GENERAL

1. Drawings to be read in conjunction with WYE Structural Basis of Design report and structural specifications.
2. WYE drawings cover the design of primary structural elements only.
3. Drawings to be read in conjunction with all other Architects and Engineers drawings and specifications.
4. Do not scale from the drawings.
5. All dimensions are in millimetres unless noted otherwise.
6. Refer to Architects drawings for all setting out dimensions.
7. Any discrepancies between structural and architectural setting out dimensions must be brought to the attention of the Architect and Engineer.

ABBREVIATIONS

BWIC	Builder's work in concrete
CJ	Construction Joint
CRS	Centres
c/c	Cross Centres
EGL	Existing Ground Level
FFL	Finished Floor Level
FGL	Finished Ground Level
HL	Highole level
MC	Mass Concrete
MJ	Movement Joint
NTS	Not to scale
PC	Precast Concrete
RC	Reinforced Concrete
SSL	Structural Slab Level
SFL	Structural Floor Level
TA	To above
TB	To below
TOC	Top of Concrete Level
TOS	Top of Steel Level
TBC	To be confirmed
UNO	Unless noted otherwise
U/S	Underside
WYE	Webb Yates Engineers
P/C	Precast Concrete Lintel

SCOPE OF WORKS / RESPONSIBILITIES

1. TEMPORARY WORKS
   Final design and specification of temporary works to be carried out by appointed contractor. The contractor is responsible for determining the order of work, method and requirements for the design of temporary works, back propping, waling, dewatering or any other works necessary for the safe execution of the project and protection and prevention of damage to adjacent structures.

2. STEEL DESIGN
   Steel connections designed by specialist contractor. Refer to design drawings for connection design forces and design moments. These should be considered ultimate factored loads and should be considered to act concurrently.
   Connections to be designed in accordance with BS EN 1993-1-1 and shall meet minimum robustness requirements set out in BS EN 1991-1-7
   Construction detailing and final design of balustrades and other architectural metalwork by appointed contractor.

3. TIMBER ELEMENTS
   Design verification, construction feasibility, design detailing, site measurements, site coordination and installation sequencing by appointed contractor.

4. NON STRUCTURAL GLAZING, CLADDING AND PARTITIONS
   Design of non-structural items including; glazing, partitions, cladding and roof coverings, by others. Non-Structural items should be designed to allow for up to 20mm deflection of supporting structure UNO. Connection points for glazing/cladding to primary structure should be agreed in advance with WYE.

5. STAIRCASES
   Final design and detailing by appointed contractor. Contractor to provide applied loads, details of required supporting structure and connections. Connections to ensure sufficient resistance to progressive collapse.

6. WATERPROOFING
   It is assumed the waterproofing to the basement box consists of Type B (structurally integral) combined with Type C (drained). The Contractor is responsible for carrying out the detailed design of the waterproofing system.

LOADING

1. Design wind loads are calculated in accordance with BS EN 1991-1-4
2. Design imposed loadings. The structure has been designed for the following imposed loads in accordance with BS EN 1991-1-1:

• Office (Category B1)	2.5 kPa
• Office (Category B2)	3.0 kPa
• Roof (Category H)	0.6 kPa

GROUND CONDITIONS

1. For Site Investigation refer to (TBC)

RESIDUAL RISKS

The following structural risks and critical structural arrangements have been identified from the design process. These aspects remain sources of construction risk:

1. Water ingress during excavation of Pile Caps. Contractor to take appropriate measures to control water ingress.
2. Collapse of deep excavations for Pile Caps. Ensure excavations are properly battered back or propped during construction.
3. Collapse of party walls into excavations. Ensure excavations are propped during construction.
4. Superstructure stability during construction - refer to WYE Structural Basis of Design Report Jxxx-Doc-insert doc no.
5. Damage to adjacent structures. Piled retaining wall and temporary works to be designed to control lateral movement of the retaining walls at each stage of the construction sequence during construction.
6. Damage to roots within root protection area of protected trees, Contractor to employ appropriate measures to ensure RPA's are protected during the works. Refer to Aboriculturalist Reports and Specifications.
7. Contractor to ensure no live buried services in pile locations prior to piling.
8. Damage to adjacent and existing buildind during construction and underpinning works.

STEEL SHEET PILE WALL

1. Sizes and details for the sheet pile retaining wall shown on WYE drawings are indicative only. Final design is the responsibility of the specialist sub-contractor to WYE layout and performance specification.
2. Refer to WYE Piling and Groundworks Specifications for full Specification requirements.
3. All piling works to be carried out in accordance with the current edition of 'Specification for Piling and Embedded Retaining Walls' (SPERW).
4. Sheet piles are to be TBC
5. Tolerance in plan position to be 75mm in any direction from the centre point at the commencing surface.
6. The maximum permitted deviation of the finished pile from vertical is 1 in 75.
7. Connection between RC and sheet piles with shear studs as shown on details.

CONCRETE

1. Reinforced concrete is designed in accordance with BS EN 1992-1-1
2. Refer to WYE In-situ Reinforced Concrete Specification for full requirements.
3. Tolerances and setting out:
   - Accuracy of construction: To section 7 of National Structural Concrete Specification
   - Surface regularity: Tolerance class SR3 to BS 8204
4. Concrete mixes:
   - Blinding/mass concrete infill - GEN1
   - Manhole surrounds/drainage works - GEN3
   - Pile Caps for - RC32/40 Designed mix - refer to full Specifications requirements
   - Suspended ground floor slab - RC32/40
   - Walls/Columns/Suspended upper floor slabs - RC32/40
5. Concrete to be produced in accordance with BS 8500-2. Concrete to be supplied from a production plant certified by a body accredited by UKAS to BS EN 45011 for product conformity certification of ready mixed concrete.
6. All concrete works to be carried out in accordance with National Structural Concrete Specification for Building Construction 3rd edition.
7. Concrete covers (minimal nominal cover):
   - Pile Caps
     Bottom 75mm
     Sides 50mm
     Top 30mm
   - Ground Floor Slab
     Top & Bottom 30mm
   - Upper Slabs
     Top & Bottom 30mm
   - Columns/walls
     Each face 25mm
8. Concrete Beam dimensions are given as Depth x Width inclusive of the slab depth.
9. Ribbed bar reinforcement to be grade B500B to BS 4449 and plain bar reinforcement to be grade 250. All reinforcement to be cut and bent in accordance with BS 8666. Reinforcement to be supplied from companies holding valid certificates of approval for product conformity issued by the UK Certification Authority for Reinforcing Steels (CARES).
10. No reinforcement to be cut under any circumstance without prior approval from the Engineer.

STEELWORK

1. Structural steelwork is designed in accordance with BS EN 1993-1-1
2. Structural steelwork to be supplied, fabricated and erected in accordance with National Structural Steelwork Specification (NSSS), 5th edition.
3. Steel plates grades to be as follows UNO:
   - Plates, flats and rolled sections - S275 J0 to BS EN 10025-2
   - Structural hollow sections hot rolled - S355 J2H to BS EN 10210
4. Bolts to be Grade 8.8, minimum M16, sheradised black bolts to BS 4190 supplied with washers to suit the grade and size of bolt (unless noted).
5. All welds to be a minimum of 6mm fillet welds made with suitable electrodes to match the steel grades of the connected pieces.
6. Steelwork protective coatings in accordance with BS EN 12944 Class C3H unless noted otherwise
   The steelwork fabricator should submit fabrication drawings and connection calculations to WYE for acceptance not less than two weeks before the commencement of fabrication.

NEW MASONRY

1. Masonry is designed in accordance with BS EN 1996-1-1.
2. Refer to Architect's Masonry Specification for full specification requirements.
3. Masonry requirements are as follows UNO:

· Blockwork strength	Minimum 7.3 N/mm²
· Brickwork strength	Minimum 21 N/mm²
· Low density blockwork	Maximum 10 kN/m³
· High density blockwork	Minimum 18 kN/m³
· Mortar designation	M6
· Category of masonry units	Category I
· Category of construction control	Normal

4. All masonry wall returns to be fully bonded unless noted otherwise
5. Masonry ties to be stainless steel grade 304
6. All cavity walls tied at 450 mm centres vertically and at 900 mm centres horizontally and at half centres at openings and edges with BS 5628-1 "Type-1" wall ties.
7. Movement joints in clay masonry to be at max 12m c/c and in concrete blocks at max 9m c/c.

EXISTING MASONRY

1. Reclaimed bricks of the same age, size and colour as existing bricks.
2. Lime mortar to match existing.
3. Refer to Architect's Masonry Specification for full specification requirements.
4. All masonry wall returns to be fully bonded unless noted otherwise

TIMBER

1. All structural timber products to be sourced from sustainable sources and well-managed forests / plantations in accordance with the laws governing forest management in the producer country and international agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES). Contractor to provide documentary evidence of independently verified provenance certification for supplied timber, or, evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood based products.
   The timber structure is designed in accordance with BS EN 1995-1.
2. Refer to Webb Yates Engineers' Specifications for full specification requirements.
3. Cross section dimensions shown on drawings are target sizes as defined in BS EN 336 for structural softwood and hardwood
4. sections.
5. Structural softwoods to be strength grade C24 UNO to BS EN 338, strength graded to BS 4978, BS EN 14081-1, or other national equivalent and so marked. Softwood treated with organic solvent impregnation to Wood Protection Association Commodity Specification C8.
6. Moisture content of wood and wood passed products at time of installation to be not more than 20% for internal heated spaces.
7. Unless noted otherwise ply to be fixed to studs with 3.00 mm diameter wire nails at least 50 mm long, maximum spacing 75 mm on perimeter, 150 mm internal.
8. All softwood for general use shall be stress graded to BS 4978, BS EN 518, BS EN 519 or the National Grading Rules of the Canadian NLGA or the USA NGRDL. Species and grading shall be in accordance with tables 3-7 and 10-13 of BS EN1995-1: Part 2 and with the strength/class shown on the structural drawings.
9. All plywood shall be manufactured to the appropriate national standards and quality control. Grades shall be as specified in BS EN 1072: Part 2 and with strength/class shown on the structural drawings.
10. Fastenings and Adhesives
    - · Nails and Wood screws: These are to comply with BS 1202 and 1210 respectively.
    - · Nuts and Bolts: These are to comply with BS 4190.
    - · Washers: These are to comply with BS 4320.
    - · Mild Steel Timber Connectors: These are to comply with BS 1579.
    - · Adhesives: These shall comply with BS 1203 and BS 1204.
11. The finish to all fixings and fastenings is to be as specified on the drawings and with a minimum of a sheradised finish.
12. Timber members that are damaged, crushed or split beyond the limits permitted by their grading will not be accepted in the works.
13. Wane is not permitted at the bearings of structural members.
14. Notching or drilling of holes in structural members will not be permitted without the approval of the Engineer. Where notches or holes are permitted, these shall be positioned with the approval of the Engineer in such a way that there are no knots or other defects in the residual section.
15. Washers are to be fitted under the heads of all nuts and bolts. Use spring washers in locations which will be hidden or inaccessible in the completed building.
16. Pre-drilling of bolt holes to diameters as close as practical, but not more than 2 mm greater than the nominal bolt diameter.
17. Pre-drilling of holes for screws to be in accordance with BS EN 1995-1-2:2002 §6.5.1. The hole for the shank shall have a diameter equal to the shank diameter and be no deeper than the length of the shank. The pilot hole for the threaded portion of the screw shall have a diameter of about half the shank diameter.
18. Spacing of holes for nails, screws or bolts to be in accordance with the structural drawings and BS EN 1995-1-2:2002.
19. Screws and bolts shall be tightened so that members fit closely together. Tighten bolts so that washers just bite the surface of the timber. Between one and five threads are to project from the nut. Washers shall have a full bearing area and the fasteners shall, if necessary, be tightened again when the members have reached their equilibrium moisture content. Screw shall be turned, not hammered, into pre-drilled holes.
20. All components shall be accurately machined and manufactured to BS 4268: Part 2.
21. Ply to floors, walls and roof to be Finnish Birch with a WBP adhesive.
22. The moisture content of all timber shall be not more than follows;
    - · Timbers covered in generally unheated spaces: 24%
    - · Timbers covered in generally heated spaces: 20%
    - · Internal covered timbers in continuously heated spaces: 20%
23. The moisture content shall be maintained until completion of the project within 3% of the expected equilibrium moisture content of the building in use. The contractor shall store timber and components under cover, clear of the ground and with good ventilation. The contractor shall also arrange the sequence of construction in such a way that the specified moisture content is not exceeded.
24. The contractor shall ensure when handling structural timber that no over stress, distortion, or disfigurement of sections and components occurs.
25. No making good or replacement of damaged or defective timber shall occur without the prior approval of the C.A.
26. All adhesives should be used in accordance with the manufacturers instructions with regard to preparation of timber surfaces, material qualities, clamping pressures, and curing times. Particular attention should be given to ensuring that clamping pressures are achieved with the contractors proposed method of construction. Surfaces to be glued shall be freshly prepared, clean and free from dirt, dust, oil or other contamination likely to affect the performance of the adhesive, and make close contact over the area to be joined. Sufficient glue shall be applied evenly over the surfaces to ensure that, after application of the bonding pressure, an unbroken glue line is obtained. There shall be some 'squeeze out' of adhesive when the bonding pressure is applied.
27. The contractor shall provide fabrication drawings for approval by the Architect for any elements of the structure to be fabricated off site. These drawings shall be provided at a stage in the program of construction that will allow for a minimum period of approval of 10 working days unless otherwise agreed.
28. The contractor shall provide a detailed method statement for the fabrication, assembly and erection of the structural timber work not less than 10 working days prior to the commencement of fabrication.
29. The contractor should provide all temporary bracing and props required to maintain the structural timber elements in position and ensure complete stability during construction. The construction of the roof should take account of the temporary deflection of the purlins down the slope before the ply is fixed. Temporary bracing of stability walls and first floor/roof should be provided until ply facing is fully fixed.
30. The dimensions of timber sections, unless otherwise stated, are basic (nominal) sizes. When planed (wrot) timber is specified the reduction to finished sizes is to comply with BS 4471 for softwood and BS 5450 for hardwood. The contractor should ensure that material irregularities and deformations in the basic materials are not allowed to produce irregularities in the fabricated work i.e. bow in sheet material and twist in joists.
31. Nail Plate Type Fasteners: All plates shall be fixed so as not to project beyond the edges of the timber section.
32. End Joints: Do not use without prior approval.
33. Structural timber shall be treated with preservative to BS EN 1995-1: Part 5, Table 6, where required according tables 4 and 5 of the aforementioned code of practice.
34. Chromated Copper Arsenate (CCA) shall not be used. Timber requiring protection shall either be treated with Tanalith or water based Boron preservatives.
35. Structural timber that is to receive clear finishes is to be kept clean and the first coat is to be applied and cured before delivery to site
36. All timber which is sawn along the length, ploughed, thicknessed, planed or otherwise extensively processed shall be retreated. Surfaces exposed by minor cutting and drilling shall be treated with two flood coats. Ensure compatibility between the flood coat solution and the primary treatment.
37. Not less than ten working days prior to the proposed erection of the structural timber, check foundations and other structures to which the timber structure will be attached for accuracy of setting out. Inaccuracies or defects are to be reported immediately to the C.A.
38. Unless specified otherwise erect structural timber to levels and accuracy so that with respect to BS 5606 tables 2 and 3; all achieved dimensions should fall within the permissible deviations, and approximately two thirds of achieved dimensions should fall within one third of the permissible deviations.
39. The contractor shall ensure that dimensional and level surveys are carried out during erection and once erection is complete. The survey information shall be forwarded to the C.A. in a clear format.
40. The contractor shall give the Engineer reasonable opportunity to inspect the structural timber works both at the workshop and on site before covering up.
    All proprietary fixings such as joist hangers and angle brackets to be installed in accordance with manufacturers recommendations
41. Strutting of joists / purlins / rafters. Herringbone strutting or blocking should be provided at the ends of solid timbers. Where
42. timbers span over 2.5m additional strutting should also be specified as follows:
    - · Span [m] Rows of strutting
    - · Under 2.5 none needed
    - · 2.5 to 4.5 1 (at centre of span)
    - · Over 4.5 2 (at equal spacing)
43. Restraint Straps. Restraint straps at not more than 2m centres should be provided along the walls that run parallel to the joists / purlins / rafters. Where joists / purlins / rafters are supported on hangers restraint straps along the direction of the rafter at not more than 2m centres are required.
44. Noggins to timber walls. Blocking to be provided at mid-height to timber wall studs.
45. Timber stud walls for stability. Joints to ply either side of studs to be staggered. The walls, including ply facing, are integral to the stability of the building against horizontal forces and must not be modified or removed without structural engineering advice being obtained. All the walls shown on the structural plans are required for stability.
46. All wall sole plates fixed with a minimum HUS anchors @ 400c/c to masonry, or equivalent fixing to other support structures or 5mmØ screws at 600mm centres to timber floors.
47. All timbers indicated on drawings to be fixed with BAT Maxi Speedy joist hangers to timber or SPH hangers to masonry

