

ID	Task Name	Duration	Start	Finish	Predecessors	Constraint	WBS	Resource Names
1	Rollout/disassembly	64 w	2/27/96	6/6/97		Start No Ear		
2	<b>PLATFORM PREPARATION</b>	<b>50.8 w</b>	<b>2/3/97</b>	<b>2/11/98</b>		<b>As Soon As</b>		
3	Remove obsolete equipment/cables	32 w	2/3/97	9/17/97		Start No Ear		MTF100[3]
4	Enlarge CF cable notches	4 w	6/2/97	6/27/97		Start No Ear		MTF100[0.3]
5	Refurbish platform	30 w	6/30/97	2/11/98	4	As Soon As f		MTF100,ETF100
7	<b>SOLENOID SYSTEM</b>	<b>180.2 w</b>	<b>10/3/94</b>	<b>4/28/98</b>		<b>As Soon As</b>		
8	<b>Cryo System Development</b>	<b>168 w</b>	<b>10/3/94</b>	<b>2/2/98</b>		<b>As Soon As</b>		
9	Building addition construction	52 w	7/3/95	7/8/96		Must Start O		MEF310[0.2],DesF310[0.2]
10	Cryo system design	114.4 w	10/3/94	1/2/97		Start No Ear		MEF310[1.1],DesF310,MTF310[0.5]
11	Cryo system fab/installation	47 w	6/19/96	5/30/97	10FS-26 w	As Soon As f		MEF310.DesF310[0.5],MTF310[4]
12	Develop control system	46 w	7/1/96	6/4/97		Start No Ear		MTF310[0.5]
13	Fab/install control dewar platforms	13.6 w	10/15/97	2/2/98		Start No Ear		MTF310[3],MEF310[0.1]
14	Refrigeration system test	4 w	6/9/97	7/7/97	11	Start No Ear		MEF310[2],MTF310[3]
15	Power/quench protection development	90 w	1/15/96	10/27/97		Start No Ear		MEF310[0.1],EEF310[0.7],MTF310[0.5],ETF310[0.75],DesF310[0.2]
16	Cryo/electrical system documentation	16 w	1/7/98	4/28/98		Start No Ear		PhysF310,MEF310[0.2],EEF310[0.2]
17	Magnet fabrication	111 w	3/8/95	5/15/97		Finish No Ea		MEF310[0.8],PhysF310[2]
18	<b>M1-Solenoid Delivered to Fermilab</b>	<b>0 w</b>	<b>5/12/97</b>	<b>5/12/97</b>	<b>17</b>	<b>As Soon As</b>		
19	Magnet preparation	4 w	5/12/97	6/9/97	18	As Soon As f		MEF310[0.25],MTF310[0.5]
67	<b>Install Central Preshower</b>	<b>29.2 w</b>	<b>10/15/97</b>	<b>5/21/98</b>		<b>As Soon As</b>		
68	Procure lead pre-radiator	7 w	10/15/97	12/4/97		Start No Ear	1.1.3.9.2	k\$(0.02)
69	Fabricate mounting hardware	4.6 w	3/1/98	4/1/98		Start No Ear	1.1.3.9.1	MEF113[0.1],MTF113[0.1],k\$(0.04)
70	Install mounting hardware and lead	5.6 w	4/2/98	5/11/98	68,69	As Soon As f		MEF113[0.1],MTF113
71	Install detector modules	1.6 w	5/12/98	5/21/98	70,60FS-2 w	As Soon As f		MEF113[0.1],MTF113,PhysU113[0.5]
72	<b>M2-Central Preshower Installed on Solenoid</b>	<b>0 w</b>	<b>5/21/98</b>	<b>5/21/98</b>	<b>71</b>	<b>As Soon As</b>		
74	<b>SOLENOID INSTALLATION AND TEST</b>	<b>100.2 w</b>	<b>9/22/97</b>	<b>10/1/99</b>		<b>As Soon As</b>		
75	Design magnet installation eqpt.	18.8 w	9/22/97	2/13/98		Start No Ear		MEF310[0.5],DesF310[0.7]
76	Fab installation equipment	12 w	11/17/97	2/23/98		Start No Ear		MEF310[0.2],MTF310[2]
77	<b>Install, hookup, and test magnet</b>	<b>70.6 w</b>	<b>5/1/98</b>	<b>10/1/99</b>		<b>As Soon As</b>		
78	Pre-install Installation Fixturing and Support Feet	2 w	5/22/98	6/5/98	72,76	As Soon As f		MTF310
79	Insert Solenoid into CC and Survey	3 w	6/8/98	6/26/98	78	As Soon As f		MTF310,MEF310[0.2]
80	Pre-fit Chimney and SS Vacuum Pipe	1 w	6/29/98	7/6/98	79	As Soon As f		MTF310,MEF310[0.5]
81	Fix Chimney Position	1 w	7/7/98	7/13/98	80	As Soon As f		MEF310[0.2],MTF310[0.5]
82	<b>Begin Installation</b>	<b>0 w</b>	<b>7/13/98</b>	<b>7/13/98</b>	<b>81</b>	<b>As Soon As</b>		
83	Splice Leads, Re-insulate Vacuum, Close Up	3 w	7/14/98	8/3/98	82	As Soon As f		MEF310[0.2],MTF310[0.2]
84	Perform Leak Checks	2 w	8/4/98	8/17/98	83	As Soon As f		MTF310[2]
85	Cooldown Refrigerator	3 d	8/25/98	8/27/98	84	As Soon As f		MEF310,MTF310[1.5]
86	Safety Review and Approval	8.2 w	7/14/98	9/9/98	83FF	As Soon As f		MEF310[0.1]
87	<b>Controls</b>	<b>9.5 w</b>	<b>5/27/98</b>	<b>8/3/98</b>		<b>As Soon As</b>		
88	Install Controls Rack in Platform (electrical power)	2 w	5/27/98	6/10/98	92SS+50 %	As Soon As f		MTF310[0.5]
89	Run Cable to Instrumentation Port	5 w	6/29/98	8/3/98	79	As Soon As f		MTF310[0.5]
90	Install Control Lines to Control Dewar	6 w	6/22/98	8/3/98	88	As Soon As f		MTF310[0.5]
91	<b>Control Dewar, Cryo and Vacuum</b>	<b>12.8 w</b>	<b>5/1/98</b>	<b>7/31/98</b>		<b>As Soon As</b>		
92	Install VLPC Transfer Line and Vacuum Work	7 w	5/1/98	6/19/98		Start No Ear		
93	Solenoid U Tubes	5 w	5/1/98	6/5/98		Start No Ear		MTF310
94	Drafting for Lead Flow Jumpers	2 w	5/28/98	6/10/98		Start No Ear		DesF310,MEF310[0.2]
95	Procure Lead Flow Jumper Parts	6 w	5/21/98	7/2/98		Start No Ear		
96	Fabricate and Install Lead Flow Jumper; Modify Frost-proof E	3 w	7/6/98	7/24/98	94,95	As Soon As f		MTF310[1.2]
97	Toshiba Checkout of Control Dewar	1 w	7/27/98	7/31/98	96	As Soon As f		MEF310[0.2],PhysF310[0.5]
