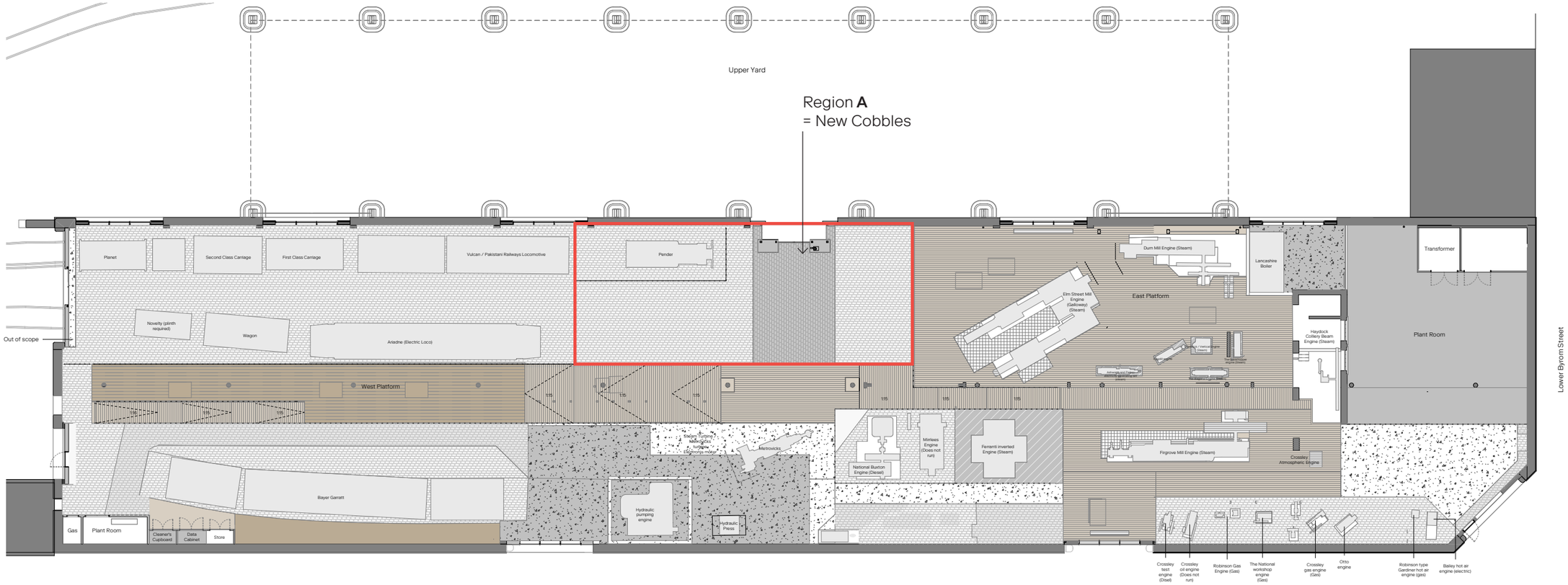
CARMODY GROARKE

Power Hall and Decarbonisation Science and Industry Museum

10th July 2024
Cobbles Strategy - Entrance

Floor Finish Proposal - Approved Option



= Location of proposed cobble replacement

Overview

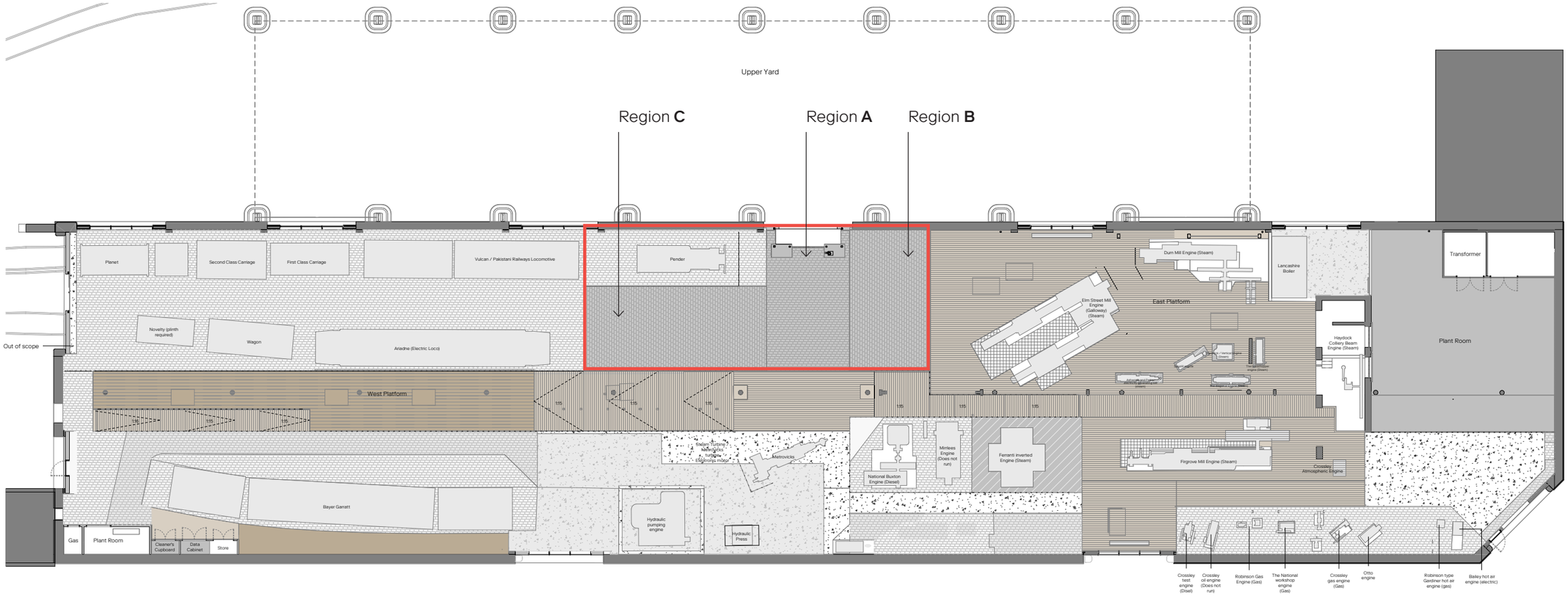
*Total Area Cobbles in Powerhall : approx **975sqm**

