University of Glasgow

SOFT LANDINGS

Policy, Process and Procedures 2017

Estates and Commercial Services

Version 2.0

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Approved by	Programme Governance Board
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1. Policy Statement

The University of Glasgow is committed to adopting the Governments guidance for Soft landings to achieve successful outcomes through our built assets.

The Soft Landings process recognises that the on-going business benefits, maintenance and operational cost of a building during its lifecycle far outweigh the original capital cost of construction. The need to optimise in-use performance is sought through early engagement with the operators and end users in the design process, and by learning from previous experience.

The Core Principles of Soft landings are to :-

- Provide leadership and define roles and responsibilities
- Ensure continuity through project stages
- Set programme objectives
- Communicate and inform
- Share risk and responsibility
- Focus on operational outcomes
- Involve the building managers and the end users from the outset
- Commit to aftercare
- Use feedback to inform design

This will be achieved by:-

- Appointment of a Soft Landings Champion
- Establishment and maintenance of Design Standards
- Early engagement of end users and operators
- Implementation of processes and procedures aligned with RIBA gateway stages
- Commitment to aftercare post construction from the project delivery team
- Post occupancy evaluation, feedback to the project delivery team and lessons learnt captured for future projects.

2. Arrangements

Guidance for implementing the soft landings policy are included in BSRIA BG 54/2014, 'The Soft Landings Framework; for better briefing, design, handover and building performance in-use'.

Specifically the detailed arrangements for the University are set out as follows:-

Soft landings Champion

To ensure compliance with the Policy, there will be a Soft landings champion. The Director of Construction and Facilities Management will assume overall responsibility for the role of Soft Landings Champion (and any delegation thereof).

It is envisaged that the Director of Construction and Facilities Management will delegate his role to the

Head of Construction and Project Management, the Head of Technical Services and the Head of Facilities Services who will review compliance as part of the RIBA stage gateway sign off process.

The Development/ Project Manager will be the individual driving the implementation of Soft Landings on a day to day basis.

The responsibilities of this role include:-

- pre and post contract advice,
- ensuring a 'one team approach' with coordination of the activities of the project delivery and operations teams
- ensuring a consistent approach throughout all projects in line with design standards,
- review and recommend approval of design proposals above £3m net construction value,

Design Standards

The key design requirements of the University have been defined in a Design Standards Guide. This has been developed in conjunction with design champions and stakeholders across the University which is arranged across a series of themes, including:

1. Business Continuity
2. Signage
3. Space Planning & Standards
4. Maintenance & Access
5. Deliveries & Servicing
6. Estates Operations
7. Security
8. IT
9. Fire Safety
10. Sustainability
11. Grounds & Landscaping
12. Disability, Equality & Diversity

Design Champions

A network of design champions have been identified who will be the lead point of contact for each theme and will provide briefing and support on behalf of the soft landings champion.

Each champion will have a deputy, will establish and maintain their own network of stakeholders to engage with, especially where projects are of significant scale, complexity or their is impact or transformation proposed requiring multiple stakeholders input.
Appendix i sets out the design champions matrix and current list of stakeholders.

Soft Landings Design Workshops

Design workshops should be scheduled for each project focussing on the 12 design themes. Workshops should align with each relevant RIBA design stage to ensure appropriate opportunity for briefing and technical review.

For less complex projects it may be appropriate to simplify these workshops especially if design standards are being consistently achieved.

For some projects these workshops may be combined covering more than one theme eg Fire and security.

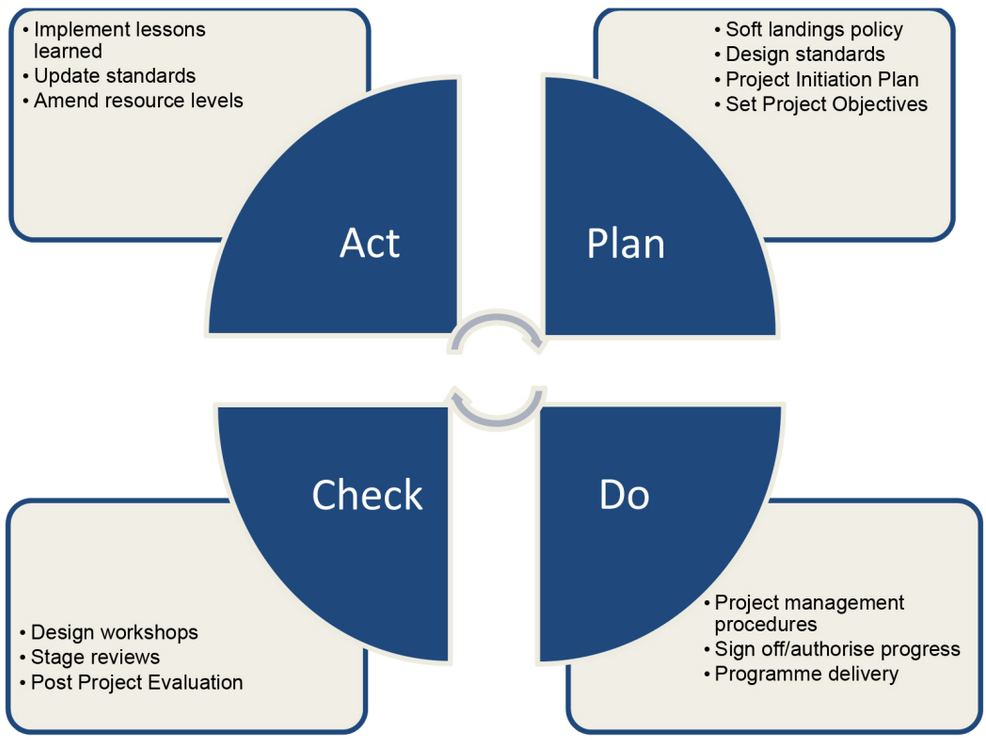
Stage Reports

Development/Project Managers will be responsible for ensuring the production, review and sign off of stage reports.