98	<b>Electrical</b>	<b>4 w</b>	<b>6/1/98</b>	<b>6/26/98</b>		<b>As Soon As</b>		
99	Buss Extension; Flexible Jumpers	4 w	6/1/98	6/26/98		Start No Ear		EEF310[0.2]
100	Perform Cold Test	1.2 w	9/1/98	9/9/98	85,86,89,90,93,97,99	As Soon As f		MEF310,MTF310[0.25],PhysF310[0.2]
101	<b>Cold Test Completed</b>	<b>0 w</b>	<b>9/9/98</b>	<b>9/9/98</b>	<b>100</b>	<b>As Soon As</b>		
102	Install ICD Iron	4.8 w	6/21/99	7/23/99		Start No Ear		MTF310[2]
103	Install B-Field Measuring Apparatus	3 w	1/4/99	1/22/99	102,1373	As Soon As f		MTF310,PhysF310
104	Close Central Iron	3 w	1/25/99	2/12/99	102,103	As Soon As f		MTF310[0.5]
105	<b>Begin Commissioning</b>	<b>0 w</b>	<b>9/9/98</b>	<b>9/9/98</b>	<b>101,104</b>	<b>As Soon As</b>		
106	High Current Testing	3 w	9/10/98	9/30/98	105	As Soon As f		PhysF310,EEF310[0.5],ETF310
107	<b>M1-Solenoid Installed and Tested</b>	<b>0 w</b>	<b>9/30/98</b>	<b>9/30/98</b>	<b>106</b>	<b>As Soon As</b>		
108	Perform Field Mapping	38.4 w	1/4/99	10/1/99	107	Start No Ear		PhysF310,ETF310[0.2],MTF310[0.2]
109	<b>Field Mapping Complete</b>	<b>0 w</b>	<b>10/1/99</b>	<b>10/1/99</b>	<b>108</b>	<b>As Soon As</b>		
426	<b>M2-Fiber Tracker Assembly Complete</b>	<b>0 w</b>	<b>5/11/00</b>	<b>5/11/00</b>	<b>423</b>	<b>As Soon As</b>		
503	<b>M3-VLPC Cassette Assembly 50% Complete</b>	<b>0 w</b>	<b>5/3/00</b>	<b>5/3/00</b>	<b>501SS+50 %</b>	<b>As Soon As</b>		
504	<b>M3-VLPC Cassette Assembly Complete</b>	<b>0 w</b>	<b>9/13/00</b>	<b>9/13/00</b>	<b>501</b>	<b>As Soon As</b>		
518	1st Cryostat Fabrication	20 w	11/4/99	4/7/00	516,517	As Soon As f	1.1.2.5.2(.44)	MTF112[2],MEF112[0.2],k\$(0.96),k\$(0.1)
519	<b>Begin 1st Cryostat Fabrication</b>	<b>0 w</b>	<b>11/4/99</b>	<b>11/4/99</b>	<b>518SS</b>	<b>As Soon As</b>		
520	Installation Equipment Design	4 w	12/6/99	1/14/00	518FS-16 w	Start No Ear		MEF112[0.5],DesF112[0.75]
521	Fab Installation Equipment	8 w	1/17/00	3/10/00	520	As Soon As f		MEF112[0.3],MTF112
524	2nd Cryostat Fabrication	20 w	11/4/99	4/7/00	518SS	As Soon As f	1.1.2.5.2(.44)	MTF112[2],MEF112[0.1],k\$(0.96),k\$(0.1)
525	Cryostat Installation/Hookup	3 w	4/10/00	4/28/00	518,521,524	As Soon As f	1.1.2.5.4	MTF112[2],MEF112[0.1],k\$(0.1),k\$(0.01)
526	<b>M3-1st VLPC Cryostat Installed</b>	<b>0 w</b>	<b>4/14/00</b>	<b>4/14/00</b>	<b>525SS+1 w</b>	<b>As Soon As</b>		
527	System Installation/Test	8 w	4/17/00	6/12/00	515,526	As Soon As f		MEF112[1.5],MTF112[2]
528	<b>M3-VLPC Cryo System Operational</b>	<b>0 w</b>	<b>6/12/00</b>	<b>6/12/00</b>	<b>527</b>	<b>As Soon As</b>		
529	Install 50 Cassettes in First Cryostat	5 w	5/17/00	6/22/00	505SS+50 %,526	As Soon As f		PhysU112[0.2],MTF112[0.2],ETF112[0.5],PhysF112[0.2]

ID	Task Name	Duration	Start	Finish	Predecessors	Constraint	WBS	Resource Names
530	Install Next 50 Cassettes in Second Cryostat	5 w	8/30/00	10/4/00	505FF+1 w,525,529	As Soon As f		
773	10% test	32.6 w	8/16/99	4/17/00		As Soon As		
779	Support cylinder	38.2 w	8/16/99	5/25/00		As Soon As		
780	Complete design of cylinder, mount, and beam tube su	5 w	8/16/99	9/20/99		Start No Ear		MEF111,PhysF111,DesF111
781	Manufacture support structure and mounts	16 w	8/16/99	12/8/99	604,780SS	As Soon As f	1.1.1.6.1	MTF111[0.5],MEF111[0.5],k\$[0.15],k\$c[0.03]
782	Align cylinder in Sci-Fi barrel 1	1 w	5/12/00	5/18/00	781,426	As Soon As f		MTF112[2],PhysF111,CMM112
783	Move cylinder to Sci Det, align on LK	1 w	5/19/00	5/25/00	782	As Soon As f		CMM111,MTF111,PhysF111
796	M2-First Silicon Tracker Barrel/Disk Module Complete	0 w	2/2/00	2/2/00	787,788	As Soon As		
798	M3-All Silicon Tracker Barrels/Disks Complete	0 w	8/25/00	8/25/00	791,793	As Soon As		
799	Mechanical systems and DAB Preparation	57.8 w	7/15/99	9/13/00		As Soon As		
800	Plumbing and cooling system	46 w	7/15/99	6/20/00	600FS+24 w	Start No Ear	1.1.1.6.3	MTF111[0.25],MEF111[0.25],k\$[0.16],k\$c[0.03]
801	Alignment System	34 w	1/3/00	8/29/00		Start No Ear	1.1.1.6.2	MTF111,ETF111,PhysU111[0.5],MEF111[0.5],PhysF111[0.5],k\$
802	Monitoring systems	30 w	10/1/99	5/15/00		Start No Ear	1.1.1.6.5	ETF111[0.5],EEF111[0.25],MTF111[0.5],PhysU111[2],PhysF111
803	Air System	23 w	4/3/00	9/13/00		Start No Ear	1.1.1.6.4	MTF111[0.25],MEF111[0.25],k\$[0.15],k\$c[0.03]
804	Produce installation fixtures	20 w	1/17/00	6/5/00		Start No Ear		MTF111[0.25]
805	Central Silicon Complete & Ready To Move To DAB	0 w	9/18/00	9/18/00	791,793FS+3 w	As Soon As		
806	H-disks Ready	0 w	7/3/00	7/3/00	736FS+2 w,794FS+4 w	As Soon As		
807	M1-Central Silicon Complete	0 w	9/18/00	9/18/00	805	As Soon As		
