

WBS Level						Description
1	2	3	4	5	6	
1						LCLS PROJECT - PED & CONSTRUCTION
1	01					LCLS PROJECT MGMT, PLANNING & ADMN (TEC)
1	01	01				Environment, Safety & Health
1	01	01	01			Radiation Physics
1	01	01	02			ESH Management & Coordination
1	01	01	03			Seismic & Engineering Support
1	01	02				Project Management
1	01	02	01			SLAC Project Management Office
1	01	02	01	01		SLAC Project Office - General
1	01	02	01	02		SLAC Project Support
1	01	02	01	03		SLAC Project Office M&S
1	01	02	01	04		Reserved
1	01	02	01	05		Reserved
1	01	02	02			Reserved
1	01	02	03			Reserved
1	01	03				Technical Integration
1	01	03	01			Global Controls
1	01	03	02			Global Alignment Coordination
1	01	03	03			Global Installation Coordination
1	01	04				Education Support
1	01	04	01			Education/Outreach Travel
1	01	04	02			Education/Outreach M&S
1	01	05				Reserved
1	02					INJECTOR SYSTEM
1	02	01				Injector System Management & Integration
1	02	01	01			Injector System Integration Effort / M&S
1	02	01	02			Reserved
1	02	01	03			Reserved
1	02	02				Injector Controls Subsystem
1	02	02	01			Reserved
1	02	02	02			LLRF Controls
1	02	02	02	01		Readback & Controls - RF Gun LLRF & Temperature
1	02	02	02	02		Readback & Controls - L0 LLRF
1	02	02	02	03		Readback & Controls - LLRF Transverse Cavity
1	02	02	02	04		S-Band Cavity Controls
1	02	02	02	05		Reserved
1	02	02	03			E-Beam Diagnostics Controls
1	02	02	03	01		Reserved
1	02	02	03	02		Controls - Toroids
1	02	02	03	03		Controls - Faraday Cups
1	02	02	03	04		Controls - Tune-Up Dump
1	02	02	03	05		Controls - Profile Monitors
1	02	02	03	06		Controls - E/O Diagnostics
1	02	02	03	07		Controls - BPM
1	02	02	03	08		Reserved
1	02	02	04			Laser Controls
1	02	02	04	01		Reserved
1	02	02	04	02		Controls - Gun Laser
1	02	02	05			Laser Heater Controls
1	02	02	06			Timing Controls
1	02	02	07			Vacuum Controls
1	02	02	08			Software & Controls Infrastructure
1	02	02	08	01		Reserved
1	02	02	08	02		Reserved
1	02	02	08	03		Data Communications
1	02	02	08	04		Computers & Crates

WBS Level						Description
1	2	3	4	5	6	
1	02	02	09			Power Supply Controls
1	02	02	10			PPS,BCS,MPS Controls
1	02	03				Injector Lasers
1	02	03	01			Reserved
1	02	03	02			Drive Laser Oscillator
1	02	03	03			Oscillator Diagnostics & Isolator
1	02	03	04			Stretcher / Shaper
1	02	03	05			Oscillator - Based Measurement
1	02	03	06			Oscillator Beam Transport & Encl
1	02	03	07			PreAmplifier
1	02	03	08			PreAmplifier Diagnostics & Isolator
1	02	03	09			Preamplifier Temporal Pulse Shaping and Low Power Compressor
1	02	03	10			KHz Pulse Selection & 120Hz Splitter
1	02	03	11			PreAmplifier Spatial Filter
1	02	03	12			PreAmplifier - Based Measurement
1	02	03	13			PreAmplifier Beam Transport & Encl.
1	02	03	14			Final Amplifier
1	02	03	15			Final Amplifier Diagnostics
1	02	03	16			120Hz Combiner
1	02	03	17			High Power Compressor
1	02	03	18			High Pwr Vac Spatial Filters & Relay
1	02	03	19			Final Amplifier-Based Meas
1	02	03	20			Final Amp Beam Transport & Encl
1	02	03	21			UV Conv Harmonic Generation Unit
1	02	03	22			UV Diagnostics
1	02	03	23			UV Measurements
1	02	03	24			UV Optical Transport & Diag.
1	02	03	25			Visible Optical Transport & Diag.
1	02	03	26			IR Optical Transport & Diagnostics
1	02	03	27			UV Conditioning
1	02	03	28			LB Infrastruc & LB System-Wide Items
1	02	03	29			Alignment Laser
1	02	03	30			Light Path to Streak Camera
1	02	04				RF Gun, Load Lock & Supports
1	02	04	01			RF Gun (Copper Brazement Only)
1	02	04	02			RF Gun Supports
1	02	04	03			Gun Load Lock
1	02	04	04			Gun Load Lock Supports
1	02	04	05			Gun Solenoid
1	02	04	06			Gun Solenoid Supports
1	02	04	07			Gun RF Feed
1	02	04	08			Gun RF Feed Supports
1	02	05				Gun to Linac Section (GTL)
1	02	05	01			GTL BPMs (3ea)
1	02	05	02			GTL Faraday Cup/YAG1
1	02	05	03			GTL Current Monitors (CM1)
1	02	05	04			Reserved
1	02	05	05			Reserved
1	02	05	06			GTL Steering Coils, (2) (SC1)
1	02	05	07			GTL Vacuum Components
1	02	05	08			GTL Supports
1	02	05	09			Gun Spectrometer (GS) Assembly
1	02	05	09	01		GS Dipole
1	02	05	09	02		GS Current Monitor (CM2)
1	02	05	09	03		GS BPM (1)
1	02	05	09	04		GS Faraday Cup/YAG2

WBS Level						Description
1	2	3	4	5	6	
1	02	05	09	05		Reserved
1	02	05	09	06		GS Quadrupoles
1	02	05	09	07		GS Supports
1	02	05	10			GTL Pumping & Optic Chamber
1	02	05	11			GTL YAG (1ea)
1	02	06				Injector Linac Structures
1	02	06	01			L0-1 Structure Assembly
1	02	06	02			L0-2 Structure Assembly
1	02	06	03			Major Linac Support
1	02	06	04			Linac Solenoid & Supports
1	02	07				L0-1 to L0-2 Section (L0-1TL0-2)
1	02	07	01			L0-1TL0-2 Quadrupoles (2)
1	02	07	02			L0-1TL0-2 BPMs (2)
1	02	07	03			Reserved
1	02	07	04			L0-1TL0-2 OTR/YAG (1)
1	02	07	05			L0-1TL0-2 Linac Steering Coils (4)
1	02	07	06			L0-1TL0-2 Vacuum Components
1	02	07	07			L0-1TL0-2 Major tube support structure
1	02	08				Linac to DL1 (LTDL1)
1	02	08	01			LTDL1 Current Monitors (CM3)
1	02	08	02			LTDL1 BPMs (6ea)
1	02	08	03			LTDL1 OTR(5)/YAG (1)
1	02	08	04			LTDL1 Quadrupoles (6ea)
1	02	08	05			Reserved
1	02	08	06			LTDL1 RF Kicker
1	02	08	07			LTDL1 Steering Coils (2ea)X-Y
1	02	08	08			LTDL1 PPS Stopper
1	02	08	09			LTDL1 E/O EO2
1	02	08	10			LTDL1 Minor Tube Supports
1	02	09				Dog Leg 1 Bend (DL1)
1	02	09	01			DL1 B01 & B02 Dipoles
1	02	09	02			DL1 QB Quadrupole
1	02	09	03			DL1 Wire Scanner
1	02	09	04			DL1 OTR
1	02	09	05			DL1 Supports
1	02	09	06			DL1 Vacuum Chamber
1	02	10				DL1 to Linac (DL1TL)
1	02	10	01			DL1TL BPMs (2)
1	02	10	02			DL1TL Steering Coils (3eaX-Y Assys)
1	02	10	03			DL1TL Quadrupoles (2)
1	02	10	04			DL1TL Vacuum Components
1	02	10	05			DL1TL Current Monitor (CM4)
1	02	10	06			DL1TL OTR
1	02	10	07			Reserved
1	02	11				Straight Ahead Beamline (SAB)
1	02	11	01			SAB Spectrometer Dipole
1	02	11	02			SAB Quadrupoles (3)
1	02	11	03			SAB Current Monitor (CM5)
1	02	11	04			SAB BPM (4ea)
1	02	11	05			SAB YAG
1	02	11	06			SAB Vacuum Chamber and Components
1	02	11	07			SAB Beam Dump and Shielding
1	02	11	08			SAB Supports
1	02	11	09			SAB Steering Coils (2)
1	02	12				Injector RF Waveguide Subsystem
1	02	12	01			RF Waveguides

