



MAGIS-100 Camera Schedule

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Schedule overview

Quarterly overview of baseline schedule for Fermilab activities (anticipated after Aug 2021 BCR):

FY20	FY21	FY22		FY23		FY24					
July-Sept 20	Oct-Dec 20	Jan-March 21	April-June 21	July-Sept 21	Oct-Dec 21	Jan-March 22	April-June 22	July-Sept 22	Oct-Dec 22	Jan-March 23	
<i>Design</i>				<i>Design/Procure</i>				<i>Modular Assembly</i>			
				<i>Civil Construction contracts prepared</i>		<i>Civil Construction - Laser Room</i>		<i>Civil Construction - Shaft</i>		<i>Shaft Phase 1 Installation</i>	
						<i>Laser Installation</i>				<i>Shaft Phase 2 Installation</i>	

Baseline schedule anticipated after August 2021 baseline change request.



Camera schedule

Activity ID	Activity Name	Start	Finish
[-] MAGIS100-WS-2109.08	Camera System	02-Jan-19 A	19-Sep-22
[-] MAGIS100-WS-2109.08.01	Science cameras	01-Sep-20 A	16-Aug-22
A1501010	Science camera design	01-Sep-20 A	01-Nov-21
A1501020	Science camera procurement	02-Nov-21	08-Feb-22
A1501030	Science camera qualification	09-Feb-22	16-Aug-22
[-] MAGIS100-WS-2109.08.02	Diagnostic Cameras	02-Jan-19 A	16-Sep-22
A1502010	Diagnostic camera design	02-Jan-19 A	15-Oct-21
A1502020	Diagnostic camera procurement	18-Oct-21	13-Dec-21
A1502030	Diagnostic camera qualification	14-Dec-21	16-Sep-22
[-] MAGIS100-WS-2109.08.03	Equipment transport	19-Sep-22	19-Sep-22
A1503020	Diagnostic cameras shipped - milestone	19-Sep-22	

Schedule from September 2021.

Science cameras are sent to Stanford for integration into atom source connection nodes.
Diagnostic cameras are sent directly to Fermilab for installation in modular connection nodes.

Original date for science camera procurement is next week – more time may be acceptable as shown in the following slides.