809	TRACKING ELECTRONICS FABRICATION	266.4 w	10/3/94	2/2/00		As Soon As		
840	Support Services (racks, power supplies, tests, etc. )	131 w	5/1/97	1/4/00		Start No Ear	1.1.1.5.9	EEF115,ETF115
841	System Install and Test	9 w	11/16/99	2/2/00	832FS-4 w,834	As Soon As f		EEF115,PhysU115[2],PhysF115,ETF115[2]
842	Final Electronics Installed	0 w	2/2/00	2/2/00	841	As Soon As		
843	First Readout Crate Installed & Working	0 w	11/16/99	11/16/99	841SS	As Soon As		
845	FIBER TRIGGER ELECTRONICS FABRICATION	302.4 w	10/3/94	10/16/00		As Soon As		
874	10 Analog Boards Available	0 w	5/3/00	5/3/00	873	As Soon As		
877	Analog Boards Ready	0 w	8/11/00	8/11/00	876	As Soon As		
901	10 Digital Boards Available	0 w	5/10/00	5/10/00	900	As Soon As		
904	CFT Digital Boards Ready	0 w	9/1/00	9/1/00	903	As Soon As		
913	Mixer Boards Ordered	0 w	5/31/00	5/31/00	911,912	As Soon As	1.1.5.3.8	k\$[1.27],k\$c[0.26]
915	Mixer Boards Ready	0 w	7/27/00	7/27/00	914	As Soon As		
916	Support Hardware	52.4 w	5/17/99	6/7/00		As Soon As		
923	Rack Prep in Movable Counting House	30 w	5/1/97	12/3/97		Start No Ear		EEF115[0.2],ETF115
924	Installation & System Test	6 w	9/5/00	10/16/00	876,903,914	As Soon As f		EEF115[3],PhysU115[2],PhysF115,ETF115
925	First Crate Operational	0 w	5/17/00	5/17/00	875	As Soon As		
927	Design, fabricate tracker installation fixture	8 w	2/18/00	4/14/00	928SF-4 w	As Soon As f		MEF112[2],MTF112[2],Welder
928	Install/align fiber tracker in solenoid	2 w	5/12/00	5/25/00	426	As Soon As f		MEF112[2],MTF112[4],Align[3]
929	Hookup fiber tracker	8 w	5/26/00	7/24/00	928,374FF	As Soon As f		MTF112[4],PhysU112[2],PhysF112
930	Install silicon high mass cables	5 w	7/25/00	8/28/00	929	As Soon As f		MTF111[2],ETF111[2],EEF111[0.5],PhysF111[0.5],PhysU111[0.5]
931	Commission fiber tracker	14 w	6/12/00	9/19/00	929SS+2 w,925,529SS+1 w	As Soon As f		PhysU112[3],PhysF112[3]
932	Install central silicon in fiber tracker	1 w	9/19/00	9/25/00	929,807	As Soon As		MTF111[4],PhysF111[2]
933	M2-Silicon Tracker Installed in Solenoid/Fiber Tracker	0 w	9/25/00	9/25/00	932	As Soon As		
934	Hookup central silicon	3 w	9/26/00	10/16/00	933	As Soon As		MTF111[4],PhysU111[2],PhysF111,EEF115,ETF115
935	Checkout silicon detector	5 w	9/26/00	10/30/00	934SS	As Soon As		PhysU111[3],PhysF111[3],EEF115,ETF115
936	Install/hookup silicon H-disk north	1 w	10/10/00	10/16/00	934SS+2 w,806	As Soon As f		MTF111[3],PhysU111[2],PhysF111
937	Install/hookup silicon H-disk south	1 w	10/17/00	10/23/00	936,806	As Soon As f		MTF111[3],PhysU111[2],PhysF111
938	Hookup and survey beam pipe	1 w	10/24/00	10/30/00	937	As Soon As f		MTF100,MEF111[0.25],PhysF111[0.25],Align[3]
1135	Install Feedthrough Cables	18 w	5/29/96	10/3/96		As Soon As		
1140	Installation	48.1 w	1/26/00	1/9/01		As Soon As		
1141	Install CC, ECN Preamps	8 w	1/26/00	3/21/00	996SS+2 w,998SS+2 w,1119SS	As Soon As f		ETF121,PhysU121[0.1]
1142	Preamp Installation Started	0 w	1/26/00	1/26/00	1141SS	As Soon As		
1143	Checkout CC, ECN Preamp system	8 w	2/9/00	4/4/00	1123SS+25 w,1141SS+2 w	As Soon As f		EEF121[0.5],ETF121[0.5],PhysU121
1144	M3-Calorimeter CC,ECN Preamp Installation Complete	0 w	4/4/00	4/4/00	1143	As Soon As		
1145	Install BLS system	8 w	9/6/00	10/31/00	1091SS+2 w,1104SS+2 w,1128	As Soon As f		ETF121[2],PhysU121[0.1]
1146	Checkout BLS system	8 w	9/20/00	11/14/00	1133,1145SS+2 w	As Soon As f		EEF121[0.5],ETF121[0.5],PhysU121
1147	Final checkout	1 w	11/15/00	11/21/00	1143,1146	As Soon As f		
1148	M3-CC, ECN Calorimeter System Checked Out	0 w	11/21/00	11/21/00	1143,1147	As Soon As		
1149	Recable ECS Calorimeter	3 w	11/3/00	11/27/00	1156	As Soon As f		MTF121[2],PhysU121[2]
1150	Install ECS Preamps	5 w	11/14/00	12/21/00	1141,1149SS+50 %	As Soon As f		ETF121,PhysU121[0.1]
1151	Checkout ECS Preamp system	4.8 w	11/30/00	1/9/01	1150SS+2 w	As Soon As f		EEF121[0.5],ETF121[0.5],PhysU121
1152	Ready to Roll in	0 w	1/9/01	1/9/01	1106,1151	As Soon As		
1153	Checkout of Calorimeter Electronics Complete	0 w	1/9/01	1/9/01	1148,1152	As Soon As		
1155	Prepare LAr and LHe systems for platform move	1 w	10/27/00	11/3/00	1157SF	As Soon As f		MTF100[2]
1156	Move ECS calorimeter onto platform	0.6 w	10/31/00	11/2/00	935	As Soon As		MTF100[4]
1157	Move platform west	1 w	11/3/00	11/9/00	1156	As Soon As		MTF100[5],MEF100
1159	ICD FABRICATION	254.6 w	6/1/95	7/13/00		As Soon As		
1201	M2-ICD Modules Arrive at Fermilab	0 w	3/7/00	3/7/00	1200	As Soon As		
1222	Install Supports for Backplanes/Crates	1 w	6/15/00	6/21/00	1219FS-1 w,1221	As Soon As f		MTF122[0.25]
