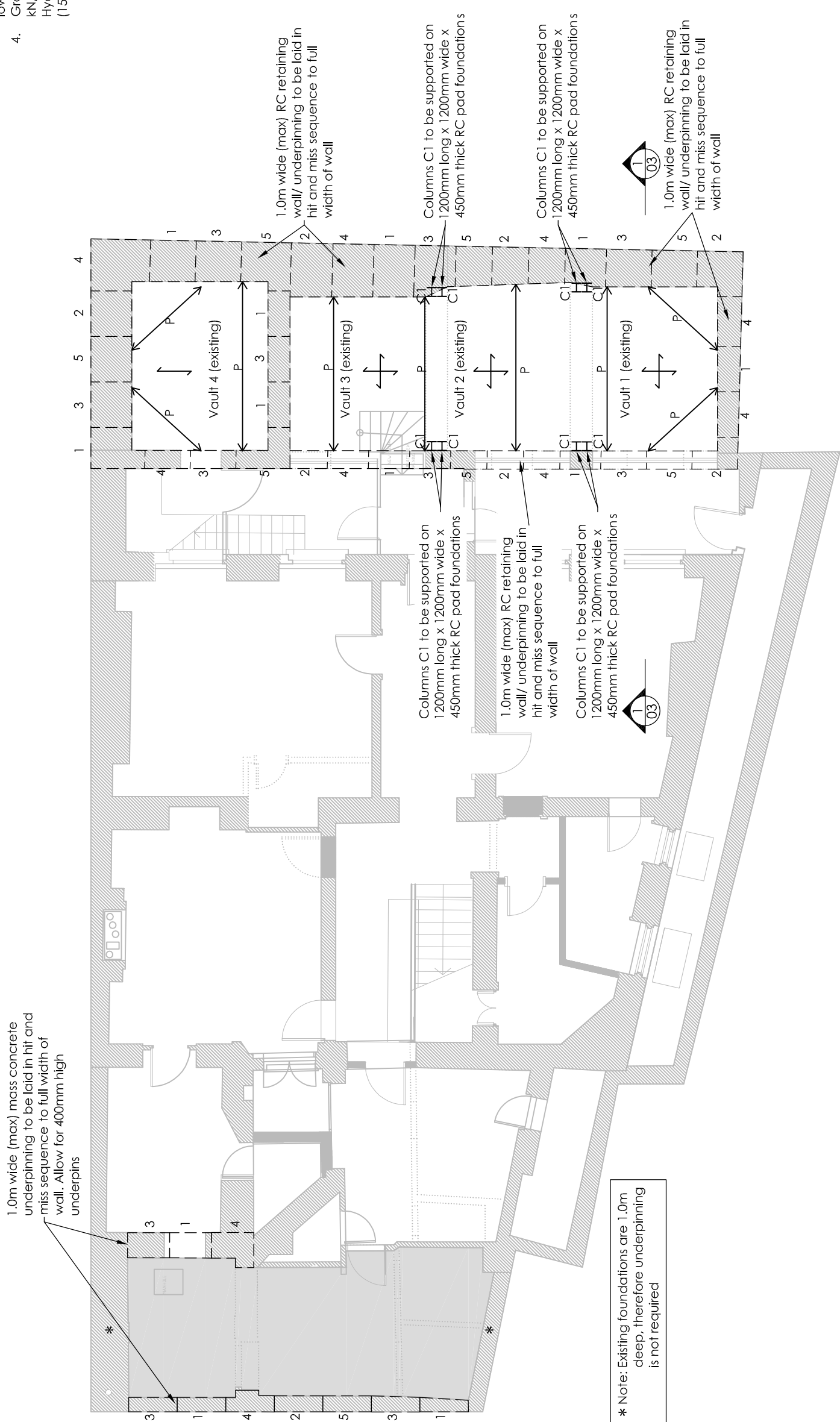


Notes:

1. Temporary propping works designed by contractor to be approved by Structural Engineer.
2. Existing FFL (Vault 1, 2 & 3) to be lowered by 1450mm approx.
3. Existing FFL Vault 4 to be lowered by 1.0m approx.
4. Ground bearing pressure = 200 kN/m². Refer to Soils Limited Hydrology and Geology report (15616/BIA).



