

Milestone	Baseline	Projected	Variance	2004		2005		2006		2007		2008		2009		2010	
				Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr
<b>Level 1 DOE (SC1) Milestones</b>	<b>8/29/08</b>	<b>7/30/10</b>	<b>478 days</b>														
CD0 - Approve Mission Need	6/17/01	6/17/01	0 days														
CD1 - Approve Preliminary Baseline Range	10/16/02	10/16/02	0 days														
CD2a - Approve Long-Lead Procurement Budget	7/30/04	7/30/04	0 days		◆												
CD3a - Approve Start of Long Lead Procurement	10/29/04	10/29/04	0 days		◆												
CD2b - Approve Performance Baseline	3/31/05	3/31/05	0 days			◆											
CD3b - Approve Start of Construction	2/28/06	3/21/06	15 days				◆										
CD4 - Approve Start of Operations	7/30/10	7/30/10	0 days														●
<b>Level 2 DOE (SSO) Milestones</b>	<b>8/29/08</b>	<b>3/8/10</b>	<b>374 days</b>														
Prelim Safety Assessment (PSAD) Doc Complete	4/30/04	4/30/04	0 days	◆													
DOE External Independent Review (EIR) Complete	6/15/04	6/15/04	0 days	◆													
Fire Hazard Analysis Approved	6/30/05	8/15/05	32 days				◆										
Prelim Safety Assessment (PSAD) Doc Approved	2/28/06	2/28/06	0 days					◆									
Delivery of Undulator 1st Articles to MMF	7/3/06	6/15/06	-12 days					◆									
Sector 20/Alcove Beneficial Occupancy	7/21/06	4/14/06	-70 days					◆									
MMF Qualified & Ready to Measure Prod Undulators	8/28/06	8/28/06	0 days						◆								
Research Yards Mods Beneficial Occupancy	10/20/06	8/30/06	-37 days						◆								
Start Injector Commissioning (Drive Laser)	1/29/07	12/15/06	-22 days							◆							
Injector Laser Commissioning Review Complete	1/31/07	12/1/06	-34 days							◆							
Injector Accelerator Readiness Review (ARR) Comp	1/31/07	3/30/07	42 days								◆						
Start Injector Commissioning(UV Beam to Cathode)	4/9/07	4/5/07	-2 days								◆						
Linac Water/Power Available	7/11/07	3/29/07	-74 days								◆						
Start Installation of Undulator Facility	2/4/08	2/4/08	0 days									●					
Start Installation of Beam Transport Hall	2/20/08	2/20/08	0 days									●					
Linac (Li20-Li30) Ready for Commissioning	4/11/08	4/11/08	0 days									●					
Beam Transport Hall Beneficial Occupancy	4/21/08	4/21/08	0 days									●					
Undulator Hall Beneficial Occupancy	4/21/08	4/21/08	0 days									●					
Front End Enclosure Beneficial Occupancy	4/21/08	4/21/08	0 days									●					
Near Experimental Hall Beneficial Occupancy	4/21/08	4/21/08	0 days									●					
Central Utility Plant Beneficial Occupancy	4/21/08	4/21/08	0 days									●					
X-Ray Transport Beneficial Occupancy	7/21/08	7/21/08	0 days									●					
Far Experimental Hall Beneficial Occupancy	7/21/08	7/21/08	0 days									●					
XT Start FEE Installation	8/11/08	8/11/08	0 days									●					
Safety Analysis Document (SAD) Approved	8/29/08	8/29/08	0 days									●					
Linac (Li20-Li30) Commissioning Complete	9/29/08	9/29/08	0 days									●					
Beam Path Project Close Out	9/30/08	9/30/08	0 days									●					
XE Start Installation in NEH	2/2/09	2/2/09	0 days										●				
LCLS ARR Complete (BTH thru FEH)	4/10/09	4/10/09	0 days										●				
Start Linac-to-Undulator (LTU) Commissioning	4/16/09	4/16/09	0 days										●				
2-D Detector Shipped to SLAC	5/6/09	5/6/09	0 days										●				
XT Start Tunnel Installation	5/27/09	5/27/09	0 days										●				