1223	Install Backplanes/Crates	1 w	6/22/00	6/28/00	1219,1222	As Soon As f		
1241	Install Drawers	2 w	6/29/00	7/13/00	1223,1240	As Soon As f	1.2.2.10.2(-5)	k\$[0.02]
1245	Install LMBs in Backplanes	4 w	3/15/00	4/11/00	1216SS,1244	As Soon As f		
1253	Install Platform Electronics	1 w	11/8/99	11/12/99	1249	As Soon As f		
1254	Install ICD North	1 w	2/11/00	2/18/00	1199	As Soon As f		MTF122[3],PhysU122[3],MTU122,Welder
1255	Install ICD South	1 w	3/8/00	3/14/00	1201	As Soon As f	1.2.2.10.2(-5)	MTF122[3],PhysU122[3],MTU122,k\$[0.02],Welder

ID	Task Name	Duration	Start	Finish	Predecessors	Constraint	WBS	Resource Names
1256	<i>M3-InterCryostat Detectors Installed</i>	0 w	3/14/00	3/14/00	1254,1255	As Soon As		
1257	Hookup ICD-North	2 w	2/18/00	3/3/00	1254	As Soon As f		MTF122[3],PhysU122[3],MTU122
1258	Hookup ICD-South	1 w	11/3/00	11/9/00	1257,1156	As Soon As f		MTF122[3],PhysU122[3],MTU122
1259	Commission ICD	30 w	3/3/00	10/4/00	1257	As Soon As f	1.2.2.11	PhysU122[2],k[0.05]
1261	<b>FORWARD PRESHOWER FABRICATION</b>	201 w	4/4/96	4/28/00		As Soon As		
1315	Install FPS-South	2 w	2/2/00	2/15/00	1312	As Soon As f		MTF114[2],PhysU114[2],Welder
1316	<i>M3-Forward Preshower-South Installed</i>	0 w	2/15/00	2/15/00	1315	As Soon As		
1317	Install FPS-North	2 w	3/1/00	3/14/00	1314,1315	As Soon As f		MTF114[2],PhysU114[2],Welder
1318	Hookup FPS-North	3 w	3/15/00	4/4/00	1279SS+50 %,1317	As Soon As f		MTF114[2],PhysU114[2]
1319	Hookup FPS-South	3 w	11/3/00	11/27/00	1318,1156,1279	As Soon As f		MTF114[2],PhysU114[2]
1320	Commission FPS	33 w	4/5/00	11/28/00	1318	As Soon As f		PhysU114[2]
1322	<b>LEVEL Ø FABRICATION</b>	178.6 w	4/2/97	11/7/00		Start No Ear		
1334	<i>Detectors ready</i>	0 w	1/19/00	1/19/00	1333	As Soon As		
1345	<i>Luminosity Monitor Electronics Ready</i>	0 w	1/17/00	1/17/00	1335	As Soon As		
1346	<b>Monitoring, Calibration, Database, and Accelerator Interface</b>	122.6 w	4/1/98	9/20/00		As Soon As		
1351	Install Level Ø-South	1 w	2/16/00	2/22/00	1315,1324	As Soon As f		MTF142[3],PhysU142[2]
1352	Install Level Ø-North	1 w	3/15/00	3/21/00	1317,1324	As Soon As f		MTF142[3],PhysU142[2]
1353	<i>M3-Level Ø-South Installed</i>	0 w	2/22/00	2/22/00	1351	As Soon As		
1354	Hookup Level Ø-North	1 w	4/5/00	4/11/00	1318,1352	As Soon As f		MTF142[3],PhysU142[2]
1355	Hookup Level Ø-South	1 w	11/28/00	12/4/00	1319,1351	As Soon As f		MTF142[3],PhysU142[2]
1356	Commission Level Ø	31 w	4/12/00	11/17/00	1354	As Soon As f		PhysU142[2]
1358	<b>MUON CENTRAL DETECTOR UPGRADE</b>	245.6 w	11/27/95	11/3/00		As Soon As		
1360	<b>WAMUS CHAMBER MODIFICATION/COMMISSIONING</b>	210.8 w	4/1/96	7/5/00		As Soon As		
1411	<i>M3-2% of Muon PDTs Commissioned</i>	0 w	10/28/99	10/28/99	1410	As Soon As		
1424	<i>PDT Commissioning Complete</i>	0 w	7/5/00	7/5/00	1423	As Soon As		
1481	<i>M3-Muon CFA Installation Complete</i>	0 w	11/24/99	11/24/99	1479,1480	As Soon As		
1487	Install Calibration System	2 w	12/2/99	12/15/99	1486	As Soon As f		MTF132,PhysU132[0.25]
1488	<b>COMMISSION A-LAYER SCINTILLATION COUNTERS</b>	34 w	11/19/99	8/2/00		As Soon As		
1490	<i>10% of CFA Commissioned</i>	0 w	1/31/00	1/31/00	1489	As Soon As		
1492	<i>CFA Commissioning Complete</i>	0 w	8/2/00	8/2/00	1491	As Soon As		
1560	Commission B/C Counters	12 w	2/15/00	5/8/00	1867,1888SS	As Soon As f		PhysU132[2],PhysF132,MTF132,ETF132[0.5]
1562	<b>MUON FORWARD TRACKING DETECTORS</b>	202 w	8/1/96	9/1/00		As Soon As		
1620	<i>A-Layer Octants Assembled</i>	0 w	1/26/00	1/26/00	1619SS+33 %	As Soon As		
1621	<i>B-Layer Octants Assembled</i>	0 w	4/18/00	4/18/00	1619SS+66 %	As Soon As		
1622	<i>C-Layer Octants Assembled</i>	0 w	7/14/00	7/14/00	1619	As Soon As		
1623	<i>All MDT Octants Assembled</i>	0 w	7/14/00	7/14/00	1619	As Soon As		
1624	<b>INSTALLATION AND HOOKUP</b>	46.8 w	9/22/99	9/1/00		As Soon As		
1625	Design and Prepare Drawings for Octant Installation Fixture	8 w	9/22/99	11/16/99	1597	As Soon As f		MEF134[0.5],DesF134[0.75]
1626	Fabricate and Test Installation Fixture	6 w	11/17/99	1/13/00	1625	As Soon As f		MTF134
1627	Install Gas System	26 w	1/27/00	7/28/00	1616SS+12 w	As Soon As f		MTF134[0.5]
1628	Mount A-Layer North MDT Octants Onto Supports	2 w	4/7/00	4/20/00	1605,1618SS+16 %	As Soon As f		MTF134[2],PhysU134[0.25],MEF134,DesF134[0.5]
1629	Connect to HV System	2 w	5/5/00	5/18/00	1611,1612,1628SS+1 w	As Soon As f		PhysU134[0.25],MTF134[0.4]
1630	Connect to Front End Electronics	2 w	4/14/00	4/27/00	1609,1628SS+1 w	As Soon As f		PhysU134[0.25],MTF134[0.4]
1631	Survey A-Layer North MDT Planes	2 w	4/14/00	4/27/00	1628SS+1 w	As Soon As f		PhysF134[0.1],Align[3],MEF134[0.1]
