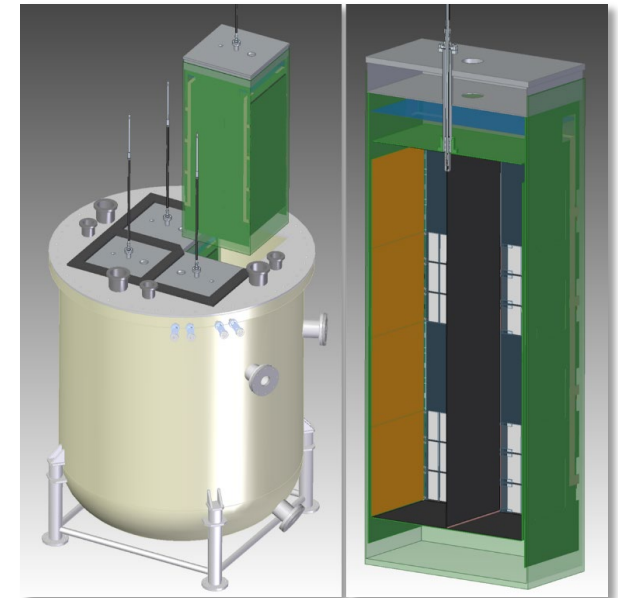
SuperCDMS tower

Higgs Physics/BSM



ATLAS coordinate
measuring machine

Neutrinos



DUNE-PRISM near detector

SLAC has a robust High Energy Physics program


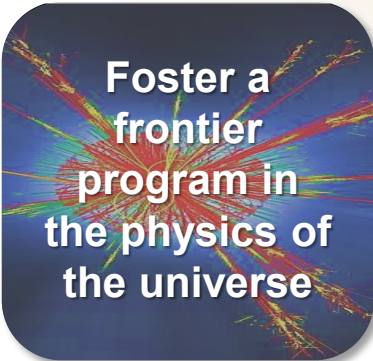

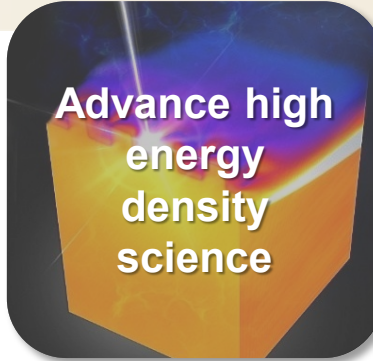


Campus Strategy



SLAC's central campus, featuring a bird's eye view of the newly renovated quad

Mission ready, reliable infrastructure aligned with our strategic initiatives



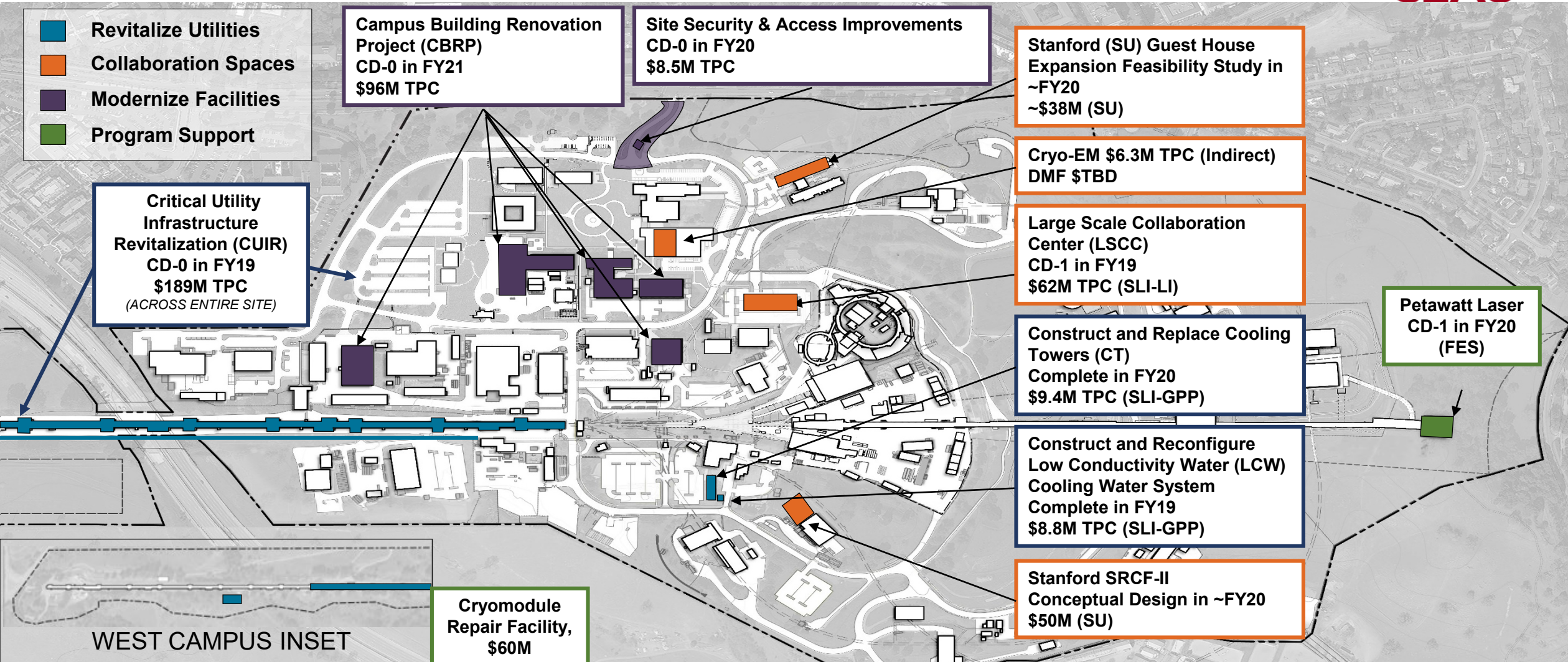
	 <p>Be the world-leader in X-ray and ultrafast science</p>	 <p>Foster a frontier program in the physics of the universe</p>	 <p>Be an innovator for massive-scale data analytics</p>	 <p>Advance high energy density science</p>	 <p>Create a world-leading bioimaging program</p>	 <p>Advance DOE's mission in quantum information science</p>
Current	Arrillaga Science Center (ASC)/PSLB				ASC	
	Infrastructure investments for LCLS-II and HE				Expansion of cryo-EM capabilities	
	Nano-X fab facility for optics	Detector Microfabrication Facility		Infrastructure investments for Petawatt Laser		Detector Microfabrication Facility
2020-2023	Large Scale Collaboration Center					
	Critical Utilities Infrastructure Revitalization					
	Campus Building Renovation Project					
	Site Security Improvements					

Campus Strategy: Projects currently proposed and underway



