

ID	System	Level	Milestone	August 2006 ETC	Updated	D1	2002	2003	2004	2005	2006	2007	2008	2009
						Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr
1			Level 1 DOE (SC1) Milestones	8/29/08	3/31/09									
2	DOE	ML1	CD0 - Approve Mission Need	6/17/01	6/17/01	◆								
3	DOE	ML1	CD1 - Approve Preliminary Baseline Range	10/16/02	10/16/02		◆							
4	DOE	ML1	CD2a - Approve Long-Lead Procurement Budget	7/30/04	7/30/04				◆					
5	DOE	ML1	CD3a - Approve Start of Long Lead Procurement	10/29/04	10/29/04				◆					
6	DOE	ML1	CD2b - Approve Performance Baseline	3/31/05	3/31/05					◆				
7	DOE	ML1	CD3b - Approve Start of Construction	2/28/06	3/21/06						◆			
8	DOE	ML1	CD4 - Approve Start of Operations	3/31/09	3/31/09									●
9			Level 2 DOE (SSO) Milestones	8/29/08	10/8/08									
10	PM	ML2	Prelim Safety Assessment (PSAD) Doc Complete	4/30/04	4/30/04				◆					
11	PM	ML2	DOE External Independent Review (EIR) Complete	6/15/04	6/15/04				◆					
12	PM	ML2	Fire Hazard Analysis Approved	6/30/05	8/15/05					◆				
13	PM	ML2	Prelim Safety Assessment (PSAD) Doc Approved	2/28/06	2/28/06						◆			
14	UN	ML2	Delivery of Undulator 1st Articles to MMF	7/3/06	6/15/06						◆			
15	CF	ML2	Sector 20/Alcove Beneficial Occupancy	7/21/06	4/14/06						◆			
17	CF	ML2	Research Yards Mods Beneficial Occupancy	10/20/06	8/30/06							◆		
16	UN	ML2	MMF Qualified & Ready to Measure Prod Undulators	11/27/06	8/28/06							◆		
18	IJ	ML2	Start Injector Commissioning (Drive Laser)	1/29/07	1/29/07									●
19	IJ	ML2	Injector Laser Commissioning Review Complete	1/31/07	1/31/07									●
25	IJ	ML2	Injector Accelerator Readiness Review (ARR) Comp	1/31/07	1/31/07									●
23	IJ	ML2	Start Injector Commissioning(UV Beam to Cathode)	4/9/07	4/9/07									●
22	CF	ML2	Linac Water/Power Available	7/11/07	7/11/07									●
31	XE	ML2	2-D Pixel Detector Production Start	12/5/07	12/5/07									●
28	LN	ML2	Linac ARR (Li20-Li30) Complete	1/31/08	1/31/08									●
20	CF	ML2	Undulator Facility Beneficial Occupancy	2/29/08	2/29/08									●
21	CF	ML2	Near Experimental Hall Beneficial Occupancy	2/29/08	2/29/08									●
24	CF	ML2	Far Experimental Hall Beneficial Occupancy	2/29/08	2/29/08									●
26	CF	ML2	Front End Enclosure Beneficial Occupancy	2/29/08	2/29/08									●
27	CF	ML2	X-Ray Transport Beneficial Occupancy	2/29/08	2/29/08									●
30	CF	ML2	Beam Transport Hall Beneficial Occupancy	2/29/08	2/29/08									●
32	LN	ML2	Start Linac (Li20-Li30) Commissioning	3/3/08	3/3/08									●
29	PM	ML2	Final Safety Analysis Document (FSAD) Approved	3/31/08	3/31/08									●
33	PM	ML2	LCLS ARR Complete (BTH thru FEH)	7/11/08	7/11/08									●
34	LN	ML2	Start Linac-to-Undulator (LTU) Commissioning	7/31/08	7/31/08									●
35	UN	ML2	Start Undulator Commissioning (1st Light)	8/18/08	8/18/08									●
37	XE	ML2	Start XES Commissioning	10/2/08	10/2/08									●
36	XTOD	ML2	Start XTOD Commissioning	10/8/08	10/8/08									●
38			Level 3 SLAC (LCLS PO) Milestones	NA	1/2/09									
58			Injector System (WBS 1.02)	11/26/07	1/2/08									
59	IJ	ML3	Award of Drive Laser Contract Complete	6/30/05	6/30/05					◆				
60	IJ	ML3	Wall Region Installation Complete	12/16/05	12/16/05						◆			