BUILDER'S WORK NOTES

1. Holes less than 300mm square are not shown on structural drawings. Refer to services engineer's drawings.
2. Holes greater than 200mm square not shown on structural drawings must be agreed with the engineer.
3. Holes in slabs which have been cast:
   a.) Holes less than 300mm wide are to be diamond cored.
   b.) Holes greater than 300mm wide will generally not be allowed.
4. No builder's work openings are to be cut without first obtaining agreement to proceed from the CA.
5. Openings in beams and load bearing walls will generally not be allowed, unless approved by the engineer.
6. Infilling of openings around services to architect's or service engineer's requirements. Where a load bearing infill is required this is to be designed by the contractor. Details to be submitted to the CA for comment.
7. Openings in blockwork walls less than 200mm = no lintel, 200mm to 1400mm = 140x65 PC lintel, >1400 = 140x140 PC lintel UNO. All openings to agreed with WYE before construction.
8. No openings, demolition, fixings or changes are permitted in existing fabric without previous agreement with design team.

Notes

SAFETY, HEALTH AND ENVIRONMENT
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following :
Construction
Maintenance & Cleaning
Decommissioning & Demolition
It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

Rev	Date	Description	Drn	App
01	21.07.17	Stage 3 Issue	MM	CP
00	13.07.17	Preliminary Stage 3	JD	TW

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Project
Toddler Lab,
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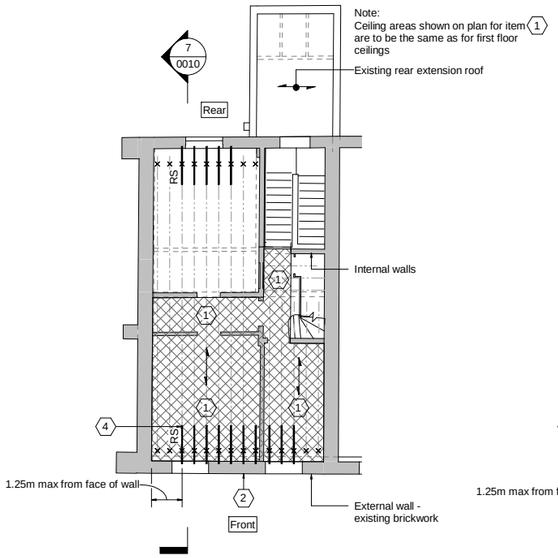
Drawing Title
General Notes

Drawing Status
Developed Design

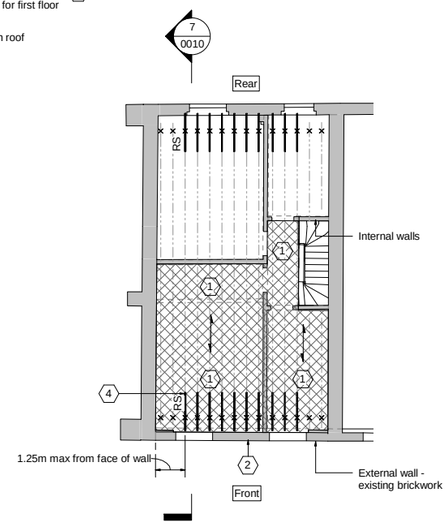
Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 50	S3

Drawing Number
J2889-S-DR-0001

Revision
01



Second Floor Plan - 1



Third Floor Plan - 2

Legend

- Existing
- Denotes span of existing floor/ceiling joists/roof rafters
- (#) Item of works defined in Schedule of works
- Areas of floors and facade where items of work **1** (floors) and **2** (facade) will take place
- RS — Restraint Straps (see **4** of schedule of works and details
- Denotes temporary props to be installed directly under each of the existing beams down to basement slab

Schedule of Works for Repairs to Front & Rear Facades

Refer to Site Set up and Temporary Works notes for details of items of works to be completed before repair works take place. The numbering of the items below correspond to numbers detailed on the views on the drawing.

(1) Prior to the works to the facade taking place, part of the existing ceilings needs to be strengthened. These ceilings are in the two front rooms at first, second, and third floor levels, as well as ceilings in stairwell used for access during the works (see extent on plans). Refer to detial view TBC on WYE drg.J2889-S-DR-0011. The fixings will have to be placed on every other joist, and at a maximum spacing of 900 mm c/c along the joist line.

(2) Works to the front facade brickwork
- Remove the bricks of the central facade panel from the parapet level down to second floor level (see indicative extent of panel on view 5 Front Facade Elevation. Care must be taken to ensure that the removal of the bricks does not affect the brick below. If damage to the bricks below is identified, the Engineer is to be notified immediately, and the works put on hold until a site visit is arranged.
- Cut mortar off from the face of the bricks and store the bricks so that they can be reused. Facing bricks are to be stored in separate piles to the internal bricks.
- If existing facing bricks are too damaged to be reused, they are to replaced by existing internal bricks. If required, new bricks can be used but only in parts of the wall which are not exposed. Allow for 100 existing bricks to be replaced.
- Remove the existing stone slabs forming the third floor cill band. The stone slabs are to be stored during the works, and reinstated as existing.
- Once the brickwork has been removed, the condition of the retained brickwork between second floor and roof levels are to be surveyed by the contractor. The findings are to be submitted to the Engineer, to determine if any further areas need to be rebuilt.
- The temporary bracing system, installed to restrain the facade off the flank and party walls, can be removed at this stage.
- Rebuild the front facade panel with the existing internal and facing bricks using lime mortar. The same brick bond (Flemish) detail, as existing, is to be used. The rebuilt masonry is to be fully bonded to the retained masonry.
The lime mortar is to have a 1:3 binder:aggregate proportions, comprising;
- 1 part mature non-hydraulic lime putty
- 2 parts well-graded sand
- 1 part crushed brick (typically 400 to 20 microns)
-The bearing of the existing roof beams onto the facade is to be reinstated, as existing.

Works to the rear facade brickwork
- Remove the bricks of the central facade panel from the parapet level down to third floor level (see indicative extent of panel on view 6 Rear Facade Elevation. Care must be taken to ensure that the removal of the bricks does not affect the brick below. If damage to the bricks below is identified, the Engineer is to be notified immediately, and the works put on hold until a site visit is arranged.
- Cut mortar off from the face of the bricks and store the bricks so that they can be reused. Facing bricks are to be stored in separate piles to the internal bricks.
- If existing facing bricks are too damaged to be reused, they are to replaced by existing internal bricks. If required, new bricks can be used but only in parts of the wall which are not exposed. Allow for 100 existing bricks to be replaced.
- Remove the existing stone slabs forming the third floor cill band. The stone slabs are to be stored during the works, and reinstated as existing.
- Once the brickwork has been removed, the condition of the retained brickwork between second floor and roof levels are to be surveyed by the contractor. The findings are to be submitted to the Engineer, to determine if any further areas need to be rebuilt.
- The temporary bracing system, installed to restrain the facade off the flank and party walls, can be removed at this stage.
- Rebuild the front facade panel with the existing internal and facing bricks using lime mortar. The same brick bond (Flemish) detail, as existing, is to be used. The rebuilt masonry is to be fully bonded to the retained masonry.
The lime mortar is to have a 1:3 binder:aggregate proportions, comprising;
- 1 part mature non-hydraulic lime putty
- 2 parts well-graded sand
- 1 part crushed brick (typically 400 to 20 microns)
-The bearing of the existing roof beams onto the facade is to be reinstated, as existing.

(3) The external brick lintels over the windows are to be rebuilt as existing, using the same bricks which have been removed, in the exact same locations. S10 (100x100) prestressed concrete lintels by Supreme Concrete Ltd (or similar approved) are to be used to support the inner part of the facade, in lieu of the existing timber lintels. The ends of the concrete lintels are to bear 150 mm on the brickwork.

(4) The brickwork is to be tied to the second, third floor and roof structures using restraint straps (RS) to be installed @ 400mm c/c refer to detail drg. J2889-S-DR-0011

(5) Works to Lead Flashing/Gutter
- Along the front facade, reinstate the existing lead flashing at the rear of the roof parapet.
- Along the rear facade, allow for replacing 1.5 m long section of the lead gutter and flashing, where the existing flashing has failed.
- All lead roof coverings are to be in accordance with BS 6915:2001.
- Code 8 lead sheets are to be used throughout.
- All lead covering is to be laid on 15 mm thick Finnish Birch plywood deck.
- The maximum spacing of joints in lead roof coverings is to be 750mm for joints with fall and 3000mm for joints across the fall.

(6) Works to the existing windows and existing cill band.

(7) - Reinstate the existing windows (frames and sashes), rebuild window cills and reveals.
- Recreate the cill band at third floor level reusing the existing stone slabs.

(8) Once the brickwork has been rebuilt, the plaster on the inner face of the wall is to be recreated using lime plaster on new timber laths. All laths are to be riven hardwood (oak, sweet chestnut, or pine) and to comprise 30 mm to 38 mm width and 6 mm to 8 mm thickness, and to be fixed to new timber framing in front of brickwork using stainless steel nails. All laths areto be spaced 6 mm to 8 mm clear apart, and end butt joints are to be placed over vertical studs with a minimum 3 mm gap between adjacent lath butt ends. Butt joints in laths are to be staggered between adjacent timber frame studs in groups of 12 laths.
The plaster is to be placed in three coats; a pricking up coat over the laths,a floating coat, and a setting coat.
The pricking up and floating coats are to comprise;
- 1 part mature non-hydraulic lime putty
- 2.5 parts well-graded sand
- 5 kg of hair per cubic metre in pricking up coat and 3 to 5 kg in the floating coat.
The setting coat is to comprise;
- 1 part mature non-hydraulic lime putty
- 1 part fine sand.

(9) Wherever cement mortar has been used for historic repairs to the brickwork, the cement mortar is to be removed to expose the existing limemortar behind, and the brickwork is to be repointed using lime mortar (referto item 2 for mortar composition).
Joints to be repointed should be completely cleared of all old cement mortar back to the original lime mortar, without widening of the joint, without damage to the arrises of the bricks, or disruption of the masonry face. The ability to deliver this result must be demonstrated by the contractor at the commencement of work by completion of an exemplar that will be retained for the duration of the work.
This applies to the front facade and to chimney stacks above roof level.
The contractor is to survey the brickwork at the start on site to determine the extent of the repairs required (allow for 50 m² total repointing area), and the findings are to be submitted for Contract Administrators approval.
The contractor is to submit a detailed method statement.