Date: 9/17/07

Baseline ●

Finish (Projected) ◆

Milestone	Baseline	Projected	Variance	2004		2005		2006		2007		2008		2009		2010	
				Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr		
Start Undulator Commissioning (1st Light)	7/15/09	7/15/09	0 days														
Start FEE Commissioning with Beam	7/15/09	7/15/09	0 days														
XE Start Installation in FEH	9/17/09	9/17/09	0 days														
Initiate Early Experimental Operations	9/17/09	9/17/09	0 days														
First X-Rays into NEH	9/17/09	9/17/09	0 days														
First X-Rays into FEH	3/8/10	3/8/10	0 days														
<b>Level 3 SLAC (LCLS PO) Milestones</b>	<b>NA</b>	<b>2/8/10</b>	<b>0 days</b>														
<b>Injector System (WBS 1.02)</b>	<b>11/21/07</b>	<b>11/21/08</b>	<b>251 days</b>														
Award of Drive Laser Contract Complete	6/30/05	6/30/05	0 days														
Wall Region Installation Complete	12/16/05	12/16/05	0 days														
Laser Tables & Optical Paths Installation Comp	8/21/06	8/1/06	-14 days														
Drive Laser Available for Integration	11/16/06	10/16/06	-23 days														
Heater Region Installation Complete	12/7/06	12/30/06	9 days														
Start Injector Commissioning (Drive Laser)	12/14/06	1/16/07	14 days														
Injector Laser Commissioning Review Complete	12/14/06	11/30/06	-10 days														
Injector Accelerator Readiness Review (ARR) Comp	12/15/06	3/30/07	66 days														
Injector Controls Installation Complete	1/2/07	3/16/07	52 days														
Accelerator Region Installation Complete	1/29/07	12/30/06	-19 days														
Gun Region Installation Complete	1/29/07	3/30/07	44 days														
Injector RF Subsystem Installation Complete	1/31/07	3/30/07	42 days														
Spectrometer Installation Complete	2/2/07	3/30/07	40 days														
Insertion Region Installation Complete	2/8/07	12/30/06	-27 days														
RF Gun Ready for Installation	2/15/07	12/1/06	-45 days														
Start Injector Commissioning(UV Beam to Cathode)	3/6/07	4/5/07	22 days														
Injector Commissioning Complete	10/29/07	10/29/07	0 days														
Laser Heater Installation Complete	11/21/08	11/21/08	0 days														
<b>Linac System (WBS 1.03)</b>	<b>6/9/08</b>	<b>3/16/09</b>	<b>189 days</b>														
CRIT: Release RFP X-Band Klystron	2/25/05	2/25/05	0 days														
Shutdown of FFTB Operations	6/1/06	4/10/06	-38 days														
BC1 Bend Magnet Ready for Installation	11/13/06	9/29/06	-31 days														
X-Band Klystron Ready for Installation	11/27/06	8/31/06	-62 days														
BC1 Installation Complete	1/29/07	1/31/07	2 days														
Linac Controls Ready for BC1 Installation	1/31/07	3/16/07	32 days														
Start BC1 Commissioning	2/28/07	3/30/07	22 days														
Linac Commissioning Review Complete - S20-30	1/3/08	1/3/08	0 days														
BC2 Installation Complete	1/14/08	1/14/08	0 days														
Start Linac (Li20-Li30) Commissioning	3/11/08	3/11/08	0 days														
E-Dump Component Installation Complete	8/25/08	8/25/08	0 days														
BC2 Commissioning Complete	8/29/08	8/29/08	0 days														
LTU Component Installation Complete	10/3/08	10/3/08	0 days														
Linac Commissioning Complete	10/30/08	10/30/08	0 days														

Date: 9/17/07

Baseline



Finish (Projected)