* Note: Existing foundations are 1.0m deep, therefore underpinning is not required

Notes:
 1. This Drawing is to be read in conjunction with all relevant Architect's Engineer's and specialist's drawings and specifications.
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Legend:

- Proposed 250mm RC suspended slab
- Proposed 250mm RC suspended slab
- Existing FFL to be lowered by 370mm approx.

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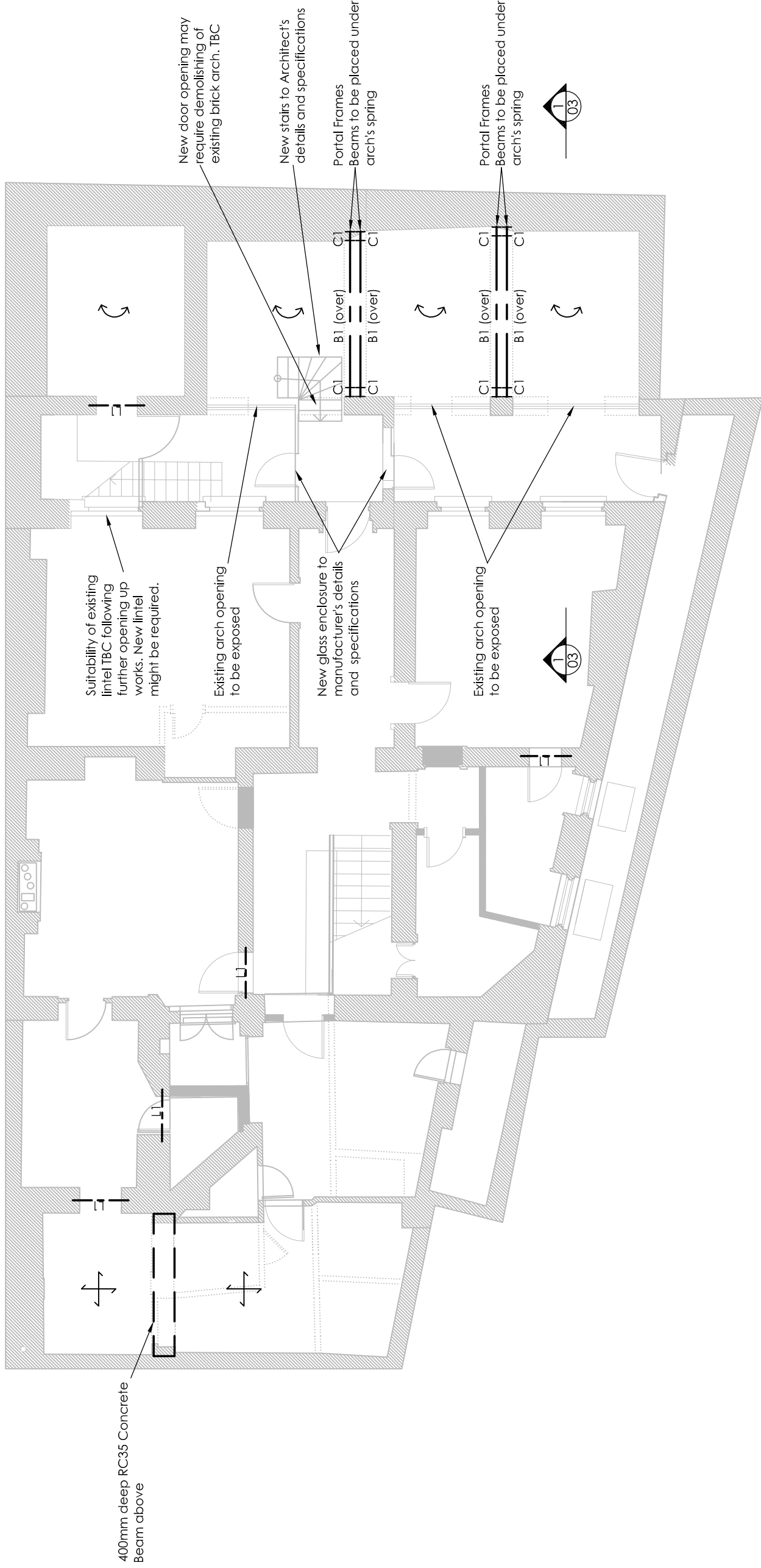
Proposed lateral propping during works
 Partial Frames: Columns C1 - 203x203x52 UC

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FOUNDATION PLAN
 GENERAL ARRANGEMENT

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Drawing No	16003/01	Rev	1
Drawn	JP	Eng	PCh
Scales			1:100@A3



400mm deep RC35 Concrete Beam above

Suitability of existing lintel TBC following further opening up works. New lintel might be required.