1632	Mount A-Layer South MDT Octants Onto Supports	2 w	4/21/00	5/4/00	1605,1618SS+33 %,1628	As Soon As f		MTF134[2],PhysU134[0.25],MEF134,DesF134
1633	Connect to HV System	2 w	5/5/00	5/18/00	1611,1612,1632SS+1 w	As Soon As f		PhysU134[0.25],MTF134[0.1]
1634	Connect to Front End Electronics	2 w	4/28/00	5/11/00	1609,1632SS+1 w	As Soon As f		PhysU134[0.25],MTF134[0.1]
1635	Survey A-Layer South MDT Planes	2 w	4/28/00	5/11/00	1632SS+1 w	As Soon As f		PhysF134[0.1],Align[3],MEF134[0.1]
1636	<i>M3-Muon Forward Tracker A-Layer Planes Installed</i>	0 w	5/11/00	5/11/00	1631,1635	As Soon As		
1637	Mount B-Layer North MDT Octants Onto Supports	2 w	5/5/00	5/18/00	1618SS+50 %,1632	As Soon As f		MTF134[2],PhysU134[0.25],MEF134,DesF134
1638	Connect to HV system	1 w	5/12/00	5/18/00	1637SS+1 w	As Soon As f		PhysU134[0.25],MTF134[0.1]
1639	Connect to Front End Electronics	1 w	5/12/00	5/18/00	1637SS+1 w	As Soon As f		PhysU134[0.25],MTF134[0.1]
1640	Survey B-Layer North MDT Planes	2 w	5/12/00	5/25/00	1637SS+1 w	As Soon As f		PhysF134[0.1],Align[3],MEF134[0.1]
1641	Mount B-Layer South MDT Octants Onto Supports	2 w	5/19/00	6/2/00	1618SS+67 %,1637	Start No Ear		MTF134[2],PhysU134[0.25],MEF134,DesF134
1642	Connect to HV system	1 w	5/26/00	6/2/00	1641SS+1 w	As Soon As f		PhysU134[0.25],MTF134[0.1]
1643	Connect to Front End Electronics	1 w	5/26/00	6/2/00	1641SS+1 w	As Soon As f		PhysU134[0.25],MTF134[0.1]
1644	Survey B-Layer South MDT Planes	2 w	5/26/00	6/9/00	1641SS+1 w	As Soon As f		PhysF134[0.1],Align[3],MEF134[0.1]
1645	<i>Muon Forward Tracker B-Layer Planes Installed</i>	0 w	6/9/00	6/9/00	1640,1644	As Soon As		
1646	Mount C-Layer North MDT Octants Onto Supports	2 w	6/5/00	6/16/00	1618SS+83 %,1641,1962SS+50	As Soon As f		MTF134[2],PhysU134[0.25],MEF134,DesF134
1647	Connect to HV system	1 w	6/12/00	6/16/00	1646SS+1 w	As Soon As f		PhysU134[0.25],MTF134[0.1]
1648	Connect to Front End Electronics	1 w	6/12/00	6/16/00	1646SS+1 w	As Soon As f		PhysU134[0.25],MTF134[0.1]
1649	Survey C-Layer North MDT Planes	2 w	6/12/00	6/23/00	1646SS+1 w	As Soon As f		PhysF134[0.1],Align[3],MEF134[0.1]
1650	Mount C-Layer South MDT Octants Onto Supports	2 w	7/17/00	7/28/00	1618,1646,1962	As Soon As f		MTF134[2],PhysU134[0.25],MEF134,DesF134
1651	Connect to HV system	1 w	7/24/00	7/28/00	1650SS+1 w	As Soon As f		PhysU134[0.25],MTF134[0.1]
1652	Connect to Front End Electronics	1 w	7/24/00	7/28/00	1650SS+1 w	As Soon As f		PhysU134[0.25],MTF134[0.1]
1653	Survey C-Layer South MDT Planes	2 w	7/24/00	8/4/00	1650SS+1 w	As Soon As f		PhysF134[0.1],Align[3],MEF134[0.1]
1654	<i>M3-Muon Forward Tracker C-Layer Planes Installed</i>	0 w	8/4/00	8/4/00	1649,1653	As Soon As		
1655	<i>All MDT Planes Installed</i>	0 w	8/4/00	8/4/00	1636,1645,1654	As Soon As		
1656	Commission using cosmic rays	14 w	5/25/00	9/1/00	1636,1655FF+4 w	As Soon As f		PhysU134[2],PhysF134
1657	<i>MDT Commissioning Complete</i>	0 w	9/1/00	9/1/00	1656	As Soon As		
1663	<b>MUON FORWARD TRIGGER DETECTORS</b>	205 w	8/1/96	9/25/00		As Soon As		
1719	<i>M3-Muon Forward Trigger Detector Octant Assembly Begun</i>	0 w	5/27/99	5/27/99	1718SS	As Soon As		
1720	<i>A-Layer Pixel Octants Assembled</i>	0 w	9/2/99	9/2/99	1718SS+33 %	As Soon As		

ID	Task Name	Duration	Start	Finish	Predecessors	Constraint	WBS	Resource Names
1721	<i>C-Layer Pixel Octants Assembled</i>	0 w	12/13/99	12/13/99	1718SS+66 %	As Soon As		
1722	<i>B-Layer Pixel Octants Assembled</i>	0 w	4/4/00	4/4/00	1718	As Soon As		
1723	<i>All Pixel Octants Assembled</i>	0 w	4/4/00	4/4/00	1720, 1721, 1722	As Soon As		
1738	<b>INSTALLATION AND HOOKUP</b>	20.8 w	4/28/00	9/25/00		As Soon As		
1739	Mount A-Layer North Pixel Octants Onto Supports	2 w	4/28/00	5/11/00	1724SS+16 %,1726SS+4 w,163	As Soon As f		MTF133[2],PhysU133[0.25],MEF133,DesF133
1740	Connect to HV system	2 w	5/5/00	5/18/00	1739SS+1 w	As Soon As f		PhysU133[0.25],MTF133[0.1]
1741	Connect to Front End Electronics	2 w	5/5/00	5/18/00	1739SS+1 w,1882SS,1878SS	As Soon As f		PhysU133[0.25],MTF133[0.1]
1742	Survey A-Layer North Pixel Planes	2 w	5/5/00	5/18/00	1739SS+1 w	As Soon As f		PhysF133[0.1],MEF133[0.1],Align[3]
1743	Mount A-Layer South Pixel Octants Onto Supports	2 w	5/12/00	5/25/00	1724SS+33 %,1726SS+8 w,163	As Soon As f		MTF133[2],MEF133,DesF133,PhysU133[0.25]
1744	Connect to HV system	2 w	5/19/00	6/2/00	1743SS+1 w	As Soon As f		PhysU133[0.25],MTF133[0.1]
1745	Connect to Front End Electronics	2 w	5/19/00	6/2/00	1743SS+1 w	As Soon As f		PhysU133[0.25],MTF133[0.1]