(10) Strengthening of the existing floors is to be carried out by removing the existing floorboards, and strengthening existing floor joists by installing additional steel PFC joists. Where required, timber firring pieces on top of the joists are to be added on top of the joists to provide even level. The existing floor boards can then be reinstated.
At location of local dip in the floor (identified at third floor stairwell landing), the Engineer is to be notified the existing floor structure has been exposed so that a site visit can be arranged, to determine extent of strengthening to the existing floor joists.

(11) In conjunction to the works to the rear lead gutter (see item 5), the internal wall finishes are to be removed locally in the rear room at third floorlevel, at the locations where water ingress has been identified in WYE Structural Survey Report J2889-S-RP-0001. The area of wall finishes to be removed are located along the length of the lintel above the window and at the top corner between the rear facade and the flank wall. The Engineer is to be notified when the finishes have been removed, and the internal lintel above the window has been exposed, so that the condition of the lintel and the wall structure can be surveyed, and extent of the remedial works, if any, can be assessed. Allow for the replacement of the internal lintel by a 100x100 prestressed concrete lintel by Supreme Concrete Ltd.

(12) Where defects are found the facades are to be repointed to ensure water tightness. The Contractor is to Survey the brickwork to determine the extent of repair required (at start on site).
All repointing with lime mortar.

Site Set-up and Temporary Works Notes

Prior to the works to the existing fabric (other than item 1 of Schedule of Works) taking place, the following activities have to be completed;

TW 1. An external access scaffold tower has been previously erected in front of the building, approximately to the top of the existing roof parapet. The scaffolding contractors are Artel Scaffolding Ltd (tel 0208 343 9600). The existing scaffold provides access to the external surface of the front facade and also acts as part of a temporary bracing system to the defective brickwork panel.

TW 2. The scaffold tower is to be extended upward and a temporary roof & rear scaffold is to be installed over the building, to form a watertight enclosure for the duration of the works to the front and rear wall and the roof/gutters.

TW 3. Install propping to underside of roof rafters and roof beams along the front facade. The props are to be extended down to the basement level. Propping is to be designed for a temporary works line load of 25 kN/m [wk] and point load from timber beam of 10 kN [wk] per floor, total 75 kN/m and 30kN per joist.

TW 4. The existing floors, other than at basement level, are not to be used for storage of heavy materials, nor as part of removal/delivery routes for heavy materials. Floors are only to be used for access.

TW 5. A detailed photographic survey of the conditions of the existing fabric of the building is to be carried out by the contractor and submitted to the Contract Administrator prior to start on site.

TW 6. Survey the conditions of the existing waterproofing and gutter details of the roof along the front facade parapet, as it will have to be reinstated once the front facade is rebuilt. Survey window reveals, heads and cills, as well as render band at third floor, as again these will have to be rebuilt.

TW 7. The contractor is to measure the plumb of the front and rear facade brickwork across the facade width, between second floor level and top of the roof parapet, and submit the findings to the Engineer so that the extent of the brickwork to be rebuilt can be confirmed.

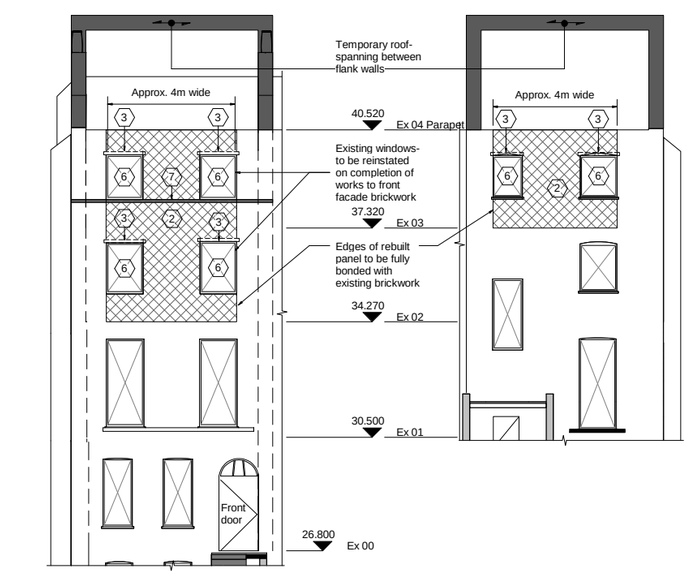
TW 8. Existing windows at second and third floor levels.
The existing windows, including the sashes, frames and internal decorative wooden panels (below the third floor windows and around the second floor windows) are to be removed and reinstated, as existing, once the works to the front facade have been carried out. These elements are to be stored in an adequate manner during the works to prevent any damage. The contractor is to submit storage details for these elements.

TW 9. The existing parapet coping stones and lead flashing along the inner faces of the rear and front facade parapet are to be reinstated once the works to the brickwork are completed.

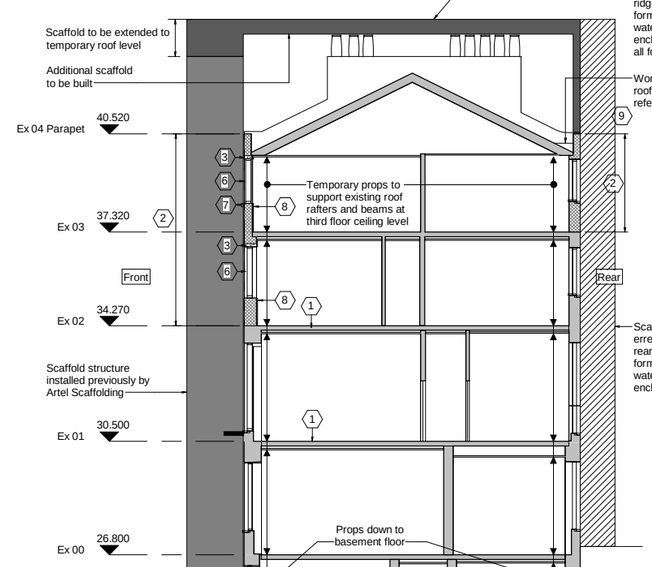
TW 10. Prior to the removal of the brickwork, the internal ceiling finishes along the front facade at third floor level have to be protected to prevent any damage during the removal of the brickwork. This could be achieved by creating a slot between the ceiling and front wall internal finishes.

TW 11. Once the works to the rear and front facade have been completed, the temporary roof and rear and front facade scaffolds are to be removed and the holes in the masonry, for scaffold fixings, are to be infilled using lime mortar.
The contractor is to produce design and details of the temporary roof, rear scaffold and temporary propping, which are to be submitted for Contract Administrators approval.
The contractor is to submit a detailed construction method statement, including details of site compound, storage areas and delivery routes, for Contract Administrators approval.

TW 12. Monitoring of the movement of the existing buildings is to be kept in place during construction.



Front Elevation - 5



Section - 7

Rear Elevation - 6

Loft Plan - 3

Roof Plan - 4

Notes

1. This drawing is to be read in conjunction with all relevant Engineers drawings and specifications, as well as in conjunction with WYE Structural Survey Report J2889-S-RP-0001
2. Do not scale from a paper or digital version of this drawing. Use written or stated dimensions only.
3. The existing structure shown on this drawing is based on survey drawings provided by Birkbeck, University of London and on a Survey carried out by WYE 18/11/16 and 07/12/16
4. No works are to take place without prior Listed Building Consent approval.

SAFETY, HEALTH AND ENVIRONMENT
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Construction
Maintenance & Cleaning
Decommissioning & Demolition
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Rev	Date	Description	Drn	App
01	21.07.17	Stage 3 Issue	MM	CP
00	13.07.17	Preliminary Stage 3	JD	TW

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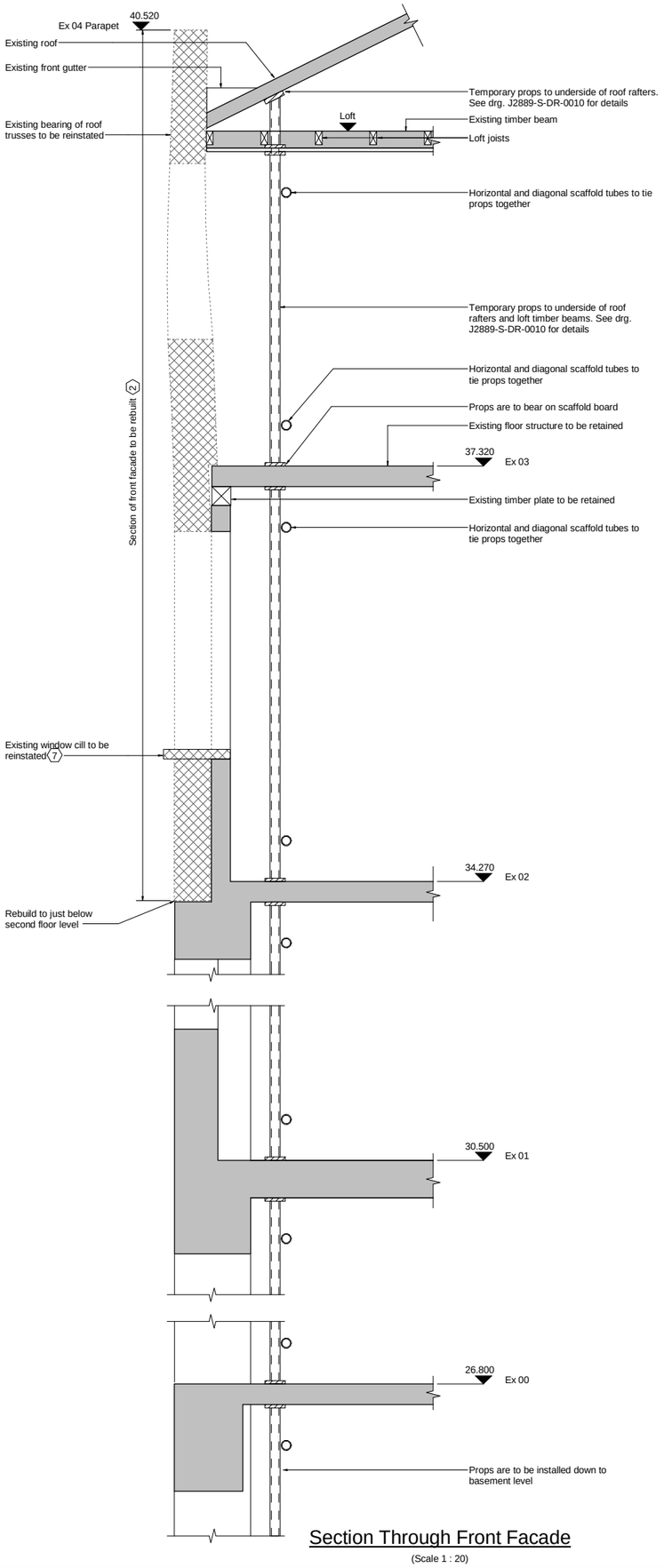
Project
Toddler Lab,
32 Torrington Square

Drawing Title
Facade Rebuild
Front & Rear

Drawing Status
Developed Design

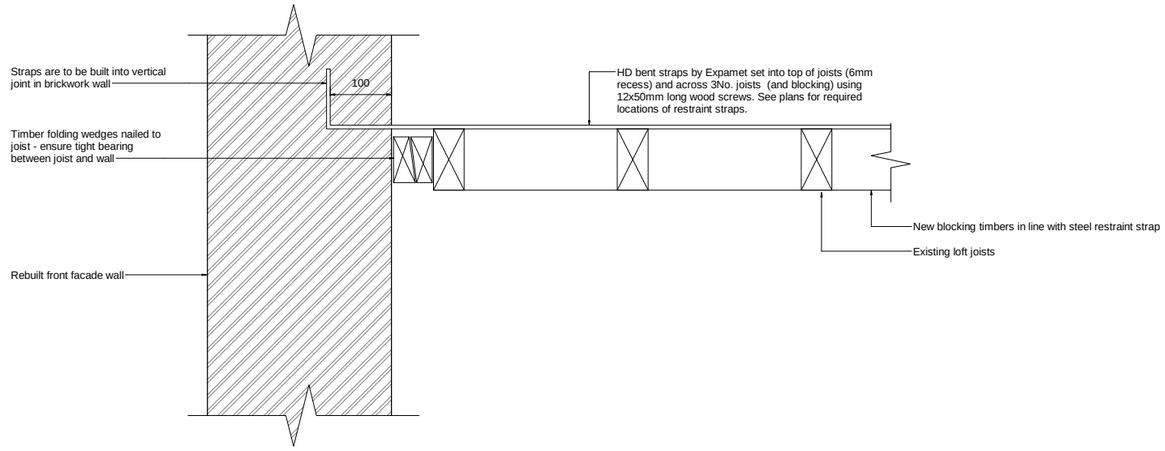
Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 100	S3

Drawing Number: J2889-S-DR-0010
Revision: 01



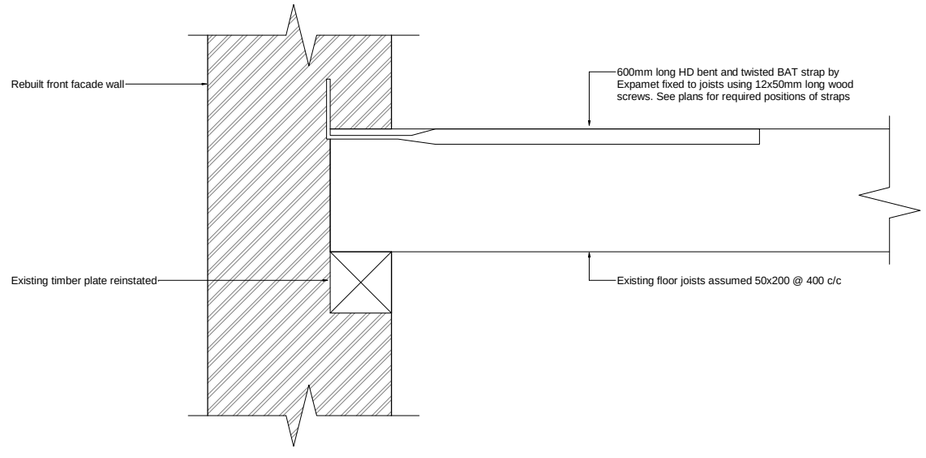
Section Through Front Facade

(Scale 1 : 20)