Existing arch opening to be exposed

New glass enclosure to manufacturer's details and specifications

Existing arch opening to be exposed

New door opening may require demolishing of existing brick arch. TBC

New stairs to Architect's details and specifications

Portal Frames B1 (over) Beams to be placed under arch's spring

Portal Frames B1 (over) Beams to be placed under arch's spring

- Notes:**
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- Legend:**
- ↻ Denotes Arch
 - Denotes new brickwork to match existing

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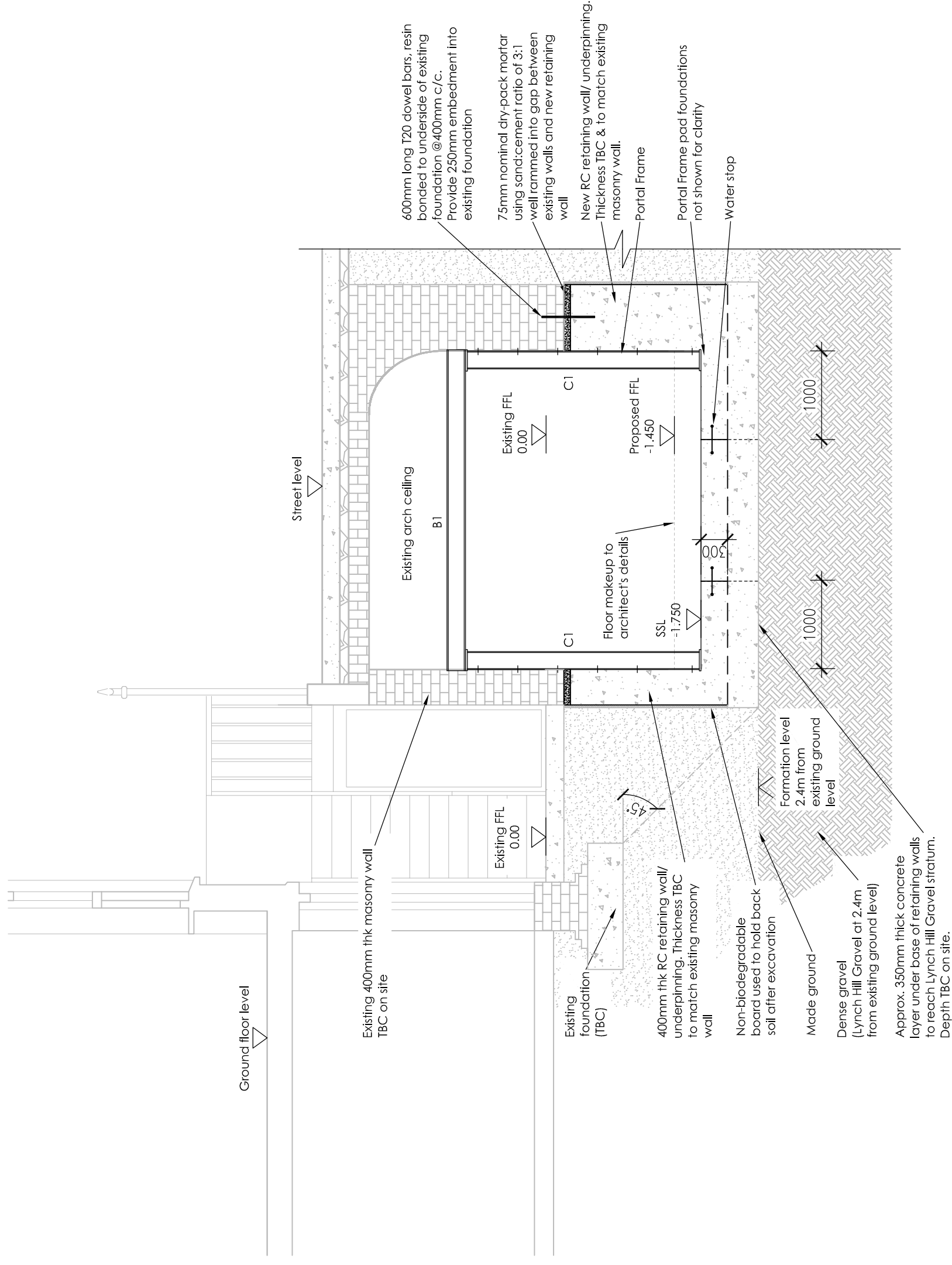
L1 - Hi-Spec Range R6 (100w x 145dp) Naylor Concrete Lintel (or similar approved) No. to suit wall width. Provide min. 150mm end bearing for precast lintels.
 Portal Frames: Beams B1 - 203x203x60 UC
 Columns C1 - 203x203x52 UC

