



Nova Project Critical Path - Jan12 Gantt Chart

Early Dates	
Progress	
Baseline Milestone	
Milestone	
Completed Milestone	
Baseline	

FY12	FY13	FY14	FY15	29Sep2016	29Sep2017
-01Feb12	Fabricate and deliver module flatness QA/QC device				
4.2.3.3	Produce fluor concentrate for block 3				
	▼ ▲ Adhesive shipment 2 ordered				
	▼ ▲ Adhesive shipment 3 ordered				
	▲ Block pivoter completed				
	▲ Block pivoter ready for operation				
	▲ Ready for Far Detector plane assembly				
2.9.4.3.3	Assemble and mount block 1				
	▼ ▲ Adhesive shipment 4 ordered				
	▼ ▲ Adhesive shipment 5 ordered				
	▼ ▲ Adhesive shipment 6 ordered				
2.9.4.2.2.14	Receive adhesive shipment 2				
2.9.4.2.2.15	QA adhesive shipment 2				
	▼ ▲ Adhesive shipment 7 ordered				
2.5.3.3.2.2.1.2	Ship completed far detector modules to far site - Block 2 - Planes 1-16				
2.9.4.3.4	Assemble and mount block 2				
2.5.3.3.2.2.2.2	Ship completed far detector modules to far site - Block 2 - Planes 17-32				
2.9.4.2.2.17	Receive adhesive shipment 3				
	▼ ▲ Adhesive shipment 8 ordered				
2.9.4.2.2.18	QA adhesive shipment 3				
2.2.5.3.1	Deliver scintillator for block 1				
2.5.3.3.2.3.1.2	Ship completed far detector modules to far site - Block 3 - Planes 1-16				
2.9.4.3.5	Assemble and mount block 3				
	▼ ▲ Adhesive shipment 9 ordered				
2.5.3.3.2.3.2.2	Ship completed far detector modules to far site - Block 3 - Planes 17-32				
2.9.4.2.2.20	Receive adhesive shipment 4				
2.9.4.2.2.21	QA adhesive shipment 4				
	▼ ▲ Adhesive shipment 10 ordered				
2.5.3.3.2.4.1.2	Ship completed far detector modules to far site - Block 4 - Planes 1-16				
2.9.4.3.6	Assemble and mount block 4				
2.9.4.2.2.23	Receive adhesive shipment 5				
2.2.4.2.3.4	Produce fluor concentrate for block 4				
2.5.3.3.2.4.2.2	Ship completed far detector modules to far site - Block 4 - Planes 17-32				
2.9.4.2.2.24	QA adhesive shipment 5				
2.5.3.3.2.5.1.2	Ship completed far detector modules to far site - Block 5 - Planes 1-16				
2.9.4.3.7	Assemble and mount block 5				
2.9.4.2.2.26	Receive adhesive shipment 6				
2.2.4.2.3.5	Produce fluor concentrate for block 5				
2.5.3.3.2.5.2.2	Ship completed far detector modules to far site - Block 5 - Planes 17-32				
2.9.4.2.2.27	QA adhesive shipment 6				
	▲ Super-block 1 assembled				
2.5.3.3.2.6.1.2	Ship completed far detector modules to far site - Block 6 - Planes 1-16				
2.9.4.3.9	Assemble and mount block 6				
2.9.4.2.2.29	Receive adhesive shipment 7				