Milestone	Baseline	Projected	Variance	2004		2005		2006		2007		2008		2009		2010	
				Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr		
Start Installation of Beam Transport Hall	1/20/09	1/20/09	0 days														
Linac Commissioning Review Complete - LTU	3/12/09	3/12/09	0 days														
Start Linac-to-Undulator (LTU) Commissioning	3/16/09	3/16/09	0 days														
<b>Undulator System (WBS 1.04)</b>	<b>8/18/08</b>	<b>6/15/09</b>	<b>204 days</b>														
CRIT: Release RFP Ti Strongback	1/14/05	1/14/05	0 days			◆											
CRIT: Release RFP Magnet Poles	2/4/05	2/4/05	0 days			◆											
CRIT: Release RFP Magnet Blocks	3/23/05	3/23/05	0 days			◆											
CRIT: Release RFP Magnet Assemblies - 1st Art	6/28/05	6/28/05	0 days			◆											
Award of 1st Articles Mag Assy to Vendors Comp	10/11/05	10/4/05	-5 days			◆											
CRIT: Release RFP - Quadrupoles	4/12/06	6/14/06	45 days					◆									
Undulator SUT Completed	4/28/06	7/19/06	58 days					◆									
CRIT: Release RFP - Fixed Supports	5/9/06	5/9/06	0 days					◆									
1st Article Vendor A Undulator 1 Rcvd @ SLAC	6/2/06	3/30/06	-46 days					◆									
1st Article Vendor B Undulator 2 Rcvd @ SLAC	6/2/06	6/15/06	9 days					◆									
MMF Qualified & Ready to Measure Prod Undulators	10/27/06	8/28/06	-44 days					◆									
25% production undulators received	1/2/07	8/28/06	-83 days					◆									
50% production undulators received	3/19/07	12/21/06	-54 days					◆									
75% production undulators received	6/7/07	1/31/07	-91 days					◆									
Undulator Production Units (33) Received	7/6/07	4/30/07	-49 days					◆									
1st Two Quadrupoles Rcvd at SLAC	11/12/07	11/12/07	0 days							◆							
1st Production Undulator RFBPM Delivered to SLAC	12/14/07	12/14/07	0 days							◆							
Support/Mover & Fixed Support #01-17 Rcvd @ SLAC	12/14/07	12/14/07	0 days							◆							
1st Production BFW Delivered to SLAC	1/2/08	1/2/08	0 days							◆							
Start Installation of Undulator Facility	1/4/08	1/4/08	0 days							◆							
Quadrupoles #3-17 Rcvd at SLAC	1/10/08	1/10/08	0 days							◆							
Support/Mover & Fixed Support #18-33 Rcvd @ SLAC	2/19/08	2/19/08	0 days							◆							
1st Production Vacuum Chamber Delivered to SLAC	2/25/08	2/25/08	0 days							◆							
Vac Chmbr/BPM #01 Rcvd at SLAC	2/25/08	2/25/08	0 days							◆							
Quadrupole #18-33 Rcvd at SLAC	3/3/08	3/3/08	0 days							◆							
Long Diagnostic Break Assembly Rcvd at SLAC	3/21/08	3/21/08	0 days							◆							
Vac Chmbr/BPM #02-16 Rcvd at SLAC	4/11/08	4/11/08	0 days							◆							
Short Diagnostic Break Assembly Rcvd at SLAC	4/25/08	4/25/08	0 days							◆							
Vac Chmbr/BPM #17-33 Rcvd at SLAC	5/28/08	5/28/08	0 days							◆							
Hydrostatic Level System Complete	11/3/08	11/3/08	0 days							◆							
Wire Monitoring System Complete	11/3/08	11/3/08	0 days							◆							
Undulator Controls Ready for Commissioning	11/3/08	11/3/08	0 days							◆							
Undulator System Installation Complete	11/3/08	11/3/08	0 days							◆							
Beam Loss Monitoring Rcvd at SLAC (34+2)	2/27/09	2/27/09	0 days								◆						
Start Undulator Commissioning (1st Light)	6/15/09	6/15/09	0 days								◆						
Start Undulator Commissioning (1st Light)	6/15/09	6/15/09	0 days								◆						
<b>X-Ray Transport &amp; Diagnostics (WBS 1.05)</b>	<b>9/15/08</b>	<b>2/8/10</b>	<b>343 days</b>														

Date: 9/17/07

Baseline



Finish (Projected)