Reports should be compiled to fully align with the 12 design standard themes; for ease of reference by the Design Champions and to support an efficient review and sign off.

3. The Approach

The approach will follow the Plan, Do, Check, Act methodology to ensure controls are in place and to drive continuous improvement through defined processes and procedures.



4. The 5 Stages of Soft Landings

There are 5 key stages where the Soft Landings process is applied:-

Stage 1: Inception and briefing (RIBA Stages 0 and 1)

This stage will include constructive dialogue between the client, the designers and the potential constructors about intentions, performance requirements and stakeholder expectations; Embedding specific Soft Landings activities in the client's requirements and contract documentation, and identifying budget for aftercare and post-occupancy evaluation.

Key specialist input will be requested earlier than would be the norm - controls specialists, commissioning engineers, facilities managers; key subcontractors etc.-– for the University this will start with reference to design standards and access to the design champions; A Soft Landings Champion will be nominated to drive the process forward; and review past experience to inform design.

Stage 2: Design development and review (RIBA Stages 2, 3, 4, and 5

This stage will bring the entire project team together to review insights from comparable projects and detail how the building will work from the point of view of the occupiers and building operators. The energy strategy (including the metering and monitoring strategy) will be developed along with the approach to commissioning, ensuring they are regular items for discussion and covered in relevant arrangements. Detailed design workshops will be held involving the design champions and the proposed systems will be reviewed for usability and maintainability. Designs will undergo a realitycheck through the design, construction and operation phases.

Stage 3: Pre-handover (RIBA Stage 5)

This stage involves a graduated handover which will enable operators/maintainers to spend more time on understanding interfaces and systems before occupation. There is a requirement to revisit the outputs from earlier reality-checking decisions and ensure any recommended actions are in place. The Building Management System shall be set up the way the client/operator intended with energy data reconciliation, data storage, and energy monitoring software. Metering shall be verified to ensure working properly and delivering accurate insights into energy use.

Stage 4: Initial aftercare (RIBA stage 6)

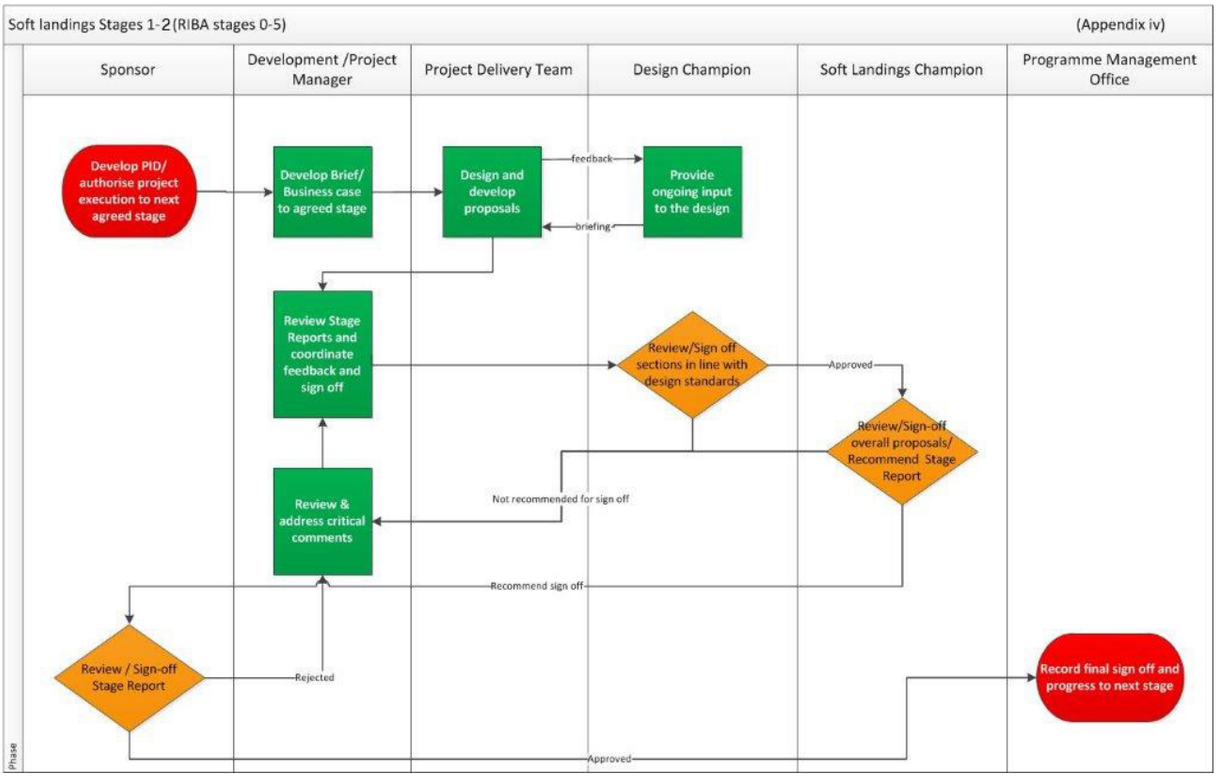
The project delivery team shall be resident on site for between six and eight weeks post-handover to spot emerging problems and issues. This will include regular walkabout sessions to engage with occupiers and operators, discover how systems are operating in practice and whether they meet occupants' expectations and actual requirements. Adjustments will be made where necessary and reports issued. Ongoing assistance will be provided through this stage to operators/maintainers to fully understand what has been inherited. System performance will be measured and monitored without arriving at early conclusions.