1746	Survey A-Layer South Pixel Planes	2 w	5/19/00	6/2/00	1743SS+1 w	As Soon As f		PhysF133[0.1],MEF133[0.1],Align[3]
1747	<i>M3-Muon Forward Trigger Detector A-Layer Planes Installed</i>	0 w	6/2/00	6/2/00	1742, 1746	As Soon As		
1748	Mount B-Layer North Pixel Octants Onto Supports	2 w	5/26/00	6/9/00	1724SS+67 %,1640	As Soon As f		MTF133[2],PhysU133[0.25],MEF133,DesF133
1749	Connect to HV system	1 w	6/5/00	6/9/00	1748SS+1 w	As Soon As f		PhysU133[0.25],MTF133[0.1]
1750	Connect to Front End Electronics	1 w	6/5/00	6/9/00	1748SS+1 w	As Soon As f		PhysU133[0.25],MTF133[0.1]
1751	Survey B-Layer North Pixel Planes	1 w	6/5/00	6/9/00	1748SS+1 w	As Soon As f		PhysF133[0.1],MEF133[0.1],Align[3]
1752	Mount B-Layer South Pixel Octants Onto Supports	2 w	6/12/00	6/23/00	1724SS+83 %,1644	As Soon As f		MTF133[2],PhysU133[0.25],MEF133,DesF133
1753	Connect to HV system	1 w	6/19/00	6/23/00	1752SS+1 w	As Soon As f		PhysU133[0.25],MTF133[0.1]
1754	Connect to Front End Electronics	1 w	6/19/00	6/23/00	1752SS+1 w	As Soon As f		PhysU133[0.25],MTF133[0.1]
1755	Survey B-Layer South Pixel Planes	1 w	6/19/00	6/23/00	1752SS+1 w	As Soon As f		PhysF133[0.1],MEF133[0.1],Align[3]
1756	<i>M3- Muon Forward Trigger Detector B-Layer Planes Installed</i>	0 w	6/23/00	6/23/00	1755	As Soon As		
1757	Mount C-Layer North Pixel Octants Onto Supports	2 w	6/26/00	7/10/00	1724SS+50 %,1649	As Soon As f		MTF133[2],PhysU133[0.25],MEF133,DesF133
1758	Connect to HV system	1 w	7/3/00	7/10/00	1757SS+1 w	As Soon As f		PhysU133[0.25],MTF133[0.1]
1759	Connect to Front End Electronics	1 w	7/3/00	7/10/00	1757SS+1 w	As Soon As f		PhysU133[0.25],MTF133[0.1]
1760	Survey C-Layer North Pixel Planes	2 w	7/3/00	7/17/00	1757SS+1 w	As Soon As f		PhysF133[0.1],MEF133[0.1],Align[3]
1761	Mount C-Layer South Pixel Octants Onto Supports	2 w	8/7/00	8/18/00	1724,1653	As Soon As f		MTF133[2],PhysU133[0.25],MEF133,DesF133
1762	Connect to HV system	1 w	8/14/00	8/18/00	1761SS+1 w	As Soon As f		PhysU133[0.25],MTF133[0.1]
1763	Connect to Front End Electronics	1 w	8/14/00	8/18/00	1761SS+1 w	As Soon As f		PhysU133[0.25],MTF133[0.1]
1764	Survey C-Layer South Pixel Planes	2 w	8/14/00	8/25/00	1761SS+1 w	As Soon As f		PhysF133[0.1],MEF133[0.1],Align[3]
1765	<i>M3-Muon Forward Trigger Detector C-Layer Planes Installed</i>	0 w	8/25/00	8/25/00	1760, 1764	As Soon As		
1766	<i>All Muon Forward Trigger Detector Planes Installed</i>	0 w	8/25/00	8/25/00	1747, 1756, 1765	As Soon As		
1767	Commission using Cosmic Rays	15 w	6/9/00	9/25/00	1747,1766FF+4 w	As Soon As f		PhysU133[2],PhysF133
1768	<i>Pixel Commissioning Complete</i>	0 w	9/25/00	9/25/00	1767	As Soon As		
1774	<b>MUON ELECTRONICS</b>	244.4 w	9/4/95	8/4/00		As Soon As		
1800	<i>10% CB Electronics Fabricated</i>	0 w	11/30/98	11/30/98	1799	As Soon As		
1806	<i>FEB, CB Production Complete</i>	0 w	1/31/00	1/31/00	1805	As Soon As		
1808	Install Production FEB, CB	12 w	2/15/00	5/8/00	1807SS+2 w	As Soon As f		PhysU135[2],EEF135[0.1],PhysF135,ETF135[0.5]
1824	Install 10% MDT ADB	8 w	2/26/99	4/22/99	1823SS+4 w	As Soon As f		PhysU135,EEU135[0.1],ETF135[0.5]
1830	Install production MDT ADB	23 w	8/17/99	2/10/00	1829SS+4 w	As Soon As f		PhysU135,EEU135[0.1],ETF135[0.5]
1847	Install 10% MDC, MDRC	4 w	9/17/99	10/14/99	1846SS+2 w	As Soon As f		PhysU135,ETU135,EEF135[0.1],ETF135[0.5]
1856	Install production MDC, MDRC	13 w	2/22/00	5/22/00	1852SS+4 w,1855SS+4 w	As Soon As f		PhysU135[2],ETU135,EEF135[0.1],PhysF135,ETF135[0.5]
1882	Install 10% SFE, SRC	7 w	11/12/99	1/17/00	1881SS+8 w	As Soon As f		PhysU135,EEF135[0.1],PhysF135,ETF135[0.5]
1888	Install production SFE, SRC	12 w	2/15/00	5/8/00	1887SS+2 w	As Soon As f		PhysU135,EEF135[0.1],PhysF135,ETF135[0.5]
1929	Install and Commission Production MRC, MFC	12 w	5/11/00	8/4/00	1902SS+4 w,1915SS+4 w,1922	As Soon As f		PhysU135[2],EEF135[0.1],ETF135[0.5]
1932	<b>FORWARD SHIELDING</b>	128.2 w	8/1/97	3/14/00		As Soon As		
1954	Assemble/test north bottom truss, shielding at DAB	5 w	11/15/99	1/4/00	1933,1939,1951	As Soon As f		MTF130[3],MEF130[0.5],Welder[0.25]
1955	Assemble/test south bottom truss, shielding at DAB	5 w	12/15/99	2/1/00	1933,1939,1953	As Soon As f		MTF130[3],MEF130[0.5],Welder[0.25]
1956	Assemble north mid/upper truss sections at DAB	1 w	10/25/99	10/29/99	1951	As Soon As f		MTF130[2]
1957	Assemble south mid/upper truss sections at DAB	1 w	12/15/99	1/4/00	1953	As Soon As f		MTF130[2]
1958	Install access hardware, power, and lights in upper trusses	3 w	1/5/00	1/25/00	1956,1957	As Soon As f		MTF130[2],Welder,ETF130[0.75],Electrician[2.5]