Connection Node schedule

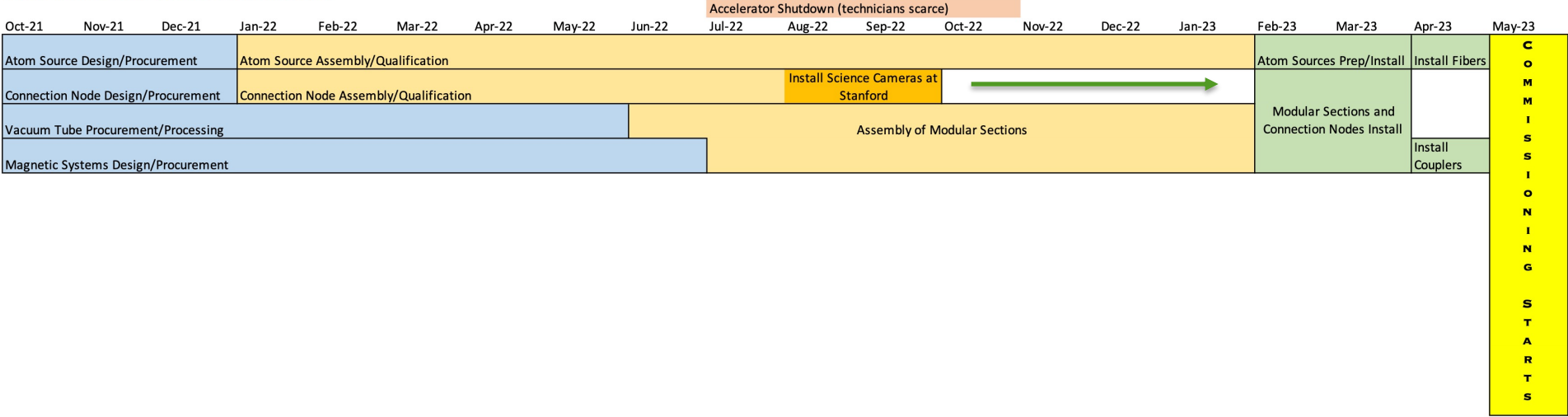
Activity ID	Activity Name	Start	Finish
[-] MAGIS100-WS-2109.05	Connection Node	01-Oct-19 A	04-Oct-22
[-] MAGIS100-WS-2109.05.01	Prototype	01-Oct-19 A	06-Jun-22
A0501010	Connection Node Prototype Design	01-Oct-19 A	30-Jul-21 A
A0501020	Connection Node Prototype Procurement	02-Aug-21	01-Dec-21
A0501030	Assembly 30% complete - milestone		04-Feb-22
A0501040	Assembly 60% complete - milestone		05-Apr-22
A0501000	Connection Node Prototype Assembly Progress (monthly report)	02-Dec-21	06-Jun-22
A0501050	Assembly 100% complete - milestone		06-Jun-22
[-] MAGIS100-WS-2109.05.02	Lattice and in-vacuum optics	06-Feb-20 A	08-Jul-22
A1802320	Lattice and in-vacuum optics design complete		01-Nov-21
A0502010	Lattice and in-vacuum optics Design	06-Feb-20 A	01-Nov-21
A0502020	Lattice and in-vacuum optics Procurement	09-Nov-21	11-Jan-22
A0502030	Lattice and in-vacuum optics Assembly	12-Jan-22	08-Jul-22
[-] MAGIS100-WS-2109.05.03	Cameras system Integration	17-Aug-22	16-Sep-22
A0503030	Align cameras in connection node enclosure	17-Aug-22	16-Sep-22
[-] MAGIS100-WS-2109.05.04	Correction coils for gaps at atom sources	02-Oct-19 A	09-Aug-22
A0504010	Correction coils for gaps at atom sources - Design	02-Oct-19 A	01-Nov-21
A0504020	Correction coils for gaps at atom sources - Procurement	02-Nov-21	01-Dec-21
A0504030	Correction coils for gaps at atom sources - Assembly	11-Jul-22	09-Aug-22
[-] MAGIS100-WS-2109.05.05	Enclosure	01-Oct-19 A	07-Dec-21
A1802140	Connection Node Enclosure design complete		29-Oct-21
A0505010	Enclosure Design	01-Oct-19 A	29-Oct-21
A0505020	Enclosure Procurement	03-Nov-21	07-Dec-21
[-] MAGIS100-WS-2109.05.06	Connection node integration	17-Aug-22	15-Sep-22
A0506030	Connection node 3 integration	17-Aug-22	15-Sep-22
A0506020	Connection node 2 integration	17-Aug-22	15-Sep-22
A0506010	Connection node 1 integration	17-Aug-22	15-Sep-22
[-] MAGIS100-WS-2109.05.07	Qualification	19-Sep-22	03-Oct-22
A0507030	Connection node 3 qualification	19-Sep-22	03-Oct-22
A0507020	Connection node 2 qualification	19-Sep-22	03-Oct-22
A0507010	Connection node 1 qualification	19-Sep-22	03-Oct-22
[-] MAGIS100-WS-2109.05.08	Equipment transport	04-Oct-22	04-Oct-22
A0508010	Connection node 1 shipped - milestone	04-Oct-22	
A0508020	Connection node 2 shipped - milestone	04-Oct-22	
A0508030	Connection node 3 shipped - milestone	04-Oct-22	

Schedule from September 2021.

Science cameras are integrated into atom source connection nodes before being shipped to Fermilab.