WBS Level						Description
1	2	3	4	5	6	
1	02	12	02			Reserved
1	02	13				Injector RF Subsystem
1	02	13	01			S-Band Low Level System
1	02	13	01	01		Controls Interface & Timing
1	02	13	01	02		LLRF Phase Reference System
1	02	13	01	03		LLRF Monitor & Control System
1	02	13	01	04		Beam Phase Monitor Cavity
1	02	13	01	05		RF System S/W Development / Docs
1	02	13	02			Reserved
1	02	13	02	01		Reserved
1	02	13	02	02		Reserved
1	02	13	02	03		Reserved
1	02	14				Cathode Processing (CP) Station
1	02	14	01			CP Cathode Assembly & Supports
1	02	14	02			CP Load Lock
1	02	14	03			CP Load Lock Supports
1	02	14	04			CP Station
1	02	14	05			Cathode Lab Infrastructure
1	02	15				Injector Laser Heater Subsystem
1	02	15	01			System Design & Optimization
1	02	15	02			Beam Conditioning Optics (Laser Bay)
1	02	15	03			Transport Optics (Bay to Tunnel)
1	02	15	04			Chicane
1	02	15	05			Undulator
1	02	15	06			Photon Beam Diagnostics
1	02	15	07			Reserved
1	02	15	08			Reserved
1	02	16				Injector Protection & Pwr Conv Subsystem
1	02	16	01			Personnel Protection Subsystem (PPS)
1	02	16	02			Reserved
1	02	16	03			Machine Protection Subsystem (MPS)
1	02	16	04			Injector Power Conversion
1	02	16	04	01		Beamline Pwr Supplies - (Dipole Type)
1	02	16	04	01	01	10kw Power Supply - (Solenoid 1)
1	02	16	04	01	02	30kw Power Supply - (Solenoid 2)
1	02	16	04	01	03	Reserved
1	02	16	04	01	04	15kw Power Supply - (B1-2)
1	02	16	04	01	05	15kw Power Supply - (B3 Spect)
1	02	16	04	01	06	10kw Power Supply - (New)
1	02	16	04	02		Beamline Pwr Supplies - (Trim Type)
1	02	16	04	02	01	12Amp Power Supply - (MCOR_1)
1	02	16	04	02	02	30Amp Power Supply - (MCOR_2)
1	02	16	04	02	03	30Amp Power Supply - (MCOR_3)
1	02	16	04	02	04	30Amp Power Supply - (MCOR_4)
1	02	16	04	03		Controls & Power Supply - Misc Hdwr
1	02	16	04	04		Reserved
1	02	17				Injector Installation & Alignment
1	02	17	01			Injector Infrastructure Installation
1	02	17	02			Reserved
1	02	17	03			Injector Lasers Install & Align
1	02	17	04			RF Gun & Load Lock Install & Align
1	02	17	05			Gun to Linac Section (GTL) Install & Align
1	02	17	06			Injector Linac Structures Install & Align
1	02	17	07			L0-1 to L0-2 Section (L0-1TL0-2) Install & Align
1	02	17	08			Linac to DL1 (LTDL1) Install & Align
1	02	17	09			Dog Leg 1 Bend (DL1) Install & Align

WBS Level						Description
1	2	3	4	5	6	
1	02	17	10			DL1 to Linac (DL1TL) Install & Align
1	02	17	11			Straight Ahead Beamline (SAB) Install & Align
1	02	17	12			Injector RF Waveguide System Install & Align
1	02	17	13			Reserved
1	02	17	14			Cathode and Load Lock Install & Align
1	02	17	15			Injector Laser Heater Subsystem Install & Align
1	02	17	16			Reserved
1	02	17	17			Power Conversion Subsystem Installation
1	03					LINAC SYSTEM
1	03	01				System Management & Integration
1	03	01	01			Linac Mechanical Integration
1	03	01	01	01		L01 System Integration
1	03	01	01	02		BC1 System Integration
1	03	01	01	03		L02 System Integration
1	03	01	01	04		BC2 System Integration
1	03	01	01	05		L03 System Integration
1	03	01	01	06		LTU System Integration
1	03	01	01	07		E-Dump System Integration
1	03	01	02			Reserved
1	03	01	02	01		Reserved
1	03	01	02	02		Reserved
1	03	01	02	03		Reserved
1	03	01	03			Travel
1	03	01	04			Linac Management
1	03	02				Linac Controls & Power Conversion Subsystem
1	03	02	01			Personnel Protection System (PPS)
1	03	02	02			Beam Containment System (BCS)
1	03	02	03			Machine Protection System (MPS)
1	03	02	04			Linac Power Conversion Subsystem
1	03	02	04	01		Beamline Power Supplies - (Dipole Type)
1	03	02	04	01	01	30kw Pwr Supply - (B11-14)
1	03	02	04	01	02	Power Supply - (B21-26)
1	03	02	04	01	03	78kw Pwr Supply - (B31-34)
1	03	02	04	01	04	Reserved
1	03	02	04	01	05	Power Supply - (BY1)
1	03	02	04	01	06	Kicker (BYBKIK)
1	03	02	04	01	07	Reserved
1	03	02	04	01	08	78kw Pwr Supply - (Dump Bend)
1	03	02	04	01	09	Reserved
1	03	02	04	02		Beamline Power Supplies - (Quad Type)
1	03	02	04	02	01	2kw Power Supply - (SEC-23)
1	03	02	04	02	02	2kw Power Supply - (SEC-24)
1	03	02	04	02	03	2kw Power Supply - (SEC-25)
1	03	02	04	02	04	2kw Power Supply - (SEC-26)
1	03	02	04	02	05	2kw Power Supply - (SEC-27)
1	03	02	04	02	06	2kw Power Supply - (SEC-28)
1	03	02	04	02	07	2kw Power Supply - (SEC-29)
1	03	02	04	02	08	10kw Power Supply - (Q24701)
1	03	02	04	02	09	10kw Power Supply - (QM21)
1	03	02	04	02	10	Reserved
1	03	02	04	02	11	10kw Power Supply - (Q24901)
1	03	02	04	02	12	10kw Power Supply - (QM22)
1	03	02	04	02	13	Power Supply - (QVM1)
1	03	02	04	02	14	Power Supply - (QVM2)
1	03	02	04	02	15	Power Supply - (QVM3)
1	03	02	04	02	16	Power Supply - (QVM4)

