Muon Campus AIP

Change Request Form

CR#:DR004

1) DATE: 7/30/14	2)WBS: DR1.08.01.02.02	3) Originator: Ken Domann KAD

4) WBS Description of Primary Affected Tasks: Abort Installation Implementation

5) Technical Description & Primary Motivation for Change: This Change Request for the Delivery Ring AIP consists of splitting one of the abort installation activities into two separate tasks. The original task, which is in FY16, is being reduced in scope (M&S). This will allow the creation of a new task, which will take advantage of riggers already on site and which will encompass the following:

1 - Clear the abort area of existing installation.
2 - The large steel mask that will be used as the main portion of the abort block will be lowered from its current ceiling mount to the floor.
3 - The AP-2 line magnets located between this mask and the safety system gate to the transport enclosure will be removed as well.

The remaining work on the original installation activity will remain in FY16 with the remaining M&S. No new scope is being introduced to the project. The new tasks will have some additional hours of tech time.

These changes will result in a net increase of $3,566 in the Delivery Ring budget with a corresponding decrease in contingency. See attachments for the labor and M&S changes

6) Assessment of Cost Impact (Use attachments if needed): See Attachments for changes.

7) Assessment of Schedule Impact (Use attachments if needed): N/A

8) Secondary Impact & Other Comments: N/A

9) Approvals:

AIP Project Manager:	Gerald Annala	**Date:** 8/1/14
AIP Project Coordinator:	Mary E C	**Date:** 8/1/14
AD Div Director:		**Date:**
Directorate:		**Date:**

Delivery Ring CR004 Material Costs Delta

7/31/2014

UID	WBS	Name	Start	Finish	Original M&S	New M&S	Delta	Comments
1	**DR1**	**Delivery Ring AIP**	**10/28/13**	**9/29/16**	**$3,099,932**	**$3,095,932**	**($4,000)**	
85	**DR1.08**	**Delivery Ring Installation**	**7/18/14**	**9/29/16**	**$411,080**	**$407,080**	**($4,000)**	
317	**DR1.08.01**	**Tunnel Installation**	**7/18/14**	**9/29/16**	**$338,810**	**$334,810**	**($4,000)**	
318	**DR1.08.01.02**	**Abort Installation**	**7/18/14**	**8/10/16**	**$131,500**	**$127,500**	**($4,000)**	
326	**DR1.08.01.02.02**	**Abort Installation Implementation**	**7/18/14**	**8/10/16**	**$131,500**	**$127,500**	**($4,000)**	
502	DR1.08.01.02.02.02	Prepare Abort Area	7/18/14	8/7/14	$0	$30,000	$30,000	New activity
329	DR1.08.01.02.02.06	Abort Dump Installation T&M	6/23/16	8/2/16	$92,000	$58,000	($34,000)	

Delivery Ring CR004 Hours Delta

UID	WBS	Name/Resource	New Hours	Old Hours	Delta Hours	Comments
1	**DR1**	**Delivery Ring AIP**	**27,566**	**27,536**	**30**	
85	**DR1.08**	**Delivery Ring Installation**	**3,936**	**3,906**	**30**	
317	**DR1.08.01**	**Tunnel Installation**	**3,268**	**3,238**	**30**	
318	**DR1.08.01.02**	**Abort Installation**	**392**	**362**	**30**	
326	**DR1.08.01.02.02**	**Abort Installation Implementation**	**252**	**222**	**30**	
502	DR1.08.01.02.02.02	Prepare Abort Area	30	0	30	New activity
		FNAD_MECH_ASMBY_TECH	30	0	30	

