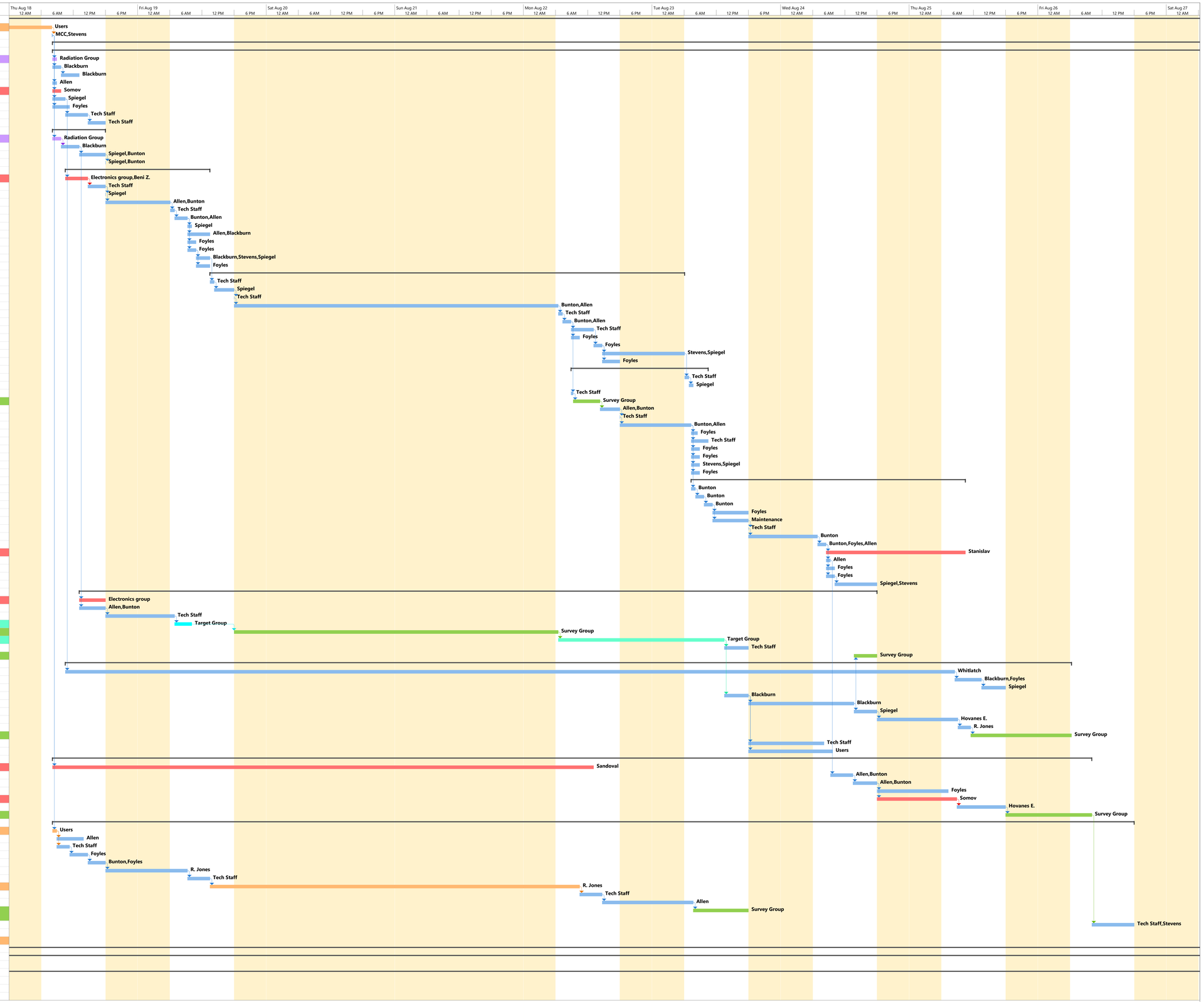
ID	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1	**Hall D Installations**	**190 days**	**Mon 6/20/22**	**Tue 1/17/23**		
2	Run CPP Experiment	54 days	Mon 6/20/22	Thu 8/18/22	142	Users
3	Open Hall	0.1 hrs	Thu 8/18/22	Thu 8/18/22	2	MCC,Stevens
4	**Final Install before FCAL II**	**93.24 days**	**Thu 8/18/22**	**Wed 11/30/22**		
5	**Reinstall Primex**	**93.24 days**	**Thu 8/18/22**	**Wed 11/30/22**		
6	Contact RadCon for dump survey	0.1 days	Thu 8/18/22	Thu 8/18/22	3	Radiation Group
7	Turn off vacuum pump & disconnect pipe	0.2 days	Thu 8/18/22	Thu 8/18/22	3	Blackburn
8	Remove "Vacuum" dump pipe	0.3 days	Thu 8/18/22	Thu 8/18/22	7	Blackburn
9	Remove Flux Monitor	0.1 days	Thu 8/18/22	Thu 8/18/22	3	Allen
10	De-cable TAC	0.2 days	Thu 8/18/22	Thu 8/18/22	3	Somov
11	Disconnect CPP Gas system	0.3 days	Thu 8/18/22	Thu 8/18/22	3	Spiegel
12	Secure CPP lifting fixtures	0.4 days	Thu 8/18/22	Thu 8/18/22	3	Foyles
13	Remove CTOF Scintillator & Store in ESB	0.4 days	Thu 8/18/22	Thu 8/18/22	11	Tech Staff
14	Remove CTOF's support frame from CPP	0.1 days	Thu 8/18/22	Thu 8/18/22	13	Tech Staff
15	**Disassemble Pb (solid)target**	**0.85 days**	**Thu 8/18/22**	**Thu 8/18/22**		
16	Contact RadCon for BL survey	0.2 days	Thu 8/18/22	Thu 8/18/22	3	Radiation Group
17	Remove Beamline	0.3 days	Thu 8/18/22	Thu 8/18/22	16	Blackburn
18	Disconnect Pb Cart from rails & remove	0.25 days	Thu 8/18/22	Thu 8/18/22	17	Spiegel,Bunton
19	Remove Pb target & store in RAD Area	0.1 days	Thu 8/18/22	Thu 8/18/22	18	Spiegel,Bunton
20	**Disassemble D5 section of CPP Detector**	**1.5 days**	**Thu 8/18/22**	**Fri 8/19/22**		
21	De-cable "ALL" CPP detector Packages	0.4 days	Thu 8/18/22	Thu 8/18/22	11	Electronics group,Beni Z.
22	Review lift plan	0.1 days	Thu 8/18/22	Thu 8/18/22	21	Tech Staff
23	Remove spreader blocks	0.1 days	Thu 8/18/22	Thu 8/18/22	22	Spiegel
