LCLS Room Data Sheet #	1.9-1041	Far Experimental Hall - Open Work Area	Revision 2

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REVISION INFORMATION

Rev 2. Added floor drain, added figure. Changed space temperature stability to +/- 2F

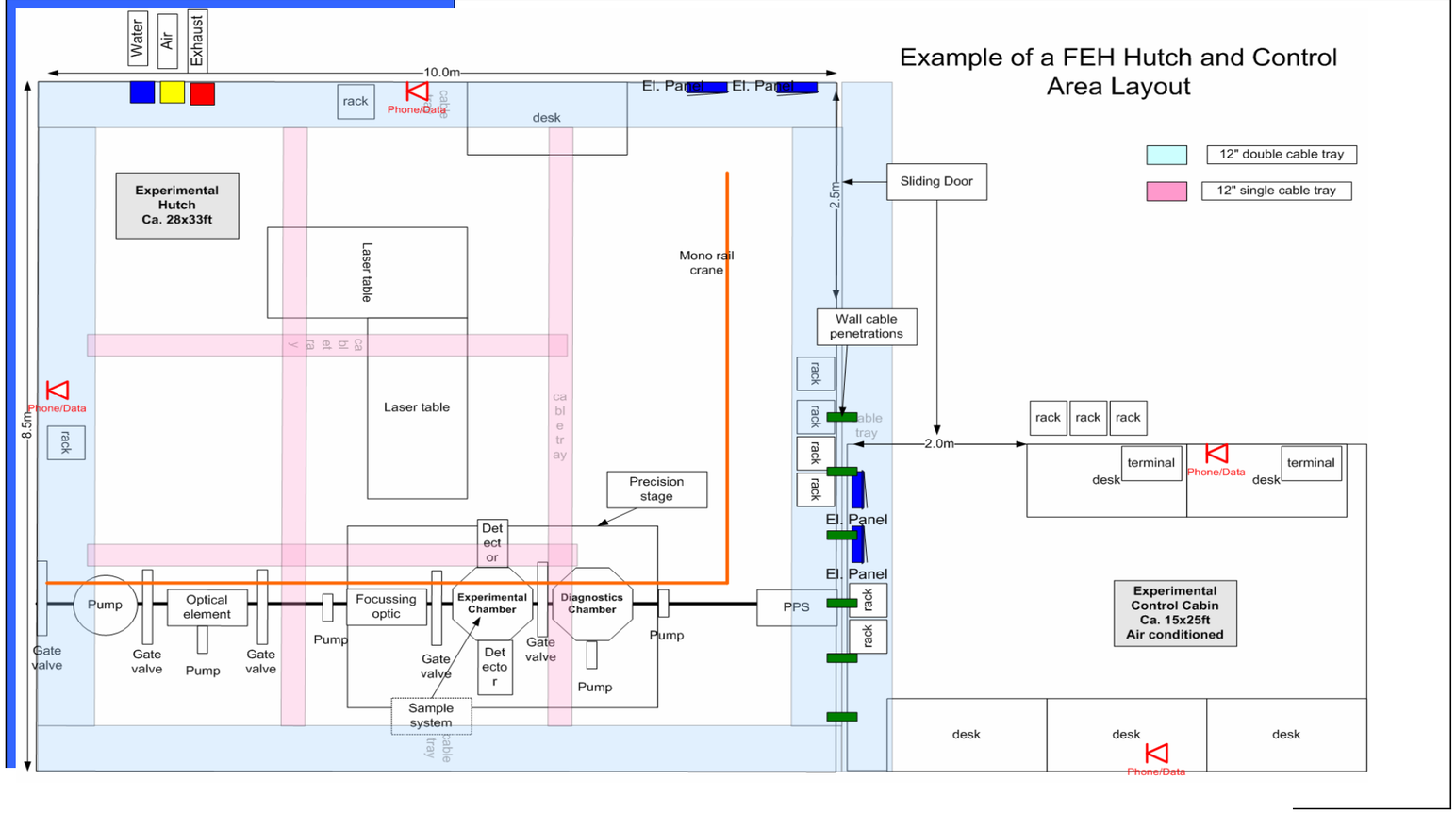
Updated applicable Codes and Standards. Added power diversity factor