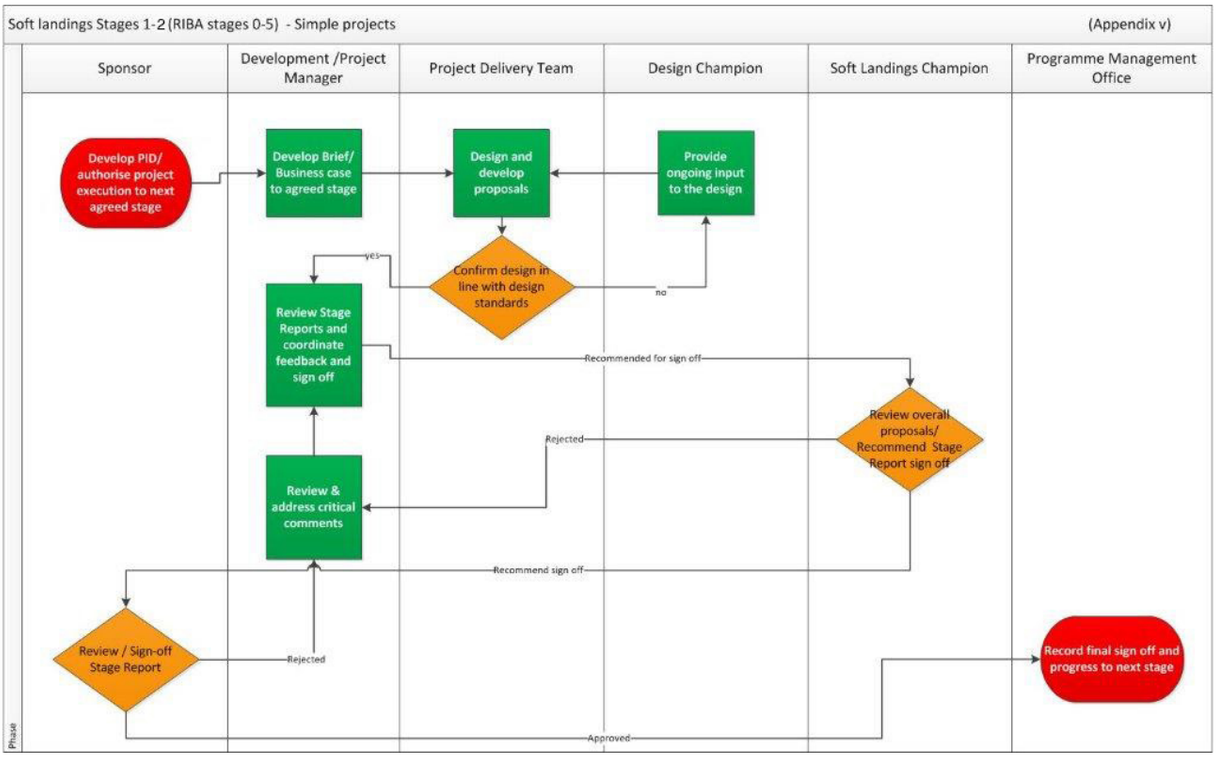
Stage 5: Years 1 -2 extended after care and Post Occupancy Evaluation (RIBA stage 7)

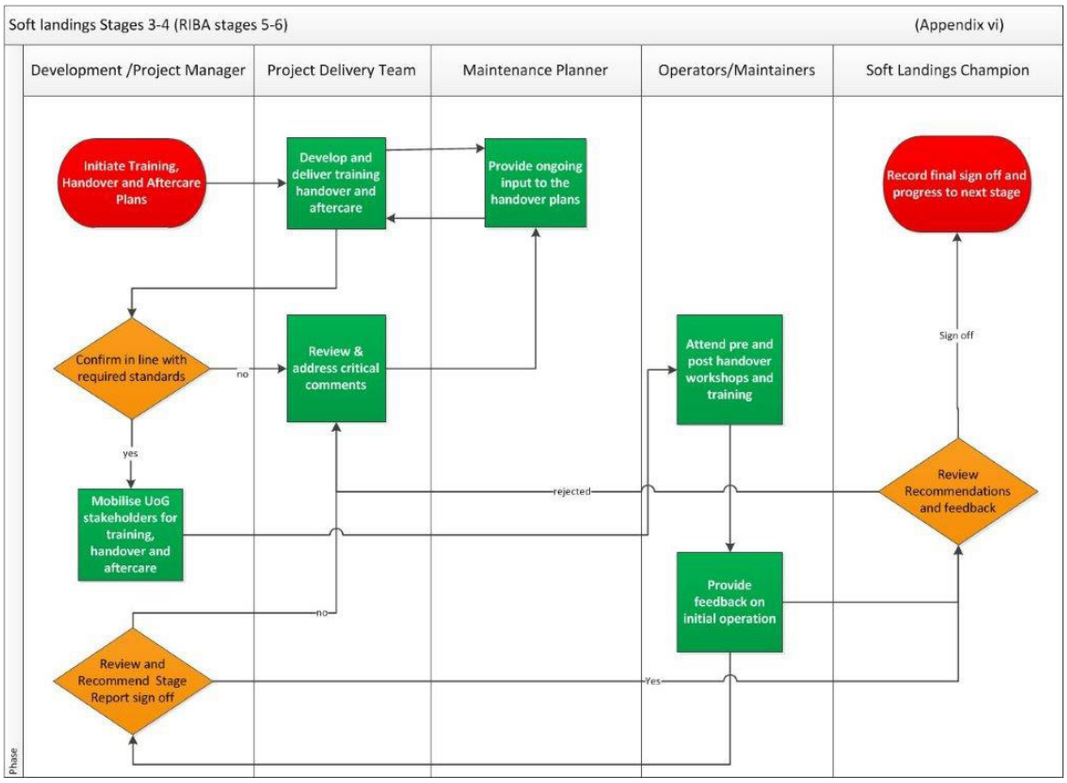
This stage is longer-term, with less intensive monitoring and support and will involve a series of aftercare review meetings – monthly to begin with, reducing to quarterly. There will be a continued focus on energy to ensure that the energy monitoring is set up and working well. A systematic postoccupancy evaluation exercise will be undertaken no sooner than 12 months post-handover, repeated if necessary for complex projects with extended aftercare, culminating in a final project review.

5. Process

A Standard process will be applied across all capital projects. Application of the process will vary dependent on the size and complexity of the project. This is documented within gateway approvals with copies of the process maps included as appendices iv, v, vi.