24	Attach rigging to 1st detector assembly	0.2 days	Thu 8/18/22	Fri 8/19/22	22	Allen,Bunton
25	Detach Hilmann hardware from package	0.1 days	Fri 8/19/22	Fri 8/19/22	24	Tech Staff
26	Lift package to floor & secure	0.3 days	Fri 8/19/22	Fri 8/19/22	25	Bunton,Allen
27	Use clamps to secure next package	0.1 days	Fri 8/19/22	Fri 8/19/22	26	Spiegel
28	Disassemble Detectors & mount wheels	0.4 days	Fri 8/19/22	Fri 8/19/22	26	Allen,Blackburn
29	Secure flatbed truck for transport	0.2 days	Fri 8/19/22	Fri 8/19/22	26	Foyles
30	Secure forklift (CRUSHER) to move absorbers	0.2 days	Fri 8/19/22	Fri 8/19/22	26	Foyles
31	Move 1st section DETECTORS to ESB	0.2 days	Fri 8/19/22	Fri 8/19/22	30	Blackburn,Stevens,Spiegel
32	Move 1st section ABORBORS to Test Lab	0.2 days	Fri 8/19/22	Fri 8/19/22	30	Foyles
33	**Disassemble next section of CPP Detector**	**1.7 days**	**Fri 8/19/22**	**Tue 8/23/22**		
34	Review lift plan	0.1 days	Fri 8/19/22	Fri 8/19/22	31	Tech Staff
35	Remove spreader Blocks	0.1 days	Fri 8/19/22	Fri 8/19/22	34	Spiegel
36	Move detector to picking point & Clamp	0.1 days	Fri 8/19/22	Fri 8/19/22	35	Tech Staff
37	Attach rigging to 2nd detector assembly	0.2 days	Fri 8/19/22	Mon 8/22/22	36	Bunton,Allen
38	Detach Hilmann hardware from package	0.1 days	Mon 8/22/22	Mon 8/22/22	37	Tech Staff
39	Lift package to floor & secure	0.2 days	Mon 8/22/22	Mon 8/22/22	38	Bunton,Allen
40	Disassemble Detectors & mount wheels	0.4 days	Mon 8/22/22	Mon 8/22/22	39	Tech Staff
41	Secure flatbed truck for transport	0.2 days	Mon 8/22/22	Mon 8/22/22	39	Foyles
42	Secure forklift (CRUSHER) to move absorbers	0.2 days	Mon 8/22/22	Mon 8/22/22	40	Foyles
43	Move 2nd section DETECTORS to ESB	0.3 days	Mon 8/22/22	Tue 8/23/22	42	Stevens,Spiegel
44	Move 2nd section ABORBORS to Test Lab	0.2 days	Mon 8/22/22	Mon 8/22/22	42	Foyles
45	**Disassemble final section of CPP Detector**	**1.45 days**	**Mon 8/22/22**	**Tue 8/23/22**		
46	Review lift plan	0.1 days	Tue 8/23/22	Tue 8/23/22	43	Tech Staff