Total Loss of original cobbles (Region A) **: 56sqm**

Total remaining % of original cobbles in Powerhall =**94%**

The above layout was approved as part of **LBC 137397/ LO/2023** consent

Floor Finish Proposal - Proposed Option



= Location of proposed cobble replacement

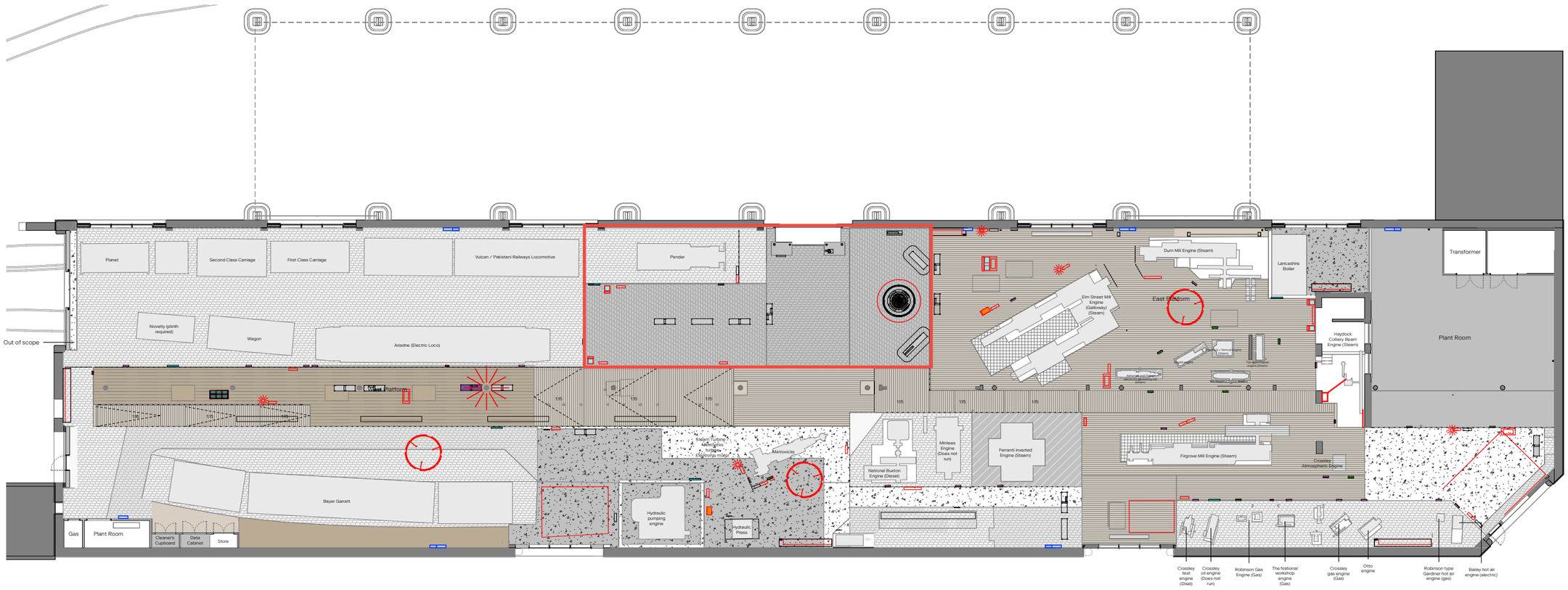
Overview

*Total Area Cobbles : approx **975sqm**

Total Loss of original cobbles **: 56sqm**
(Region A) **+ 59sqm** (Region B) **+ 80sqm**
(Region C) **= 195sqm**

Total remaining % of original cobbles in Powerhall = **80%**

Floor Finish Proposal - Exhibition Layout



= Location of proposed cobble replacement

SECTION SIGN

SECTION PANEL

LARGE SCALE IMAGE

FREE STANDING LARGE SCALE IMAGE

CONTEMPORARY PERSON STORY

SUB-SECTION PANEL, IMAGE + 2 X HISTORIC PERSON STORY

SUB-SECTION PANEL, IMAGE + HISTORIC PERSON STORY

SUB-SECTION PANEL, AV ONLY (NO IMAGE)

SUB-SECTION PANEL, IMAGE ONLY

SUB-SECTION PANEL, IMAGE + AV + HISTORIC PERSON STORY

SUB-SECTION PANEL, IMAGE + AV

ENGINE LABEL, BALUSTRADE MOUNTED

ENGINE LABEL + IMAGE, BALUSTRADE MOUNTED

ENGINE LABEL + TACTILE ILLUSTRATION / INTERACTIVE, BALUSTRADE MOUNTED

ENGINE LABEL, FLOOR MOUNTED (TIED TO DECK / SET WORKS)