Restraint strap to front facade wall parallel with loft joists

(Scale 1 : 5)



Restraint strap to front facade wall perpendicular with floor joists

(Scale 1 : 5)

Notes

SAFETY, HEALTH AND ENVIRONMENT
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Project

Toddler Lab,
32 Torrington Square

Drawing Title

Facade Rebuild
Front & Rear Details

Drawing Status

Developed Design

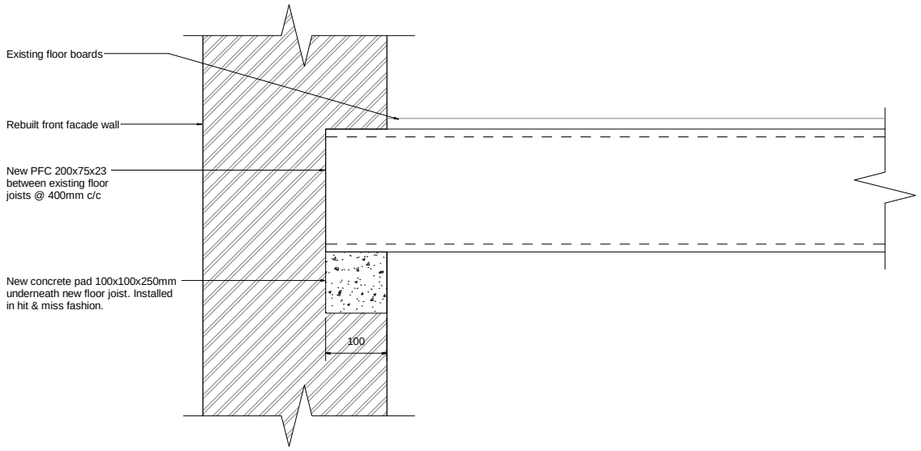
Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	As indicated	S3

Drawing Number

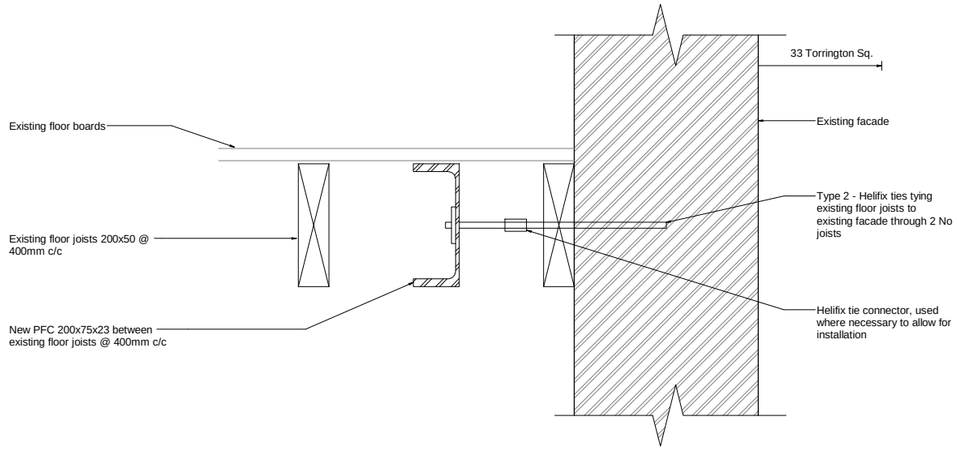
J2889-S-DR-0011

Revision

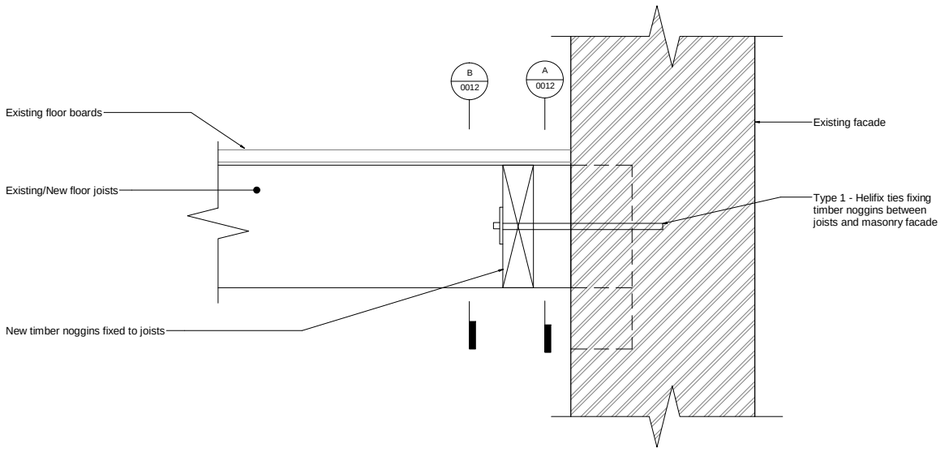
01



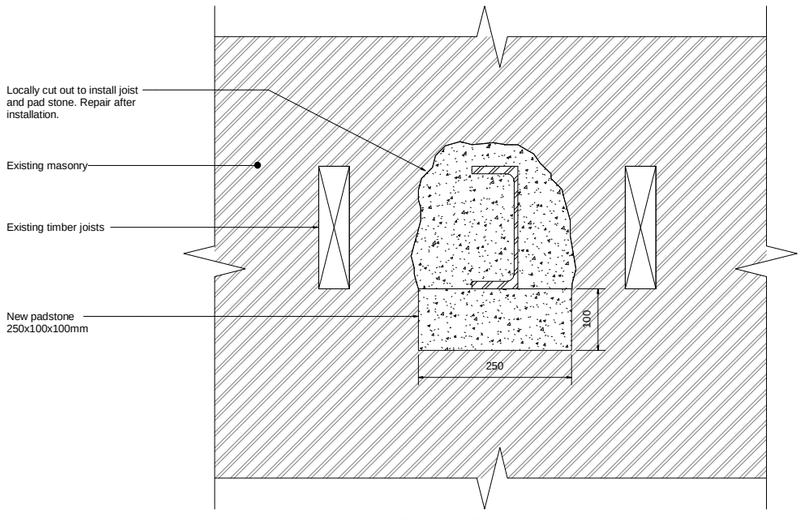
Rebuild Front Facade - PFC Bearing



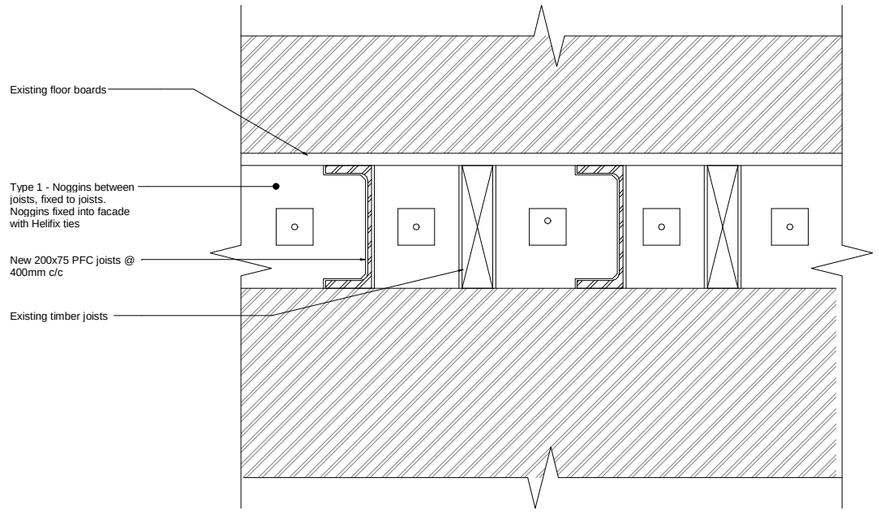
Existing Facade Joist Tying Detail 01



Existing Facade Joist Tying Detail 02



Detail 02 Section A



Detail 02 Section B

Notes

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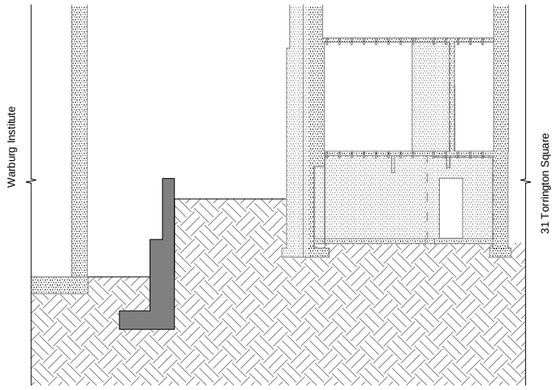
Drawing Title
Typical Joist Connection Details

Drawing Status
Developed Design

Drawn by	Checked by	Sheet size	Scale	Rev Status
MM	TW	A1	1 : 5	S3

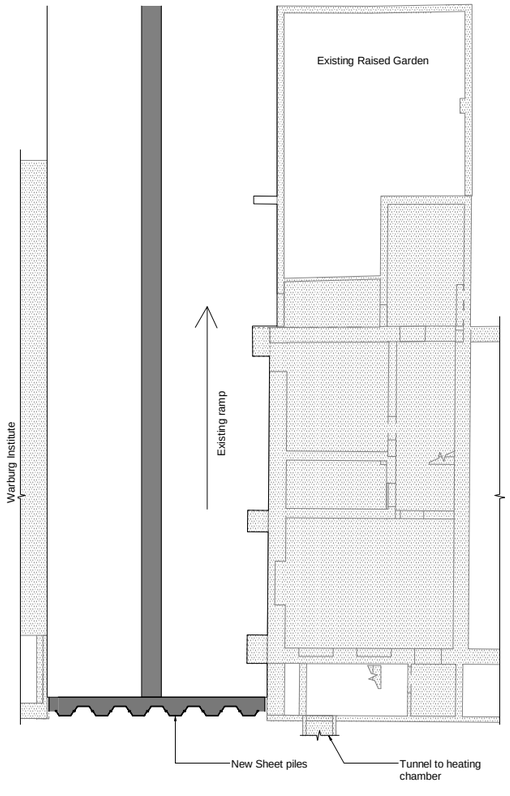
Drawing Number
J2889-S-DR-0012

Revision
00



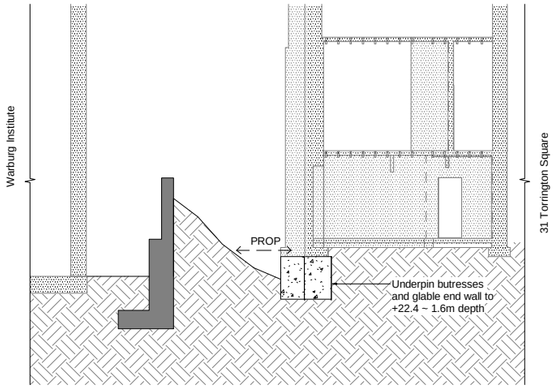
Stage 1 - Site. Survey below ground services. Install ties to existing floors and local strengthen existing floors

Including ties between existing facades to floor structure at all levels, coordinated with rebuild of facades and installation of new PFC closest to gable end wall.



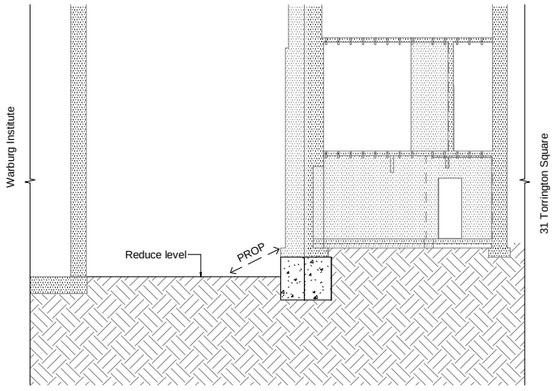
Stage 2 - Install Sheet Piles

Temporary prop sheet piles according to sheet pile design at top and bottom level. Props are to stay in place until basement box is fully installed and cured to 28 days strength.



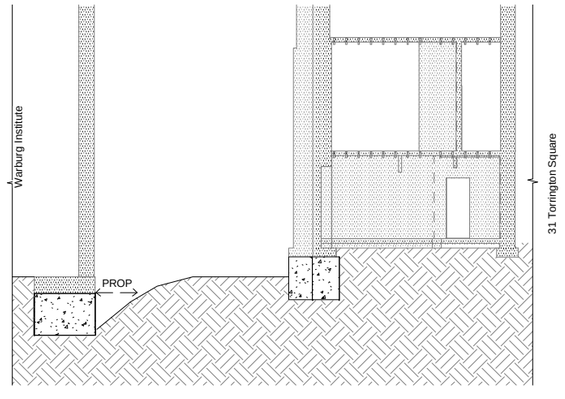
Stage 3 - Underpin Butresses & Gable End Wall

Underpins to be carried out in traditional hit and miss fashion, each underpin maximum 1.2m wide.



Stage 4 - Reduce Ramp Level

Reduce ramp level. Reduce to approx. +22.8 as existing ground level. Stabilize ground prior to further excavation if required due to ground water level. Existing garden wall to be carefully taken down and rebuilt after construction of new retaining structures.



Stage 5 - Underpin Warburg Institute to level of excavation for new basement

Notes

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SAFETY, HEALTH AND ENVIRONMENT
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NOTE: Excavation to New Basement and underpinning may reach below ground water level if water monitoring is showing that GWL is above excavation level, gravel must be stabilised by localised injection of resin to stabilise gravel for excavation and stop water flow locally.