47	Remove spreader Blocks	0.1 days	Tue 8/23/22	Tue 8/23/22	46	Spiegel
48	Move detector to picking point & clamp	0.05 days	Mon 8/22/22	Mon 8/22/22	39	Tech Staff
49	Mechanical survey of Lead Absorber	0.5 days	Mon 8/22/22	Mon 8/22/22	48	Survey Group
50	Attach rigging to 3rd detector assembly	0.2 days	Mon 8/22/22	Mon 8/22/22	49	Allen,Bunton
51	Detach Hilmann hardware from package	0.1 days	Mon 8/22/22	Mon 8/22/22	50	Tech Staff
52	Lift package to floor & secure	0.2 days	Mon 8/22/22	Tue 8/23/22	51	Bunton,Allen
53	Remove lead & steel shield, stage	0.15 days	Tue 8/23/22	Tue 8/23/22	52	Foyles
54	Disassemble Detectors & mount wheels	0.4 days	Tue 8/23/22	Tue 8/23/22	52	Tech Staff
55	Secure flatbed truck for transport	0.2 days	Tue 8/23/22	Tue 8/23/22	52	Foyles
56	Secure forklift (CRUSHER) to move absorbers	0.2 days	Tue 8/23/22	Tue 8/23/22	52	Foyles
57	Move 2nd section DETECTORS to ESB	0.2 days	Tue 8/23/22	Tue 8/23/22	52	Stevens,Spiegel
58	Move 2nd section ABORBORS to Test Lab	0.2 days	Tue 8/23/22	Tue 8/23/22	52	Foyles
59	**Remove CPP Support Stand**	**2.9 days**	**Tue 8/23/22**	**Thu 8/25/22**		
60	Review lift plan	0.1 days	Tue 8/23/22	Tue 8/23/22	52	Bunton
61	Attach rigging to CPP transfer support	0.2 days	Tue 8/23/22	Tue 8/23/22	60	Bunton
62	Crane support to floor, stage	0.2 days	Tue 8/23/22	Tue 8/23/22	61	Bunton
63	Remove stand's middle & extension arms	0.4 days	Tue 8/23/22	Tue 8/23/22	62	Foyles
64	Utilize jacks to support arms for removal	0.4 days	Tue 8/23/22	Tue 8/23/22	62	Maintenance
65	Review lift plan	0.1 days	Tue 8/23/22	Tue 8/23/22	64	Tech Staff
66	Attach rigging to support stand assembly	0.2 days	Tue 8/23/22	Wed 8/24/22	65	Bunton
67	Crane support stand to floor, stage	0.2 days	Wed 8/24/22	Wed 8/24/22	66	Bunton,Foyles,Allen
68	Reconnect fiber-optic cables to DIRC	1.5 days	Wed 8/24/22	Thu 8/25/22	67	Stanislav
69	"COVER" FCAL platform floor cut-outs	0.1 days	Wed 8/24/22	Wed 8/24/22	67	Allen
