Setting up Imperial's Lighthouse Pillar 2 COVID-19 testing lab

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Background

Part of the Department of Health and Social Care's partnership with the London Testing Alliance – brought together by life Sciences cluster MedCity in Dec 2020

Imperial in partnership with UCL, King's and QMUL

Aim to increase testing capacity by 20,500 per day Samples from members of the public, key workers, and care homes

Supported by Imperial projects (IPROJ) as an expansion of exisng testing facility at St Mary's - MDU

Workflow

Sample Receipt and unboxing



Sample transfer to containment lab and booking in



Sample inactivation so remaining processing steps can be carried out at CL1

RNA extraction



qRT-PCR



Results reporting

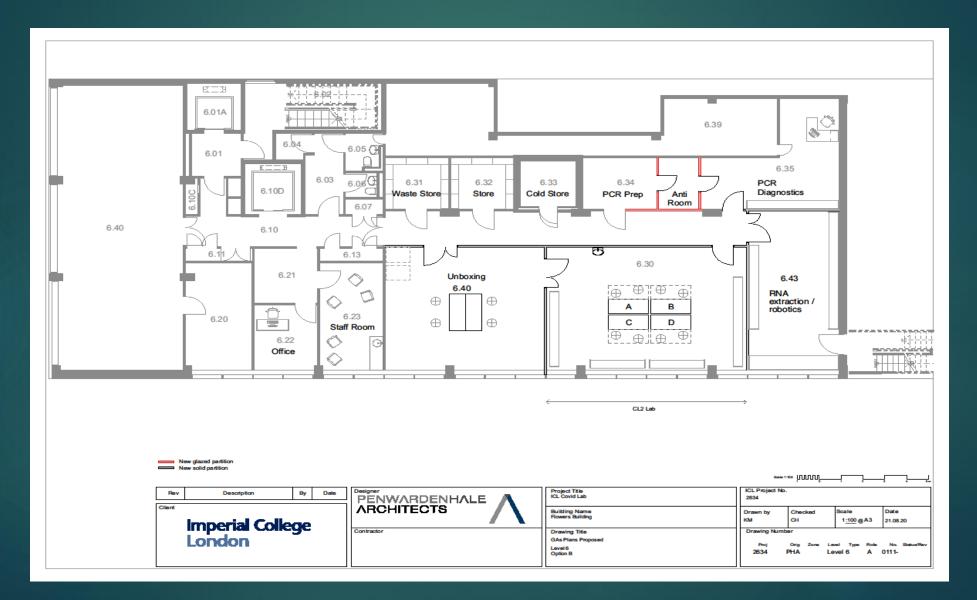
Identifying suitable space

Workflow requirements - replicate the system already established in the MDU and apply to new space

Time scale for delivery

Once identified – development of a lab design which met the needs of both stakeholders in a shared space

Proposed Laboratory area Design 1



Proposed Laboratory area Design 2



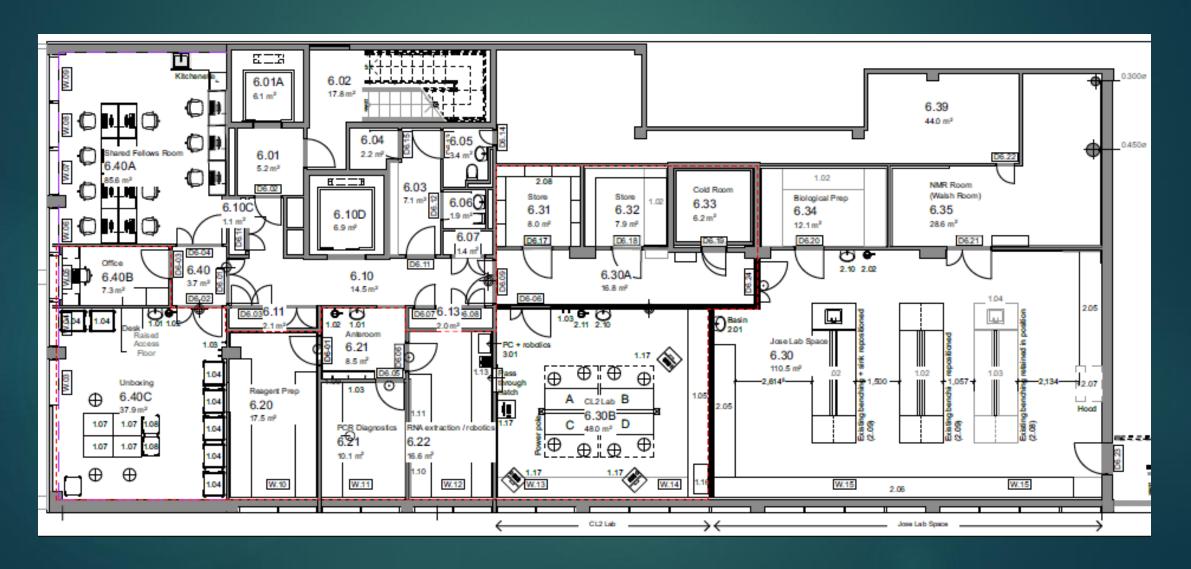
Jose Lab Space

COVID and Seminar Room L7

Shared

Extent of scope

Proposed Laboratory area - Final



Developmental stages and management of an estates project

Establish a Project Board (Stage 1)

- Project Champion
- Project Director
- Senior Supplier
- User Coordinator
- Project Manager

Stage 0 Indicative programme Stage 1 Design stage Stage 2 Master Project Stage 3
Procurement
package

Stage 4
Master
Construction

Stage 5
Master
Construction

NHSE Lighthouse Laboratory Project delivery group

- Oversight of all aspects of project leading to the commissioning of an operational testing lab
- Weekly meetings
- Representatives from all stakeholders IPROJ, College Estates, DolD DHSC etc