Nova Project

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FY12	FY13	FY14	FY15	29Sep2016	29Sep2017
	▼ ▲ Adhesive shipment 11 ordered				
2.5.3.3.2.6.2.2	Ship completed far detector modules to far site - Block 6 - Planes 17-32				
2.9.4.2.2.30	QA adhesive shipment 7				
2.2.4.2.3.6	Produce fluor concentrate for block 6				
2.5.3.3.2.7.1.2	Ship completed far detector modules to far site - Block 7 - Planes 1-16				
2.9.4.3.10	Assemble and mount block 7				
	▼ ▲ Adhesive shipment 12 ordered				
2.5.3.3.2.7.2.2	Ship completed far detector modules to far site - Block 7 - Planes 17-32				
2.2.4.2.3.7	Produce fluor concentrate for block 7				
2.5.3.3.2.8.1.2	Ship completed far detector modules to far site - Block 8 - Planes 1-16				
2.9.4.3.11	Assemble and mount block 8				
2.9.4.2.2.32	Receive adhesive shipment 8				
2.5.3.3.2.8.2.2	Ship completed far detector modules to far site - Block 8 - Planes 17-32				
2.9.4.2.2.33	QA adhesive shipment 8				
	▼ ▲ Adhesive shipment 13 ordered				
2.5.3.3.2.9.1.2	Ship completed far detector modules to far site - Block 9 - Planes 1-16				
2.9.4.3.12	Assemble and mount block 9				
2.2.4.2.3.8	Produce fluor concentrate for block 8				
2.9.4.2.2.35	Receive adhesive shipment 9				
2.5.3.3.2.9.2.2	Ship completed far detector modules to far site - Block 9 - Planes 17-32				
2.9.4.2.2.36	QA adhesive shipment 9				
2.5.3.3.2.10.1.2	Ship completed far detector modules to far site - Block 10 - Planes 1-16				
2.9.4.3.13	Assemble and mount block 10				
2.9.4.2.2.38	Receive adhesive shipment 10				
2.2.4.2.3.9	Produce fluor concentrate for block 9				
2.5.3.3.2.10.2.2	Ship completed far detector modules to far site - Block 10 - Planes 17-32				
2.9.4.2.2.39	QA adhesive shipment 10				
	▲ Super-block 2 assembled				
2.5.3.3.2.11.1.2	Ship completed far detector modules to far site - Block 11 - Planes 1-16				
2.9.4.3.15	Assemble and mount block 11				
	▼ ▲ Adhesive shipment 14 ordered				
2.2.4.2.3.10	Produce fluor concentrate for block 10				
2.5.3.3.2.11.2.2	Ship completed far detector modules to far site - Block 11 - Planes 17-32				
2.5.3.3.2.12.1.2	Ship completed far detector modules to far site - Block 12 - Planes 1-16				
2.9.4.3.16	Assemble and mount block 12				
2.9.4.2.2.41	Receive adhesive shipment 11				
	▼ ▲ Adhesive shipment 15 ordered				
2.2.4.2.3.11	Produce fluor concentrate for block 11				
2.5.3.3.2.12.2.2	Ship completed far detector modules to far site - Block 12 - Planes 17-32				
2.9.4.2.2.42	QA adhesive shipment 11				
2.5.3.3.2.13.1.2	Ship completed far detector modules to far site - Block 13 - Planes 1-16				
2.9.4.3.17	Assemble and mount block 13				
2.9.4.2.2.44	Receive adhesive shipment 12				
	▼ ▲ Adhesive shipment 16 ordered				