6. Procedures

The Programme Management Office coordinates and ensures that overarching governance is provided for all capital projects. Soft landings procedures are integral to an overall suite of standard project management processes and procedures.

For large and complex projects, project delivery teams will be required to engage and ensure ongoing briefing input and undertake design stage review workshops with design champions, and other key stakeholders, at each soft landings stage.

Design champions will provide input, review proposals and make recommendation for sign off to the soft landings champion.

For small, less complex projects, a light touch arrangement will apply whereby delivery teams will be required to confirm compliance with design standards. In circumstances where the delivery team cannot confirm or evidence compliance with design standards or propose to vary from these, design workshops will be required with input, review and recommendations for sign off provided by the design champions.

Gateway sign off

The Development/Project Manager will be responsible for achieving gateway approval prior to commencing the following stage. Part of this Gateway approval will be approval of the Design. A sample of the full Gateway sign off is included as Appendix ii.

Project handover

Project handovers will be graduated as determined by the scale and complexity of the building and systems. There are a number of template handover documents that form part of the proposed handover procedures which facilitate handover between the end users and Estates and then returned back to the end user once the refurbishment or works required have been completed.

Pre handover planning will be undertaken by the Project delivery team, coordinated by the Project Manager engaging with the Maintenance Planner and other stakeholders who have responsibility for Operations and Maintenance.

Training and familiarisation of buildings and systems will be delivered by the project delivery team to a range of stakeholders which may include Operations Managers, Supervisors and key Operations staff, across the functional teams within Technical Services, Cleaning, Security, IT and AV. Specialist sub-contractor involvement will also be essential where they have operational or maintenance responsibility.

Schedules of training and documentation will be developed and agreed in advance of handover, and for complex systems this will include video recording of these sessions.

A suite of documents will be specified for handover to include health and safety files and operations and maintenance manuals.

A Project handover plan checklist to be completed by all relevant parties confirming training, certification and document handover. This included as Appendix iii.

Aftercare

A requirement for a 2 year period of aftercare from the Project Delivery team will be a contract requirement for all projects in excess of £3M.

Specific details will be defined on a project by project basis dependent on the nature and complexity of the project. E.g. a new build scientific research facility will demand a higher level of aftercare than a large scale refurbishment of an existing traditional building.

Post Project Evaluation

A standardised methodology will be adopted to undertake Post Project Evaluations. This will be overseen by the Programme Management office. There will be a number of strands to these evaluations including:

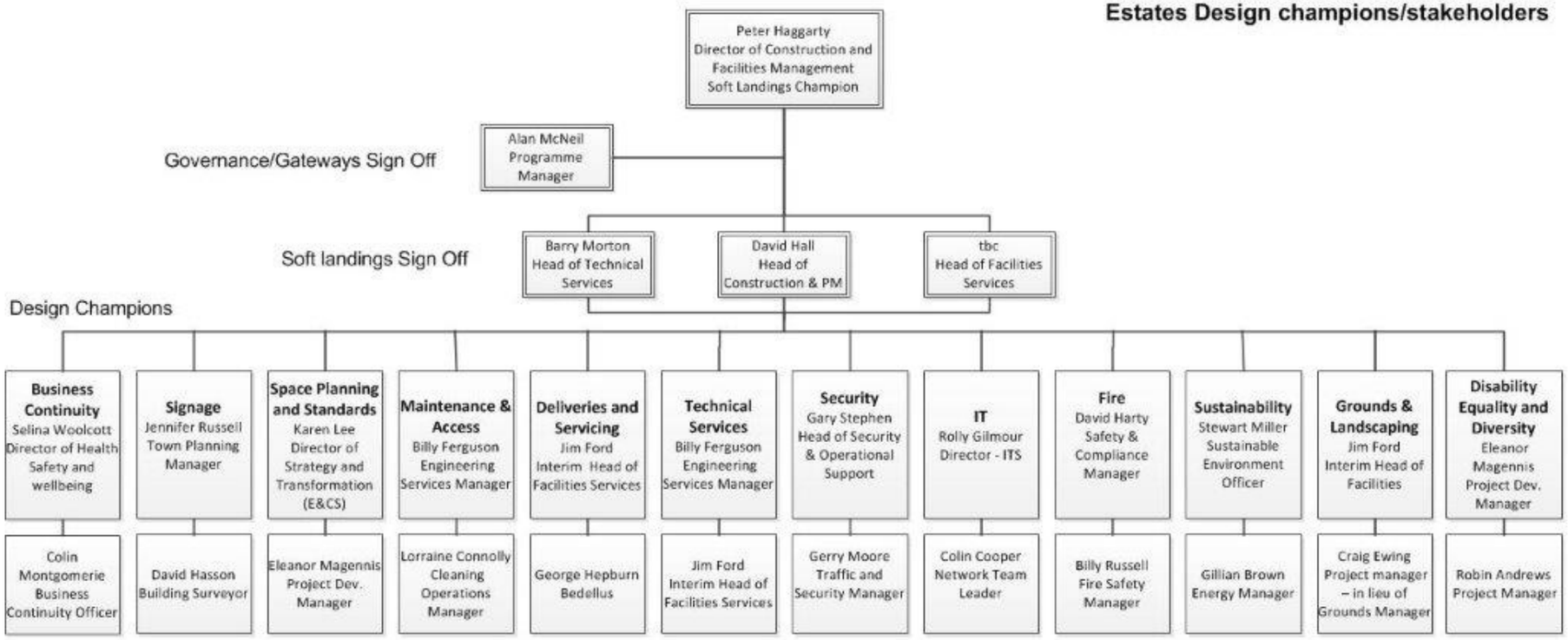
- An assessment of whether the qualitative and quantitative benefits have been achieved
- A review of project delivery processes and governance during the design, procurement and construction phases to determine what lessons can be learned
- A review of handover, operation and occupancy to determine what lessons can be learned

Lessons Learned and feedback

The lessons learned captured in the *Aftercare* and *Post Project Evaluation* stages will feed into a central lessons learned register which will be held by the Programme Management Office. The register will be fully searchable by development/project managers on the basis of key metrics so that future projects can quickly pick out pertinent lessons learned.