Date: 10/20/06

Baseline ●

Finish (Projected) ◆

ID	System	Level	Milestone	August 2006 ETC	Updated	D1	2002	2003	2004	2005	2006	2007	2008	2009
						Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr
64	IJ	ML3	Laser Tables & Optical Paths Installation Comp	8/21/06	8/1/06									
62	IJ	ML3	Drive Laser Available for Integration	11/16/06	11/16/06									
61	IJ	ML3	Heater Region Installation Complete	12/7/06	12/7/06									
67	IJ	ML3	Start Injector Commissioning (Drive Laser)	12/14/06	12/14/06									
70	IJ	ML3	Injector Laser Commissioning Review Complete	12/14/06	12/14/06									
73	IJ	ML3	Injector Accelerator Readiness Review (ARR) Comp	12/15/06	12/15/06									
75	CT	ML3	Injector Controls Installation Complete	1/2/07	1/2/07									
63	IJ	ML3	Accelerator Region Installation Complete	1/29/07	1/29/07									
66	IJ	ML3	Gun Region Installation Complete	1/29/07	1/29/07									
71	IJ	ML3	Injector RF Subsystem Installation Complete	1/31/07	1/31/07									
69	IJ	ML3	Spectrometer Installation Complete	2/2/07	2/2/07									
68	IJ	ML3	Insertion Region Installation Complete	2/8/07	2/8/07									
65	IJ	ML3	RF Gun Ready for Installation	2/15/07	2/15/07									
72	IJ	ML3	Start Injector Commissioning(UV Beam to Cathode)	3/6/07	3/6/07									
74	IJ	ML3	Laser Heater Installation Complete	1/2/08	1/2/08									
76			Linac System (WBS 1.03)	6/9/08	6/30/08									
77	LN	ML3	CRIT: Release RFP X-Band Klystron	2/25/05	2/25/05									
78	LN	ML3	Shutdown of FFTB Operations	6/1/06	4/10/06									
79	LN	ML3	BC1 Bend Magnet Ready for Installation	11/13/06	11/13/06									
80	LN	ML3	X-Band Klystron Ready for Installation	11/27/06	8/31/06									
81	LN	ML3	BC1 Installation Complete	1/29/07	1/29/07									
82	LN	ML3	Start BC1 Commissioning	2/28/07	2/28/07									
83	LN	ML3	Linac Commissioning Review Complete - S20-30	11/5/07	11/5/07									
85	LN	ML3	Linac ARR (Li20-Li30) Complete	12/3/07	12/3/07									
87	CT	ML3	Linac Controls Ready for BC2 Installation	12/3/07	12/3/07									
86	LN	ML3	BC2 Installation Complete	1/2/08	1/2/08									
88	LN	ML3	Start Linac (Li20-Li30) Commissioning	2/1/08	2/1/08									
84	CT	ML3	Linac Controls Ready for LTU Installation	3/3/08	3/3/08									
89	LN	ML3	E-Dump Component Installation Complete	3/26/08	3/26/08									
90	LN	ML3	LTU Component Installation Complete	3/26/08	3/26/08									
91	LN	ML3	Linac Commissioning Review Complete - LTU	3/31/08	3/31/08									
92	LN	ML3	Start Linac-to-Undulator (LTU) Commissioning	6/30/08	6/30/08									
93			Undulator System (WBS 1.04)	8/18/08	7/18/08									
94	UN	ML3	CRIT: Release RFP Ti Strongback	1/14/05	1/14/05									
95	UN	ML3	CRIT: Release RFP Magnet Poles	2/4/05	2/4/05									
96	UN	ML3	CRIT: Release RFP Magnet Blocks	3/23/05	3/23/05									
97	UN	ML3	CRIT: Release RFP Magnet Assemblies - 1st Art	6/28/05	6/28/05									
98	UN	ML3	Award of 1st Articles Mag Assy to Vendors Comp	10/11/05	10/4/05									
100	UN	ML3	CRIT: Release RFP - Quadrupoles	4/12/06	6/14/06									
101	UN	ML3	Undulator SUT Completed	4/28/06	7/19/06									
99	UN	ML3	CRIT: Release RFP - Fixed Supports	5/9/06	5/9/06									