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LOWER GROUND FLOOR PLAN
 GENERAL ARRANGEMENT

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Drawing No	16003/02	Rev	1
Drawn	JP	Eng	PCh
Scales			1:100@A3



600mm long T20 dowel bars, resin bonded to underside of existing foundation @400mm c/c. Provide 250mm embedment into existing foundation

75mm nominal dry-pack mortar using sand:cement ratio of 3:1 well rammed into gap between existing walls and new retaining wall

New RC retaining wall/ underpinning. Thickness TBC & to match existing masonry wall.

Portal Frame

Portal Frame pad foundations not shown for clarity

Water stop

Street level

Existing arch ceiling B1

Existing FFL 0.00

Proposed FFL -1.450

Floor makeup to architect's details

SSL -1.750

Formation level 2.4m from existing ground level

Dense gravel (Lynch Hill Gravel at 2.4m from existing ground level)

Approx. 350mm thick concrete layer under base of retaining walls to reach Lynch Hill Gravel stratum. Depth TBC on site.

Existing 400mm thk masonry wall TBC on site

Existing FFL 0.00

Existing foundation (TBC)

400mm thk RC retaining wall/ underpinning. Thickness TBC to match existing masonry wall

Non-biodegradable board used to hold back soil after excavation

Made ground

Ground floor level

- Notes:**
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Legend:
 Portal Frames: Beams B1 - 203x203x60 UC
 Columns C1 - 203x203x52 UC

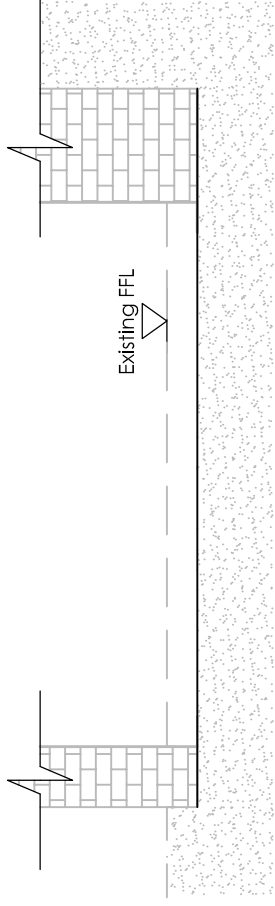
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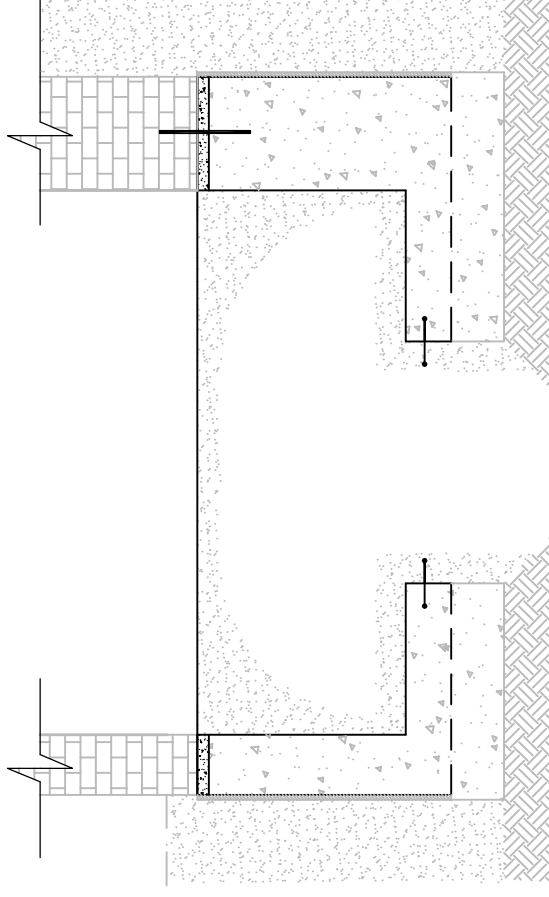
SECTION A-A