University of Glasgow

Soft landings matrix
Major projects
Estates Design champions/stakeholders



Revised October 2017

SOFT LANDINGS

(Appendix ii)

GATEWAY APPROVAL

RIBA STAGE 3

Project Title:	**Gilmorehill/ Building Name/ Title**
Development / Project Manager:	Alan McNeil
Project Sponsor:	Alan McNeil
Project Code:	1234567

Revision	Author	Date	Updates
V0.1	Alan McNeil	12/10/2017	First Version issued to signatories for approval

University of Glasgow

Gateway Approval Signoff
RIBA Stage 3

1. INTRODUCTION

This document seeks approval from all relevant parties to progress from RIBA Stage 0, to RIBA Stage 1 for the following project:

Gilmorehill/ Building/ Specific Project Title

Project Description

This project entails the refurbishment of laboratory space in X building to bring to ensure Home Office compliance and continuation of safe research. (Provide succinct description)

Image/ Drawing

Insert an image or drawing of proposed development.

2. AUTHORISATION

Applicant

	Signature	Date
Development/ Project Manager		

Soft Landings Approval:

Soft Landings Champion *(Head of Construction & Project Management)*		
Soft Landings Champion *(Head of Technical Services)*		
Soft Landings Champion *(Head of Facilities Services)*		

Governance and Development Costs Approval:

Head of Construction and Project Management		
Head of Programme Office		

Authorisation to Proceed to Next Project Stage:

Sponsor		

University of Glasgow

Gateway Approval Signoff
RIBA Stage 3

3. DESIGN

Development/ Project Manager's statement of compliance with the University of Glasgow Estates and Commercial Services 'Design Standards'?
Does the design report comply fully the Design Standards? Yes ☐ No ☐ *(If no, please provide brief statement on why not and attach derogation schedule as required)*

Attachment Nr.	Name	Version No.
1	RIBA Stage 3 Report	Rev.04
2		
3		

Reviewers Comments:

Category A – Proceed and address the following minor comments:

Nr:	Received from:	Comment
	Alan McNeil	

Category B – Proceed but address these substantial comments

Nr:	Received from:	Comment
	Alan McNeil	

Category C – Do not proceed until these comments have been addressed

Nr:	Received from:	Comment
	Alan McNeil	

Gateway Approval Signoff
RIBA Stage 3

Design Champion Approval:

Individual design champions should sign-off in the boxes below:

Soft Landings Theme	Design Champion Signature	Date
Business Continuity		
Signage		
Space Planning & Standards		
Maintenance & Access		
Deliveries & Servicing		
Estates Technical Services		
Security		
IT		
Fire		
Sustainability		
Grounds & Landscaping		
Disability Equality & Diversity		

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Gateway Approval Signoff
RIBA Stage 3

4. GOVERNANCE / PM PROCEDURES

Task	Complete	PM's comments
Have comments received on the RIBA Stage 2 Report been addressed?	Yes/No	
Has the RIBA Stage 3 report been prepared in accordance with the 12 soft-landings themes and issued to all relevant parties?	Yes/No	
Has the Project Sponsor approved the RIBA Stage 3 report and confirmed the brief still meets their requirements?	Yes/No	
Has the project programme been updated to reflect current progress to date? (does it comply with the original/ baseline programme or does this	Yes/No	
Has the Project Cost Plan been updated and proposed Cash Flow projection been produced, as per RICS NRMs, summarised in section 5.	Yes/No	
Has a full planning application and building warrant application been submitted to the local authority (and any other statutory approvals).	Yes/No	
Have the Soft Landing requirements for contractor been established	Yes/No	
Has a review been undertaken of Tax Classification Guidance	Yes/No	
Has the procurement strategy been finalised/ updated?	Yes/No	
Has the sustainability strategy been established?	Yes/No	
Has the construction strategy been established?	Yes/No	
Has the operations and maintenance strategy been finalised?	Yes/No	
Has design been developed in compliance with the BIM Strategy?	Yes/No	
Has the change control strategy been established?	Yes/No	
Have tender documents been prepared in line with the procurement strategy? (if applicable at this stage)	Yes/No	
Have the project financial approvals been considered?	Yes/No	
Are the principles of soft-landings being implemented?	Yes/ No	
Has the Project Execution Plan been updated following completion of RIBA Stage 3?	Yes/No	

Document Owner: Programme Management Office
Current revision: 0.2
Revision Date: Oct 2017

5. DEVELOPMENT COST

TASK	£	
Project Budget	£	500,000.00
Grant / external funding (if applicable)	£	250,000.00
Construction	£	231,000.00
1) Substructure	£	50,000.00
2) Superstructure	£	50,000.00
3) Mechanical and Electrical	£	50,000.00
4) Fit-out	£	50,000.00
5) Externals	£	10,000.00
6) Construction Contingency (10%)	£	21,000.00
Removals / Relocation	£	10,000.00
Utilities	£	-
FF&E	£	20,000.00
Client Equipment	£	45,000.00
Survey and Remediation	£	15,000.00
Statutory consents (inc. planning, buillding warrant, etc)	£	7,000.00
Lead Advisor	£	55,000.00
Design Team (if not Lead Advisor)	£	-
Additional Costs:		
1) ?	£	10,000.00
2) ?	£	5,000.00
VAT (20%)	£	79,600.00
Sub total including VAT	£	477,600.00
E&B Resource (DM / PM / CoW etc.)	£	12,000.00
Client Contingency (10% - Note: adjust to suit project)	£	48,960.00
Total Development Cost	£	538,560.00
Total Development Cost less Grant (if applicable)	£	288,560.00

Note: These are sample figures and percentages for illustration only

(Appendix iii)