ROOM DATA SHEETS

FACILITY COMPONENT	OPEN WORK AREA (FEH) - ROOM DATA SHEET			
	Name of Building	Open Work Area (FEH)		
	Organization or Department	SLAC, Stanford University		
	Net area	sq. meters		
	Critical dimensions	**H:**		
		W:		
		L:		
	Hours of operation	Facility is open 24/7/365 for users		
	Users/Occupancy	Laboratory workers and external users utilize this central area as a common work area. "B" occupancy group.		
	Building orientation	The Open Work Area is located directly adjacent and between the Hutches of the FEH.		
FUNCTIONAL OBJECTIVE	Provide a common work area for Laboratory workers and use for control area for the experiments in the hutches. Each control area (3) shall consist of racks, office furnitures for 4-5 persons, computers, printers, monitors, etc.			
PLANNING CONSIDERATIONS & CRITICAL FACTORS	Open work area includes the entire FEH, except the hutches. Control area for each hutch shall be independent and isolated from adjacent control areas. Noise level from any HVAC equipment in this area shall be reduced similar to office environment NC: 35 Considerations shall be given for egress and tunnel access.			
FINISHES	Wall	Reinforced concrete, gunite, painted surface (white)		
	Ceiling	Reinforced concrete, gunite, painted surface (white)		
	Floor	Sealed concrete with epoxy coating- Refer to LCLS ESD 1.9-103 General Concrete Guideline, and LCLS ESD 1.9-102-Accelerator Tunnel Construction Tolerance Specification		
	Base	Rubber base		
	Doors	Limited to exit and tunnel access		
	Fenestrations	None		
	Acoustical	Typical laboratory decibel level required. NC=35		
APPLICABLE STANDARDS	29 CFR Part 1910 Occupational Safety and Health Standards Dept of Labor, 29 CFR Part 1926 Safety and Health Regulations for Constructions Dept of Labor, Uniform Building Code (UBC) 1997 including appendixes, National Electric Code (NEC) 2002, Uniform Mechanical Code (UMC) 2003 including appendixes, Uniform Plumbing Code (UPC) 2003 including appendixes, Uniform Fire Code (UFC) 1997 including appendixes, California Code of Regulations Title 8 Industrial Safety, Title 19 Public Safety, NFPA 70 National Fire Codes, National electrical Safety Code ANSI C2, Occupational Safety and Health Act (OSHA), General Services Administration 41 CFR part 101-19, Environmental Protection Agency 40 CFR Parts 264 and 265, SLAC Environmental Safety & Health Manual, General Industrial Activities Storm Water Permit (SLAC Permit), NFPA 101 life Safety Code, Title 24, DOE standard 10 CFR Part 435, ASHRAE/IES Standards 90.1, NFPA Standard 13 and SLAC Fire Marshal requirements, LCLS Cabling Standard, SLAC LOTO			

VIEWS & SCHEMATICS (N. T. S.)

FIGURE No. 1



MECHANICAL REQUIREMENTS	**HVAC**	☒	Heating system	Temp:	☐	Mechanical humidification
		☒	Air conditioning	Temp: 72 degrees F +/- 2 degree F	☐	Direct exhaust system - for laser table experiment enclosures only.
		☐	Direct supply		☐	Positive pressure system
		☐	Indirect supply		☐	Negative pressure system
		☐	Smoke control system		☐	Standard registers
		☒	Temperature sensors connected to SLAC's DDC system		☐	Requirement for gases
		Comments: **Control area has no air cleanliness requirements**				
	Communications	☒	Telephone- 2 phone lines/location		☐	PA speakers
		☒	Data port- 2 jacks/location		☐	PA station
		☐	Payphone			CCTV camera
		☒	Fire alarm station		☐	CCTV monitor
			Intercom			
		Comments: 1) Cable trays should be made from galvanized steel. Provide each cable tray with 1-4#0 bare copper wire for grounding.				
	Plumbing/Fire Protection	☐	Hot water system		☐	Electric water cooler
		☐	Cold water system		☐	Drinking fountain
		☐	Tempered water		☒	Smoke detection system
		☐	Waste drain		☐	Standard sprinkler heads
		☒	Floor drain		☒	Eye wash / Safety shower
		☐	Trench drain			*See FEH overall requirements and figures*
		Comments:				

ELECTRICAL REQUIREMENTS	**Power supply**	☐	208V outlets-1 phase- 30 amps	☐	Uninterrupted power supply		
		☒	110V, 1ph Double duplex outlets, 20 amps locate at 10 ft apart on all walls.	☒	Special electric	Type:	
		☐	Emergency power				
		Comments: 1- Number of circuits per panel: 42 each panel for clean and dirty power. 2 - Provide six (6) electrical panels, 208-120 volts, 3 ph, three "clean" and three "dirty" power for the three open work areas. Each panel shall have a main breaker, 100 amps.Capacity of each panel: 42 circuits. Diversity factor: 60%					
	Lighting	☒	Light fixtures -	☐	Remote lighting control		
		☐	Fixture type I: Downlight	☒	Light switches		
		☐	Fixture type II: Bollard (exterior)	☒	Lighting level	FC: 75	
		☐	Emergency lighting				
		Comments: 1- All conduits are surface mounted.					
RADIATION/SEISMIC/VIBRATIONS ISSUES	**Comments:** 1- All equipment (HVAC, cable trays, panels, etc) and systems are to be seismically braced and restrained per SLAC Seismic Standards and per Code. 2- Vibration criteria: 100 micro inch/sec.						
SPECIAL REQUIREMENTS FOR EQUIPMENT	**Comments:** Each control area, will have two to three I&C racks (University Furnished)						

CHEMICALS / GASES	CHEMICALS			SPECIALTY GASES		
	#	Chemical Type	Quantity	#	Gas Type	Quantity
ENVIRONMENTAL NEEDS						