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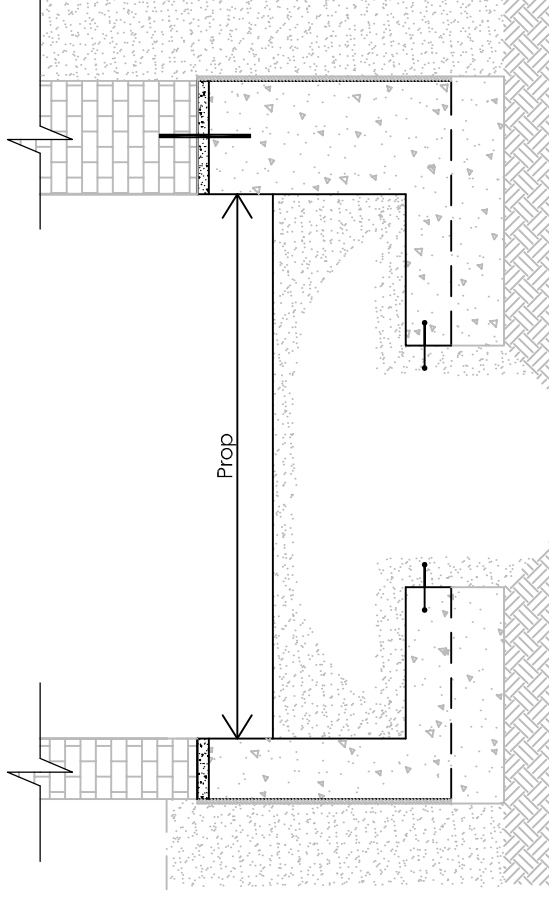
Drawing No	16003/03	Rev	1
Drawn	JP	Eng	PCh
Scales			1:50@A3



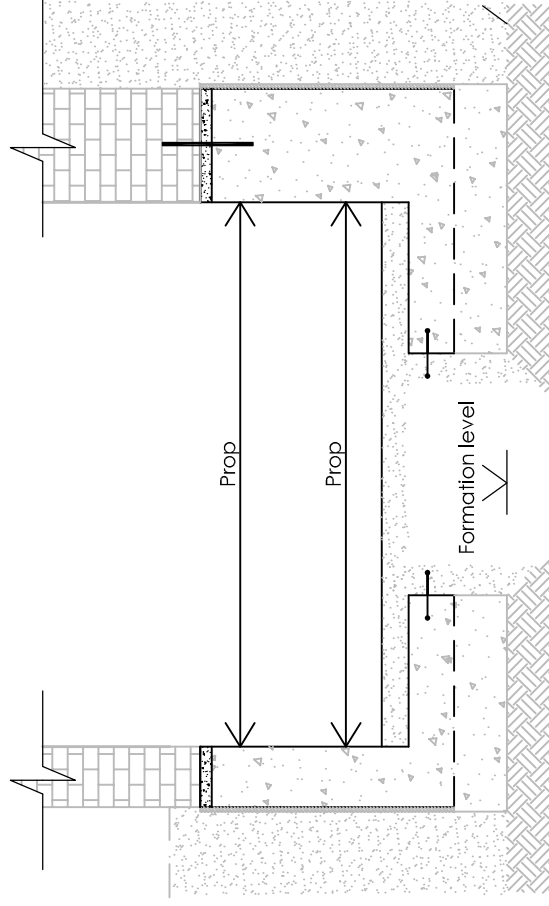
1. Excavate down approx. 200mm above foundation level.
2. Break out and remove existing vault's floor.