Date: 10/20/06

Baseline



Finish (Projected)



ID	System	Level	Milestone	August 2006 ETC	Updated	2001		2002		2003		2004		2005		2006		2007		2008		2009	
						Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct
102	UN	ML3	1st Article Vendor A Undulator 1 Rcvd @ SLAC	6/2/06	3/30/06																		
103	UN	ML3	1st Article Vendor B Undulator 2 Rcvd @ SLAC	6/2/06	6/15/06																		
104	UN	ML3	MMF Qualified & Ready to Measure Prod Undulators	10/27/06	8/28/06																		
105	UN	ML3	25% production undulators received	1/2/07	1/2/07																		
106	UN	ML3	50% production undulators received	3/19/07	3/19/07																		
108	UN	ML3	75% production undulators received	6/7/07	6/7/07																		
109	UN	ML3	Undulator Production Units (33) Received	7/6/07	7/6/07																		
111	UN	ML3	Electrons Available to Undulator	5/8/08	5/8/08																		
107	UN	ML3	Hydrostatic Level System Complete	5/28/08	5/28/08																		
110	UN	ML3	Wire Monitoring System Complete	5/28/08	5/28/08																		
112	UN	ML3	Undulator System Installation Complete	5/28/08	5/28/08																		
113	UN	ML3	Start Undulator Commissioning (1st Light)	7/18/08	7/18/08																		
114			X-Ray Transport & Diagnostics (WBS 1.05)	9/15/08	9/8/08																		
120	XTOD	ML3	Tunnel Mech/Vac Design Review Complete	11/29/06	11/29/06																		
116	XTOD	ML3	Gas Attenuator Design Review Complete	3/30/07	3/30/07																		
115	XTOD	ML3	Low Energy Spectral Measurement Design Complete	4/23/07	4/23/07																		
121	XTOD	ML3	Far Hall Mech/Vac Design Review Complete	5/23/07	5/23/07																		
119	XTOD	ML3	Fixed Mask Ready to Ship to SLAC	7/30/07	7/30/07																		
117	XTOD	ML3	Gas/Solid Attenuator Ready to Ship to SLAC	10/29/07	10/29/07																		
118	XTOD	ML3	Start XTOD Installation in Near Hall	12/4/07	12/4/07																		
122	XTOD	ML3	Solid Attenuator Installation Complete	12/14/07	12/14/07																		
123	XTOD	ML3	Gas/Solid Attenuator Installation Complete	4/4/08	4/4/08																		
126	XTOD	ML3	Total Energy Measurement Installation Complete	4/10/08	4/10/08																		
129	XTOD	ML3	Tunnel Mech/Vac Installation Complete	5/13/08	5/13/08																		
128	XTOD	ML3	Start Far Experimental Hall Checkout	6/3/08	6/3/08																		
125	XTOD	ML3	FEE Mechanical/Vacuum Installation Complete	8/14/08	8/14/08																		
127	XTOD	ML3	Start Near Experimental Hall Checkout	8/26/08	8/26/08																		
124	XTOD	ML3	Start Front End Enclosure Checkout	9/8/08	9/8/08																		
130	XTOD	ML3	Start XTOD Commissioning	9/8/08	9/8/08																		
155			Conventional Facilities (WBS 1.09)	11/10/08	2/1/08																		
156	CF	ML3	A&E Serv (S20, MMF, MCC not incl) Title 1 Comp	4/30/04	4/30/04																		
157	CF	ML3	A&E Serv Sector 20 Title 1 Complete	4/30/04	4/30/04																		
158	CF	ML3	A&E Services MMF Title 1 Complete	4/30/04	4/30/04																		
160	CF	ML3	A&E Services Sector 20 Title 2 Complete	3/18/05	3/18/05																		
159	CF	ML3	CRIT: Rel RFP T3 Const. Pkg. RF Hut & S20/Alcove	4/1/05	4/1/05																		
161	CF	ML3	CRIT: Release RFP T3 Construction Contract (MMF)	4/14/05	4/14/05																		
162	CF	ML3	A&E Services MMF Title 2 Complete	5/31/05	5/31/05																		
163	CF	ML3	CRIT: Release RFP Constructrion Mgmt Pkg (CM)	7/25/05	7/25/05																		
164	CF	ML3	Award of Sector 20 Title 3 Complete	8/5/05	7/28/05																		
165	CF	ML3	Award of Magnetic Msmt Facility Title 3 Complete	8/5/05	7/28/05																		
166	CF	ML3	Award of Construction Management Package - Ph.1	9/30/05	10/17/05																		