AV LABEL, BALUSTRADE MOUNTED

INTERACTIVE LABEL, FREE STANDING

OBJECT CASE

ILLUMINATED DRAWING / INTERACTIVE

SLOPED INTERACTIVE AV TOUCH SCREEN

BENCH + SIT AND PAUSE PROMPT

BENCH

BENCH + ARM REST

BENCH + ARM REST

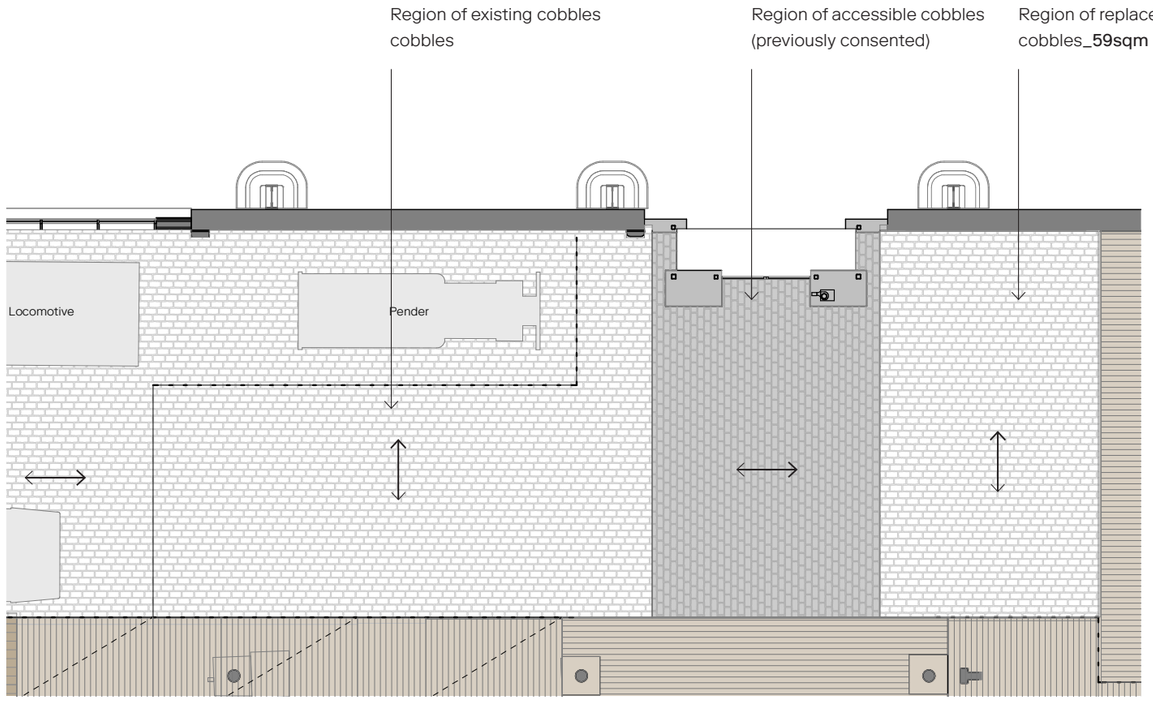
ATMOSPHERIC AUDIO / CONTEMPORARY PERSON STORY ACCOMPANYING AUDIO

INTERACTIVE AREAS

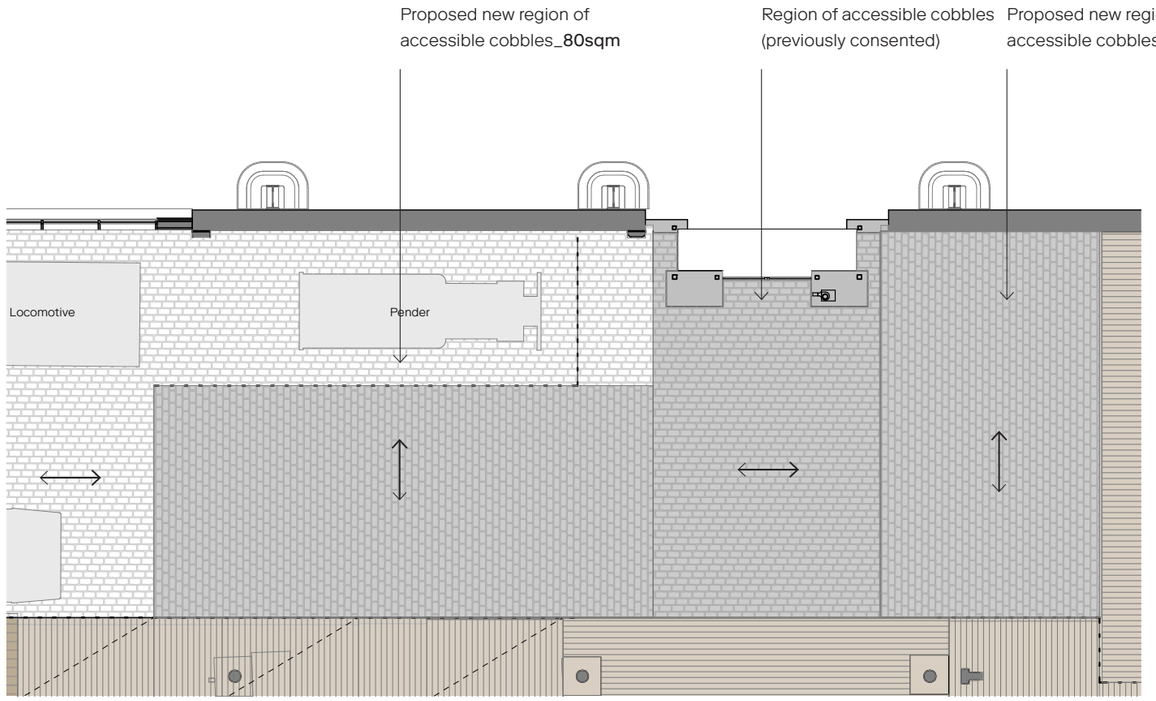
SIT AND PAUSE AREAS

WALL MOUNTED SERVICE PANELS

Entrance Cobble Proposal



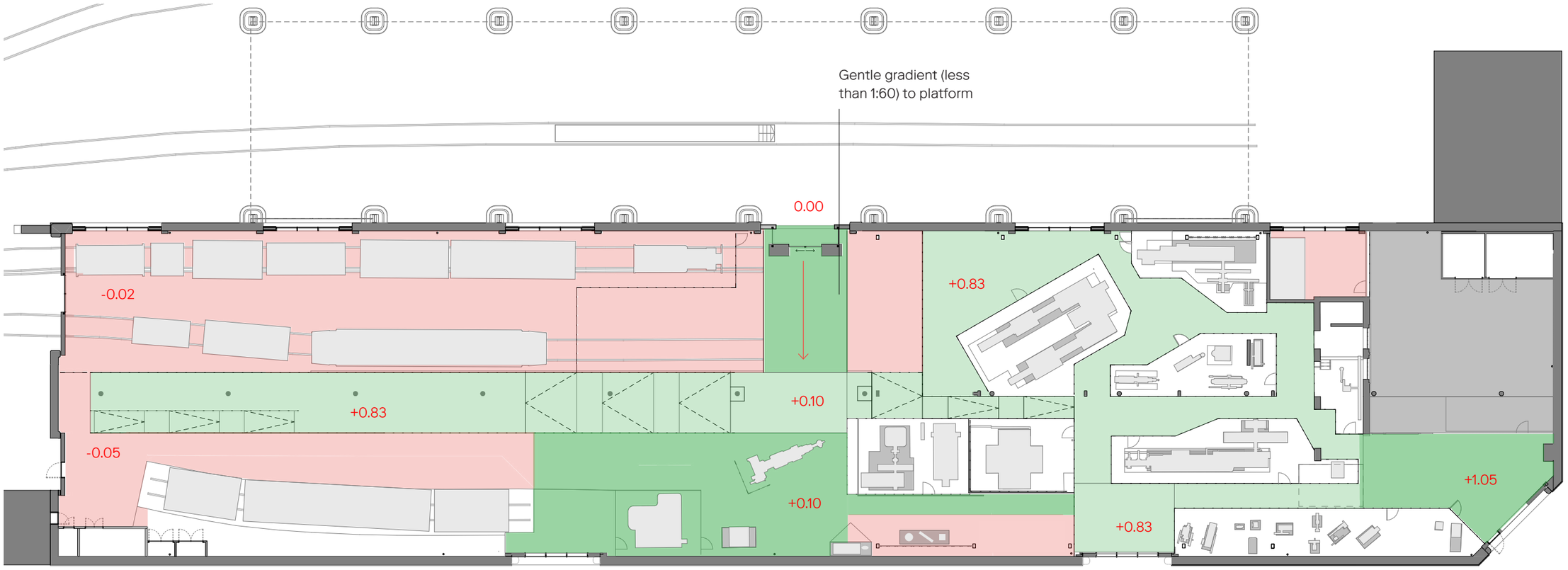
Approved as part of **LBC 137397/LO/2023** consent