University of Glasgow

Estates and Commercial Services

PROJECT HANDOVER PLAN			
Project:		Date:	
Description:		Project No:	
Location:		Bldg. No:	
Project Manager:		Campus:	
Design Team (e.g. QS, M&E, Consultant, Architect)			
Contractor:			
End User:			

1.	GENERAL				
	Description	**Yes**	**N/a**	**Duty Holder**	**Date closed off**
1.	*As built/General Arrangement plans and room numbering*	☐	☐		
2.	*O+M Manuals and As-Built drawings for:*	☐	☐		
	• *Fire alarm Installation/Zonecharts*	☐	☐		
	• *Electrical Services*	☐	☐		
	• *Mechanical Services*	☐	☐		
	• *Hydraulic Services*	☐	☐		
	• *Building Services*	☐	☐		
	• *Security Systems & CCTV*	☐	☐		
	• *IT/AV systems*	☐	☐		
	• *Building Fabric*	☐	☐		
	• *Utilities (district heating, water, gas, drainage, IT/telecoms)*	☐	☐		
	• *Landscaping*	☐	☐		
3.	*Building Control Certificate of Occupancy*	☐	☐		
4.	*Asset schedule*	☐	☐		
5.	*Warranties and Maintenance Agreements*	☐	☐		
6.	*Schedule of keys and door access information*	☐	☐		
7.	*Building energy certificate*	☐	☐		
8.	*BREEAM certificates*	☐	☐		
9.	*Furnishings schedule*	☐	☐		
10.	*Fixed equipment eg catering equipment schedules*	☐	☐		
11.	*Training. (Plans and records) – Operation and Maintenance*	☐	☐		
12.	*Handover spares list*	☐	☐		

2.	LIFE SAFETY				
	Description	**Yes**	**N/a**	**Duty Holder**	**Date closed off**
1.	*Fire Risk Assessments/Action Plans*	☐	☐		
2.	*Fire extinguisher equipment/signage records*	☐	☐		
3.	*Fire Suppression System ((Design, installation and commissioning certificates)*	☐	☐		
4.	*Fire Fighting system eg Dry risers (Design, installation and commissioning certificates)*	☐	☐		
5.	*Fire Detection System (Design, installation and commissioning certificates)*	☐	☐		
6.	*Fire Fighting/Evacuation lift System (Design, installation and commissioning certificates)*	☐	☐		
7.	*Fire hydrant drawings/details*	☐	☐		
8.	*Emergency & Exit Lighting (Design, installation and commissioning certificates)*	☐	☐		
9.	*Fire Door Certification*	☐	☐		
10.	*Fire stopping/Fire damper Certification*	☐	☐		
11.	*External access cradles/window cleaning access equipment(Design, installation and commissioning certificates)*	☐	☐		
12.	*Safety equipment test records for safe roof access (safety bolts, ropes , fall arrest systems, ladders, edge protection),*	☐	☐		

3.	BUILDING SERVICES				
	Description	**Yes**	**N/a**	**Duty holder**	**Date closed off**
1.	*HV & LV test reports*	☐	☐		
2.	*Distribution Board Circuit charts*	☐	☐		
3.	*RCD Lists and Test Reports*	☐	☐		
4.	*Updates to 5 yearly fixed wiring testing records*	☐	☐		
5.	*Stand-by Generator/s test records*	☐	☐		
6.	*Lift inspection reports and maintenance records*	☐	☐		
7.	*Gas soundness test reports*	☐	☐		
8.	*Heating, air conditioning and ventilation systems test records (Design, installation and commissioning certificates)*	☐	☐		
9.	*CHP/Biomass/Photovoltaic Feed in Tariff/Renewable Heat Incentive certificates*	☐	☐		
10.	*Utility meter readings*	☐	☐		
11.	*Data/Telecommunications test records*	☐	☐		

4.	STATUTORY SAFETY INFORMATION				
	Description	**Yes**	**N/a**	**Duty Holder**	**Date closed off**
1.	*Asbestos management survey record updates.*	☐	☐		
2.	*Asbestos removal clearance certificates/Reassurance*				

	tests/Consignment Notes				
3.	*Legionella management certificates (inc L8 risk assessments)*	☐	☐		
4.	*Schedule of Hazardous storage areas (e.g. chemicals, radioactive materials and biohazards)*	☐	☐		
5.	*Any other licences relating to telecommunication equipment (e.g. roof masts)*	☐	☐		
6..	*Passenger/goods lift test certificate records*	☐	☐		
7.	*Fume cupboard/fume hood test (Design, installation and commissioning certificates)*	☐	☐		
8..	*Specialist ventilation/extraction systems ((Design, installation and commissioning certificates)*	☐	☐		
9..	*Pressure Vessels Written Scheme & Risk Assessments*	☐	☐		
10.	*Lifting equipment test certificate records*	☐	☐		
11..	*Any special waste licence conditions & records*	☐	☐		
12.	*Any specific Authorisations, consents and licence conditions*	☐	☐		

5.	**CLEANING/GENERAL MAINTENANCE**				
	Description	**Yes**	**N/a**	**Duty Holder**	**Date closed off**
1.	*Maintenance and access manual*	☐	☐		
2.	*Hand driers test results*	☐	☐		
3	*Toilet paper/soap dispensers installation records*	☐	☐		
4	*Schedule of consumables provided*	☐	☐		
5.	*Window cleaning Written Scheme & Risk Assessments*	☐	☐		
6.	*Specialist cleaning plant and equipment provision*	☐	☐		