Date: 10/20/06

Baseline



Finish (Projected)



ID	System	Level	Milestone	August 2006 ETC	Updated	D1	2002		2003		2004		2005		2006		2007		2008		2009	
						Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr
167	CF	ML3	RF Hut Beneficial Occupancy	12/7/05	3/9/06																	
168	CF	ML3	A&E Serv (S20, MMF, MCC not incl) Title 2 Comp	1/20/06	2/28/06																	
169	CF	ML3	CRIT: Release RFP T3 Construct (RY-CLOC)	1/26/06	3/8/06																	
170	CF	ML3	Magnetic Msmt Facility(MMF) Beneficial Occupancy	4/3/06	3/29/06																	
171	CF	ML3	Sector 20 Alcove Beneficial Occupancy	6/21/06	4/14/06																	
172	CF	ML3	CRIT: Release RFP T3 Construction Pkg (Linac)	7/10/06	7/31/06																	
173	CF	ML3	Research Yards Mods Beneficial Occupancy	9/21/06	8/30/06																	
176	CF	ML3	Linac Power/Water Available	6/11/07	6/11/07																	
178	CF	ML3	Front End Enclosure Co-Occupancy	11/1/07	11/1/07																	
179	CF	ML3	X-Ray Transport Co-Occupancy	11/1/07	11/1/07																	
180	CF	ML3	Undulator Facility Co-Occupancy	11/1/07	11/1/07																	
181	CF	ML3	Near Experimental Hall Co-Occupancy	11/1/07	11/1/07																	
182	CF	ML3	Far Experimental Hall Co-Occupancy	11/1/07	11/1/07																	
183	CF	ML3	Beam Transport Hall Co-Occupancy	11/1/07	11/1/07																	
174	CF	ML3	Undulator Facility Beneficial Occupancy	2/1/08	2/1/08																	
175	CF	ML3	Near Experimental Hall Beneficial Occupancy	2/1/08	2/1/08																	
177	CF	ML3	Far Experimental Hall Beneficial Occupancy	2/1/08	2/1/08																	
184	CF	ML3	Front End Enclosure Beneficial Occupancy	2/1/08	2/1/08																	
185	CF	ML3	X-Ray Transport Beneficial Occupancy	2/1/08	2/1/08																	
186	CF	ML3	Beam Dump Beneficial Occupancy	2/1/08	2/1/08																	
187	CF	ML3	Beam Transport Hall Beneficial Occupancy	2/1/08	2/1/08																	
131			X-Ray Endstations (WBS 1.06)	1/20/09	12/3/08																	
132	XE	ML3	Complete 2-D X-Ray Detector Statement of Work	7/1/05	5/16/05																	
133	XE	ML3	Award Initial Funding for 2-D X-Ray Detector	7/15/05	7/15/05																	
134	XE	ML3	Hire Atomic Physicist	3/17/06	1/3/06																	
135	XE	ML3	Hire Detector Physicist	4/3/06	1/17/06																	
136	XE	ML3	LDAC Mid-Project Review (2D Detector)	3/19/07	3/19/07																	
137	XE	ML3	XE Network Design Review Complete	4/27/07	4/27/07																	
150	CT	ML3	XES Timing Controls System Complete	5/30/07	5/30/07																	
151	CT	ML3	XES Cables and Racks Complete	5/30/07	5/30/07																	
152	CT	ML3	XES Laser Control System Complete	7/17/07	7/17/07																	
138	XE	ML3	XE Laser System Final Design Review Complete	8/7/07	8/7/07																	
139	XE	ML3	Award XES Laser System	10/4/07	10/4/07																	
153	CT	ML3	XES Controls PPS Complete	10/4/07	10/4/07																	
142	XE	ML3	2-D Pixel Detector Production Start	11/5/07	11/5/07																	
140	XE	ML3	Final Design Review AMO Experimental Control Complete	12/14/07	12/14/07																	
148	XE	ML3	Network Installation Complete	3/6/08	3/6/08																	
147	XE	ML3	Electron Dump Stoppers Certified	3/25/08	3/25/08																	
141	XE	ML3	Ready for Installation in Near Hall	4/16/08	4/16/08																	
146	XE	ML3	AMO Mechanical & Vacuum Installation Complete	5/13/08	5/13/08																	
154	CT	ML3	XES Controls Laser Timing System Complete	5/29/08	5/29/08																	