70	Secure flatbed truck for transport	0.2 days	Wed 8/24/22	Wed 8/24/22	67	Foyles
71	Secure forklift (CRUSHER) to move absorbers	0.2 days	Wed 8/24/22	Wed 8/24/22	67	Foyles
72	Move support section components to ESB	0.5 days	Wed 8/24/22	Wed 8/24/22	71	Spiegel,Stevens
73	**Install Primex target**	**5.48 days**	**Thu 8/18/22**	**Wed 8/24/22**		
74	Hook up CDC electronics	0.3 days	Thu 8/18/22	Thu 8/18/22	17	Electronics group
75	Crane target cart onto platform	0.4 days	Thu 8/18/22	Thu 8/18/22	17	Allen,Bunton
76	Remove start counter	0.2 days	Thu 8/18/22	Fri 8/19/22	75	Tech Staff
77	Install solid beryllium target (Empty)	0.4 days	Fri 8/19/22	Fri 8/19/22	76	Target Group
78	Fiducialize SB Target	0.3 days	Fri 8/19/22	Mon 8/22/22	77FS+4	Survey Group
79	Prepare Target	2 days	Mon 8/22/22	Tue 8/23/22	78	Target Group
80	Install start counter	0.3 days	Tue 8/23/22	Tue 8/23/22	79	Tech Staff
81	Survey & Align target	0.4 days	Wed 8/24/22	Wed 8/24/22	87	Survey Group
82	**Beamline**	**6.98 days**	**Thu 8/18/22**	**Fri 8/26/22**		
83	Flush GHe Dump pipe	6 days	Thu 8/18/22	Thu 8/25/22	11	Whitlatch
84	Install "Helium" Dump pipe	0.5 days	Thu 8/25/22	Thu 8/25/22	83	Blackburn,Foyles
85	Install He gas control panel & tubing	0.4 days	Thu 8/25/22	Thu 8/25/22	84	Spiegel
86	Install Beamline	0.4 days	Tue 8/23/22	Tue 8/23/22	79	Blackburn
87	Pump down Beamline	7 hrs	Tue 8/23/22	Wed 8/24/22	86	Blackburn
88	Move "Active" Collimator to 5mm position	0.4 days	Wed 8/24/22	Wed 8/24/22	87	Spiegel
89	Test movements of "active collimator	0.4 days	Wed 8/24/22	Thu 8/25/22	88	Hovanes E.
90	Test "Active" Collimator	0.3 days	Thu 8/25/22	Thu 8/25/22	89	R. Jones
91	Survey Pair Spec. Low & High Granularity	0.6 days	Thu 8/25/22	Fri 8/26/22	90	Survey Group
92	Restore lead wall shielding	0.3 days	Tue 8/23/22	Wed 8/24/22	86	Tech Staff
93	Install parasitic detectors ~ GEM	0.5 days	Tue 8/23/22	Wed 8/24/22	86	Users
94	**Install ComCal**	**7.75 days**	**Thu 8/18/22**	**Fri 8/26/22**		
95	Test ComCal Controls	3 days	Thu 8/18/22	Mon 8/22/22	3	Sandoval
96	Install Stand	0.4 days	Wed 8/24/22	Wed 8/24/22	69	Allen,Bunton
97	Install ComCal Detector	0.4 days	Wed 8/24/22	Wed 8/24/22	96	Allen,Bunton
98	Hook-up chiller	0.2 days	Wed 8/24/22	Thu 8/25/22	97	Foyles
99	Cable and Test ComCal	0.4 days	Wed 8/24/22	Thu 8/25/22	97	Somov
100	Test ComCal movement	0.7 days	Thu 8/25/22	Thu 8/25/22	99	Hovanes E.
101	Survey & Align ComCal	0.7 days	Thu 8/25/22	Fri 8/26/22	100	Survey Group
102	**Move Microscope**	**8.35 days**	**Thu 8/18/22**	**Fri 8/26/22**		
103	Power Off - Detectors	0.1 days	Thu 8/18/22	Thu 8/18/22	3	Users
104	Remove Hodoscope paddles	0.5 days	Thu 8/18/22	Thu 8/18/22	103	Allen
105	Unstack shielding from Microscope	0.3 days	Thu 8/18/22	Thu 8/18/22	103	Tech Staff
106	Attach wheels to Microscope	0.3 days	Thu 8/18/22	Thu 8/18/22	105	Foyles
107	Adjust position - 3ft. From BL	0.2 days	Thu 8/18/22	Thu 8/18/22	106	Bunton,Foyles
108	Repair circuit board	0.5 days	Thu 8/18/22	Fri 8/19/22	107	R. Jones
109	Move Microscope to "RUN ANGLE" position	0.4 days	Fri 8/19/22	Fri 8/19/22	108	Tech Staff
110	Test Microscope Detector	1 day	Fri 8/19/22	Mon 8/22/22	109	R. Jones
111	Re-stack shielding	0.4 days	Mon 8/22/22	Mon 8/22/22	110	Tech Staff
112	Re-install Hodoscope paddles	0.5 days	Mon 8/22/22	Tue 8/23/22	111	Allen
113	Final Survey & Alignment Microscope & Hodoscope	0.8 days	Tue 8/23/22	Tue 8/23/22	112	Survey Group
114	HCO	0.6 days	Fri 8/26/22	Fri 8/26/22	101	Tech Staff,Stevens
115	**Run Experiment**	**84.75 days**	**Sat 8/27/22**	**Wed 11/30/22**		
116	Data Taking	85.75 days	Sat 8/27/22	Wed 11/30/22		
117	**FCAL II Install**	**190 days**	**Mon 6/20/22**	**Tue 1/17/23**		
118		**106 days**	**Mon 6/20/22**	**Fri 10/14/22**		
122		**91 days**	**Fri 10/7/22**	**Tue 1/17/23**		
130		**177 days**	**Mon 6/20/22**	**Tue 1/3/23**		
142	Beam Starts 2022	0 days	Sat 6/18/22	Sat 6/18/22		
143	Receive 1st 4 Muon Chambers from UMASS	0.88 days	Tue 6/8/21	Tue 6/8/21		
144	Receive 2nd 4 Muon Chambers from UMASS	0.88 days	Thu 10/7/21	Thu 10/7/21		



Project: CPP-Install
Date: Mon 8/15/22

Task | Split | Milestone | Summary | Project Summary | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | External Tasks | External Milestone | Deadline | Progress | Manual Progress