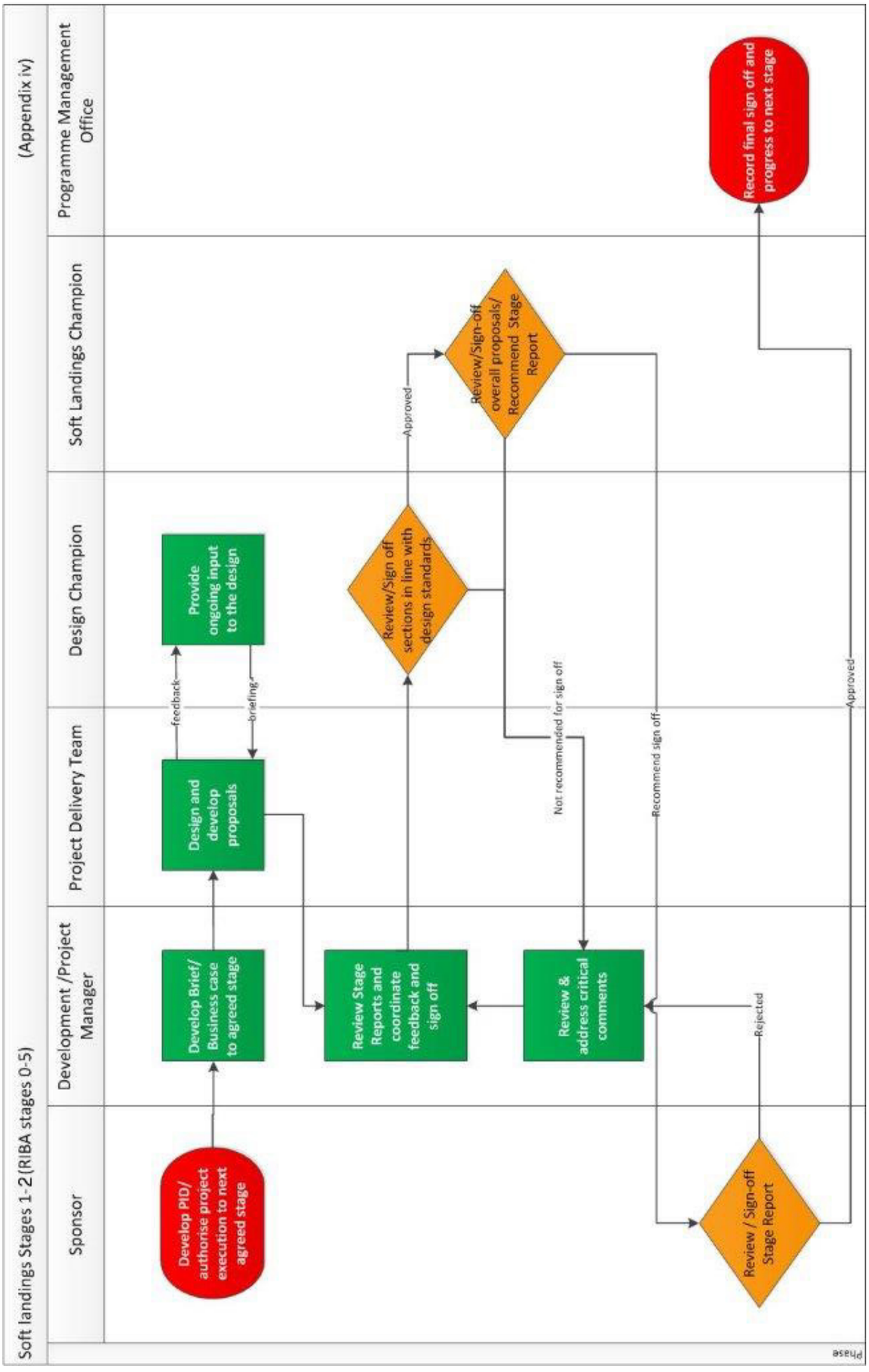
6.	**Residual Risks**	**Controls/Actions Required**
Please provide information where there is a residual risk to building users or maintenance staff that has not been covered in the above checklist		
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

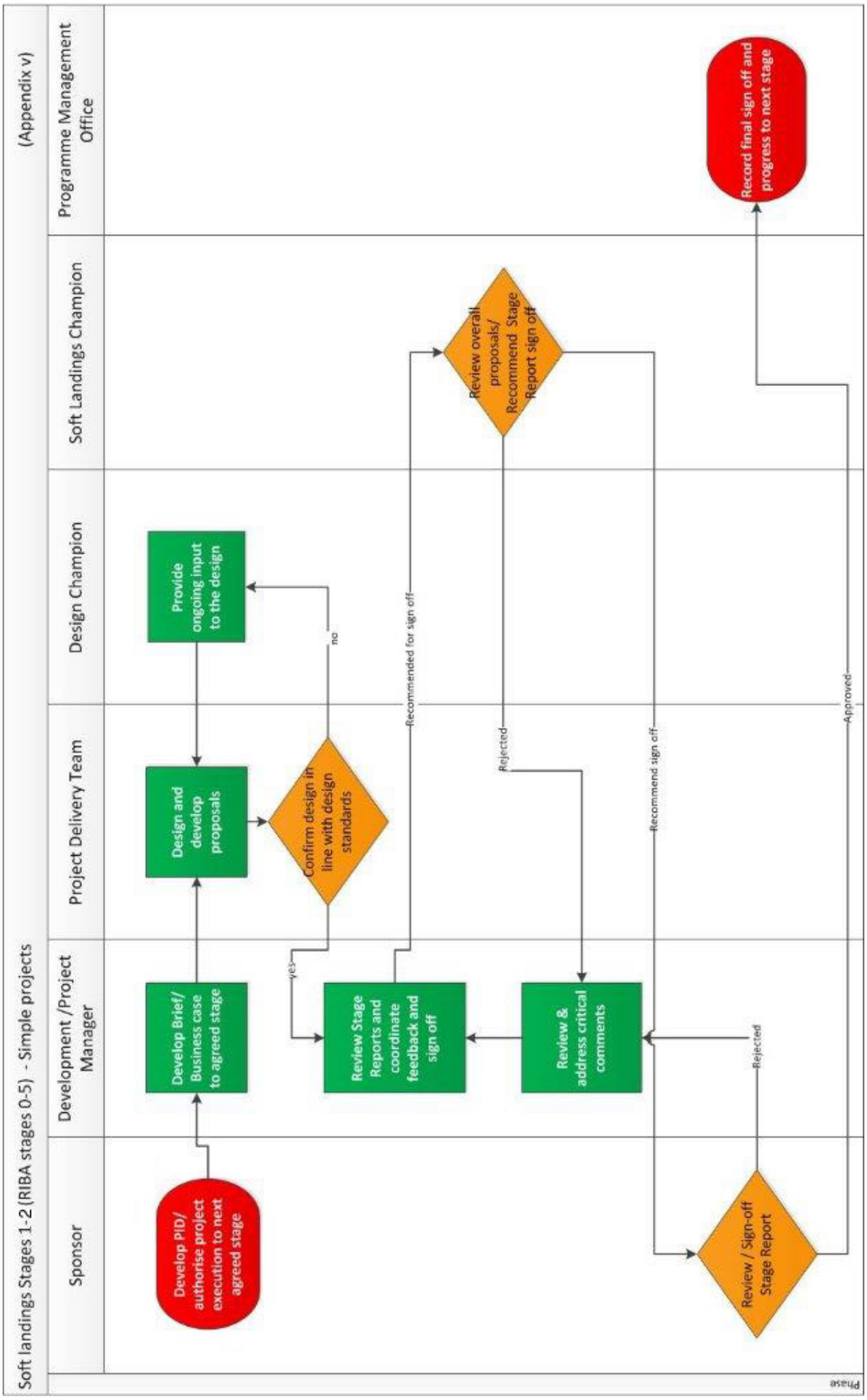
10.		
11.		
12.		
13.		