WBS Level						Description
1	2	3	4	5	6	
1	03	02	04	02	17	Power Supply - (QVB1)
1	03	02	04	02	18	Power Supply - (QDL1)
1	03	02	04	02	19	Power Supply - (QE31)
1	03	02	04	02	20	Power Supply - (QEM1)
1	03	02	04	02	21	Power Supply - (QEM2)
1	03	02	04	02	22	Power Supply - (QEM3)
1	03	02	04	02	23	Power Supply - (QEM4)
1	03	02	04	02	24	Power Supply - (QTm1)
1	03	02	04	02	25	Power Supply - (QTm2)
1	03	02	04	02	26	Power Supply - (QUM1)
1	03	02	04	02	27	Power Supply - (QUM2)
1	03	02	04	02	28	Power Supply - (QUM3)
1	03	02	04	02	29	Power Supply - (QUM4)
1	03	02	04	02	30	Power Supply - (QDMP)
1	03	02	04	02	31	Power Supply - (QUE1)
1	03	02	04	02	32	Power Supply - (QUE2)
1	03	02	04	03		Beamline Power Supplies - (Trim Type)
1	03	02	04	03	01	12Amp Power Supply - (MCOR_1)
1	03	02	04	03	02	30Amp Power Supply - (MCOR_2)
1	03	02	04	03	03	30Amp Power Supply - (MCOR_3)
1	03	02	04	03	04	30Amp Power Supply - (MCOR_4)
1	03	02	04	03	05	Reserved
1	03	02	04	03	06	Reserved
1	03	02	04	03	07	Reserved
1	03	02	04	03	08	Reserved
1	03	02	04	03	09	Reserved
1	03	02	04	03	10	Power Supply - (MCOR_LTU1)
1	03	02	04	03	11	Power Supply - (MCOR_LTU2)
1	03	02	04	03	12	Power Supply - (MCOR_LTU3)
1	03	02	04	03	13	Power Supply - (MCOR_LTU4)
1	03	02	04	03	14	Power Supply - (MCOR_LTU5)
1	03	02	04	03	15	Power Supply - (MCOR_LTU6)
1	03	02	04	04		Controls & Power Supply
1	03	02	05			Controls - LLRF
1	03	02	06			Controls - E-Beam Diagnostic
1	03	02	06	01		Controls - Wire Scanners
1	03	02	06	02		Controls - BPMs
1	03	02	06	03		Controls - Toroids
1	03	02	06	04		Controls - Stoppers
1	03	02	06	05		Controls - Profile Monitors
1	03	02	06	06		Controls - E/O Diagnostics
1	03	02	06	07		Controls - Bunch Length Monitors
1	03	02	06	08		Controls - Beam Loss Monitors
1	03	02	06	09		Controls - Single Beam Dump
1	03	02	06	10		Controls - E Beam Dump
1	03	02	06	11		Controls - Protection Collimator
1	03	02	06	12		Controls - Movable Collimator
1	03	02	06	13		Controls - X-Band Accel Structure
1	03	02	07			Reserved
1	03	02	08			Controls - Timing
1	03	02	09			Controls - Vacuum
1	03	02	09	01		Controls - Vacuum Instrumentation & Interlocks
1	03	02	09	02		Controls - Vacuum Pump Power Supplies
1	03	02	10			Software & Controls Infrastructure
1	03	02	10	01		Reserved
1	03	02	10	02		Reserved

WBS Level						Description
1	2	3	4	5	6	
1	03	02	10	03		Reserved
1	03	02	10	04		Data Communications
1	03	02	10	05		Computers
1	03	03				Linac Magnets & Supports
1	03	03	01			Bend Magnet (BX1_BC1)
1	03	03	02			Bend Magnet (BX3_LTU)
1	03	03	03			Bend Magnet (BX2_BC2)
1	03	03	04			Bend Magnet (BY_LTU)
1	03	03	05			Quad Magnet (Quad_LTU)
1	03	03	06			Reserved
1	03	03	07			Quad Magnet (QE)
1	03	03	08			Corrector Magnet (Type 4)
1	03	03	09			Bend Magnet (BYD_LTU)
1	03	03	10			Quad Magnet (QA)
1	03	03	11			Bend Magnet (BYPM_LTU)
1	03	03	12			Bend Magnet (BYKIK_LTU)
1	03	03	13			Bend Magnet (BYW_LTU)
1	03	04				Linac Vacuum Subsystem
1	03	04	01			Reserved
1	03	04	02			Linac Beamline Vacuum System
1	03	04	03			BC1 Vacuum System
1	03	04	04			BC2 Vacuum System
1	03	04	05			Linac to Undulator (LTU) Vacuum System
1	03	04	06			Dumpline Vacuum System
1	03	05				Linac Electron Diagnostics
1	03	05	01			Wire Scanners (15)
1	03	05	02			Beam Position Monitors
1	03	05	02	01		BPMs - Linac Standard (6ea)
1	03	05	02	02		BPMs - RF (8ea)
1	03	05	02	03		BPMs - FFTB (9ea)
1	03	05	02	04		BPMs - High Resolution BC1 (3ea)
1	03	05	03			Toroids (9ea) Beam Charge
1	03	05	04			Stoppers TU Dump (2ea)
1	03	05	05			Profile Monitors (6/4/1 ea)
1	03	05	06			E/O Bunch Length Monitors (1ea)
1	03	05	07			Bunch Length Monitors (4ea)
1	03	05	08			Beam Loss Monitors
1	03	05	08	01		Beam Loss Monitors (10 PIC)
1	03	05	08	02		Beam Loss Monitors (2 PLIC)
1	03	05	09			Single Beam Dump (1ea)
1	03	05	10			Electron Beam Dump (1ea)
1	03	05	11			Protection Collimators (4ea)
1	03	05	12			Movable Collimators (6ea)
1	03	05	13			Safety Dump
1	03	06				Linac RF Subsystem
1	03	06	01			Reserved
1	03	06	02			S-Band High Power System
1	03	06	03			S-Band Structures
1	03	06	04			X-Band Low Level System
1	03	06	05			X-Band High Power System
1	03	06	05	01		X-Band HP Klystron
1	03	06	05	02		X-Band HP Modulator
1	03	06	05	03		X-Band HP Waveguide System
1	03	06	06			X-Band Structures
1	03	06	07			RF Distribution System
1	03	06	07	01		Modulator Refurbishment

WBS Level						Description
1	2	3	4	5	6	
1	03	06	07	02		Solid State Sub Booster
1	03	06	07	03		IPA Modifications
1	03	06	07	04		Klystron Controls Interfaces
1	03	06	07	05		Bunch Length Electronics
1	03	06	07	06		RF Phase Measurements
1	03	06	07	07		RF Distribution L2 & L3
1	03	06	07	08		RF Fiber Optics Electronics System
1	03	06	07	09		RF Stability
1	03	07				Linac Installation & Alignment
1	03	07	01			Linac L01 System Installation & Alignment
1	03	07	02			Linac BC1 System Installation & Alignment
1	03	07	03			Linac L02 System Installation & Alignment
1	03	07	04			Linac BC2 System Installation & Alignment
1	03	07	05			Linac L03 System Installation & Alignment
1	03	07	06			Linac LTU System Installation & Alignment
1	03	07	07			Linac E-Dump System Installation & Alignment
1	04					UNDULATOR SYSTEM
1	04	01				Undulator System Management & Integration
1	04	01	01			Undulator System Management
1	04	01	01	01		Undulator System Management - Technical
1	04	01	01	02		ANL Project Support
1	04	01	02			Undulator System Materials & Supplies
1	04	01	02	01		Undulator System M&S - General
1	04	01	02	02		Undulator System Travel
1	04	01	03			Undulator System Reviews and Workshops
1	04	02				Controls
1	04	02	01			Controls Management and Integration
1	04	02	01	01		Reserved
1	04	02	01	02		Reserved
1	04	02	01	03		Software Interface with SLAC
1	04	02	01	04		Reserved
1	04	02	02			Motion
1	04	02	02	01		Fine Motion
1	04	02	02	01	01	Motor Interface
1	04	02	02	01	02	Encoder Interface
1	04	02	02	01	03	Motor Driver
1	04	02	02	01	04	Cabling
1	04	02	02	01	05	Integrate components
1	04	02	02	02		Phase Corrector Motion
1	04	02	02	02	01	Motor Interface
1	04	02	02	02	02	Reserved
1	04	02	02	02	03	Reserved
1	04	02	02	02	04	Cabling
1	04	02	02	02	05	Integrate components
1	04	02	02	03		Reserved
1	04	02	02	04		Reserved
1	04	02	02	05		Reserved
1	04	02	02	06		Scanning Wire Motion
1	04	02	02	06	01	Motor Interface
1	04	02	02	06	02	Reserved
1	04	02	02	06	03	Reserved
1	04	02	02	06	04	Reserved
1	04	02	02	06	05	Integrate components
1	04	02	02	07		Macroscopic Motion
1	04	02	02	07	01	Motor Interface
1	04	02	02	07	02	Reserved