Rev	Date	Description	Drn	App
00	21.07.17	Stage 3 Issue	MM	CP

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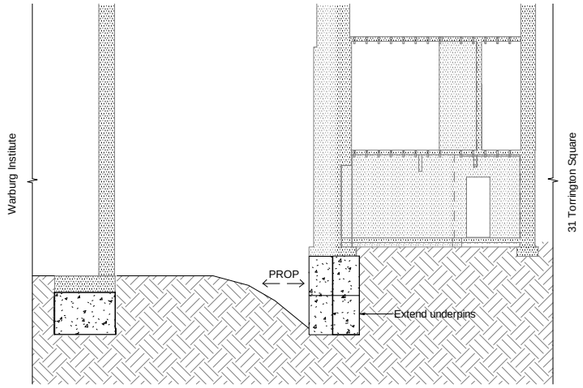
Drawing Title
Outlined Constr. Sequence
Sheet 01

Drawing Status
Developed Design

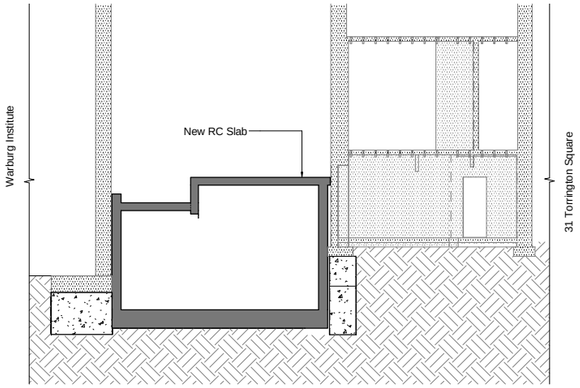
Drawn by	Checked by	Sheet size	Scale	Rev Status
PB	TW	A1	1 : 100	S3

Drawing Number
J2889-S-DR-0020

Revision
00

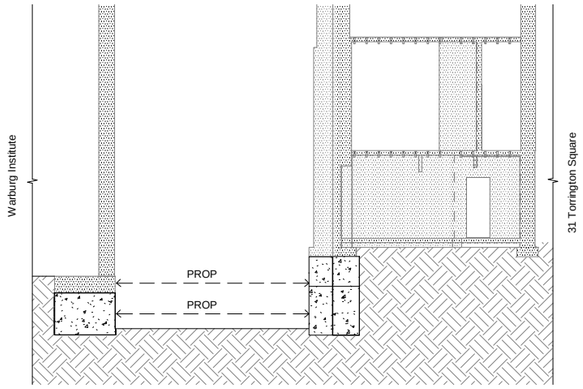


Stage 6 - Underpin butresses and gable wall to final level

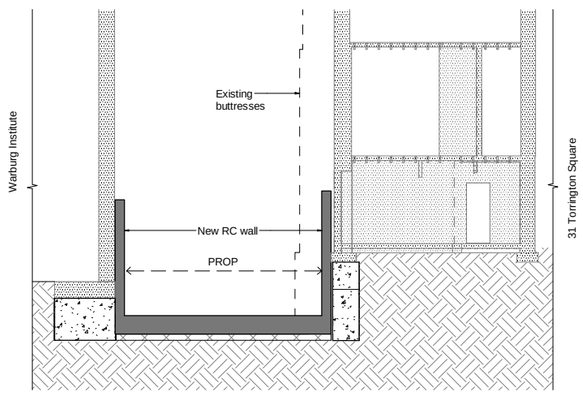


Stage 9 - Cast ground floor slab

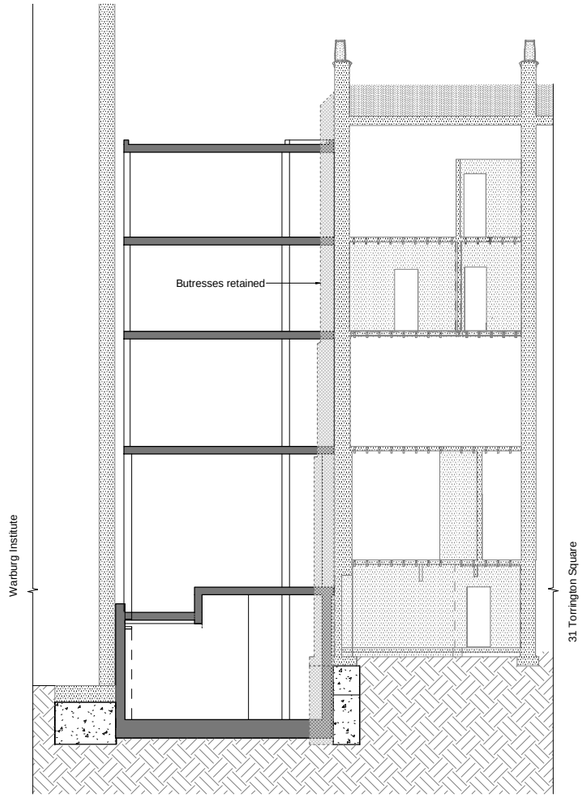
Props are to stay in place until basement box is fully completed and achieved 28 days strength.



Stage 7 - Excavate for new basement slab

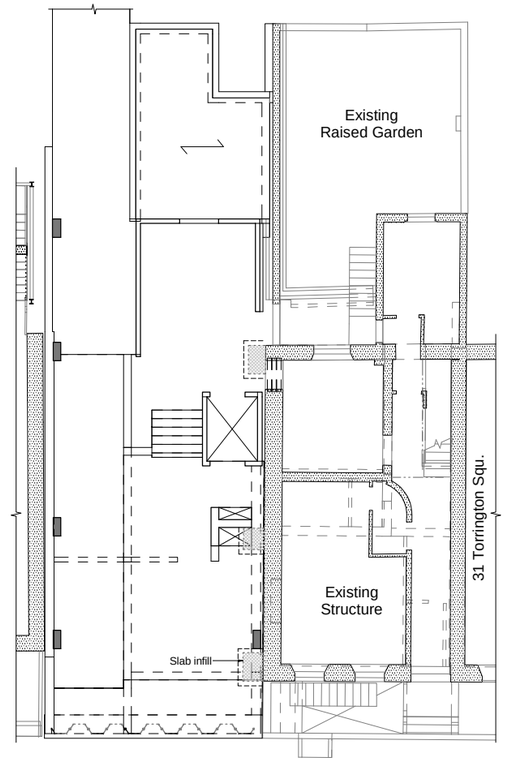


Stage 8 - Form new basement slab, walls, garden wall retaining structure and retaining walls by ramp



Stage 10 - Install Superstructure

Butresses are retained during construction of superstructure.



Stage 11 - Remove butresses and cast in voids in structure where butresses were located

Notes

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SAFETY, HEALTH AND ENVIRONMENT
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Maintenance & Cleaning
Decommissioning & Demolition
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Project
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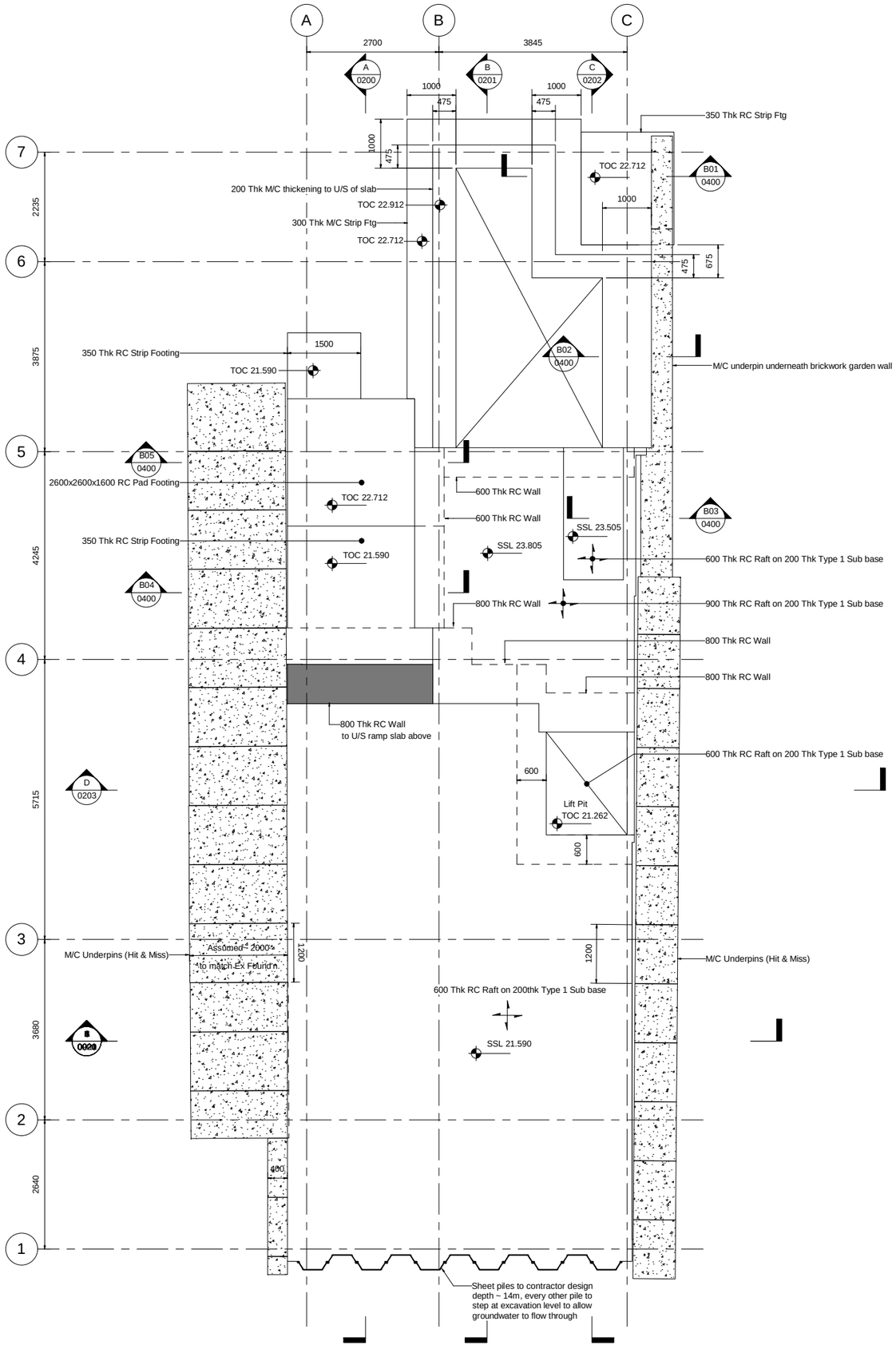
Drawing Title
Outlined Constr. Sequence
Sheet 02

Drawing Status
Developed Design

Drawn by	Checked by	Sheet size	Scale	Rev Status
PB	TW	A1	1 : 100	S3

Drawing Number
J2889-S-DR-0021

Revision
00



Notes

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Note:

1. All SSL's ,TOC's & slopes TBC by Architect

Rev	Date	Description	Drn	App
02	21.07.17	Stage 3 Issue	MM	CP
01	13.07.17	Preliminary Stage 3	JD	TW
00	07.07.17	Developed Design	JD	CP

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Project
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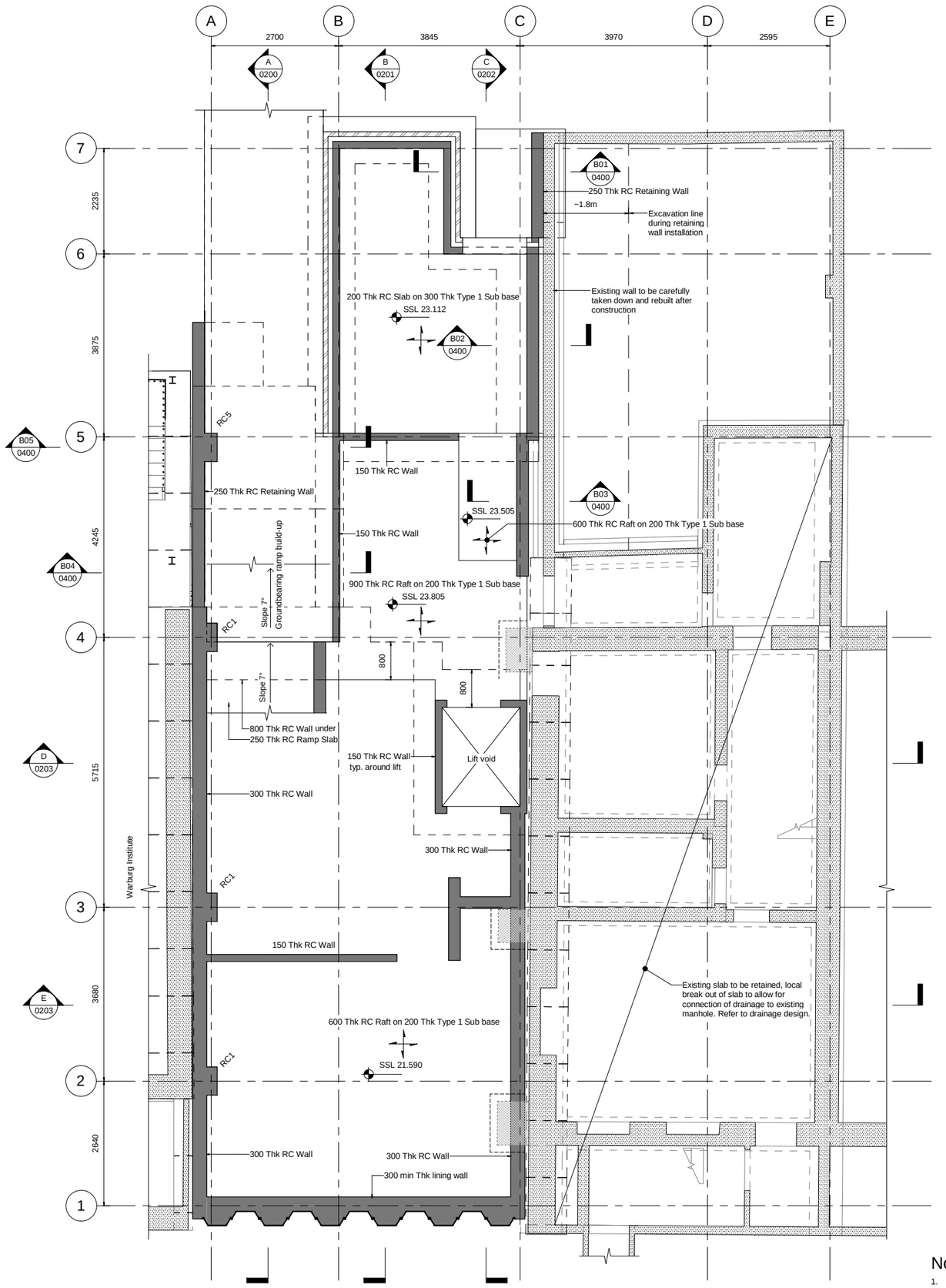
Drawing Title
General Arrangement
Foundation Plan