Proposed Layout

⟷ = cobble direction

Accessibility Overview



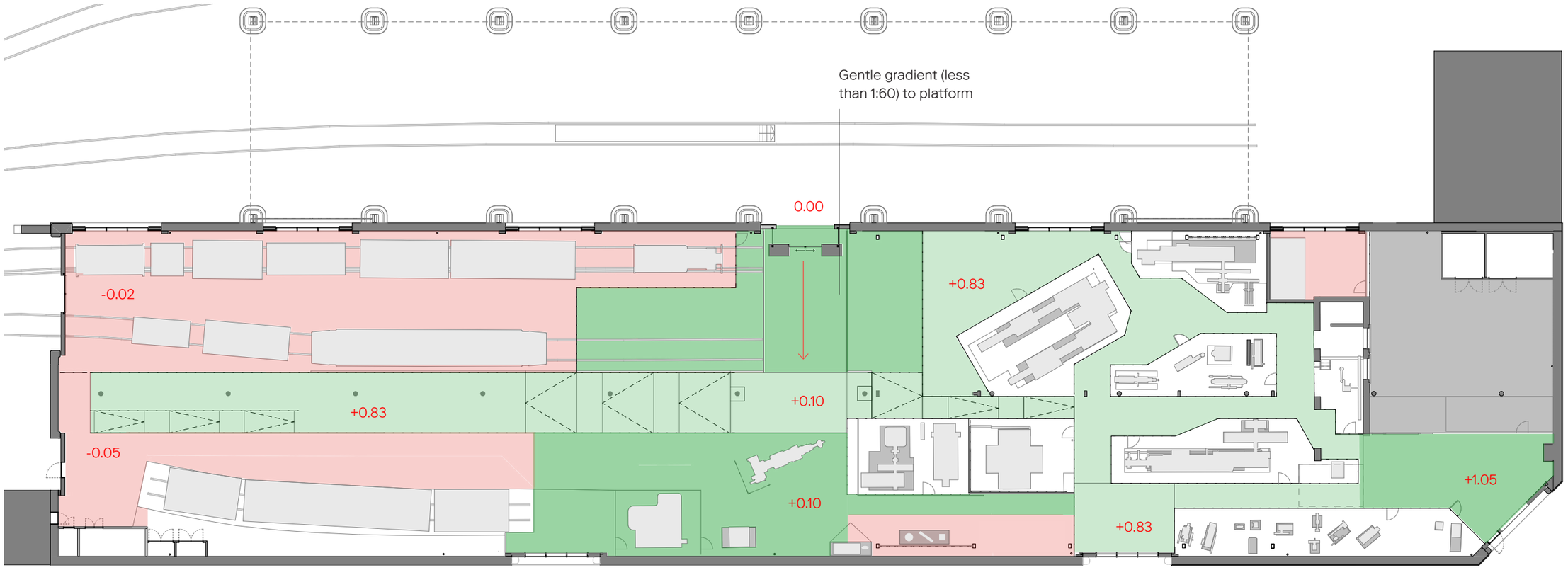
Approved Flooring Strategy
The introduction of a central public entrance from the Upper Yard simplifies the previously complex negotiation of levels and associated complex visitor circulation.

Rationalisation of the floor finishes within the Powerhall has resulted in a more coherent circulation route leading from the main entrance (located centrally to the North of the plan) around the museum collection. The design proposals aim to balance the heritage value of the existing cobbled floor with the need for the museum to improve accessibility, and provide a coherent route and interpretation of the collection for visitors.

Key

- Accessible Platform
- Accessible Floor Surface
- Limited accessibility due to floor finish

Proposed Accessibility Overview



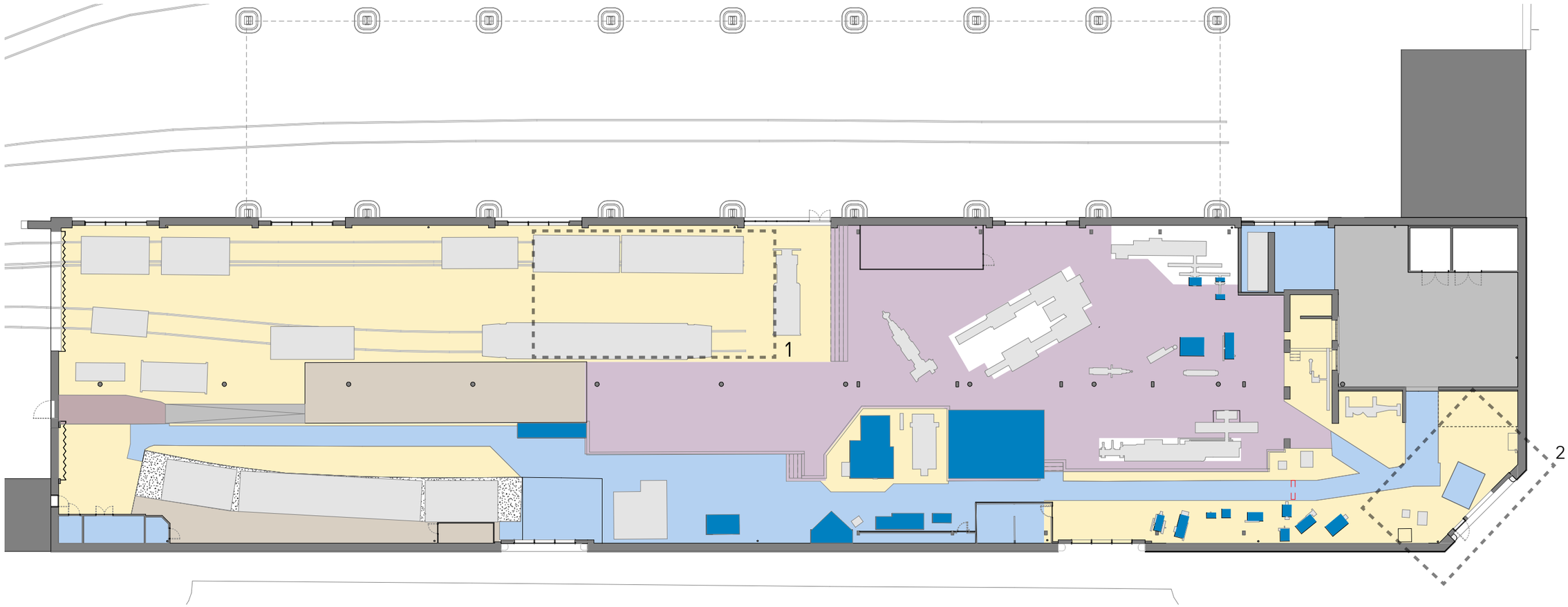
Proposed Flooring Strategy
The development of the Interpretative Design proposal subsequent to the **137397/LO1/2023** listed building consent highlighted that there are key areas of the exhibition design that remain inaccessible to some due to the presence of historic cobbles to the east and west of the entrance.