WBS Level						Description
1	2	3	4	5	6	
1	04	02	02	07	03	Motor Driver
1	04	02	02	07	04	Cabling
1	04	02	02	07	05	Integrate components
1	04	02	03			Signal Analysis
1	04	02	03	01		RFBPM
1	04	02	03	01	01	Reserved
1	04	02	03	01	02	Signal Acquisition
1	04	02	03	01	03	Timing interface
1	04	02	03	01	04	Cabling
1	04	02	03	01	05	Integrate components
1	04	02	03	02		Charge Monitor
1	04	02	03	02	01	Reserved
1	04	02	03	02	02	Reserved
1	04	02	03	02	03	Integrate components
1	04	02	03	03		Scanning Wire
1	04	02	03	03	01	Reserved
1	04	02	03	03	02	Reserved
1	04	02	03	03	03	Reserved
1	04	02	03	03	04	Reserved
1	04	02	03	03	05	Reserved
1	04	02	03	03	06	Integrate components
1	04	02	04			Video
1	04	02	04	01		OTR Monitor
1	04	02	04	01	01	Camera
1	04	02	04	01	02	Camera trigger interface
1	04	02	04	01	03	Digitizer
1	04	02	04	01	04	Timing interface
1	04	02	04	01	05	Cabling
1	04	02	04	01	06	Integrate components
1	04	02	04	02		Reserved
1	04	02	04	03		Observation station video
1	04	02	04	03	01	Camera
1	04	02	04	03	02	Camera trigger interface
1	04	02	04	03	03	Multiplexor
1	04	02	04	03	04	Cabling
1	04	02	04	03	05	Integrate components
1	04	02	05			Data Acquisition and Control
1	04	02	05	01		Strongback Temperature monitoring
1	04	02	05	01	01	Integrate components
1	04	02	06			Vacuum
1	04	02	06	01		Ion Pump Controller
1	04	02	06	01	01	Integrate components
1	04	02	06	02		Reserved
1	04	02	06	03		Reserved
1	04	02	06	04		RGA
1	04	02	06	04	01	Integrate components
1	04	02	07			Machine Protection
1	04	02	07	01		Undulator Global MPS
1	04	02	07	01	01	Hardware design
1	04	02	07	01	02	Interface components
1	04	02	07	02		Cerenkov Detector
1	04	02	07	02	01	Signal interface
1	04	02	07	03		Gamma Ray Detector
1	04	02	07	03	01	Signal interface
1	04	02	07	04		Chamber Temperature
1	04	02	07	04	01	Signal interface

WBS Level						Description
1	2	3	4	5	6	
1	04	03				Undulator Magnet & Support
1	04	03	01			UND Magnet & Support - Mgmt and Integration
1	04	03	02			First Prototype Undulator & Mfg Plan
1	04	03	03			1st Article Undulators & Long Lead Procurements
1	04	03	03	01		Ti Strongback (LLP)
1	04	03	03	02		Magnet Blocks (LLP)
1	04	03	03	03		Magnet Poles (LLP)
1	04	03	03	04		Magnet Assembly & Supports - 1st Articles
1	04	03	03	05		Magnetic Measurement (ANL or SLAC)
1	04	03	04			Production Undulator
1	04	03	04	01		Magnet Assembly & Supports
1	04	03	04	02		Reserved
1	04	03	05			Focusing Magnets
1	04	03	05	01		Quadrupoles
1	04	03	05	02		Reserved
1	04	03	06			Undulator Magnetic Measurement Facility (SLAC)
1	04	03	06	01		Undulator MMF Setup
1	04	03	06	01	01	Undulator Test Stand Prototype
1	04	03	06	01	02	Reserved
1	04	03	06	01	03	Reserved
1	04	03	06	01	04	Undulator Test Stand
1	04	03	06	01	05	Undulator Fiducialization
1	04	03	06	01	06	Quad Strength and Field Quality
1	04	03	06	01	07	Quad Fiducialization System
1	04	03	06	01	08	Hall Probe Calibration System
1	04	03	06	01	09	Undulator Handling
1	04	03	06	02		Fiducialization and Magnetic Measurements (F/MM)
1	04	03	06	02	01	F/MM Undulator Magnet Sections
1	04	03	06	02	02	F/MM Quadrupoles
1	04	03	06	02	03	F/MM BPMs
1	04	03	06	02	04	F/MM Correctors
1	04	03	06	02	05	F/MM Vacuum Chamber
1	04	03	06	02	06	F/MM Photon Diagnostics Components
1	04	03	06	03		Undulator Monitoring
1	04	03	06	03	01	Stretched Wire System
1	04	03	06	03	02	Hydrostatic Level System
1	04	03	07			Reserved
1	04	03	08			Fixed Supports
1	04	03	08	01		Fixed Sppt Mgmt & Integration
1	04	03	08	02		Fixed Support Design
1	04	03	08	03		Stabilized Girder Assemblies
1	04	03	08	04		Thermal Intercept System
1	04	03	08	05		Thermometry
1	04	03	08	06		Kinematic Girder Support
1	04	03	08	07		Earthquake Bracing
1	04	03	08	08		Controls and Software
1	04	04				Vacuum System
1	04	04	01			Project Oversight
1	04	04	02			Undulator Vacuum Chamber Assembly
1	04	04	02	01		Prototype Chamber Weldment
1	04	04	02	02		Production Chamber Weldment
1	04	04	03			Beam-line Bellows Module Assembly
1	04	04	03	01		Prototype Bellows Module
1	04	04	03	02		Production Bellows Module
1	04	04	04			Reserved
1	04	04	05			Short Diagnostic Break (SDB) Assembly

WBS Level						Description
1	2	3	4	5	6	
1	04	04	06			Long Diagnostic Break (LDB) Assembly
1	04	04	07			Entrance Section Assembly
1	04	04	08			Exit Section Assembly
1	04	04	09			Baking System
1	04	05				Diagnostics
1	04	05	01			Project Oversight
1	04	05	02			E-Beam and X-Ray Profile Diagnostics
1	04	05	02	01		EBXPD Test Station
1	04	05	02	02		EBXPD Vacuum Chamber
1	04	05	02	03		Positioning Mechanism
1	04	05	02	04		Scanning wire assembly (EBXPD -SWA)
1	04	05	02	05		Optical transition radiation imaging assembly
1	04	05	02	06		Reserved
1	04	05	02	07		Reserved
1	04	05	02	08		Reserved
1	04	05	02	09		EBXPD Design & Integration
1	04	05	03			Reserved
1	04	05	04			End-of-Undulator(EOU) X-ray and Profile diagnost
1	04	05	04	01		Prototype Construction and Testing
1	04	05	04	02		Bunch Length Monitor-Streak Camera (BLM)
1	04	05	04	03		Upstream corrector / separator
1	04	05	04	04		Optical Diffraction radiation imaging assembly (
1	04	05	04	05		X-ray High Resolution monochromator assembly (EO
1	04	05	04	06		X-ray Imaging High Resolution detector assembly
1	04	05	04	07		EOU Design and Integration
1	04	05	05			RFBPM
1	04	05	06			Reserved
1	04	05	07			Charge Monitor (CM)
1	04	05	08			Cherenkov Detector
1	04	05	09			Radiation Detection Monitor (RDM)
1	04	05	10			Reserved
1	04	05	11			Supplemental Shielding
1	04	06				Undulator System Installation and Alignment
1	04	06	01			Undulator System Installation and Alignment Inte
1	04	06	01	01		Undulator System
1	04	06	01	02		Entrance Section
1	04	06	01	03		Exit Section
1	04	06	02			Control System Installation and Alignment
1	04	06	03			Magnets & Supports Installation and Alignment
1	04	06	03	01		Magnets Installation and Alignment
1	04	06	03	02		Fixed Supports Installation and Alignment
1	04	06	04			Vacuum System Installation and Alignment
1	04	06	05			Diagnostics System Installation and Alignment
1	05					X-RAY TRANSPORT & DIAGNOSTICS SYSTEMS
1	05	01				System Management & Integration
1	05	01	01			Management
1	05	01	01	01		XTOD Management - Technical
1	05	01	01	02		LLNL Project Support
1	05	02				Controls
1	05	02	01			Reserved
1	05	02	02			Slow Controls
1	05	02	03			Fast Controls
1	05	02	04			Femto Controls
1	05	03				Mechanical & Vacuum Subsystem
1	05	03	01			Reserved
1	05	03	02			Mech/Vac Front End