Drawing Status
Developed Design

Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 50	S3

Drawing Number
J2889-S-DR-0080

Revision
02



Legend

- 100 Thk 20N/mm² Brickwork
- 150 Thk RC wall
- Cavity
- 250 Thk (UNO) RC wall Base't to L00
  150 Thk (UNO) RC wall L00 & above
- Existing wall to be retained
- Existing masonry butresses to remain during construction
- insitu concrete installed after buttress removal
- Ref — Denotes floor span - refer to Floor Schedule for description
- P/C Lintel — Precast concrete lintels above new openings in existing masonry

Column Schedule

Reference	Description
RC1	220x600 RC Column
RC2	250x600 RC Column
RC3	200x600 RC Column
RC4	200x300 RC Column
RC5	270x600 RC Column

Notes

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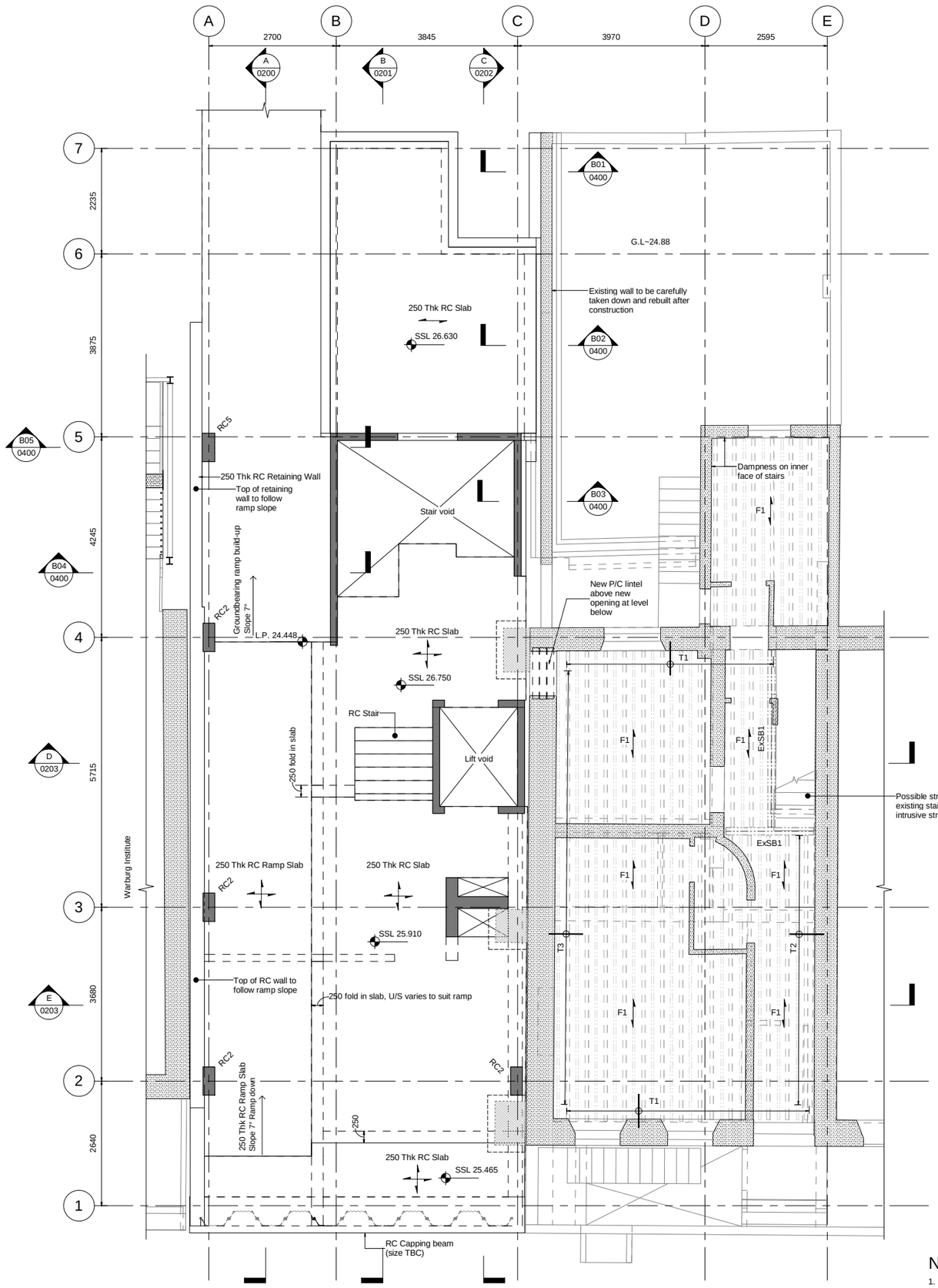
Drawing Title
General Arrangement
Basement Plan

Drawing Status
Developed Design

Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 50	S3

Drawing Number
J2889-S-DR-0090

Revision
02



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RC2	250x600 RC Column
RC3	200x600 RC Column
RC4	200x300 RC Column
RC5	270x600 RC Column

Floor Schedule

Reference	Description
F1	Assumed floor span - Ex. 50x200 timber joists @ 400c/c + new PFC200x75x23 in between existing floor boards are to be reinstated with iron nails to architect & heritage consultants details

Beam Schedule

Reference	Description
ExSB1	Ex Steel Beam (size TBC)
RCB1	550 x 200 RC Beam
RCB2	600 x 150 RC Beam

Wall Restraint Schedule

Reference	Description
T1	Helifix bowtie @ 400 c/c installed through noggings
T2	Helifix bowtie HD @ 400 c/c fixed into 2 no. parallel joists, installed from internally. Helifix bars connected where necessary to allow for installation (limited space between ex. joists). Installed to manufacturers specification.
T3	Helifix HD @ 400 c/c fixed into 2 no. parallel joists. Installed from external face to manufacturers specification
T4	Traditional restraint straps, fixed to existing joists and tied in with front facade during reconstruction of facade
T5	Helifix wall ties tying roof trusses & existing/proposed masonry walls together

Note:

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Notes

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Project
Toddler Lab,
32 Torrington Square

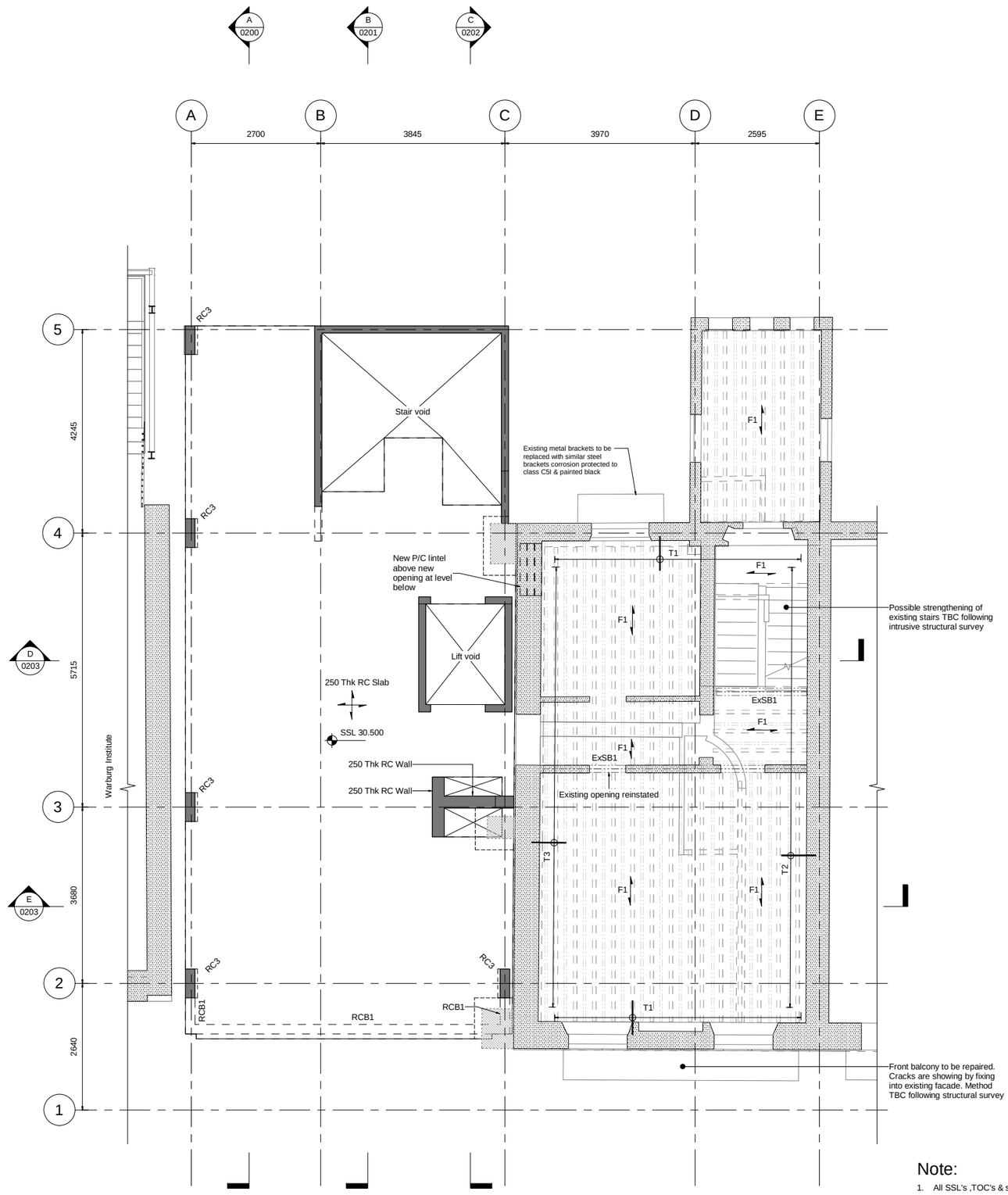
Drawing Title
General Arrangement
Ground Floor Plan

Drawing Status
Developed Design

Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 50	S3

Drawing Number
J2889-S-DR-0100

Revision
02



Legend

- 100 Thk 20N/mm² Brickwork
- 150 Thk RC wall
- Cavity
- 250 Thk (UNO) RC wall Base't to L00
- 150 Thk (UNO) RC wall L00 & above
- Existing wall to be retained
- Existing masonry butresses to remain during construction
- insitu concrete installed after buttress removal
- Ref — Denotes floor span - refer to Floor Schedule for description
- P/C Lintel — Precast concrete lintels above new openings in existing masonry

Column Schedule

Reference	Description
RC1	220x600 RC Column
RC2	250x600 RC Column
RC3	200x600 RC Column
RC4	200x300 RC Column
RC5	270x600 RC Column

Floor Schedule

Reference	Description
F1	Assumed floor span - Ex. 50x200 timber joists @ 400c/c + new PFC200x75x23 in between existing floor boards are to be reinstated with iron nails to architect & heritage consultants details

Beam Schedule

Reference	Description
ExSB1	Ex Steel Beam (size TBC)
RCB1	550 x 200 RC Beam
RCB2	600 x 150 RC Beam

Wall Restraint Schedule

Reference	Description
T1	Helifix bowtie @ 400 c/c installed through noggings
T2	Helifix bowtie HD @ 400 c/c fixed into 2 no. parallel joists, installed from internally. Helifix bars connected where necessary to allow for installation (limited space between ex. joists). Installed to manufacturers specification.
T3	Helifix HD @ 400 c/c fixed into 2 no. parallel joists. Installed from external face to manufacturers specification
T4	Traditional restraint straps, fixed to existing joists and tied in with front facade during reconstruction of facade
T5	Helifix wall ties tying roof trusses & existing/proposed masonry walls together

Note:

1. All SSL's ,TOC's & slopes TBC by Architect

Notes

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6. Refer to Architects drawings for grid setting out relative to existing

SAFETY, HEALTH AND ENVIRONMENT
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Construction
Maintenance & Cleaning
Decommissioning & Demolition
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Rev	Date	Description	Drn	App
02	21.07.17	Stage 3 Issue	MM	CP
01	13.07.17	Preliminary Stage 3	JD	TW
00	07.07.17	Developed Design	JD	CP