Date: 10/20/06

Baseline



Finish (Projected)



ID	System	Level	Milestone	August 2006 ETC	Updated	D1	2002		2003		2004		2005		2006		2007		2008		2009	
						Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr
143	XE	ML3	Start XES Commissioning	9/2/08	9/2/08																	
144	XE	ML3	XES Laser Operating in Near Hall	9/19/08	9/19/08																	
149	XE	ML3	Complete Acceptance Tests for X-Ray Detectors	11/17/08	11/17/08																	
145	XE	ML3	AMO Experiment Control Complete	12/3/08	12/3/08																	
39			Project Management (WBS 1.01)	NA	1/2/09																	
40	PM	ML3	Advanced Procurement Management Plan Complete	2/28/04	2/28/04																	
41	PM	ML3	Resource Loaded Cost & Schedule (Final) Complete	4/30/04	4/30/04																	
42	PM	ML3	1st Monthly Report (with Earned Value) Submitted	4/30/04	4/30/04																	
43	PM	ML3	Risk Management Plan Complete	4/30/04	4/30/04																	
44	PM	ML3	Prelim Safety Assessment Doc (PSAD) Submitted	4/30/04	4/30/04																	
45	PM	ML3	Project Mgmt Control Syst (PMCS) Review Complete	4/30/04	4/30/04																	
46	PM	ML3	Project Mgmt Plan Complete	4/30/04	4/30/04																	
47	PM	ML3	CRIT: Start Procurement Package - PMCS Support	10/1/04	10/1/04																	
48	PM	ML3	Fire Hazard Analysis Review @ SLAC	6/10/05	7/15/05																	
49	PM	ML3	FY05 Shutdown: HW Req'd for Installation	10/3/05	10/3/05																	
50	PM	ML3	FY05 Shutdown Over	10/31/05	10/31/05																	
51	PM	ML3	FY06 Shutdown: HW Req'd for Installation	8/1/06	8/21/06																	
52	PM	ML3	FY06 Shutdown Over	1/5/07	1/5/07																	
53	PM	ML3	FY07 Shutdown: HW Req'd for Installation	9/4/07	9/4/07																	
54	PM	ML3	FY07 Shutdown Over	11/30/07	11/30/07																	
55	PM	ML3	LCLS ARR Complete (BTH thru FEH)	6/12/08	6/12/08																	
56	PM	ML3	Start FY08 Shutdown	9/12/08	9/12/08																	
57	PM	ML3	FY08 Shutdown Over	1/2/09	1/2/09																	
190	-	-	<u>Projected Milestone Symbol</u>	3/31/09	3/31/09																	
191	-	-	<u>Achieved Milestone Symbol</u>	3/31/09	3/31/09																	
188																						
189		<u>Notes</u>	<u>Baseline Milestone Symbol</u>	3/31/09	3/31/09																	