WBS Level						Description
1	2	3	4	5	6	
1	05	03	03			Mech/Vac Near Hall
1	05	03	03	01		NEH Hutch 1
1	05	03	03	02		NEH Hutch 2
1	05	03	03	03		NEH Hutch 3
1	05	03	04			Mech/Vac Tunnel
1	05	03	05			Mech/Vac Far Hall
1	05	03	05	01		FEH Hutch 1
1	05	03	05	02		FEH Hutch 2
1	05	03	05	03		FEH Hutch 3
1	05	04				Optical Subsystem
1	05	04	01			Reserved
1	05	04	02			Facility Optics
1	05	04	02	01		Reserved
1	05	04	02	02		Fixed Mask
1	05	04	02	03		Slit/Collimators
1	05	04	02	04		Flipper Mirror
1	05	04	02	05		Gas Attenuator
1	05	04	02	06		Reserved
1	05	04	02	07		Reserved
1	05	04	02	08		Solid Attenuator
1	05	04	02	09		Reserved
1	05	04	03			End Station Optics
1	05	04	03	01		Reserved
1	05	04	03	02		Optics Tank - Near Hall
1	05	04	03	03		Reserved
1	05	04	03	04		Reserved
1	05	04	03	05		Reserved
1	05	04	04			Crystals & Gratings
1	05	04	04	01		Reserved
1	05	04	04	02		System Monochrometer
1	05	04	04	03		Pulse Split & Delay
1	05	05				Diagnostics Subsystem
1	05	05	01			Reserved
1	05	05	01	01		Reserved
1	05	05	02			Modeling & Simulation
1	05	05	02	01		Wave Model
1	05	05	02	02		Monte Carlo Model
1	05	05	03			Facility Diagnostics
1	05	05	03	01		Direct Imager
1	05	05	03	02		Indirect Imager
1	05	05	03	03		Pulsed Ion Chamber
1	05	05	03	04		Gas Mixing System
1	05	05	03	05		FEE Diagnostic Tanks
1	05	05	03	06		Ion Pumped Diagnostic Tanks
1	05	05	04			Commissioning Diagnostics
1	05	05	04	01		Commission Diagnostic Tank
1	05	05	04	02		Total Energy Measurement
1	05	05	04	03		Reserved
1	05	05	04	04		Spectral Measurement
1	05	05	04	05		Spatial Coherence
1	05	05	04	06		Spatial Shape & Centroid Measurement
1	05	05	04	07		Divergence Measurement
1	05	06				X-Ray Transport System Installation & Alignment
1	05	06	01			Front End Enclosure Install
1	05	06	02			Near Hall Install
1	05	06	03			Tunnel Install

WBS Level						Description
1	2	3	4	5	6	
1	05	06	04			Far Hall Install
1	06					X-RAY END STATION SYSTEMS
1	06	01				System Management & Integration
1	06	01	01			Management
1	06	02				Controls Subsystem
1	06	02	01			Cabling
1	06	02	01	01		Front End Enclosure Cable
1	06	02	01	02		Near Hall Cable
1	06	02	01	03		Tunnel Cable
1	06	02	01	04		Far Hall Cable
1	06	02	02			Network
1	06	02	03			PC Support
1	06	02	04			Beamline Controls
1	06	02	05			X-Ray PPS
1	06	02	05	01		FEE X-Ray PPS
1	06	02	05	02		Near Hall X-Ray PPS
1	06	02	05	03		Tunnel X-Ray PPS
1	06	02	05	04		Far Hall X-Ray PPS
1	06	02	06			X-Ray MPS
1	06	02	06	01		FEE X-Ray MPS
1	06	02	06	02		Near Hall X-Ray MPS
1	06	02	06	03		Tunnel X-Ray MPS
1	06	02	06	04		Far Hall X-Ray MPS
1	06	02	07			Laser PPS
1	06	02	07	01		Near Hall Laser PPS
1	06	02	07	02		Far Hall Laser PPS
1	06	02	08			User Safeguards
1	06	02	08	01		Near Hall User Safeguards
1	06	02	08	02		Far Hall User Safeguards
1	06	03				Mechanical/Vacuum Subsystem
1	06	03	01			Chamber Support Tables - Mech/Vac
1	06	03	02			Vacuum Components - Mech/Vac
1	06	03	02	01		Valves - Vacuum
1	06	03	02	02		Hardware - Vacuum
1	06	03	02	03		Ion Pump - Vacuum
1	06	03	02	04		Turbo Pump - Vacuum
1	06	03	02	05		Gauges - Vacuum
1	06	03	03			Experimental Chambers
1	06	03	03	01		Near Hall Experimental Chamber
1	06	03	03	02		Far Hall Experimental Chamber
1	06	04				Laser Subsystem
1	06	04	01			Oscillator Laser & Pump
1	06	04	01	01		Near Hall Oscillator Laser & Pump
1	06	04	01	02		Far Hall Oscillator Laser & Pump
1	06	04	02			Laser Diagnostics
1	06	04	03			Laser Supplies & Optical Transport
1	06	04	04			Laser Timing
1	06	04	05			Laser Amplifiers
1	06	04	05	01		Near Hall Laser Amplifier
1	06	04	05	02		Far Hall Laser Amplifier
1	06	05				X-Ray Detectors
1	06	05	01			Beam Imaging
1	06	05	02			2-D X-Ray Detector
1	06	05	03			Beam Intensity
1	06	05	04			Streak Camera
1	06	06				System Installation & Alignment