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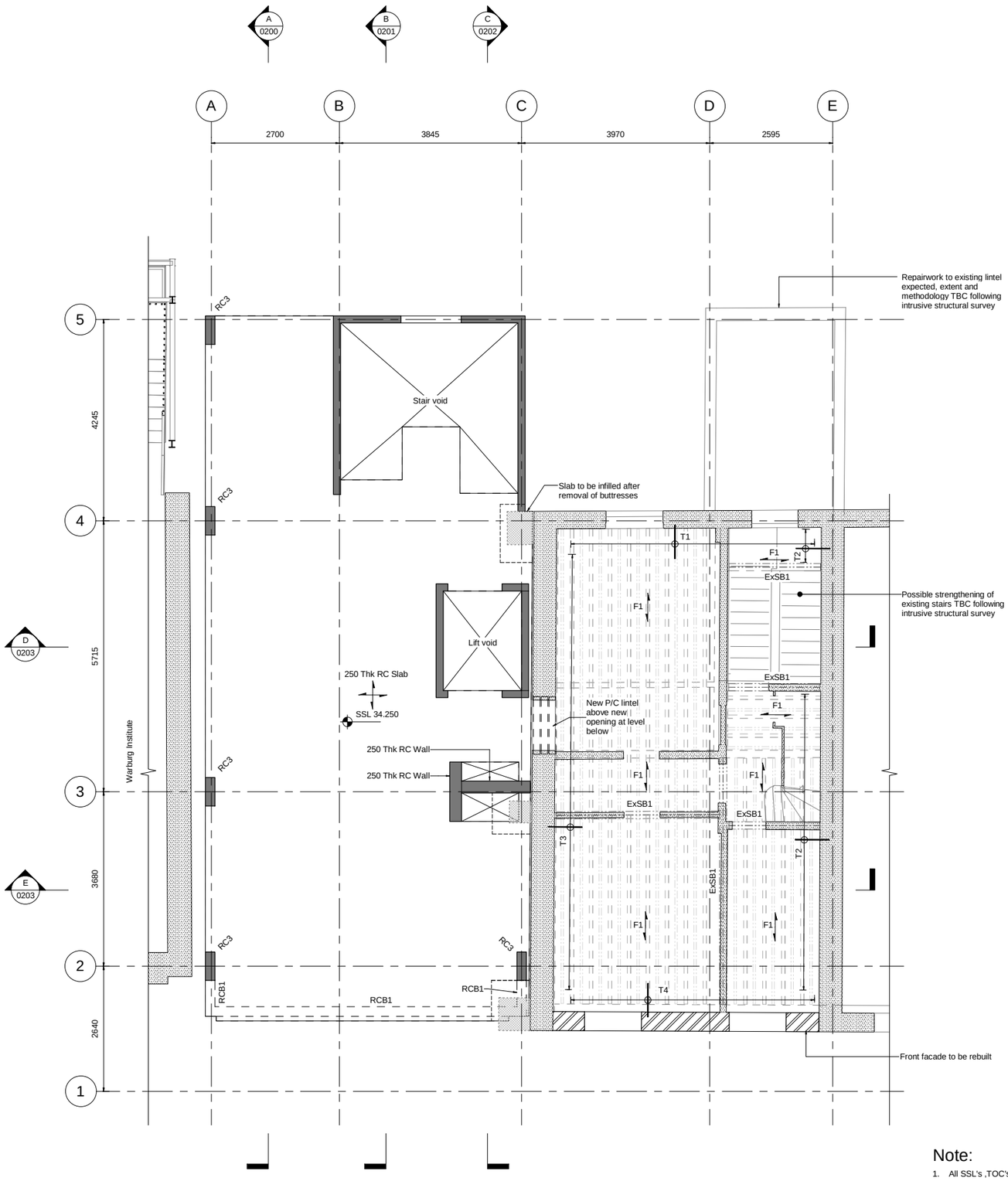
Project
Toddler Lab,
32 Torrington Square

Drawing Title
General Arrangement
First Floor Plan

Drawing Status
Developed Design

Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 50	S3

Drawing Number: J2889-S-DR-0110
Revision: 02



Legend

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- 150 Thk RC wall
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Column Schedule

Reference	Description
RC1	220x600 RC Column
RC2	250x600 RC Column
RC3	200x600 RC Column
RC4	200x300 RC Column
RC5	270x600 RC Column

Floor Schedule

Reference	Description
F1	Assumed floor span - Ex. 50x200 timber joists @ 400c/c + new PFC200x75x23 in between existing floor boards are to be reinstated with iron nails to architect & heritage consultants details

Beam Schedule

Reference	Description
ExSB1	Ex Steel Beam (size TBC)
RCB1	550 x 200 RC Beam
RCB2	600 x 150 RC Beam

Wall Restraint Schedule

Reference	Description
T1	Helifix bowtie @ 400 c/c installed through noggings
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T3	Helifix HD @ 400 c/c fixed into 2 no. parallel joists. Installed from external face to manufacturers specification
T4	Traditional restraint straps, fixed to existing joists and tied in with front facade during reconstruction of facade
T5	Helifix wall ties tying roof trusses & existing/proposed masonry walls together

Notes

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Note:

1. All SSL's ,TOC's & slopes TBC by Architect

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00	07.07.17	Developed Design	JD	CP

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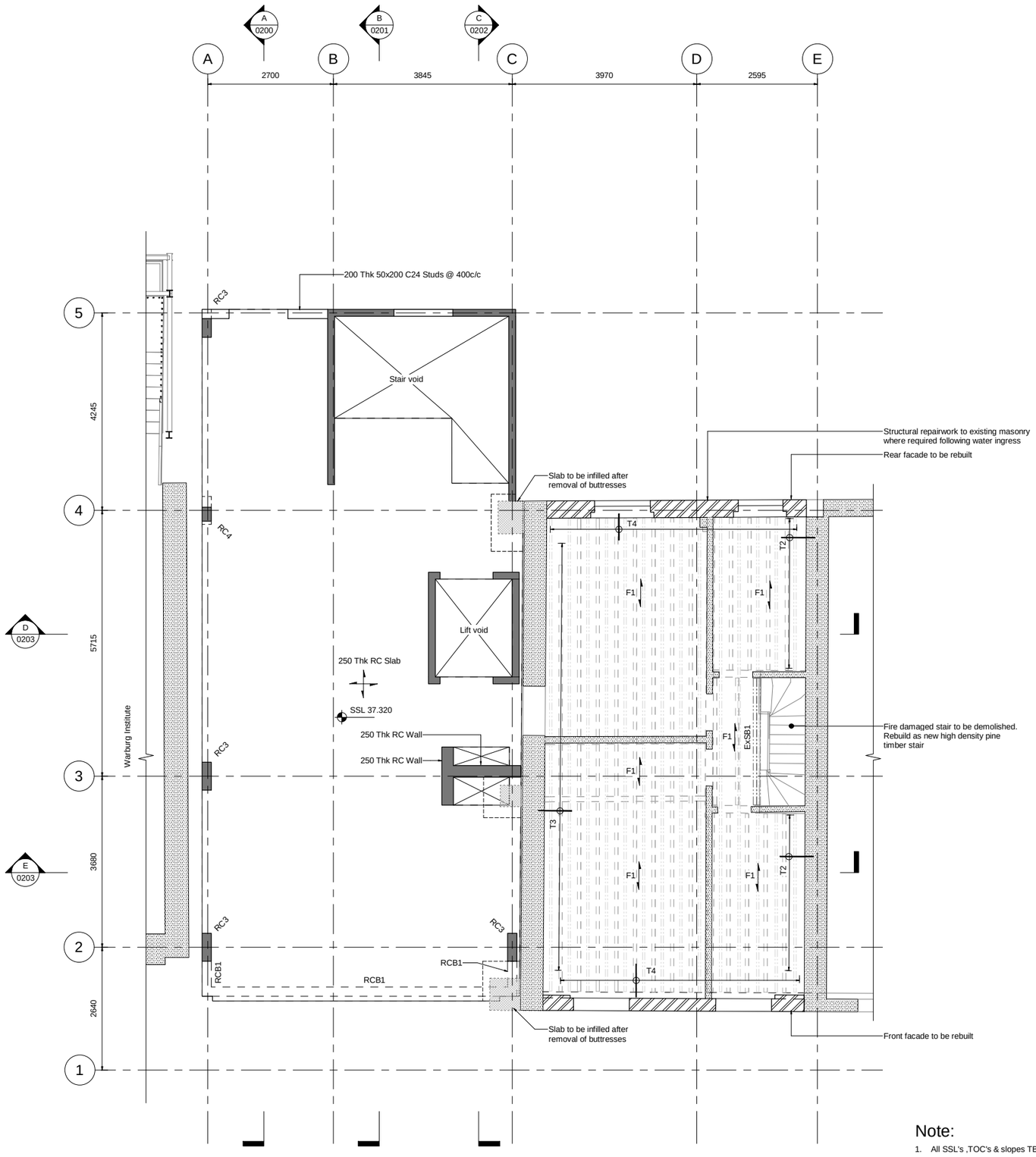
Project
Toddler Lab,
32 Torrington Square

Drawing Title
General Arrangement
Second Floor Plan

Drawing Status
Developed Design

Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 50	S3

Drawing Number: J2889-S-DR-0120
Revision: 02



Legend

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- 150 Thk RC wall
- Cavity
- 250 Thk (UNO) RC wall Base't to L00
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Column Schedule

Reference	Description
RC1	220x600 RC Column
RC2	250x600 RC Column
RC3	200x600 RC Column
RC4	200x300 RC Column
RC5	270x600 RC Column

Floor Schedule

Reference	Description
F1	Assumed floor span - Ex. 50x200 timber joists @ 400c/c + new PFC200x75x23 in between existing floor boards are to be reinstated with iron nails to architect & heritage consultants details

Beam Schedule

Reference	Description
ExSB1	Ex Steel Beam (size TBC)
RCB1	550 x 200 RC Beam
RCB2	600 x 150 RC Beam

Wall Restraint Schedule

Reference	Description
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T4	Traditional restraint straps, fixed to existing joists and tied in with front facade during reconstruction of facade
T5	Helifix wall ties tying roof trusses & existing/proposed masonry walls together

Note:

1. All SSL's ,TOC's & slopes TBC by Architect

Notes

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Project

Toddler Lab,
32 Torrington Square

Drawing Title

General Arrangement
Third Floor Plan

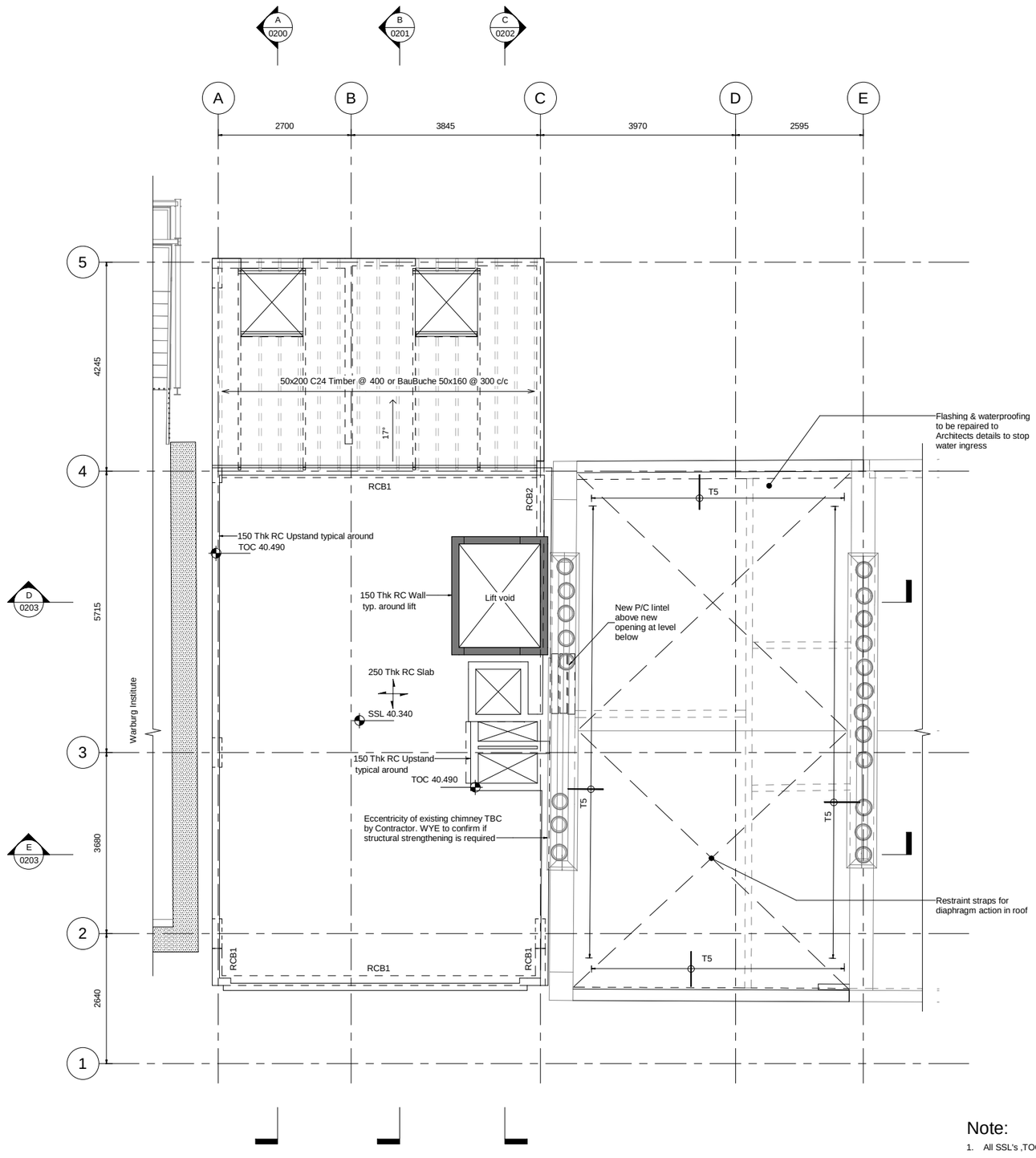
Drawing Status

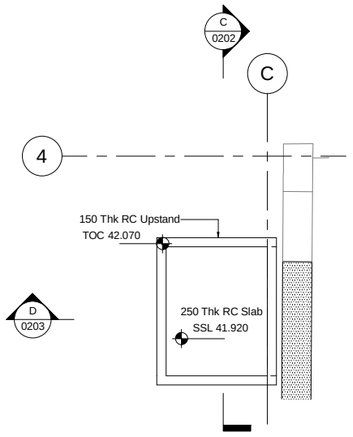
Developed Design

Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 50	S3

Drawing Number: J2889-S-DR-0130

Revision: 02





Lift Overrun

Legend

- 100 Thk 20N/mm² Brickwork
- 150 Thk RC wall
- Cavity
- 250 Thk (UNO) RC wall Base't to L00
  150 Thk (UNO) RC wall L00 & above
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Beam Schedule