Milestone	Baseline	Projected	Variance	2004		2005		2006		2007		2008		2009		2010	
				Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr		
Tunnel Mech/Vac Design Review Complete	11/29/06	11/14/06	-11 days							◆							
Gas Attenuator Design Review Complete	3/30/07	5/25/07	40 days							●	◆						
AWARD: LE Mirror Substrate	6/25/07	6/25/07	0 days							◆							
AWARD: HE Mirror Substrate	12/3/07	12/3/07	0 days														
Fixed Mask Ready to Ship to SLAC	3/7/08	3/7/08	0 days														
Gas/Solid Attenuator Ready to Ship to SLAC	4/4/08	4/4/08	0 days														
XT Start Phase 1 FEE Installation	7/11/08	7/11/08	0 days														
XT Start Phase 2 FEE Installation	8/1/08	8/1/08	0 days														
XT Start NEH Installation	3/6/09	3/6/09	0 days														
XT Start Phase 3 FEE Installation	3/6/09	3/6/09	0 days														
XT Start Phase 4 FEE Installation	3/27/09	3/27/09	0 days														
XT Start Tunnel Installation	4/27/09	4/27/09	0 days														
FEE Install/Check Complete	5/29/09	5/29/09	0 days														
Start FEE Commissioning with Beam	6/15/09	6/15/09	0 days														
XT Start FEH Installation	8/17/09	8/17/09	0 days														
TUN/FEH Install/Check Complete	11/5/09	11/5/09	0 days														
First X-Rays into FEH	2/8/10	2/8/10	0 days														
<b>Conventional Facilities (WBS 1.09)</b>	<b>1/20/09</b>	<b>9/30/09</b>	<b>181 days</b>														
A&E Serv (S20, MMF, MCC not incl) Title 1 Comp	4/30/04	4/30/04	0 days	◆													
A&E Serv Sector 20 Title 1 Complete	4/30/04	4/30/04	0 days	◆													
A&E Services MMF Title 1 Complete	4/30/04	4/30/04	0 days	◆													
A&E Services Sector 20 Title 2 Complete	3/18/05	3/18/05	0 days			◆											
CRIT: Rel RFP T3 Const. Pkg. RF Hut & S20/Alcove	4/1/05	4/1/05	0 days			◆											
CRIT: Release RFP T3 Construction Contract (MMF)	4/14/05	4/14/05	0 days			◆											
A&E Services MMF Title 2 Complete	5/31/05	5/31/05	0 days			◆											
CRIT: Release RFP Constructrion Mgmt Pkg (CM)	7/25/05	7/25/05	0 days			◆											
Award of Sector 20 Title 3 Complete	8/5/05	7/28/05	-6 days			◆											
Award of Magnetic Msmt Facility Title 3 Complete	8/5/05	7/28/05	-6 days			◆											
Award of Construction Management Package - Ph.1	9/30/05	10/17/05	11 days			◆											
RF Hut Beneficial Occupancy	12/7/05	3/9/06	56 days			◆											
A&E Serv (S20, MMF, MCC not incl) Title 2 Comp	1/20/06	2/28/06	27 days			◆											
CRIT: Release RFP T3 Construct (RY-CLOC)	1/26/06	3/8/06	29 days			◆											
Magnetic Msmt Facility(MMF) Beneficial Occupancy	4/3/06	3/29/06	-3 days			◆											
Sector 20 Alcove Beneficial Occupancy	6/21/06	4/14/06	-48 days			◆											
CRIT: Release RFP T3 Construction Pkg (Linac)	7/10/06	7/31/06	15 days			◆											
Research Yards Mods Beneficial Occupancy	9/21/06	8/30/06	-16 days			◆											
Linac Power/Water Available	6/11/07	3/29/07	-52 days							◆							
Front End Enclosure Co-Occupancy	12/4/07	12/4/07	0 days														
Beam Transport Hall Co-Occupancy	12/4/07	12/4/07	0 days														
Undulator Facility Co-Occupancy	12/4/07	12/4/07	0 days														
Beam Dump Co-Occupancy	12/4/07	12/4/07	0 days														

Date: 9/17/07

Baseline



Finish (Projected)