WBS Level						Description
1	2	3	4	5	6	
1	06	06	01			Front End Install
1	06	06	02			Near Hall Install
1	06	06	02	01		Near Hall Install Controls
1	06	06	02	02		Near Hall Install Mech/Vac
1	06	06	02	03		Near Hall Install Laser
1	06	06	02	04		Near Hall Install Detectors
1	06	06	02	05		Near Hall Install Atomic Physics
1	06	06	03			Tunnel Install
1	06	06	04			Far Hall Install
1	06	06	04	01		Far Hall Install Controls
1	06	06	04	02		Far Hall Install Mech/Vac
1	06	06	04	03		Far Hall Install Laser
1	06	06	04	04		Far Hall Install Detectors
1	06	06	04	05		Reserved
1	06	07				Reserved
1	06	07	01			Reserved
1	06	07	02			Reserved
1	06	07	03			Reserved
1	06	07	04			Reserved
1	07					Reserved
1	08					Reserved
1	09					CONVENTIONAL FACILITIES
1	09	01				System Management & Integration
1	09	01	01			Management
1	09	01	02			Cost Account Managers
1	09	01	03			Construction Management
1	09	01	04			Mechanical Design (MD)
1	09	01	04	01		Mechanical Design Title 1 (Linac not included)
1	09	01	04	02		Mechanical Design T1 Linac Facilities
1	09	01	04	03		Mechanical Design Title 2 (Linac not included)
1	09	01	04	04		Mechanical Design T2 Linac Facilities
1	09	01	04	05		Mechanical Design Title 3 Linac Facility
1	09	01	04	06		Mechanical Design Title 3 (Linac not Included)
1	09	01	05			Site Engineering and Maintenance (SEM)
1	09	01	05	01		SEM Engineering Title 1(Linac Not Included)
1	09	01	05	02		SEM Engineering Title 1 Linac Facility
1	09	01	05	03		SEM Engineering Title 2 (Linac Not Included)
1	09	01	05	04		SEM Design Linac Facility Title 2
1	09	02				Title 1 & Title 2 Conventional Facilities
1	09	02	01			Reserved
1	09	02	02			A & E Services (S20, MMF, MMC not Incl)
1	09	02	02	01		Title 1 Design
1	09	02	02	02		Title 2 Design
1	09	02	03			A & E Services - (S20, MMF,MCC)
1	09	02	03	01		Title 1 Design (Sector 20)
1	09	02	03	02		Title 2 Design (Sector 20)
1	09	02	03	03		Title 1 Design (MMF)
1	09	02	03	04		Title 2 Design (MMF)
1	09	02	03	05		Title 1 Design (MCC)
1	09	02	03	06		Title 2 Design (MCC)
1	09	03				Construction-T3 Conventional Facilities
1	09	03	01			Sector 20 Injector Facilities
1	09	03	01	01		Site Preparation
	09	03	01	02		Structural
1	09	03	01	03		Electrical
1	09	03	01	04		Utilities

WBS Level						Description
1	2	3	4	5	6	
1	09	03	01	05		HVAC
1	09	03	01	06		Special System - Fire Protection
1	09	03	01	07		Interior
1	09	03	01	10		Project Close Out Sector 20 Injector Facility
1	09	03	02			Magnetic Measurement Facility
1	09	03	02	01		Site Preparation
1	09	03	02	02		Structural
1	09	03	02	03		Electrical
1	09	03	02	04		Utilities
1	09	03	02	05		HVAC
1	09	03	02	06		Special System - Fire Protection
1	09	03	02	07		Interior
1	09	03	02	10		Project Close Out Magnetic Measurement Facility
1	09	03	03			Main Control Center Facilities Upgrade
1	09	03	03	01		Site Preparation
1	09	03	03	02		Structural
1	09	03	03	03		Electrical
1	09	03	03	04		Utilities
1	09	03	03	05		HVAC
1	09	03	03	06		Special System - Fire Protection
1	09	03	03	07		Interior
1	09	03	03	10		Project Close Out Main Control Center Facility
1	09	03	04			Linac Facility
1	09	03	04	03		Electrical
1	09	03	04	04		Utilities
1	09	03	04	06		Special System - Fire Protection
1	09	03	04	10		Project Close Out Linac Facility
1	09	03	05			Research Yard/B102,B211,B113 & Storage Trailers
1	09	03	05	01		Site Preparation
1	09	03	05	01	01	Site Preparation SEM
1	09	03	05	01	02	Site Preparation G/C
1	09	03	05	02		Structural
1	09	03	05	02	01	Structural SEM
1	09	03	05	02	02	Structural G/C
1	09	03	05	03		Electrical
1	09	03	05	03	01	Electrical SEM
1	09	03	05	03	02	Electrical G/C
1	09	03	05	04		Utilities
1	09	03	05	04	01	Utilities SEM
1	09	03	05	04	02	Utilities G/C
1	09	03	05	05		HVAC
1	09	03	05	05	01	HVAC SEM
1	09	03	05	05	02	HVAC G/C
1	09	03	05	06		Special System - Fire Protection
1	09	03	05	06	01	Special System - Fire Protection SEM
1	09	03	05	06	02	Special System - Fire Protection
1	09	03	05	07		Interior
1	09	03	05	07	01	Interior SEM
1	09	03	05	07	02	Interior G/C
1	09	03	05	10		Project Close Out Reasearch Yard
1	09	03	06			Access Road & Beam Transport Hall
1	09	03	06	01		Site Preparation
1	09	03	06	02		Structural
1	09	03	06	03		Electrical
1	09	03	06	04		Utilities
1	09	03	06	05		HVAC

WBS Level						Description
1	2	3	4	5	6	
1	09	03	06	06		Special System- Fire Protection
1	09	03	06	07		Interior
1	09	03	06	09		Reserved
1	09	03	06	10		Project Close Out Beam Trans Hall
1	09	03	07			Undulator Hall
1	09	03	07	01		Site Preparation
1	09	03	07	02		Structural
1	09	03	07	03		Electrical
1	09	03	07	04		Utilities
1	09	03	07	05		HVAC
1	09	03	07	06		Special System - Fire Protection
1	09	03	07	07		Interior
1	09	03	07	09		Tunneling
1	09	03	07	10		Project Close Out Undulator Hall
1	09	03	08			Front End Enclosure
1	09	03	08	01		Site Preparation
1	09	03	08	02		Structural
1	09	03	08	03		Electrical
1	09	03	08	04		Utilities
1	09	03	08	05		HVAC
1	09	03	08	06		Special System - Fire Protection
1	09	03	08	07		Interior
1	09	03	08	09		Tunneling
1	09	03	08	10		Project Close Out Front End Enclosure
1	09	03	09			Beam Dump
1	09	03	09	01		Site Preparation
1	09	03	09	02		Structural
1	09	03	09	03		Electrical
1	09	03	09	04		Utilities
1	09	03	09	05		reserved
1	09	03	09	06		Special System (Fire Protection) Beam Dump
1	09	03	09	09		Tunneling
1	09	03	09	10		Project Close Out Beam Dump
1	09	03	10			Near Experimental Hall
1	09	03	10	01		Site Preparation
1	09	03	10	02		Structural
1	09	03	10	03		Electrical
1	09	03	10	04		Utilities
1	09	03	10	05		HVAC
1	09	03	10	06		Special System - Fire Protection
1	09	03	10	07		Interior
1	09	03	10	09		Reserved
1	09	03	10	10		Project Close Out Near Experimental Hall
1	09	03	11			X-Ray Transport & Diagnostic Hall
1	09	03	11	01		Site Preparation
1	09	03	11	02		Structural
1	09	03	11	03		Electrical
1	09	03	11	04		Utilities
1	09	03	11	05		HVAC
1	09	03	11	06		Special System - Fire Protection
1	09	03	11	07		Interiors
1	09	03	11	09		Tunneling
1	09	03	11	10		Project Close Out X-Ray Transport & Diagonistic
1	09	03	12			Far Experimental Hall
1	09	03	12	01		Reserved
1	09	03	12	02		Structural