1959	Install access hardware, power, and lights in lower trusses	3 w	2/2/00	2/22/00	1954,1955	As Soon As f		MTF130[2],Welder,ETF130[0.75],Electrician[2.5]
1960	Install crates, power supplies, and gas system in upper trusses	3 w	1/26/00	2/15/00	1958	As Soon As f		MTF130[2],Welder
1961	Install crates, power supplies, and gas system in lower trusses	3 w	2/23/00	3/14/00	1959	As Soon As f		MTF130[2],Welder
1962	Install detector supports	4 w	1/5/00	2/1/00	1957	As Soon As f		MTF130[0.5],MEF130[0.2],Welder[0.5]
1964	<i>Move EF's onto platform</i>	0.8 w	11/10/00	11/15/00	1157	As Soon As		MTF100[4]
1965	<i>M2-Muon End Toroids Installed on Platform</i>	0 w	11/15/00	11/15/00	1964	As Soon As		
1966	<i>Move platform east</i>	0.4 w	11/16/00	11/17/00	1965	As Soon As		MTF100[4]
1967	Disassemble EMC trusses for move	4 w	10/16/00	11/13/00	1766,1968SF-1 w	As Soon As f		MTF100[2]
1968	<i>Assemble north EMC on sidewalk</i>	1 w	11/20/00	11/28/00	1966	As Soon As		MTF100[3]
1969	<i>Assemble south EMC on sidewalk</i>	1 w	11/29/00	12/5/00	1968	As Soon As		MTF100[3]
1970	Reconnect LHe system	1.6 w	12/6/00	12/15/00	1969	As Soon As f		MTF100[2]
1972	<b>ROLL-IN</b>	8.2 w	12/6/00	2/6/01		As Soon As		
1973	<i>Remove shielding wall, disconnect HVAC</i>	0.6 w	12/6/00	12/8/00	1969	As Soon As		MTF100[6],ETF100[2]
1974	<i>M1-Begin Shield Wall Removal/Ready to Roll-in</i>	0 w	12/6/00	12/6/00	1973SS	As Soon As		
1975	Prepare collision hall for roll-in	3 w	12/6/00	12/28/00	1973SS	As Soon As f		MTF100[4]
1976	<i>Install/align north EMC</i>	2 w	12/11/00	12/26/00	1973	As Soon As		MTF100[4],PhysU133[2],PhysF133,Align
1977	Survey north EMC	1 w	12/27/00	1/4/01	1976	As Soon As f		Align[3]
1978	<i>Install/align south EMC</i>	2 w	12/18/00	1/4/01	1976SS+1 w	As Soon As		MTF100[4],PhysU133[2],PhysF133,Align
1979	Survey south EMC	1 w	1/5/01	1/11/01	1978	As Soon As		Align[3]
1980	<i>Roll detector into collision hall</i>	0.6 w	1/12/01	1/16/01	938,1979,1358,1562,1663,1774,	As Soon As		MTF100[6],MEF100
1981	<i>Build first 5 tiers of shielding wall</i>	1 w	1/17/01	1/23/01	1980	As Soon As		MTF100[4]
1982	Hookup utilities, shield cable bridge	0.4 w	1/17/01	1/18/01	1980	As Soon As f		MTF100[4]

ID	Task Name	Duration	Start	Finish	Predecessors	Constraint	WBS	Resource Names
1983	Open iron, calorimeters	0.2 w	1/17/01	1/17/01	1980	As Soon As f		MTF100[4]
1984	Install/hookup air handlers	1 w	1/24/01	1/30/01	1981	As Soon As		MTF100[4],ETF100[2]
1985	Build wall to 10 tiers	0.2 w	1/31/01	1/31/01	1984	As Soon As		MTF100[4]
1986	Install helium U-tubes	0.6 w	2/1/01	2/5/01	1985	As Soon As		MTF100[4],MEF100,Welder
1987	Finish shielding wall	0.2 w	2/6/01	2/6/01	1986	As Soon As		MTF100[4]
1988	M1-Detector Rolled-in and Hooked Up	0 w	2/6/01	2/6/01	1987	As Soon As		
1990	<b>TRIGGER SYSTEM</b>	257.4 w	10/2/95	12/6/00		As Soon As		
2003	L1 Framework Delivered to Fermilab	0 w	12/16/98	12/16/98	2002	As Soon As		
2004	Commission L1 Framework for First User	5.6 w	9/16/99	10/25/99	1999,2000,2003	As Soon As f		
2009	L2 Framework Delivered to Fermilab	0 w	11/22/99	11/22/99	2008	As Soon As		
2027	Commission L1 Cal Trigger	12 w	2/10/00	5/3/00	2022,2023,2024,2026	As Soon As f	1.4.3.1.2	PhysU143[0.5],EEU143[0.5],k\$[0.65],k\$c[0.16]
2028	M3-Calorimeter Level 1 Trigger Commissioned	0 w	5/3/00	5/3/00	2027	As Soon As		
2085	Production MTCxx, MTFB, and MTCM Complete	0 w	6/27/00	6/27/00	2084,2097,2110	As Soon As		
2086	Test, Install, and Commission MTCxx	8 w	6/28/00	8/23/00	2085	As Soon As f		EEU143[0.1],ETU143[0.1],PhysU143[0.5]
2098	Test, Install, and Commission MTFB	8 w	6/28/00	8/23/00	2097	As Soon As f		EEU143[0.1],ETU143[0.1],PhysU143[0.5]
2111	Test, Install, and Commission MTCM	8 w	3/8/00	5/2/00	2110	As Soon As f		EEU143[0.05],ETU143[0.05],PhysU143[0.5]
2133	Test, Install, and Commission MCEN	8 w	6/28/00	8/23/00	2132	As Soon As f		EEU143[0.1],ETU143[0.25],PhysU143[0.5]
2143	Test, Install, and Commission MCPB	8 w	6/28/00	8/23/00	2142	As Soon As f		
2157	Test, Install, and Commission MCCM	8 w	6/29/00	8/24/00	2155	As Soon As f		EEU143[0.1],ETU143[0.25],PhysU143[0.5]
2158	<b>SOFTWARE</b>	226.2 w	1/2/96	7/24/00		As Soon As		
2159	Trigger Simulator	200 w	1/2/96	1/19/00		Start No Ear		PhysU143[0.1]
2160	Control Software	104 w	6/15/98	7/24/00		Start No Ear		PhysU143[0.1]
2174	Assemble Commission CTT System	13 w	9/5/00	12/6/00	877,904,915	Start No Ear		PhysF143[2],PhysU143[2]
2175	M3-CTT Level 1 Trigger Commissioned	0 w	12/6/00	12/6/00	2174	As Soon As		
2176	M3-L1 Commissioned	0 w	12/6/00	12/6/00	2017,2029,2166	As Soon As		