Schedule delays indicate more time

Mid-level view of MAGIS-100 schedule (September 2021):



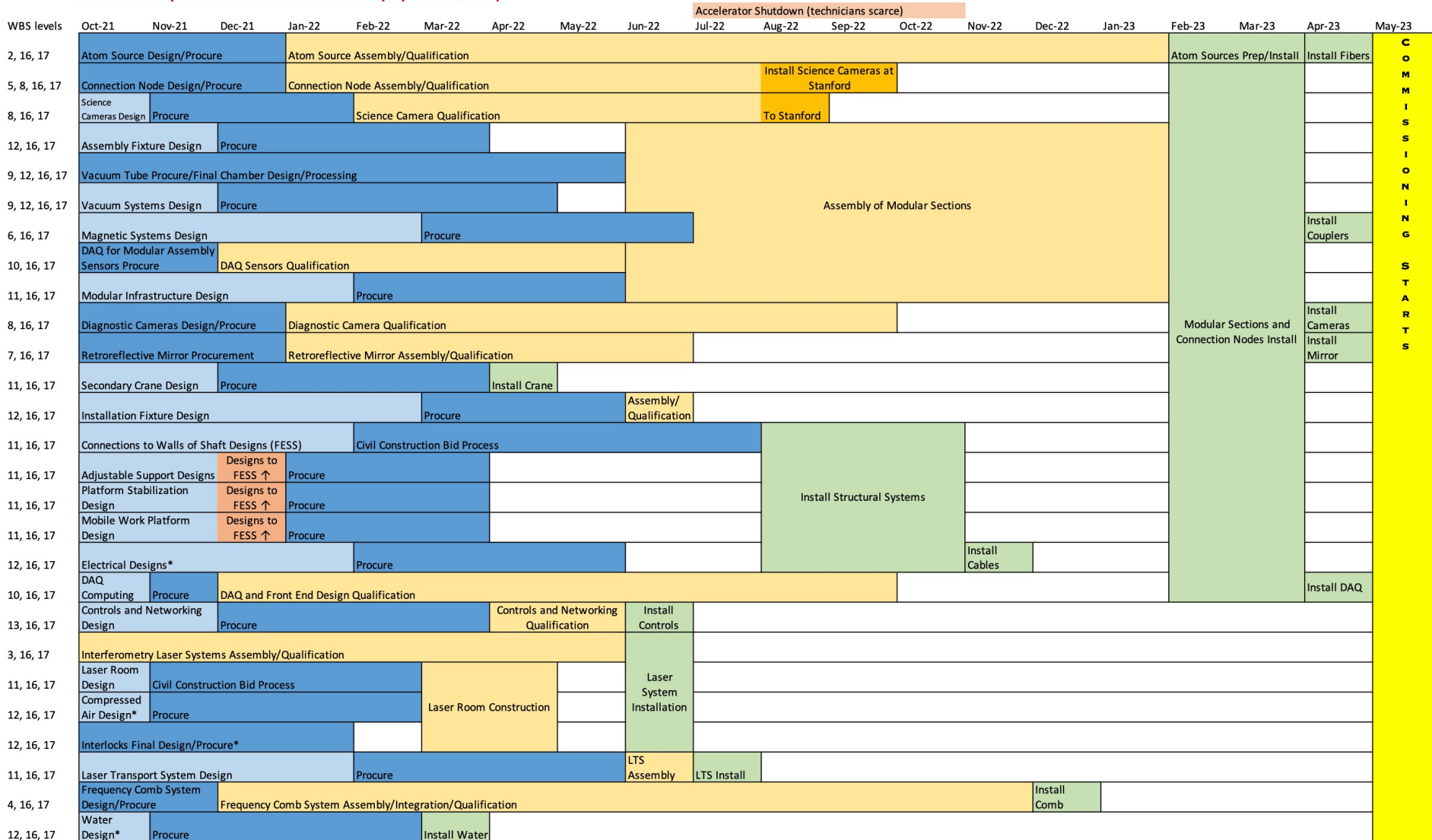
Schedule from September 2021.

The schedule is always shifting, so the gap may disappear or be needed for other purposes.
 Any proposed delay for science camera delivery to Stanford must be approved.



Complete Schedule View

Mid-level map view of MAGIS-100 schedule (September 2021):



*BCR developing