Pre CR004 Delivery Ring CAP

7/31/2014

CTC	WP		FY12	FY13	FY14	FY15	FY16	FY17	Cumulative
A1304.01.02.02 Delivery Ring Project Management Oversight - FY14									
		Scheduled	0.00	0.00	202,519.42	0.00	0.00	0.00	202,519.42
A1304.01.02.03 Delivery Ring Project Management Oversight - FY15									
		Scheduled	0.00	0.00	5,745.92	205,363.12	0.00	0.00	211,109.04
A1304.01.02.04 Delivery Ring Project Management Oversight - FY16									
		Scheduled	0.00	0.00	0.00	5,731.72	210,899.59	0.00	216,631.31
A1304.02 Collider Equipment Removal & Configuration									
		Scheduled	0.00	0.00	284,664.11	58,852.50	0.00	0.00	343,516.61
A1304.03 Delivery Ring Electrical Infrastructure									
		Scheduled	0.00	0.00	181,791.00	210,863.76	83,573.74	0.00	476,228.50
A1304.04 Delivery Ring Controls									
		Scheduled	0.00	0.00	337,819.33	57,988.92	2,901.84	0.00	398,710.09
A1304.05 Delivery Ring Instrumentation									
		Scheduled	0.00	0.00	0.00	0.00	218,506.00	0.00	218,506.00
A1304.06.01.01 Septa Supplies									
		Scheduled	0.00	0.00	8,821.22	659,534.36	79,605.82	0.00	747,961.40
A1304.06.01.02 Inj Kicker Power Supply									
		Scheduled	0.00	0.00	230,517.90	693,929.08	290,248.14	0.00	1,214,695.13
A1304.06.01.03 Abort Kicker Power Supply									
		Scheduled	0.00	0.00	83,910.98	596,159.52	458,114.68	0.00	1,138,185.18
A1304.06.02 New DC Supplies									
		Scheduled	0.00	0.00	0.00	0.00	413,233.26	0.00	413,233.26
A1304.07.01 Delivery Ring Repurposed Magnets									
		Scheduled	0.00	0.00	0.00	0.00	16,858.03	0.00	16,858.03
A1304.07.02 Delivery Ring Inj C Magnet									
		Scheduled	0.00	0.00	8,322.95	8,278.24	252,602.06	0.00	269,203.26
A1304.07.03 Delivery Ring Inj Kicker Magnet Refurbishment									
		Scheduled	0.00	0.00	1,497.74	0.00	90,363.39	0.00	91,861.13
A1304.07.04 Delivery Ring Magnetic Septa Magnets (1 spare)									
		Scheduled	0.00	0.00	0.00	0.00	394,376.80	0.00	394,376.80
A1304.08.01 Tunnel Installation									
		Scheduled	0.00	0.00	0.00	0.00	839,968.26	0.00	839,968.26
A1304.08.02 Cable Installation									
		Scheduled	0.00	0.00	0.00	0.00	187,965.10	0.00	187,965.10
Grand Total									
		Scheduled	0.00	0.00	1,345,610.58	2,496,701.21	3,539,216.73	0.00	7,381,528.52

Post CR004 Delivery Ring CAP

CTC	WP		FY12	FY13	FY14	FY15	FY16	FY17	Cumulative
A1304.01.02.02 Delivery Ring Project Management Oversight - FY14									
		Scheduled	0.00	0.00	202,519.42	0.00	0.00	0.00	202,519.42
A1304.01.02.03 Delivery Ring Project Management Oversight - FY15									
		Scheduled	0.00	0.00	5,745.92	205,363.12	0.00	0.00	211,109.04
A1304.01.02.04 Delivery Ring Project Management Oversight - FY16									
		Scheduled	0.00	0.00	0.00	5,731.72	210,899.59	0.00	216,631.31
A1304.02 Collider Equipment Removal & Configuration									
		Scheduled	0.00	0.00	284,664.11	58,852.50	0.00	0.00	343,516.61
A1304.03 Delivery Ring Electrical Infrastructure									
		Scheduled	0.00	0.00	181,791.00	210,863.76	83,573.74	0.00	476,228.50
A1304.04 Delivery Ring Controls									
		Scheduled	0.00	0.00	337,819.33	57,988.92	2,901.84	0.00	398,710.09
A1304.05 Delivery Ring Instrumentation									
		Scheduled	0.00	0.00	0.00	0.00	218,506.00	0.00	218,506.00
A1304.06.01.01 Septa Supplies									
		Scheduled	0.00	0.00	8,821.22	659,534.36	79,605.82	0.00	747,961.40
A1304.06.01.02 Inj Kicker Power Supply									
		Scheduled	0.00	0.00	230,517.90	693,929.08	290,248.14	0.00	1,214,695.13
A1304.06.01.03 Abort Kicker Power Supply									
		Scheduled	0.00	0.00	83,910.98	596,159.52	458,114.68	0.00	1,138,185.18
A1304.06.02 New DC Supplies									
		Scheduled	0.00	0.00	0.00	0.00	413,233.26	0.00	413,233.26
A1304.07.01 Delivery Ring Repurposed Magnets									
		Scheduled	0.00	0.00	0.00	0.00	16,858.03	0.00	16,858.03
A1304.07.02 Delivery Ring Inj C Magnet									
		Scheduled	0.00	0.00	8,322.95	8,278.24	252,602.06	0.00	269,203.26
A1304.07.03 Delivery Ring Inj Kicker Magnet Refurbishment									
		Scheduled	0.00	0.00	1,497.74	0.00	90,363.39	0.00	91,861.13
A1304.07.04 Delivery Ring Magnetic Septa Magnets (1 spare)									
		Scheduled	0.00	0.00	0.00	0.00	394,376.80	0.00	394,376.80
A1304.08.01 Tunnel Installation									
		Scheduled	0.00	0.00	40,477.84	0.00	795,924.82	0.00	836,402.66
A1304.08.02 Cable Installation									
		Scheduled	0.00	0.00	0.00	0.00	187,965.10	0.00	187,965.10
Grand Total									
		Scheduled	0.00	0.00	1,386,088.42	2,496,701.21	3,495,173.29	0.00	7,377,962.92