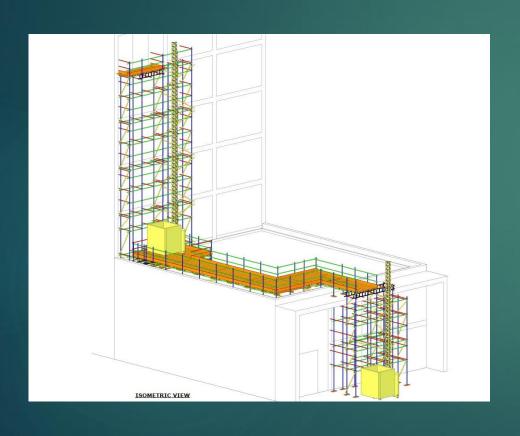
Project Ghant Chart

	a transfer	Duration									Wk 9								Wk 17
	Capacity Milestones		14-Sep	21-Sep	28-Sep	5-Oct	12-Oct	19-Oct	26-Oct	2-Nov	9-Nov	16-Nov	23-Nov	30-Nov	7-Dec	14-Dec	21-Dec	28-Dec	4-Jan
	Milestones																		
	Authorisation																		
	Main contract signed																		
	Initial capacity @500 online										Stretch t	arget							
	Full capacity @3,000 online																		
Category	Key tasks																		
Project Management	Service agreements negotiation																		
	Establish and document SOPs																		
	Fire Marshalls and First Aiders training																		
	Logistics confirmed - volume, timing and type of deliveries																		
Estates	Securing of space lease																		
	Networking, electricity and plumbing																		
	Kick-start refurbishment project	13 weeks																	
	Commissioning of lab	4 weeks																	
	Validation of the Lab by DHSC																		
	Relocation of the established platform to Flowers Building																		
	Waste management services contracted																		
	Security in place																		
Equipment and reagents	Procurement of consumables, reagents	3 weeks																	
	Purchasing of equipment	8 weeks																	
	Equipment setup																		
	Install equipment	8 weeks																	
	Advertise / redeploy Lab Managers, Procurement officer, other key staff	2 weeks																	
	Appoint / redeploy Lab Managers, Procurement officer, other key staff	2 weeks																	
	Advertise MLA/MLSO	1 week																	
	1st Phase MLA/MLSO deployment and training	1 week																	
		2 weeks																	
	LIMS setup																		
	Test LIMS interface with the NHS Test Digital Platform (NPEx)																		
	NPEx feed and MI reporting goes live																		
	iPhones delivered and Validate app training																		
		4 weeks																	
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Data sheets

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Goods lift replacement project



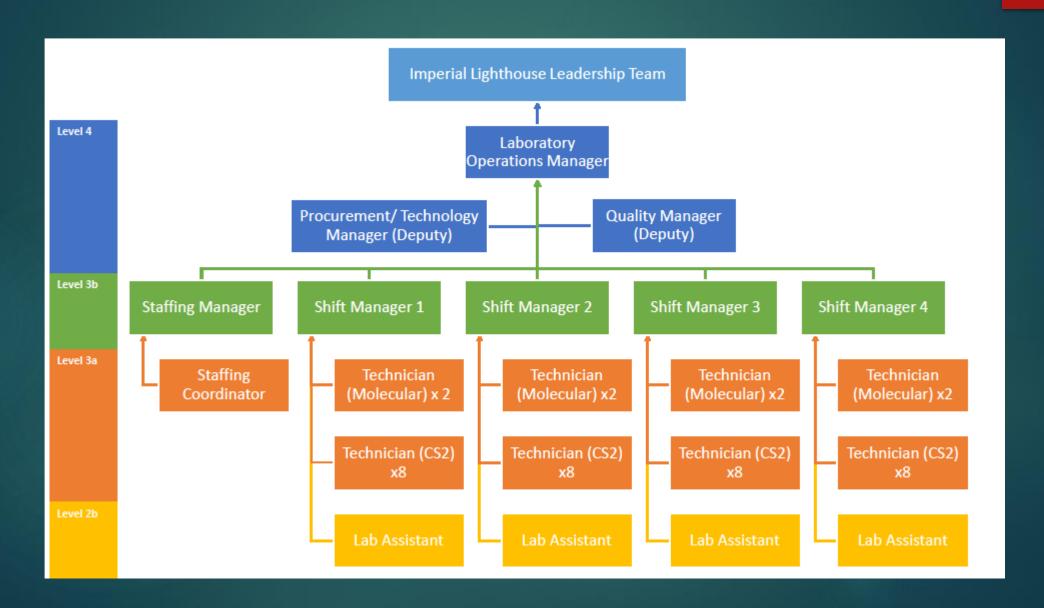




- ▶ Equipment procurement
 - Requirements that need building into lab design
 - **▶** Timing
 - ► MSC delivery
- ▶ Consumables
 - ▶ Scale up of procurement
 - ▶ Supply and demand Brexit and COVID labs
 - ▶ DHSC official letter

- Knock on effect to recruitment due to delay in opening
 - ▶ Approximately 50 staff started Jan 2021
 - ▶ Training schedule
 - ▶Lack of space at St Mary's
 - ►COVID safety

Staff organisation chart



Health and safety responsibilities

- Business continuity plan
- Risk register
- Schedule of work
- SoPs

Refurbished rooms









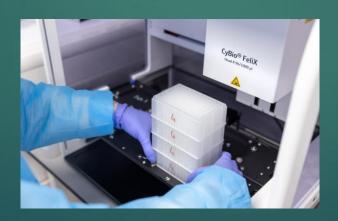
Phased ramp up to approx. 3000 samples processed per day













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MDU testing team

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