Milestone	Baseline	Projected	Variance	2004		2005		2006		2007		2008		2009		2010	
				Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr		
Central Utility Plant Co-Occupancy	12/20/07	12/20/07	0 days									●					
Near Experimental Hall Co-Occupancy	12/20/07	12/20/07	0 days									●					
X-Ray Transport Co-Occupancy	1/7/08	1/7/08	0 days									●					
Undulator Facility Beneficial Occupancy	3/20/08	3/20/08	0 days									●					
Near Experimental Hall Beneficial Occupancy	3/20/08	3/20/08	0 days									●					
Front End Enclosure Beneficial Occupancy	3/20/08	3/20/08	0 days									●					
Beam Dump Beneficial Occupancy	3/20/08	3/20/08	0 days									●					
Central Utility Plant Beneficial Occupancy	3/20/08	3/20/08	0 days									●					
Beam Transport Hall Beneficial Occupancy	3/20/08	3/20/08	0 days									●					
Far Experimental Hall Co-Occupancy	3/21/08	3/21/08	0 days									●					
Far Experimental Hall Beneficial Occupancy	6/20/08	6/20/08	0 days									●					
X-Ray Transport Beneficial Occupancy	6/20/08	6/20/08	0 days									●					
Beam Path Project Close Out	8/29/08	8/29/08	0 days									●					
FEH Hutches Beneficial Occupancy	7/1/09	7/1/09	0 days													●	
CEH Office Beneficial Occupancy	9/30/09	9/30/09	0 days													●	
B028 Office Beneficial Occupancy	9/30/09	9/30/09	0 days													●	
<b>X-Ray Endstations (WBS 1.06)</b>	<b>1/20/09</b>	<b>11/30/09</b>	<b>224 days</b>														
Complete 2-D X-Ray Detector Statement of Work	7/1/05	5/16/05	-34 days			◆	◆										
Award Initial Funding for 2-D X-Ray Detector	7/15/05	7/15/05	0 days			◆											
Hire Atomic Physicist	3/17/06	1/3/06	-52 days			◆	●										
Hire Detector Physicist	4/3/06	1/17/06	-54 days			◆	●										
COMP: AMO PDR Meeting	11/26/07	11/26/07	0 days									●					
LDAC Mid-Project Review - 2-D X-Ray Detector	11/30/07	11/30/07	0 days									●					
Award XES Laser System	11/3/08	11/3/08	0 days													●	
Electron Dump Stoppers Certified	11/21/08	11/21/08	0 days													●	
XE Start Installation in NEH	1/2/09	1/2/09	0 days													●	
2-D Detector Shipped to SLAC	4/6/09	4/6/09	0 days													●	
XES Laser Operating in Near Hall	4/10/09	4/10/09	0 days													●	
FEE/NEH PPS Certified	6/12/09	6/12/09	0 days													●	
Photon flux density measurement in FEE achieved	7/17/09	7/17/09	0 days													●	
XE Start Installation in FEH	8/17/09	8/17/09	0 days													●	
First X-Rays into NEH	8/17/09	8/17/09	0 days													●	
Initiate Early Experimental Operations	8/17/09	8/17/09	0 days													●	
AMO Ready for Basic Expmnts (Phase 1)	8/21/09	8/21/09	0 days													●	
TUN/FEH PPS Certified	11/30/09	11/30/09	0 days													●	
<b>Project Management (WBS 1.01)</b>	<b>NA</b>	<b>3/12/09</b>	<b>0 days</b>														
Advanced Procurement Management Plan Complete	2/28/04	2/28/04	0 days	◆													
Resource Loaded Cost & Schedule (Final) Complete	4/30/04	4/30/04	0 days		◆												
1st Monthly Report (with Earned Value) Submitted	4/30/04	4/30/04	0 days		◆												
Risk Management Plan Complete	4/30/04	4/30/04	0 days		◆												
Prelim Safety Assessment Doc (PSAD) Submitted	4/30/04	4/30/04	0 days		◆												

Date: 9/17/07

Baseline



Finish (Projected)



Milestone	Baseline	Projected	Variance	2004		2005		2006		2007		2008		2009		2010	
				Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr	Oct	Apr
Project Mgmt Control Syst (PMCS) Review Complete	4/30/04	4/30/04	0 days	◆													
Project Mgmt Plan Complete	4/30/04	4/30/04	0 days	◆													
CRIT: Start Procurement Package - PMCS Support	10/1/04	10/1/04	0 days		◆												
Fire Hazard Analysis Review @ SLAC	6/10/05	7/15/05	25 days			◆											
FY05 Shutdown: HW Req'd for Installation	10/3/05	10/3/05	0 days			◆											
FY05 Shutdown Over	10/31/05	10/31/05	0 days			◆											
FY06 Shutdown: HW Req'd for Installation	8/1/06	8/21/06	14 days				◆										
FY06 Shutdown Over	1/5/07	1/5/07	0 days					◆									
FY07 Shutdown: HW Req'd for Installation	9/4/07	9/4/07	0 days						◆								
FY07 Shutdown Over	12/3/07	12/3/07	0 days							◆							
Safety Analysis Document (SAD) Approved	7/29/08	7/29/08	0 days								◆						
Start FY08 Shutdown	10/1/08	10/1/08	0 days									◆					
FY08 Shutdown Over	11/3/08	11/3/08	0 days										◆				
LCLS ARR Complete (BTH thru FEH)	3/12/09	3/12/09	0 days											◆			
<u>Projected Milestone Symbol</u>	3/31/09	3/31/09	-1 day												◆		
<u>Achieved Milestone Symbol</u>	3/31/09	3/31/09	-1 day											◆			
<u>Baseline Milestone Symbol</u>	3/31/09	3/31/09	-1 day												◆		