2177	Level 2 Trigger	248.8 w	10/2/95	10/4/00		As Soon As		
2208	Alpha Cards Received	0 w	5/15/00	5/15/00	2207	Start No Ear		
2216	MBTs Received	0 w	3/16/00	3/16/00	2215	As Soon As		
2257	Build/Commission Final System	8 w	5/16/00	7/12/00		As Soon As		
2258	Assemble	4 w	5/16/00	6/13/00	2207,2215,2246	As Soon As f	1.4.4.2.9(0.05)	PhysU144,EEU144,k\$[0.02]
2259	Installation at FNAL	4 w	6/14/00	7/12/00	2006,2258	As Soon As f		PhysU144,ETF144
2260	Global Installation Complete	0 w	7/12/00	7/12/00	2259	Start No Ear		
2282	Build/Commission Final System	8 w	6/26/00	8/21/00		As Soon As		
2285	L2 Cal Installation Complete	0 w	8/21/00	8/21/00	2284	Start No Ear		
2296	Assemble Final System	10 w	5/16/00	7/26/00		As Soon As		
2297	Assemble Central Crate	6 w	5/16/00	6/27/00	2207,2215,2223	As Soon As f	1.4.4.5.1(0.33),1.4.4.2.9(0.60)	PhysU144,EEU144,k\$[0.3],k\$c[0.06]
2298	Installation at FNAL	4 w	6/28/00	7/26/00	2230,2297	As Soon As f		PhysU144,ETF144
2299	Assemble Forward Crate	6 w	5/16/00	6/27/00	2297SS	As Soon As f		PhysU144
2300	Installation at FNAL	4 w	6/28/00	7/26/00	2299	As Soon As f	1.4.4.5.1(.33)	PhysU144,ETF144,k\$[0.03],k\$c[0.01]
2301	L2 Muon Installation Complete	0 w	7/26/00	7/26/00	2298,2300	As Soon As		
2302	Develop Processor Algorithm	170.4 w	2/3/97	7/12/00		As Soon As		
2310	Build Simulator	93.4 w	10/30/98	9/25/00		As Soon As		
2328	Build Final System	12 w	5/16/00	8/9/00		As Soon As		
2329	Assemble Crate	8 w	5/16/00	7/12/00	2207,2215,2234,2327	As Soon As f	1.4.4.6(0.5),1.4.4.2.9(0.05)	PhysU144[0.5],EEU144[0.5],k\$[0.08],k\$c[0.02]
2330	Installation at FNAL	4 w	7/13/00	8/9/00	2246,2329	As Soon As f		PhysU144,ETF144
2331	L2 CTT Installation Complete	0 w	8/9/00	8/9/00	2330	As Soon As		
2332	Build Algorithm/Simulator	145 w	6/1/97	5/10/00		As Soon As		
2336	Build PS Preprocessor	157.6 w	6/1/97	8/9/00		As Soon As		
2343	Build Final System	12 w	5/16/00	8/9/00		As Soon As		
2344	Assemble Crate	8 w	5/16/00	7/12/00	2207,2215,2234,2342	As Soon As f	1.4.4.7,1.4.4.2.9(0.25)	PhysU144[0.5],EEU144[0.5],k\$[0.17],k\$c[0.03]
2345	Installation at FNAL	4 w	7/13/00	8/9/00	2246,2344	As Soon As f		PhysU144,ETF144
2346	L2 PS Installation Complete	0 w	8/9/00	8/9/00	2345	As Soon As		
2347	Build Algorithm/Simulator	145 w	6/1/97	5/10/00		As Soon As		
2351	Integrate L2 System	81.2 w	2/6/99	9/21/00		As Soon As		
2353	Commission Global/Calpp Combination	4 w	8/22/00	9/19/00	2252,2259,2281,2284	Start No Ear		PhysU144[0.8],EEU144[0.4],ETF144
2354	Commission L2 Muon	6 w	7/27/00	9/7/00	2301,2309	As Soon As f		PhysU144[2],ETF144
2355	Commission L2 with CTT,FPS	6 w	8/10/00	9/21/00	2331,2346	As Soon As f		
2356	M3-Trigger Level 2 Commissioned	0 w	9/21/00	9/21/00	2353,2354,2355	As Soon As		
2357	Level 3 Trigger	213.6 w	6/3/96	9/26/00		As Soon As		
2367	Develop/Install Readout Control	197.4 w	6/3/96	6/1/00		As Soon As		
2381	First Hardware System Test at DO	7 w	1/6/00	2/23/00	2380	As Soon As f		PhysU145[0.5],EEF145[0.1]
2382	Second Hardware Test	8 w	2/24/00	4/19/00	2381	As Soon As f		
2383	Install Full System	6 w	4/20/00	6/1/00	2366,2379,2382,2391	As Soon As f		PhysU145[0.5],EEF145[0.5]
2384	M3-L3 Operational	0 w	6/1/00	6/1/00	2383	As Soon As		
2391	M3-L3 Online Software Complete	0 w	11/18/99	11/18/99	2386,2387,2388,2389	As Soon As		
2415	M3-First Downloadable Executable Available	0 w	7/14/99	7/14/99	2414	As Soon As		
2416	Cosmic Ray Executable Available	12 w	2/1/00	4/24/00	2394,2400,2414	As Soon As f		PhysU145[1.5]
2417	Runtime Executable Available	4 w	8/25/00	9/22/00	2397,2410,2416	As Soon As f		PhysU145[1.5]
2418	L1/L2/L3 Simulator	93 w	10/15/98	9/6/00		As Soon As		
2431	M3-Full Simulator Available	0 w	9/6/00	9/6/00	2429,2430	As Soon As		
2470	DAQ Components Operational	0 w	9/1/99	9/1/99		Start No Ear		
2471	Integration Activities - Single Detector / Single Stream	9.4 w	9/1/99	11/5/99		As Soon As		
2479	Expert Mode - Integrated DAQ	0 w	11/5/99	11/5/99	2471	As Soon As		

ID	Task Name	Duration	Start	Finish	Predecessors	Constraint	WBS	Resource Names
2480	Integration Activities - Multi Detector / Multi Stream	15 w	11/8/99	3/7/00		As Soon As		
2488	User Mode - Integrated DAQ	0 w	3/7/00	3/7/00	2480	As Soon As		
2489	DAQ Startup Activities	4.5 w	3/8/00	4/7/00		As Soon As		
2497	Steady DAQ Running	0 w	4/7/00	4/7/00	2489	As Soon As		
2501	Full DAQ Rate Achieved	0 w	6/5/00	6/5/00	2498	As Soon As		
2502	Commissioning Activities	26 w	4/7/00	10/11/00		As Soon As		
2507	Accelerator Operations	26 w	4/7/00	10/11/00		As Soon As		
2508	Accelerator interface	26 w	4/7/00	10/11/00	2497	As Soon As f		PhysU150