As it is a museum building, with exhibitions open and accessible to the general public the museum group have requested that these areas are included in the overall accessible flooring strategy. These two areas play a critical role in the experience of the museum visitor as they are located at the entrance of the museum and are therefore the 1st interface that the public has with the collection. It is therefore proposed that a section of existing cobbles to the west of the entrance (80sqm) are replaced by new granite cobbles which provide an accessible surface for the public. Similarly to the east of the entrance where there is an existing concrete slab it is proposed that new granite cobbles (59sqm) are located in this region in order to make the area accessible to visitors. Both areas are intended to be used for the interpretation and discovery of the museum collection.

Key

- Accessible Platform
- Accessible Floor Surface
- Limited accessibility due to floor finish

Existing Floor Finish



Key

- Existing Cobbles
- Tarmac
- Rubberised flooring
- Timber Platform
- Concrete
- Gravel / Ballast
- Collection item plinth
- Existing Structure

The existing floor finish in Power Hall is comprised of a mixture of historic cobbles, tarmac, raw concrete, painted concrete, tactile rubber floor and the timber platform.

Throughout the design process to date, the strategy for the floor finishes has been to improve accessibility where possible, with more level / smoother surfaces and creating a coherent visual image, which gives clarity to the proposed circulation routes. This approach has been developed against a consideration of heritage constraints, budget constraints and the need to improve the visitor experience.

Existing cobble region 1 & 2
It should be noted that the quality of finish to existing cobbles varies throughout Power Hall. In region 1 as indicated above, the existing cobbles are extremely uneven and there are significant undulations in the quality of the floor finish. In region 2 the surface is much better, the cobbles are smaller and the surface does not undulate as significantly.

Different Cobble Types in Powerhall



Region 1
Large existing cobbles, uneven surface and significant undulations.



Region 2
Small existing cobbles, more uniform surface.

Precedent

Stortoget Square in Sweden by Caruso StJohn embraces a variety of cobble types and uses the difference between the cobbled surfaces to map out routes and differentiate between areas of the large town square

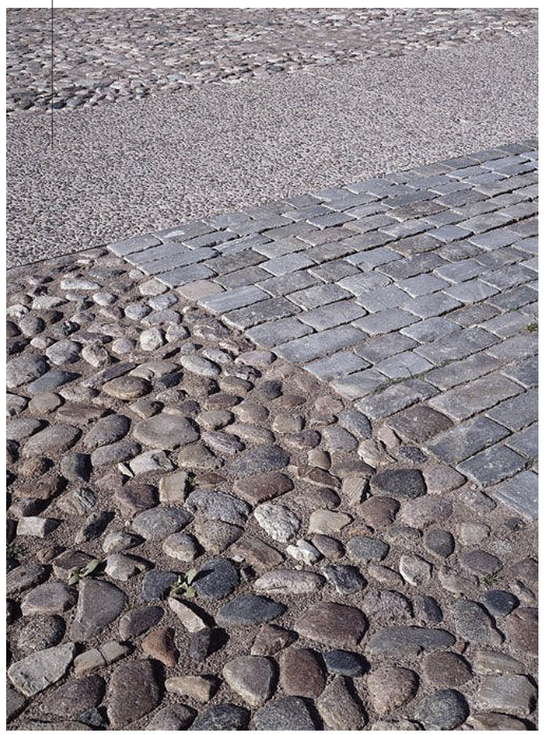


Stortoget Square, Caruso StJohn

Clearly defined walkways



Difference in cobble shape, colour and size is used to differentiate visually between accessible & inaccessible areas



Previously Considered Options for Flooring



1. Split and relay existing cobbles from Power Hall (existing image)

Con:
- Highly labour intensive process and therefore high cost solution.
-Risk that this process would not be accessible as there is no guarantee that the cobbles can be split evenly

Pro :
- Low supply cost, through utilising existing materials on site.
- Low carbon solution, utilising reclaimed stock.



2. Relay existing cobbles from Power Hall and plane surface

Con:
- Large areas of grout due to unevenness of cobbles
-Challenge to lay cobbles evenly
-Large machinery required to plane cobbles cannot reach perimeter of interior cobbles due to size of machinery

Pro:
- Accessible
- Low supply cost, through utilising existing materials on site.
- Positive from heritage / planning perspective.
- Low carbon solution, utilising reclaimed stock.



3. Reclaimed Granite Sets

Con:
- Labour intensive installation.
- Additional cost to supply new sets.
- Inefficient, as existing sets not being utilised.
-Risk that reclaimed setts do not meet accessibility requirements

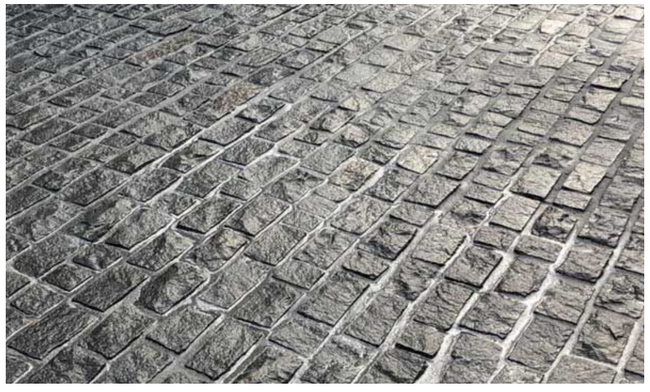
Pro:
- Opportunity to target procurement of cobble sets with flat surface and therefore provide improved accessibility.
- Low carbon solution, utilising reclaimed stock.



4. Reclaimed Grit Stone Sets.

Con:
- Labour intensive installation.
- Additional cost to supply new sets.
- May not be acceptable from a heritage / planning perspective as there are currently no precedents for Grit Stone cobble sets within Power Hall.
-Risk that reclaimed setts do not meet accessibility requirements

Pro:
- Opportunity to target procurement of cobble sets with flat surface and therefore provide improved accessibility.
- Low carbon solution, utilising reclaimed stock.



5. New Granite Sets

Con:
- Labour intensive installation
- High carbon solution, utilising new stock.

Pro:
- Opportunity to target procurement of cobble sets with a honed finish to provide a more accessible surface.



6. York Stone Slab

Con:
- Not considered to be appropriate from a heritage / planning perspective as there are currently no precedents for York stone paving within Power Hall or Upper Yard.
- High carbon solution, if utilising new stock.
- Visual coherence to floor finishes would be less successful, introducing another different floor surface.