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	2.2.4.2.3.12	Produce fluor concentrate for block 12			
	2.5.3.3.2.13.2.2	Ship completed far detector modules to far site - Block 13 - Planes 17-32			
	2.9.4.2.2.45	QA adhesive shipment 12			
	2.5.3.3.2.14.1.2	Ship completed far detector modules to far site - Block 14 - Planes 1-16			
	2.9.4.3.18	Assemble and mount block 14			
	2.9.4.2.2.47	Receive adhesive shipment 13			
	2.2.4.2.3.13	Produce fluor concentrate for block 13			
	2.5.3.3.2.14.2.2	Ship completed far detector modules to far site - Block 14 - Planes 17-32			
	2.9.4.2.2.48	QA adhesive shipment 13			
	2.5.3.3.2.15.1.2	Ship completed far detector modules to far site - Block 15 - Planes 1-16			
	2.9.4.3.19	Assemble and mount block 15			
	2.2.4.2.3.14	Produce fluor concentrate for block 14			
	2.5.3.3.2.15.2.2	Ship completed far detector modules to far site - Block 15 - Planes 17-32			
	▼	▲ Adhesive shipment 17 ordered			
	▲	Super-block 3 assembled			
	2.5.3.3.2.16.1.2	Ship completed far detector modules to far site - Block 16 - Planes 1-16			
	2.9.4.3.21	Assemble and mount block 16			
	2.9.4.2.2.50	Receive adhesive shipment 14			
	2.2.4.2.3.15	Produce fluor concentrate for block 15			
	2.5.3.3.2.16.2.2	Ship completed far detector modules to far site - Block 16 - Planes 17-32			
	2.9.4.2.2.51	QA adhesive shipment 14			
	▼	▲ Adhesive shipment 18 ordered			
	2.5.3.3.2.17.1.2	Ship completed far detector modules to far site - Block 17 - Planes 1-16			
	2.9.4.3.22	Assemble and mount block 17			
	2.9.4.2.2.53	Receive adhesive shipment 15			
	2.2.4.2.3.16	Produce fluor concentrate for block 16			
	2.5.3.3.2.17.2.2	Ship completed far detector modules to far site - Block 17 - Planes 17-32			
	2.9.4.2.2.54	QA adhesive shipment 15			
	▼	▲ Adhesive shipment 19 ordered			
	2.5.3.3.2.18.1.2	Ship completed far detector modules to far site - Block 18 - Planes 1-16			
	2.9.4.3.23	Assemble and mount block 18			
	2.9.4.2.2.56	Receive adhesive shipment 16			
	2.2.4.2.3.17	Produce fluor concentrate for block 17			
	2.5.3.3.2.18.2.2	Ship completed far detector modules to far site - Block 18 - Planes 17-32			
	2.9.4.2.2.57	QA adhesive shipment 16			
	2.5.3.3.2.19.1.2	Ship completed far detector modules to far site - Block 19 - Planes 1-16			
	2.9.4.3.24	Assemble and mount block 19			
	2.2.4.2.3.18	Produce fluor concentrate for block 18			
	2.5.3.3.2.19.2.2	Ship completed far detector modules to far site - Block 19 - Planes 17-32			
	▼	▲ Adhesive shipment 20 ordered			
	2.5.3.3.2.20.1.2	Ship completed far detector modules to far site - Block 20 - Planes 1-16			
	2.9.4.3.25	Assemble and mount block 20			
	2.9.4.2.2.59	Receive adhesive shipment 17			
	2.2.4.2.3.19	Produce fluor concentrate for block 19			



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	2.5.3.3.2.20.2.2	Ship completed far detector modules to far site - Block 20 - Planes 17-32			
	2.9.4.2.2.60	QA adhesive shipment 17			
		▼ Adhesive shipment 21 ordered			
		▲ Super-block 4 assembled			
	2.5.3.3.2.21.1.2	Ship completed far detector modules to far site - Block 21 - Planes 1-16			
	2.9.4.3.27	Assemble and mount block 21			
	2.9.4.2.2.62	Receive adhesive shipment 18			
	2.2.4.2.3.20	Produce fluor concentrate for block 20			
	2.5.3.3.2.21.2.2	Ship completed far detector modules to far site - Block 21 - Planes 17-32			
	2.9.4.2.2.63	QA adhesive shipment 18			
		▼ Adhesive shipment 22 ordered			
	2.5.3.3.2.22.1.2	Ship completed far detector modules to far site - Block 22 - Planes 1-16			
	2.9.4.3.28	Assemble and mount block 22			
	2.9.4.2.2.65	Receive adhesive shipment 19			
	2.2.4.2.3.21	Produce fluor concentrate for block 21			
	2.5.3.3.2.22.2.2	Ship completed far detector modules to far site - Block 22 - Planes 17-32			
	2.9.4.2.2.66	QA adhesive shipment 19			
	2.5.3.3.2.23.1.2	Ship completed far detector modules to far site - Block 23 - Planes 1-16			
	2.9.4.3.29	Assemble and mount block 23			
	2.2.4.2.3.22	Produce fluor concentrate for block 22			
	2.5.3.3.2.23.2.2	Ship completed far detector modules to far site - Block 23 - Planes 17-32			
	2.5.3.3.2.24.1.2	Ship completed far detector modules to far site - Block 24 - Planes 1-16			
		▼ Adhesive shipment 23 ordered			
	2.9.4.3.30	Assemble and mount block 24			
	2.9.4.2.2.68	Receive adhesive shipment 20			
	2.2.4.2.3.23	Produce fluor concentrate for block 23			
	2.5.3.3.2.24.2.2	Ship completed far detector modules to far site - Block 24 - Planes 17-32			
	2.9.4.2.2.69	QA adhesive shipment 20			
	2.5.3.3.2.25.1.2	Ship completed far detector modules to far site - Block 25 - Planes 1-16			
	2.9.4.3.31	Assemble and mount block 25			
	2.9.4.2.2.71	Receive adhesive shipment 21			
	2.2.4.2.3.24	Produce fluor concentrate for block 24			
	2.5.3.3.2.25.2.2	Ship completed far detector modules to far site - Block 25 - Planes 17-32			
	2.9.4.2.2.72	QA adhesive shipment 21			
		▲ Super-block 5 assembled			
	2.5.3.3.2.26.1.2	Ship completed far detector modules to far site - Block 26 - Planes 1-16			
	2.9.4.3.33	Assemble and mount block 26			
	2.9.4.2.2.74	Receive adhesive shipment 22			
	2.2.4.2.3.25	Produce fluor concentrate for block 25			
	2.5.3.3.2.26.2.2	Ship completed far detector modules to far site - Block 26 - Planes 17-32			
	2.9.4.2.2.75	QA adhesive shipment 22			
	2.5.3.3.2.27.1.2	Ship completed far detector modules to far site - Block 27 - Planes 1-16			
	2.9.4.3.34	Assemble and mount block 27			
	2.2.4.2.3.26	Produce fluor concentrate for block 26			