WBS Level						Description
1	2	3	4	5	6	
1	09	03	12	03		Electrical
1	09	03	12	04		Utilities
1	09	03	12	05		HVAC
1	09	03	12	06		Special System - Fire Protection
1	09	03	12	07		Interiors
1	09	03	12	09		Tunneling
1	09	03	12	10		Project Close Out Far Experimental Hall
1	09	03	13			Central Lab Office Bldg (CLOB)
1	09	03	13	01		Site Preparation
1	09	03	13	02		Structural
1	09	03	13	03		Electrical
1	09	03	13	04		Utilities
1	09	03	13	05		HVAC
1	09	03	13	06		Special System - Fire Protection
1	09	03	13	07		Interior
1	09	03	13	10		Project Close Out CLOB
2						LCLS PROJECT - R&D, SPARES, COMMISSIONING
2	01					LCLS PROJECT MGMT, PLANNING & ADMN (OPC)
2	01	01				Physics Support (OPC)
2	01	01	01			SAC-MAC Physics
2	01	01	02			Injector Physics
2	01	01	03			Linac Physics
2	01	01	04			Undulator Physics
2	01	01	05			X-Ray Transport Physics
2	01	01	06			X-Ray Endstation Physics
2	01	01	07			Conventional Facilities Physics
2	01	01	08			Consulting Physics (Collaboration)
2	01	01	09			Consulting Physics (SLAC)
2	01	01	10			Global Controls Physics Liaison
2	01	01	11			Global Controls OPC
2	01	02				R&D Studies & Prototyping
2	01	03				Project Mgmt, Planning and Admn - M&S (OPC)
2	01	03	01			Reserved
2	01	03	02			Reserved
2	01	03	03			Reserved
2	01	03	04			Reserved
2	01	03	05			Reserved
2	01	03	06			Reserved
2	01	03	07			Reserved
2	01	03	08			Reserved
2	01	03	09			Reserved
2	01	03	10			Reserved
2	01	03	11			Reserved
2	02					INJECTOR SYSTEM (OPC)
2	02	01				Reserved
2	02	01	01			Reserved
2	02	01	02			Reserved
2	02	01	03			Reserved
2	02	02				Injector Controls Subsystem
2	02	02	01			EPICS VXI Control Modules
2	02	02	02			LLRF Controls
2	02	02	03			E-Beam Diagnostics Controls
2	02	02	03	01		Reserved
2	02	02	03	02		Controls - Toroids
2	02	02	03	03		Controls - Faraday Cup
2	02	02	03	04		Controls - Tune-Up Dump

WBS Level						Description
1	2	3	4	5	6	
2	02	02	03	05		Controls - Profile Monitors
2	02	02	03	06		Control - EO Diagnostic
2	02	02	03	07		Controls - BPM Processor Module
2	02	02	04			Reserved
2	02	02	05			Reserved
2	02	02	06			Reserved
2	02	02	07			Reserved
2	02	02	08			Reserved
2	02	02	09			Reserved
2	02	03				Injector Lasers
2	02	03	01			Drive Laser Prototyping
2	02	03	02			Drive Laser Oscillator
2	02	03	03			Reserved
2	02	03	04			Reserved
2	02	03	05			Reserved
2	02	03	06			Reserved
2	02	03	07			Reserved
2	02	03	08			Reserved
2	02	03	09			Reserved
2	02	03	10			Reserved
2	02	03	11			Reserved
2	02	03	12			Reserved
2	02	03	13			Reserved
2	02	03	14			Reserved
2	02	03	15			Reserved
2	02	03	16			Reserved
2	02	03	17			Reserved
2	02	03	18			Reserved
2	02	03	19			Reserved
2	02	03	20			Reserved
2	02	03	21			Reserved
2	02	03	22			Reserved
2	02	03	23			Reserved
2	02	03	24			Reserved
2	02	03	25			Reserved
2	02	03	26			Reserved
2	02	03	27			Reserved
2	02	03	28			Reserved
2	02	03	29			Reserved
2	02	03	30			Reserved
2	02	04				RF Gun & Load Lock
2	02	04	01			RF Gun
2	02	04	02			RF Gun Supports
2	02	04	03			Gun Load Lock
2	02	04	04			Reserved
2	02	04	05			Reserved
2	02	04	06			Reserved
2	02	04	07			Reserved
2	02	04	08			Reserved
2	02	05				Gun to Linac Section (GTL)
2	02	05	01			Reserved
2	02	05	02			GTL Faraday Cup/YAG1
2	02	05	03			Reserved
2	02	05	04			Reserved
2	02	05	05			Reserved
2	02	05	06			Reserved

WBS Level						Description
1	2	3	4	5	6	
2	02	05	07			Reserved
2	02	05	08			Reserved
2	02	05	09			Reserved
2	02	05	10			Reserved
2	02	05	11			Reserved
2	02	06				Injector Linac Structures
2	02	06	01			Reserved
2	02	06	02			L0-2 Structure Assembly
2	02	06	03			Reserved
2	02	06	04			Reserved
2	02	07				L0-1 to L0-2 Section (L0-1TL0-2)
2	02	07	01			Reserved
2	02	07	02			L0-1TL0-2 BPMs ()
2	02	07	03			Reserved
2	02	07	04			Reserved
2	02	07	05			Reserved
2	02	07	06			Reserved
2	02	07	07			Reserved
2	02	08				Linac to DL1 (LTDL1)
2	02	08	01			Reserved
2	02	08	02			LTDL1 BPMs ()
2	02	08	03			Reserved
2	02	08	04			Reserved
2	02	08	05			Reserved
2	02	08	06			Reserved
2	02	08	07			Reserved
2	02	08	08			Reserved
2	02	08	09			Reserved
2	02	08	10			Reserved
2	02	09				Dog Leg 1 Bend (DL1)
2	02	09	01			Reserved
2	02	09	02			DL1 QB Quadrupole
2	02	09	03			Reserved
2	02	09	04			Reserved
2	02	09	05			Reserved
2	02	09	06			Reserved
2	02	10				DL1 to Linac (DL1TL)
2	02	10	01			Reserved
2	02	10	02			DL1TL Steering Coils (X-Y Assys)
2	02	10	03			Reserved
2	02	10	04			Reserved
2	02	10	05			Reserved
2	02	10	06			Reserved
2	02	10	07			Reserved
2	02	11				Straight Ahead Beamline (SAB)
2	02	11	01			Reserved
2	02	11	02			SAB Quadrupoles ()
2	02	11	03			Reserved
2	02	11	04			Reserved
2	02	11	05			Reserved
2	02	11	06			Reserved
2	02	11	07			Reserved
2	02	11	08			Reserved
2	02	11	09			Reserved
2	02	12				Injector RF Waveguide Subsystem
2	02	12	01			Reserved

WBS Level						Description
1	2	3	4	5	6	
2	02	12	02			RF Waveguide Supports
2	02	13				Injector RF Subsystem
2	02	13	01			Reserved
2	02	13	01	01		Reserved
2	02	13	02			Reserved
2	02	14				Cathode Processing (CP) Station
2	02	14	01			Reserved
2	02	14	02			CP Load Lock
2	02	14	03			Reserved
2	02	14	04			Reserved
2	02	14	05			Reserved
2	02	15				Injector Laser Heater Subsystem
2	02	15	01			Reserved
2	02	15	02			Beam Conditioning Optics (Laser Bay)
2	02	15	03			Reserved
2	02	15	04			Reserved
2	02	15	05			Reserved
2	02	15	06			Reserved
2	02	15	07			Reserved
2	02	15	08			Reserved
2	02	16				Injector Power Conversion Subsystem
2	02	16	01			Personnel Protection System (PPS) R&D
2	02	16	02			Reserved
2	02	16	03			Reserved
2	02	16	04			Power Conv (beamline pwr supp) Spares
2	02	17				Injector System Commissioning
2	02	17	01			Reserved
2	02	17	02			Drive Laser Commissioning
2	02	17	03			RF Conditioning
2	02	17	04			RF Gun Operation with Beam
2	02	17	05			L0-1&L0-2 Commissioning
2	02	17	06			L0&SAB Commissioning
2	02	17	07			DL1 Commissioning
2	02	17	08			Injector Optimization
2	03					LINAC SYSTEM (OPC)
2	03	01				Reserved
2	03	01	01			Reserved
2	03	01	02			Reserved
2	03	01	03			Reserved
2	03	01	04			Reserved
2	03	02				Linac Controls & Power Conversion Subsystem
2	03	02	01			Reserved
2	03	02	02			Reserved
2	03	02	03			Reserved
2	03	02	04			Power Conversion
2	03	02	04	01		Spare Power Supply (Dipole Type)
2	03	02	04	02		Spare Power Supply (Quad Type)
2	03	02	04	03		Spare Power Supply (Trim Type)
2	03	02	04	04		Reserved
2	03	02	05			Reserved
2	03	02	06			Reserved
2	03	02	07			Reserved
2	03	02	08			Reserved
2	03	02	09			Reserved
2	03	02	10			Reserved
2	03	03				Linac Magnets & Supports