Pro:
- Economy of installation, lower installation cost anticipated.

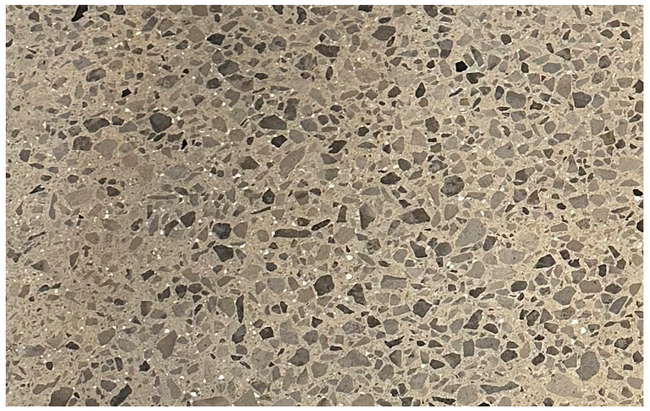
Previously Considered Options for Flooring



7. Timber to match specification of new timber platform

Con:
-Lower slip rating than cobbled surface which may be problematic given proximity to entrance
-Introduction of new material language to entrance - inconsistent with original floor surface material in Powerhall (i.e cobbles in this location)
-Extension of timber platform to new area of timber flooring- inconsistent with original platform layout in Powerhall
-Confuses design logic i.e central viewing platform that runs from east to west of Powerhall

Pro :
-Retention of historic cobbles below timber platform
-Accessible surface



8. Post worked concrete finish to match new concrete elsewhere in Powerhall

Con:
- Introduction of new material language to entrance - inconsistent with original floor surface material in Powerhall (i.e cobbles in this location)
-Loss of existing cobbles

Pro:
-Accessible surface
-Consistent with regions of concrete flooring elsewhere in Powerhall
-Economical solution

Approved & Proposed Flooring



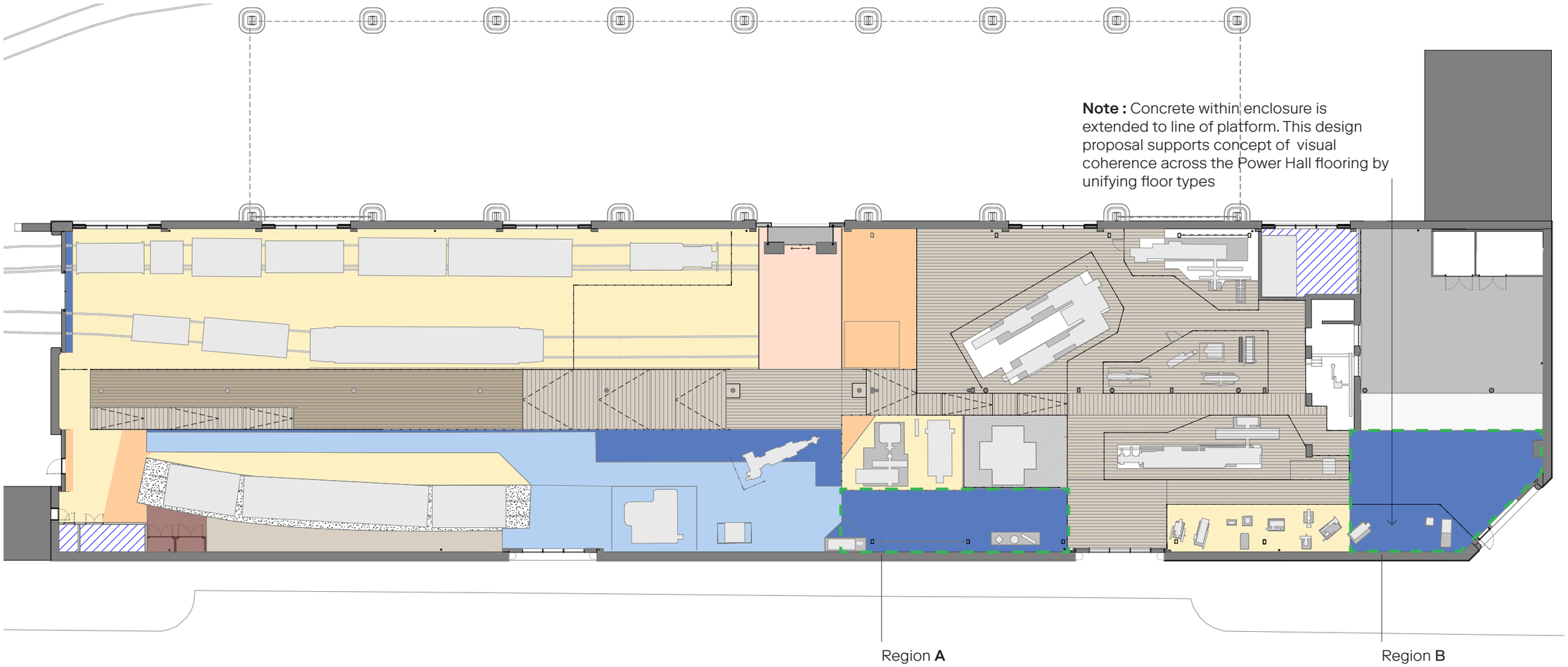
Approved (Stage 04)
Basalt Setts
Cropped sides & flamed finish basalt setts



Proposed (for Regions B&C)
Granite Cobbles
Mixed colour granite cobbles to create a gentle gradation into existing cobbles

Addendum
Previous Floor Layouts

Floor Finish Proposal - Post Stage 03



Overview

Floor finish in region A & B is shown as concrete in order to improve accessibility across the Powerhall.