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FY12	FY13	FY14	FY15	29Sep2016	29Sep2017
	2.5.3.3.2.27.2.2	Ship completed far detector modules to far site - Block 27 - Planes 17-32			
	2.5.3.3.2.28.1.2	Ship completed far detector modules to far site - Block 28 - Planes 1-16			
	2.9.4.3.35	Assemble and mount block 28			
	2.9.4.2.2.77	Receive adhesive shipment 23			
	2.2.4.2.3.27	Produce fluor concentrate for block 27			
	2.5.3.3.2.28.2.2	Ship completed far detector modules to far site - Block 28 - Planes 17-32			
	2.9.4.2.2.78	QA adhesive shipment 23			
	2.2.4.2.4.27	QC fluor concentrate for block 27			
	2.2.4.3.3.27	Blend scintillator for block 27			
	2.2.4.3.4.27	QC scintillator for block 27			
	2.5.3.3.2.29.1.2	Ship completed far detector modules to far site - Block 29 - Planes 1-16			
	2.9.4.3.36	Assemble and mount block 29			
	2.2.5.3.27	Deliver scintillator for block 27			
	2.9.4.4.33	Fill block 27			
		▲Begin Filling Block 27			
	2.2.4.2.3.28	Produce fluor concentrate for block 28			
	2.5.3.3.2.29.2.2	Ship completed far detector modules to far site - Block 29 - Planes 17-32			
	2.2.4.2.4.28	QC fluor concentrate for block 28			
	2.2.4.3.3.28	Blend scintillator for block 28			
	2.2.4.3.4.28	QC scintillator for block 28			
	2.2.5.3.28	Deliver scintillator for block 28			
	2.9.4.4.34	Fill block 28			
		▲Begin Filling Block 28			
	2.2.4.2.3.29	Produce fluor concentrate for block 29			
	2.2.4.2.4.29	QC fluor concentrate for block 29			
	2.2.4.3.3.29	Blend scintillator for block 29			
	2.2.4.3.4.29	QC scintillator for block 29			
		▲Blocks 27-28 ready for APDs			
	2.2.5.3.29	Deliver scintillator for block 29			
	2.9.4.6.48	Install and checkout APDs - Blocks 27-28			
		▲Start APD Installation for Blocks 27-28			
	2.9.4.4.35	Fill block 29			
		▲Begin Filling Block 29			
	2.6.1.4.29	Ship APD modules-Block 29			
	2.9.4.6.49	Install and checkout APDs - Blocks 29-30			
		▲Start APD Installation for Blocks 29-30			
	2.9.4.6.26	Read out neutrino event in Superblock 6			
		▲NuMI neutrino event observed in Superblock 6			
		▲FNAL/Nova Internal Operational Readiness Review and CD-4 Readiness Review Assessment			
		▲DOE Independent Project Review for CD-4 Completed (Lehman Review)			
		▲CD-4 ESAAB Meeting Completed			
		▲CD-4			