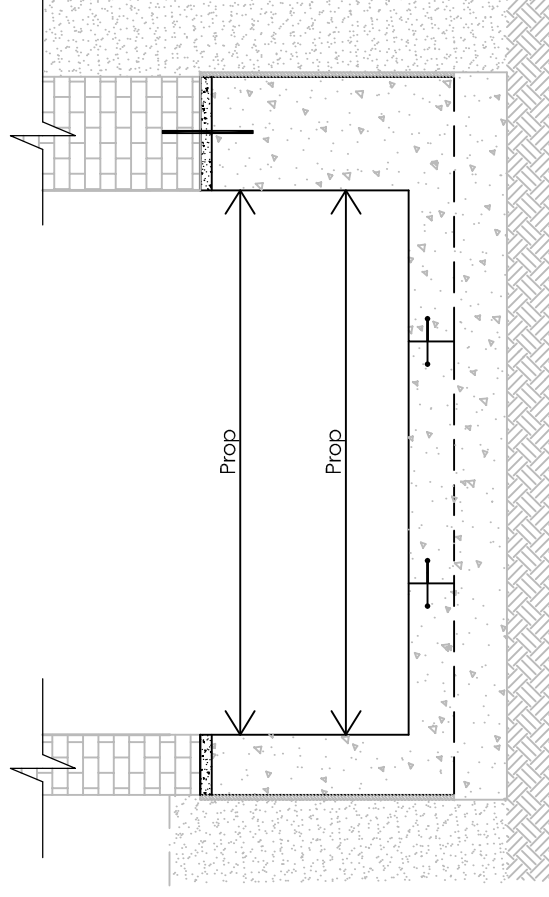
3. Excavate underpins in sequenced bays 1.0m wide (max). Non-biodegradable boards to be used to hold back soil after excavation. Insert the rear shutter of non-biodegradable board.
4. Cast approx. 350mm thick concrete layer under base of retaining wall to reach Lynch Hill Gravel stratum.
5. Place reinforcement, dowel bars and water stops. Erect formwork with a "letterbox" at the top. Front formwork to be propped against the undisturbed soil.
6. Cast base and stem of retaining wall / underpins. Terminate concrete 75mm below the underside of the existing footing and backfill each underpin excavation in compacted layers prior to moving to the next bays in sequence.
7. 24 hours after casting concrete, ram dry-pack mortar onto the gap between pre-existing footing and new RC underpin.
8. Complete a pin in the corresponding position in the opposite wall then prop across the site to the undisturbed soil between.
9. Backfill around props with excavated spoil to form a working platform. This backfill is not to be used as lateral support for the underpins.
10. Continue until all perimeter walls have been completely underpinned following standard timings for underpinning, ensuring no excavation is carried out until at least 48 hours after casting an adjacent underpin.



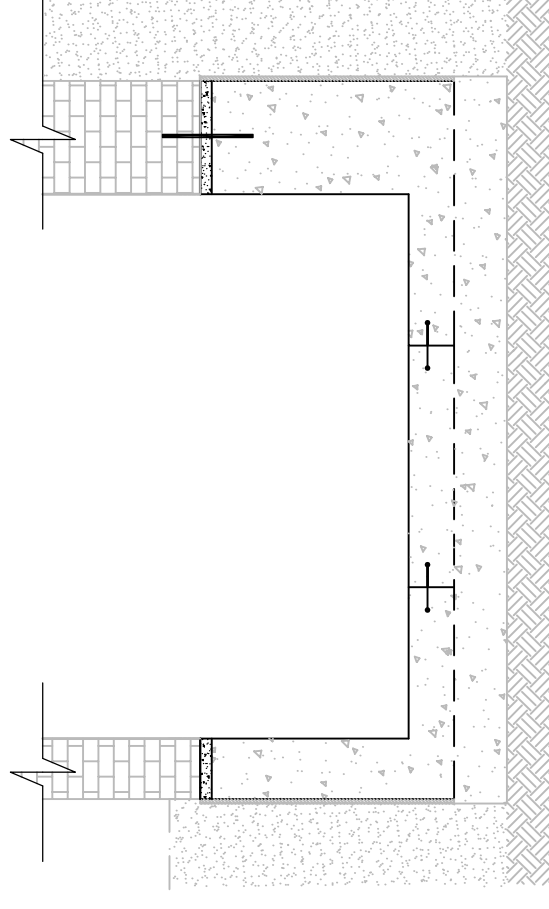
11. Once underpinning has been completed excavate down 500mm (approx) and install horizontal prop.



12. Reduce dig to 2/3 the required depth and prop underpins.
13. Continue excavation to formation level.



14. Cast approx. 350mm thick concrete layer under middle part of slab to reach Lynch Hill Gravel stratum.
15. Arrange reinforcement and cast 300mm RC slab. Lapping with starter bars from toe of RC walls and place waterstop bars.



16. Once all concrete has cured, remove temporary upper level props.

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Legend:

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PROPOSED CONSTRUCTION
SEQUENCE

Rev	Date	Drawn	Eng	Amendment
1	21.09.16	JP	PCh	Issued for information

Drawing No 16003/10

Rev 1

Drawn JP

Eng PCh

Scales

1:50@A3