Total Area Cobbles in Powerhall : approx. **975sqm**

Area (Region A+B) : **170sqm**

Total loss of cobbles in comparison to S3 proposal : **170sqm**

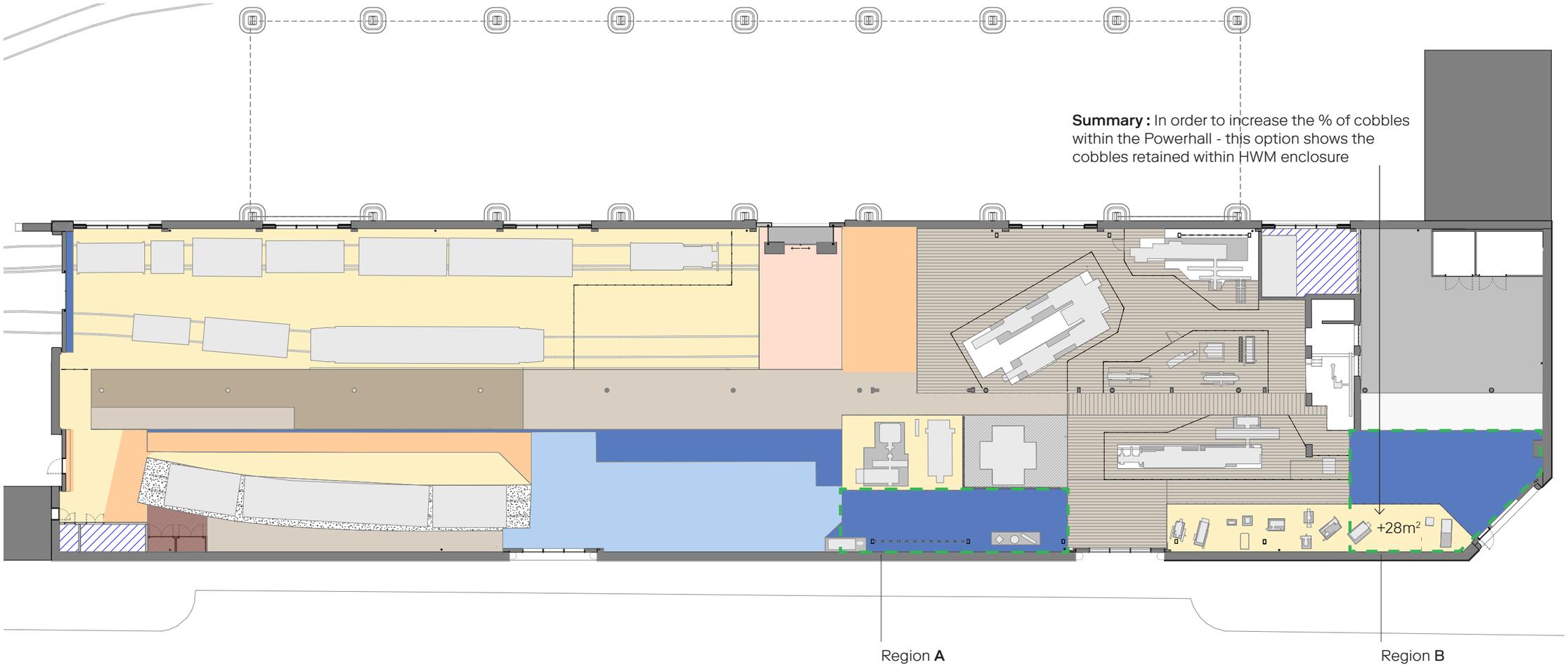
% of cobbles in Powerhall post S3 Client Feedback : 83%

The above plan was discussed with Manchester City Council on site on the 01.06.23. This plan responds to client feedback specifically in relation to the areas on the plan labelled Region A & Region B.

Key

- **FF.09**_New Concrete (Scabbled Finish)
- Existing Concrete (Scabbled Finish)
- Existing Cobbles
- **FF.06**_Reinstated / Relocated Cobbles
- **FF.06**_New Cobbles
- Plant Room Platform Finish *see G-20 series
- Collection item plinth
- New Gravel / Ballast
- **FF.01**_Timber Platform (Historic Timber)
- **FF.02**_Timber Platform & Ramp
- **FF.05**_Timber Platform with Ply covering
- Masonry paint finish to new concrete
- Vinyl flooring

Floor Finish Proposal - Revised Option 01



Summary : In order to increase the % of cobbles within the Powerhall - this option shows the cobbles retained within HWM enclosure

Overview

*Total Area Cobbles : approx **975sqm**

Area (Region A+B) : **170sqm**

Total Loss of cobbles **: 142sqm**

Total % of cobbles in Powerhall - Option 01 : 85%

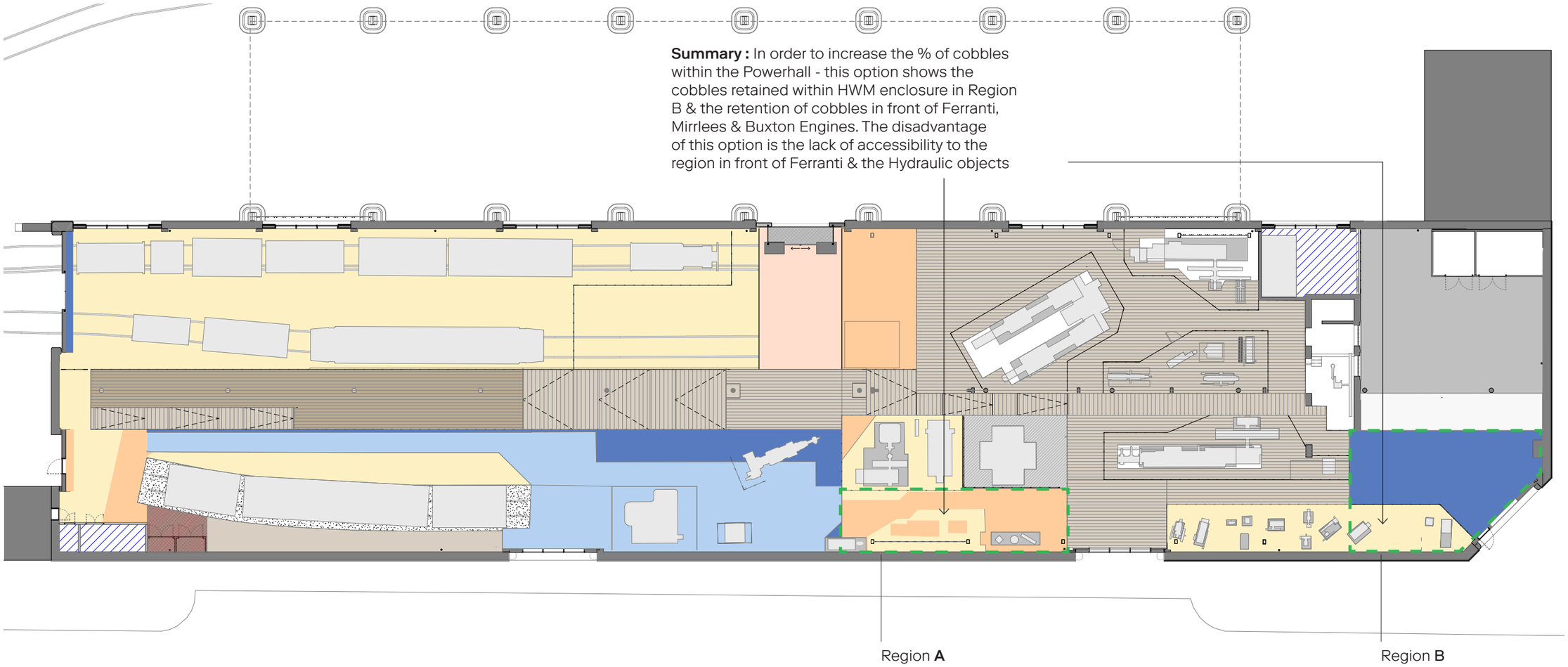
The above plan was presented to Manchester City Council post site visit 01.06.23. It responds to MCC feedback that the % loss of cobbles was too high in the proposed post Stage 03 plan (see page 15)