WBS Level						Description
1	2	3	4	5	6	
2	03	03	01			Bend Magnet (BX1_BC1)
2	03	03	02			Bend Magnet (BX3_LTU)
2	03	03	03			Bend Magnet (BX2_BC2)
2	03	03	04			Bend Magnet (BY_LTU)
2	03	03	05			Quad Magnet (Quad_LTU)
2	03	03	06			Resered
2	03	03	07			Resered
2	03	03	08			Resered
2	03	03	09			Bend Magnet (BYD_LTU)
2	03	03	10			Reserved
2	03	03	11			Bend Magnet (BYPM_LTU)
2	03	03	12			Bend Magnet (BYKIK_LTU)
2	03	03	13			Bend Magnet (BYW_LTU)
2	03	04				Linac Vacuum Subsystem
2	03	04	01			Linac Vacuum Subsystem Operations Equip
2	03	04	02			Linac Beamline Vacuum System
2	03	04	03			BC1 Vacuum System
2	03	04	04			BC2 Vacuum System
2	03	04	05			Linac to Undulator (LTU) Vacuum System
2	03	04	06			Dumpline Vacuum System
2	03	05				Linac Electron Diagnostics
2	03	05	01			Wire Scanners
2	03	05	02			Beam Position Monitors
2	03	05	03			Toroids Beam Charge
2	03	05	04			Stoppers Tune Up Dump
2	03	05	05			Profile Monitors
2	03	05	06			Reserved
2	03	05	07			Bunch Length Monitors
2	03	05	08			Beam Loss Monitors
2	03	05	09			Reserved
2	03	05	10			Reserved
2	03	05	11			Protection Collimators
2	03	05	12			Movable Collimators
2	03	05	13			Safety Dump
2	03	06				Linac RF Subsystem
2	03	06	01			Reserved
2	03	06	02			Reserved
2	03	06	03			Reserved
2	03	06	04			Reserved
2	03	06	05			X-Band High Power System
2	03	06	06			Reserved
2	03	06	07			RF Distribution System
2	03	06	07	01		Modulator
2	03	06	07	02		Solid State Sub Booster
2	03	06	07	05		Bunch Length Electronics
2	03	06	07	07		RF Distribution L2 & L3
2	03	06	07	08		RF Fiber Optics Electronics
2	03	07				Linac System Commissioning
2	03	07	01			Linac L01 System Commissioning
2	03	07	02			Linac BC1 System Commissioning
2	03	07	03			Linac L02 System Commissioning
2	03	07	04			Linac BC2 System Commissioning
2	03	07	05			Linac L03 System Commissioning
2	03	07	06			Linac LTU System Commissioning
2	03	07	07			Linac E-Dump System Commissioning
2	04					UNDULATOR SYSTEM (OPC)

WBS Level						Description
1	2	3	4	5	6	
2	04	01				Undulator System Management & Integration
2	04	02				Controls
2	04	02	01			Controls Management and Integration
2	04	02	02			Motion
2	04	02	03			Signal Analysis
2	04	02	04			Video
2	04	02	05			Data Acquisition and Control
2	04	02	06			Vacuum
2	04	02	07			Machine Protection
2	04	03				Undulator Magnet & Support
2	04	03	01			UND Magnet & Support - Mgmt and Integration
2	04	03	02			First Prototype Undulator & Mfg Plan
2	04	03	03			1st Article Undulators & Long Lead Procurements
2	04	03	04			Production Undulator
2	04	03	05			Focusing Magnets
2	04	03	06			Undulator Magnetic Measurement Facility (SLAC)
2	04	03	07			Reserved
2	04	03	08			Fixed Supports
2	04	04				Vacuum System
2	04	04	01			Reserved
2	04	04	02			Undulator Vacuum Chamber Assembly
2	04	04	03			Beam-line Bellows Module Assembly
2	04	04	04			Reserved
2	04	04	05			Short Diagnostic Break (SDB) Assembly
2	04	04	06			Long Diagnostic Break (LDB) Assembly
2	04	04	07			Entrance Section Assembly
2	04	04	08			Exit Section Assembly
2	04	04	09			Reserved
2	04	05				Undulator System Diagnostics [OPC]
2	04	05	01			Reserved
2	04	05	02			E-Beam and X-Ray Profile Diagnostics
2	04	05	03			High-Power X-Ray and Profile Diagnostics (HPD)
2	04	05	04			End-of-Undulator(EOU) X-ray and Profile diagnost
2	04	05	05			RFBPM
2	04	05	06			Reserved
2	04	05	07			Charge Monitor (CM)
2	04	05	08			Cherenkov Detector
2	04	05	09			Radiation Detection Monitor (RDM)
2	04	05	10			Reserved
2	04	05	11			Reserved
2	04	06				Undulator System Commissioning
2	04	06	01			Undulator System Commissioning
2	05					X-RAY TRANSPORT & DIAGNOSTICS SYSTEMS (OPC)
2	05	01				System Management & Integration
2	05	01	01			Management
2	05	02				Controls
2	05	02	01			Reserved
2	05	02	02			Slow Controls
2	05	02	03			Fast Controls
2	05	02	04			Femto Controls
2	05	03				Mechanical & Vacuum Subsystem
2	05	03	01			Reserved
2	05	03	02			Mech/Vac Front End
2	05	03	03			Mech/Vac Near Hall
2	05	03	04			Mech/Vac Tunnel
2	05	03	05			Mech/Vac Far Hall

WBS Level						Description
1	2	3	4	5	6	
2	05	04				Optical Subsystem
2	05	04	01			Optical Systems Engineering
2	05	04	02			Facility Optics
2	05	04	03			End Station Optics
2	05	04	04			Crystals & Gratings
2	05	05				Diagnostics Subsystem
2	05	05	01			Reserved
2	05	05	02			Modeling & Simulation
2	05	05	03			Facility Diagnostics
2	05	05	04			Commissioning Diagnostics
2	05	06				Reserved
2	05	06	01			Reserved
2	06					X-RAY END STATION SYSTEMS (OPC)
2	06	01				Reserved
2	06	01	01			Reserved
2	06	02				Controls Subsystem
2	06	02	01			Cabling
2	06	02	02			Network
2	06	02	03			PC Support
2	06	02	04			Beamline Controls
2	06	02	05			X-Ray PPS
2	06	02	06			X-Ray MPS
2	06	02	07			Laser PPS
2	06	02	08			User Safeguards
2	06	03				Mechanical/Vacuum Subsystem
2	06	03	01			Reserved
2	06	03	02			Vacuum Components - Mech/Vac
2	06	03	03			Experimental Chambers
2	06	04				Laser Subsystem
2	06	04	01			Oscillator Laser & Pump
2	06	04	02			Laser Diagnostics
2	06	04	03			Laser Supplies & Optical Transport
2	06	04	04			Laser Timing
2	06	04	05			Laser Amplifiers
2	06	05				X-Ray Detectors
2	06	05	01			Beam Imaging
2	06	05	02			2-D X-Ray Detector
2	06	05	03			Beam Intensity
2	06	05	04			Streak Camera
2	06	06				X-Ray End Station System Commissioning
2	06	06	01			X-Ray End Station System Commissioning
2	06	07				Atomic Physics
2	06	07	01			Atomic Physics Samples
2	06	07	02			Atomic Physics Diagnostics
2	06	07	03			Atomic Physics Data Analysis
2	06	07	04			Atomic Physics Detectors
2	07					Reserved
2	08					LCLS SYSTEM COMMISSIONING (OPC)
2	08	01				Reserved
2	08	02				Reserved
2	08	03				Reserved
2	08	04				Reserved
2	08	05				Reserved
2	08	06				Reserved
2	09					CONVENTIONAL FACILITIES (OPC)
2	09	01				Management Integration

WBS Level						Description
1	2	3	4	5	6	
2	09	01	01			Reserved
2	09	02				Reserved
2	09	03				Reserved