	2018	2019	2020	2021	2022	2023
Critical Milestones:		LCLS -II Long Downtime ◆ LCLS-II-HE CD-1 & 3A ◆ Petawatt CD-0	◆ FY20 FACET-II CD-4	◆ FY21 LCLS-II First Light	◆ FY22 LCLS-II CD-4	◆ FY23 LCLS-II-HE CD-2 & 3B
SLI (GPP & LI):	PSLB/ ASC (Fit Out)	Medium Low Voltage Revitalization (MLVR) Construct & Reconfigure Low Conductivity System (LCW)	Construct and Replace Cooling Towers (CT)	Critical Utility Infrastructure Revitalization (CUIR) (to 2025) Large Scale Collaboration Center (LSCC) (to 2024)	Campus Building Renovation Project (CBRP) (to 2025) Radioactive Material Characterization Building (RMCB)	
S & S:			Site Security Card Access & Main Gate Improvements (S&S)			
Programmatic:		LCLS II			Cryomodule Repair and Maintenance Facility (CRMF) (TBD)	
			LCLS II HE (to 2028)			
			LSST			
		FACET II		Petawatt (TBD)		
			L2SI			
Indirect:		FACET-II	LCLS			
	FY18- ~\$10-15M	FY19 ~\$10-17M	FY20 ~\$10-15M	FY21 ~\$10 – 15M	FY22- \$5 - 15M	FY23- \$5 –15M
Stanford:	Campus Quad- B006 Cryo EM				Guesthouse Expansion	
			Stanford Research Computing Facility (SRCF-II)			

Current and planned priority infrastructure



Mission-ready priorities drive our investment⁹strategy

Planned: Critical Utilities Infrastructure Revitalization (CUIR)

SLAC

Investment: \$180M+ over 5-10 years

Schedule: CD-1 FY20; Complete FY25?