Key

- **FF.09**_New Concrete (Scabbled Finish)
- Existing Concrete (Scabbled Finish)
- Existing Cobbles
- **FF.06**_Reinstated / Relocated Cobbles
- **FF.06**_New Cobbles
- Plant Room Platform Finish *see G-20 series
- Collection item plinth
- New Gravel / Ballast
- **FF.01**_Timber Platform (Historic Timber)
- **FF.02**_Timber Platform & Ramp
- **FF.05**_Timber Platform with Ply covering
- Masonry paint finish to new concrete
- Vinyl flooring

Floor Finish Proposal - Revised Option 02

Summary : In order to increase the % of cobbles within the Powerhall - this option shows the cobbles retained within HWM enclosure in Region B & the retention of cobbles in front of Ferranti, Mirrlees & Buxton Engines. The disadvantage of this option is the lack of accessibility to the region in front of Ferranti & the Hydraulic objects



Overview

*Total Area Cobbles : approx **975sqm**

Area (Region A+B) : **170sqm**

Total Loss of cobbles **: 75sqm**

Total % of cobbles in Powerhall - Option 02 : 92%

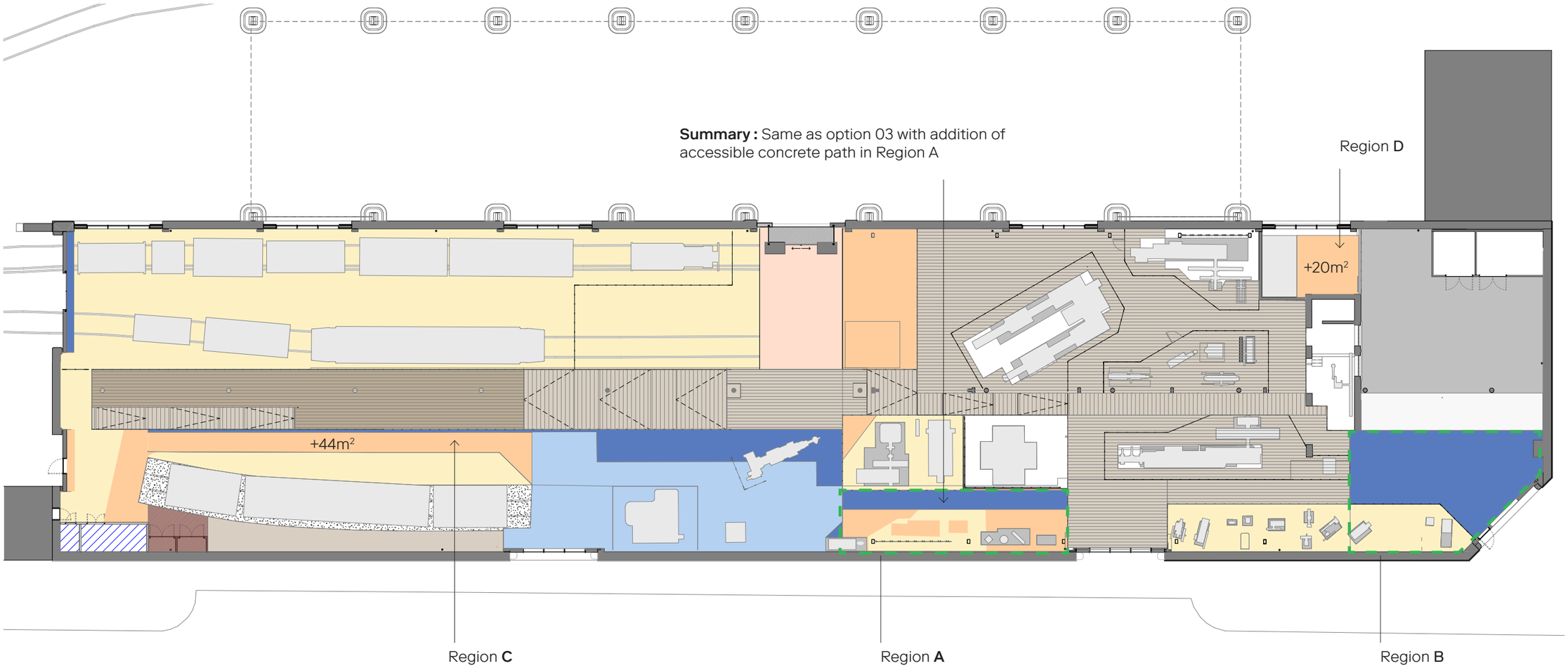
The above plan was presented to Manchester City Council post site visit 01.06.23. It responds to MCC feedback that the % loss of cobbles was too high in the proposed post Stage 03 plan (see page 15)

Key

- **FF.09**_New Concrete (Scabbled Finish)
- Existing Concrete (Scabbled Finish)
- Existing Cobbles
- **FF.06**_Reinstated / Relocated Cobbles
- **FF.06**_New Cobbles
- Plant Room Platform Finish *see G-20 series
- Collection item plinth
- New Gravel / Ballast
- **FF.01**_Timber Platform (Historic Timber)
- **FF.02**_Timber Platform & Ramp
- **FF.05**_Timber Platform with Ply covering
- Masonry paint finish to new concrete
- Vinyl flooring

Floor Finish Proposal - Revised Option 03

Summary : Same as option 03 with addition of accessible concrete path in Region A



Overview

*Total Area Cobbles : approx **975sqm**

Area (Region A+B) : **170sqm**

Total Loss of cobbles **: 36sqm**

Total % of cobbles in Powerhall - Option 04 : 97%

The above plan was presented to Manchester City Council post site visit 01.06.23. It responds to MCC feedback that the % loss of cobbles was too high in the proposed post Stage 03 plan (see page 15)

Key

- **FF.09**_New Concrete (Scabbled Finish)
- Existing Concrete (Scabbled Finish)
- Existing Cobbles
- **FF.06**_Reinstated / Relocated Cobbles
- **FF.06**_New Cobbles
- Plant Room Platform Finish *see G-20 series
- Collection item plinth
- New Gravel / Ballast
- **FF.01_**Timber Platform (Historic Timber)
- **FF.02_**Timber Platform & Ramp
- **FF.05**_Timber Platform with Ply covering
- Masonry paint finish to new concrete
- Vinyl flooring