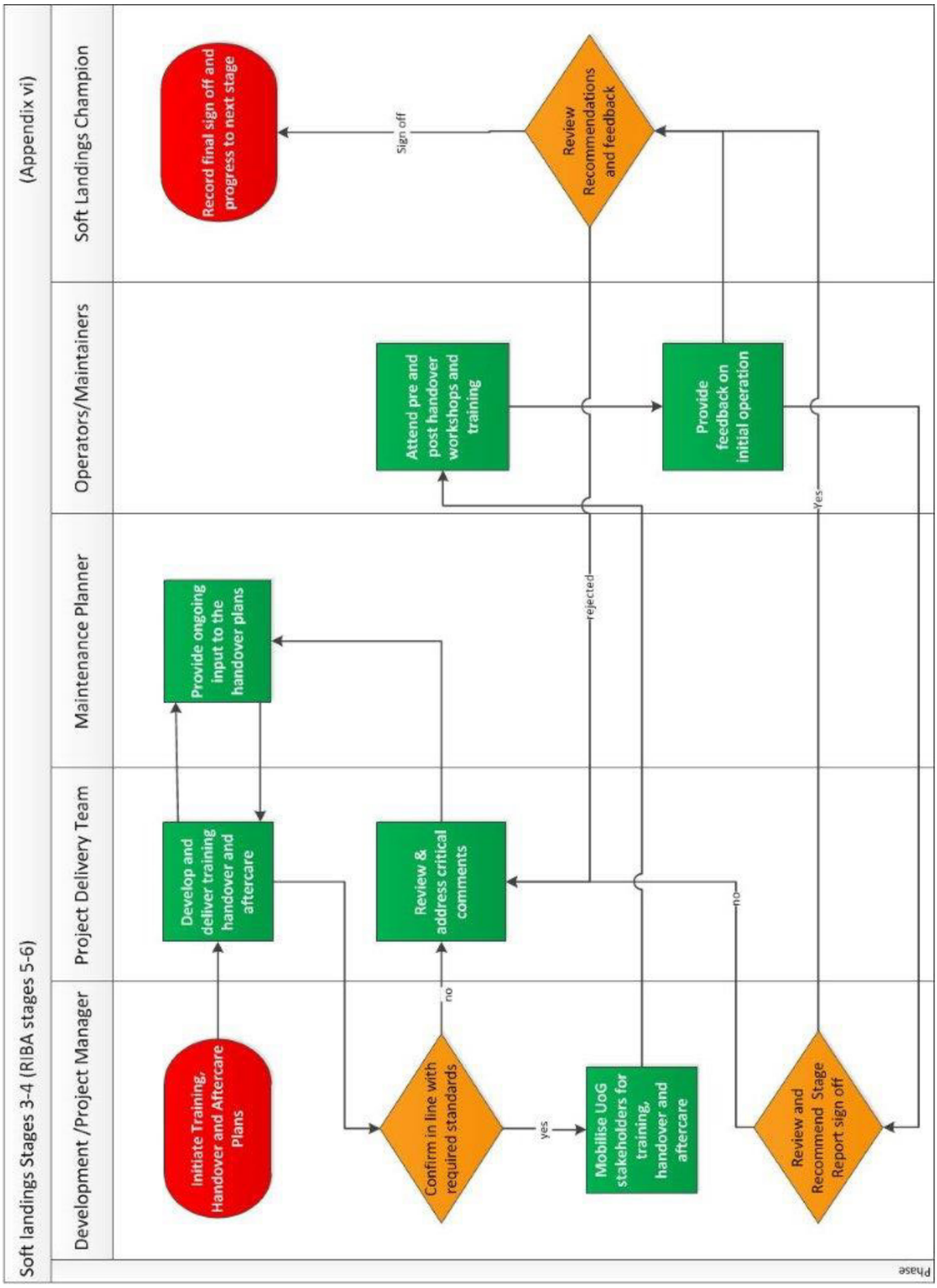
7.	**Sign off**	
The contents of this Project Handover Checklist are hereby endorsed by the Project Team as set out in this handover document:		
Project Team member (Name)	Signature (to be signed conirming all handover items are closed to an acceptable level)	*DATE*
	.....	*DATE*
	.....	*DATE*
	.....	*DATE*
	.....	*DATE*
	.....	*DATE*
	.....	*DATE*
	.....	*DATE*
	.....	*DATE*

Key to the notation of duty holder in the Handover checklist

C=Contractor
D=Designer/Architect
UoG (University of Glasgow) PM=Project Manager







Notes

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