Electrical systems at risk – failing components

Cooling towers cannot meet demand

Corroded domestic water/fire protection throughout site

Corroded storm drain piping and pumps throughout site

Utility Systems

- **Electrical Distribution**
- **Chilled Water**
- **Cooling Tower Water**
- **Sanitary Sewer**
- **Domestic Water**
- **Storm Drain**

Planned SLI-LI: Campus Buildings Renovation Project (CBRP)

SLAC



Building 50

Building 40

Building 44

Building 84

Building 24

Investment: \$100M?

Schedule: CD-0 FY21; Complete FY26

- Typical Project Delivery Methods
 - In the past: D/B/B, CM/GC
 - Current and future: D/B, D/B/B, CM/GC, CMAR
 - Wouldn't it be nice: IPD or IPD-lite
- Acquisition Strategies
 - ID/IQ and JOC contracts
 - LPTA and Best-Value Selection
 - FFP or FFP with incentives
 - A/E services
 - Single-trade projects may be competed to trade contractors
 - Multi-trade projects typically competed to GCs

SLAC Goals for Project Partners



- *It's simple, right?*
- **Performance**
- **Partnering**
 - Seeking new project partners
 - Maintaining long-term relationships with top performers
- **Proper Planning and Execution**
 - **Safety**
 - Quality
 - Schedule
 - Costs
 - Early identification of constraints and value engineering opportunities

- **Partnering / Relationships:**
 - **We want you to be successful on our projects**
 - Help us help you gain efficiency and effectiveness
- **Safety!**
 - Proper planning and coordination
 - Minimize impact to science operations
- **Schedule Performance:**
 - Recent projects using Last Planner® System (LPS®) have been highly effective
 - SLAC has numerous processes that require owner involvement
 - Through partnering and collaboration, a joint contractor-owner schedule
 - May use a hybrid CPM-LPS approach on future projects

A/E / CM / GC Procurement Opportunities

<https://suppliers.slac.stanford.edu/construction>

Construction and A/E Projects > \$250K



Contact Project Directly

Kris Faulkner
Procurement Team Lead – Construction & Projects
650-926-3860
krisf@slac.stanford.edu

Stanford and DOE are investing in SLAC's growth



We need great AEC partners!

A/E Firms

CM Firms

Civil & MEP trades with D/B capability

GCs with D/B capability

*New Science Facilities, Cleanrooms, Building Renovations,
Maintenance & Repair, Site-wide utilities, MEP*

Interested? Let's discuss opportunities.

<https://suppliers.slac.stanford.edu/construction>

Contacts:

Kris Faulkner
Construction Procurement
650-926-3860
krisf@slac.stanford.edu

Paul Pollesch, P.E.
Design & Construction
650-926-8539
paulp@slac.stanford.edu

Thank you



Become a Supplier at SLAC

BECOME A SUPPLIER ▾

FIND OPPORTUNITIES ▾

CONTACT US



➔ Login as Active Supplier

👤 Register as New Supplier

🏗️ Construction

QUICK LINKS

Step 1. Register for a free **Dun & Bradstreet Number (DUNS).**

Step 2. Register and maintain a free account in the **System for Award Management (SAM). Follow these **instructions** or visit the **Federal Service Desk**. You may also call 866.606.8220 to register.**

Step 3 Select the link below to start your SLAC Registration:

Supplier Registration

****NO FEE TO REGISTER AT ANY GOVERNMENT WEBSITE****

Construction Procurement Page

<https://suppliers.slac.stanford.edu/construction>



search web or people

GO

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Suppliers

[BECOME A SUPPLIER](#) ∨

[FIND OPPORTUNITIES](#) ∨

[CONTACT US](#)



CONSTRUCTION QUICK LINKS

[Construction Homepage](#)

[Pre-Solicitation](#)

[Solicitation](#)

[Award/Notice to Proceed](#)

[Subcontract Administration](#)

[Subcontract Closeout](#)

[Relationship & Responsibilities](#)

[Construction Process Definitions](#)

Construction