Reference	Description
ExSB1	Ex Steel Beam (size TBC)
RCB1	550 x 200 RC Beam
RCB2	600 x 150 RC Beam

Wall Restraint Schedule

Reference	Description
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Note:

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Notes

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Construction
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02	21.07.17	Stage 3 Issue	MM	CP
01	13.07.17	Preliminary Stage 3	JD	TW
00	07.07.17	Developed Design	JD	CP

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Project

Toddler Lab,
32 Torrington Square

Drawing Title

General Arrangement
Roof Plan

Drawing Status

Developed Design

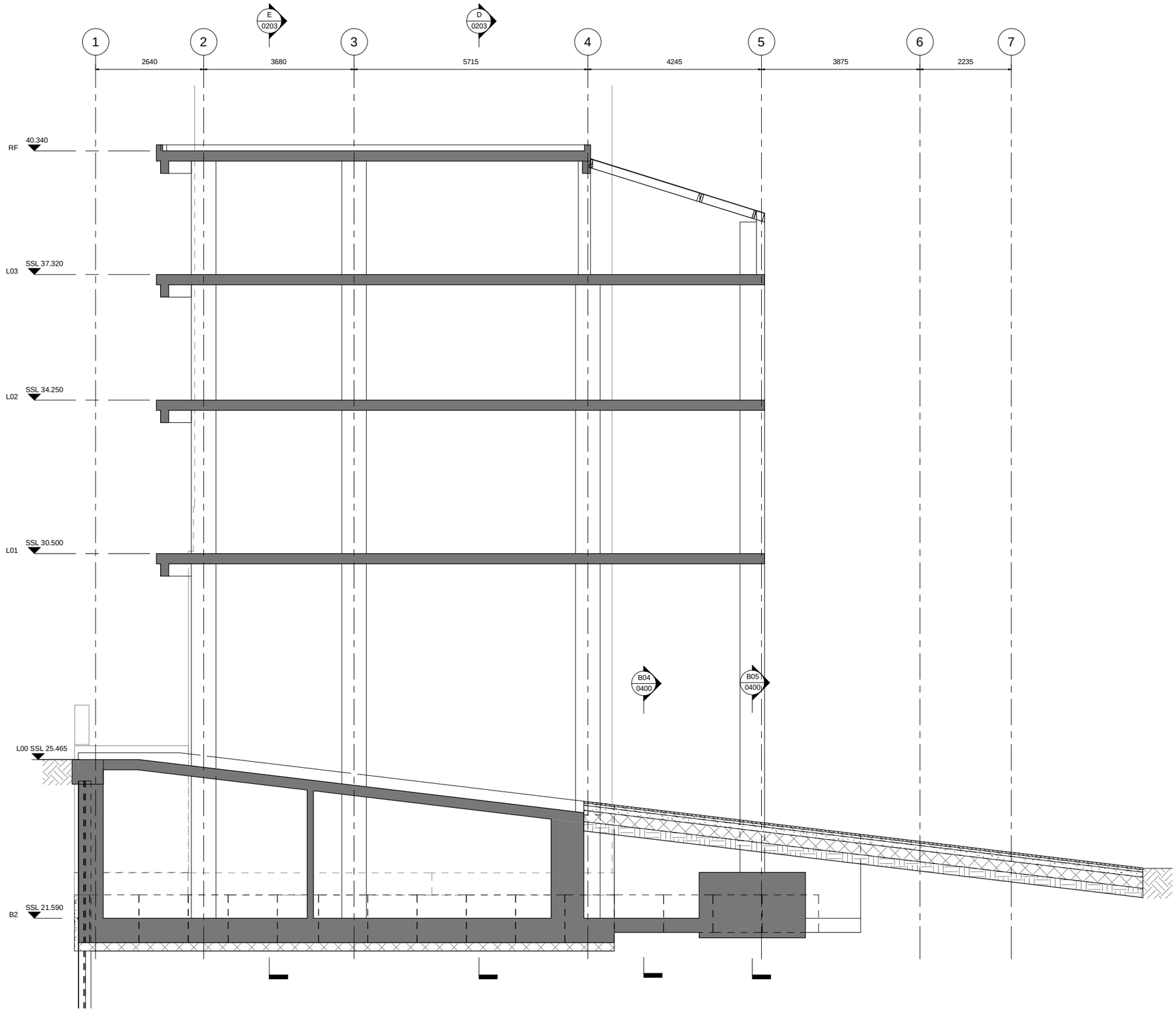
Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 50	S3

Drawing Number

J2889-S-DR-0140

Revision

02



Section - A

Notes

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00	07.07.17	Developed Design	JD	CP

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Project
Toddler Lab,
32 Torrington Square

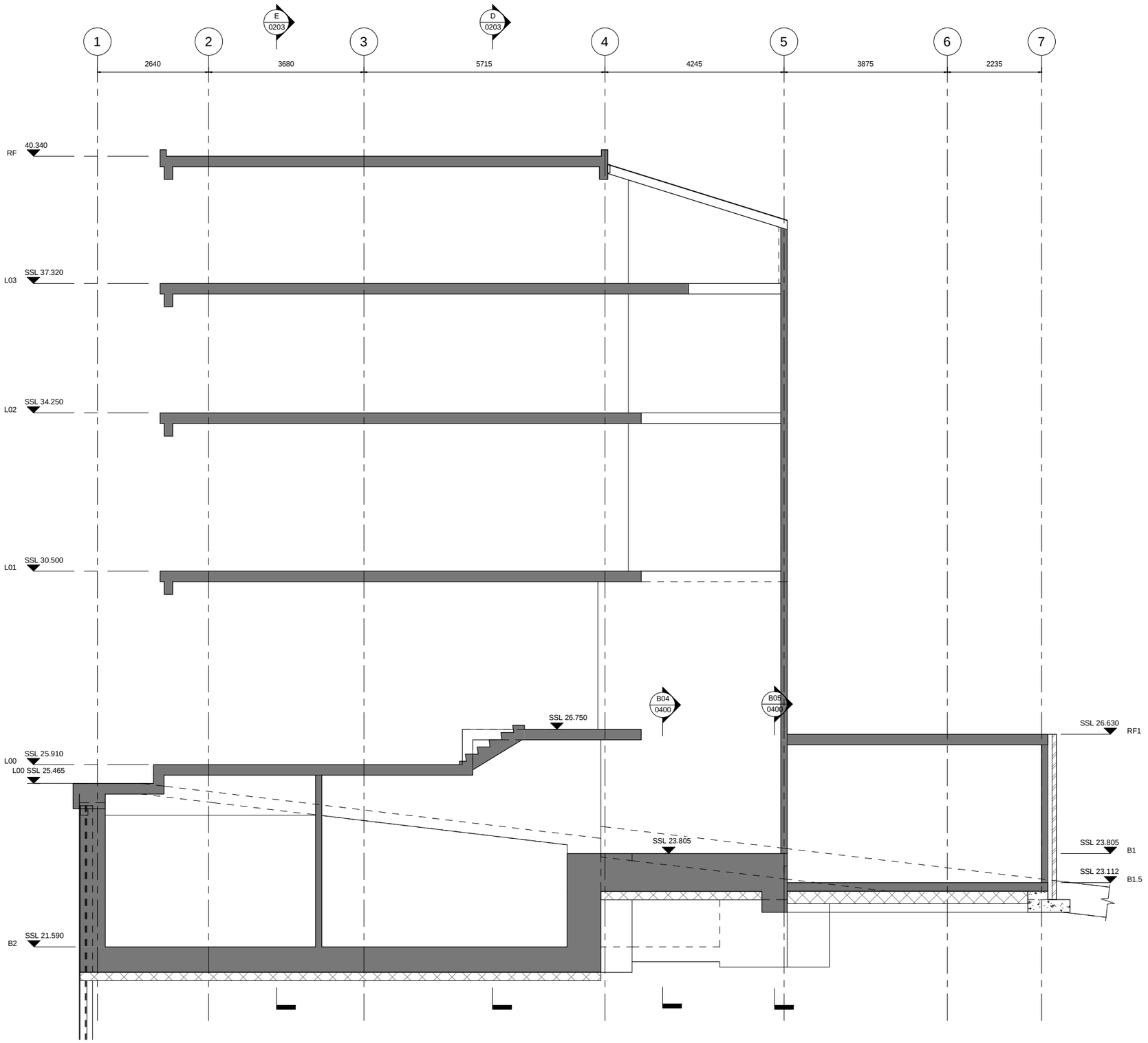
Drawing Title
General Arrangement
Sections - Sheet 1

Drawing Status
Developed Design

Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 50	S3

Drawing Number
J2889-S-DR-0200

Revision
02



Section - B

Notes

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00	07.07.17	Developed Design	JD	CP

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Project

Toddler Lab,
32 Torrington Square

Drawing Title

General Arrangement
Sections - Sheet 2

Drawing Status

Developed Design

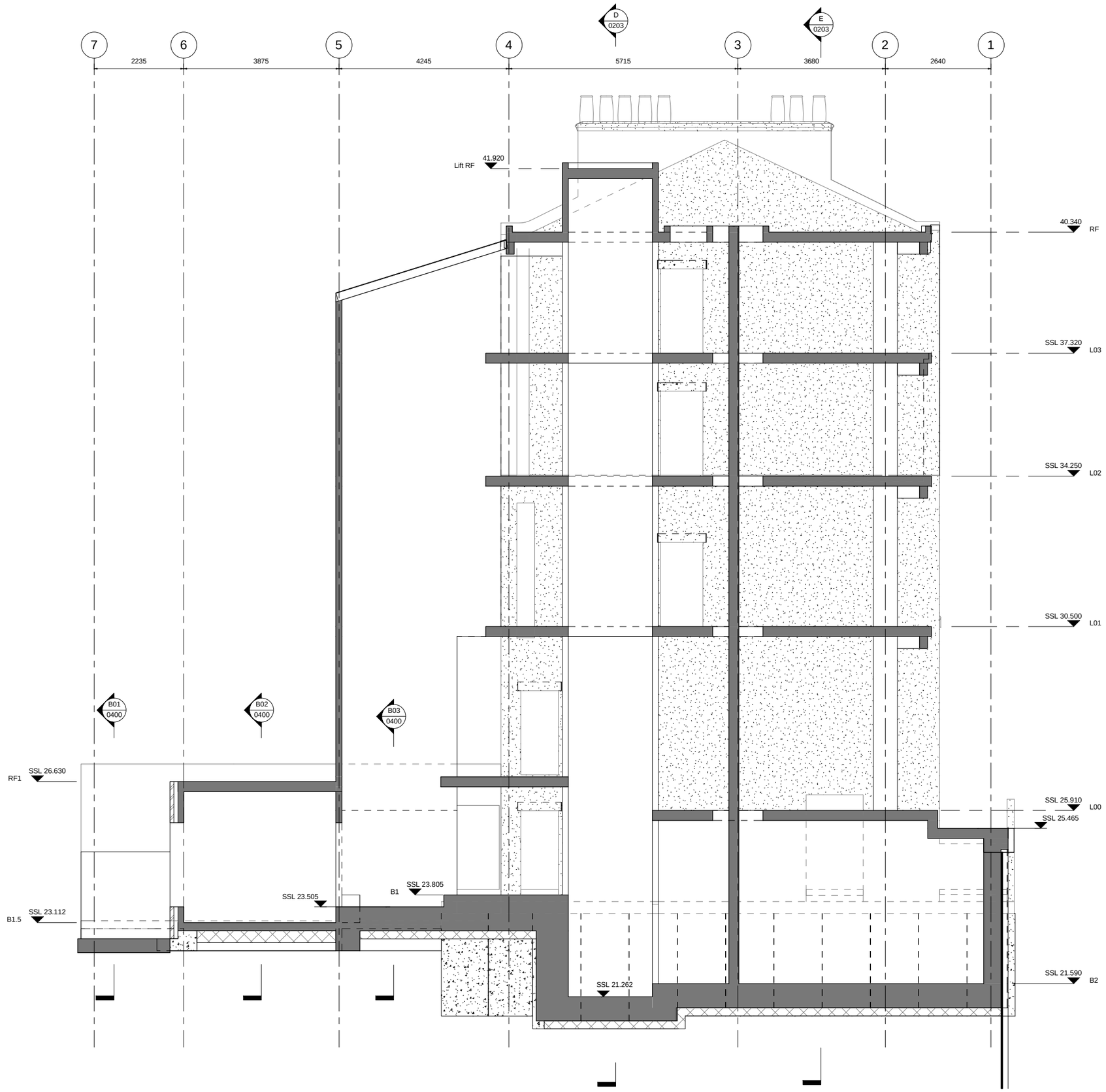
Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 50	S3

Drawing Number

J2889-S-DR-0201

Revision

02



Section - C

Notes

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Project
Toddler Lab,
32 Torrington Square

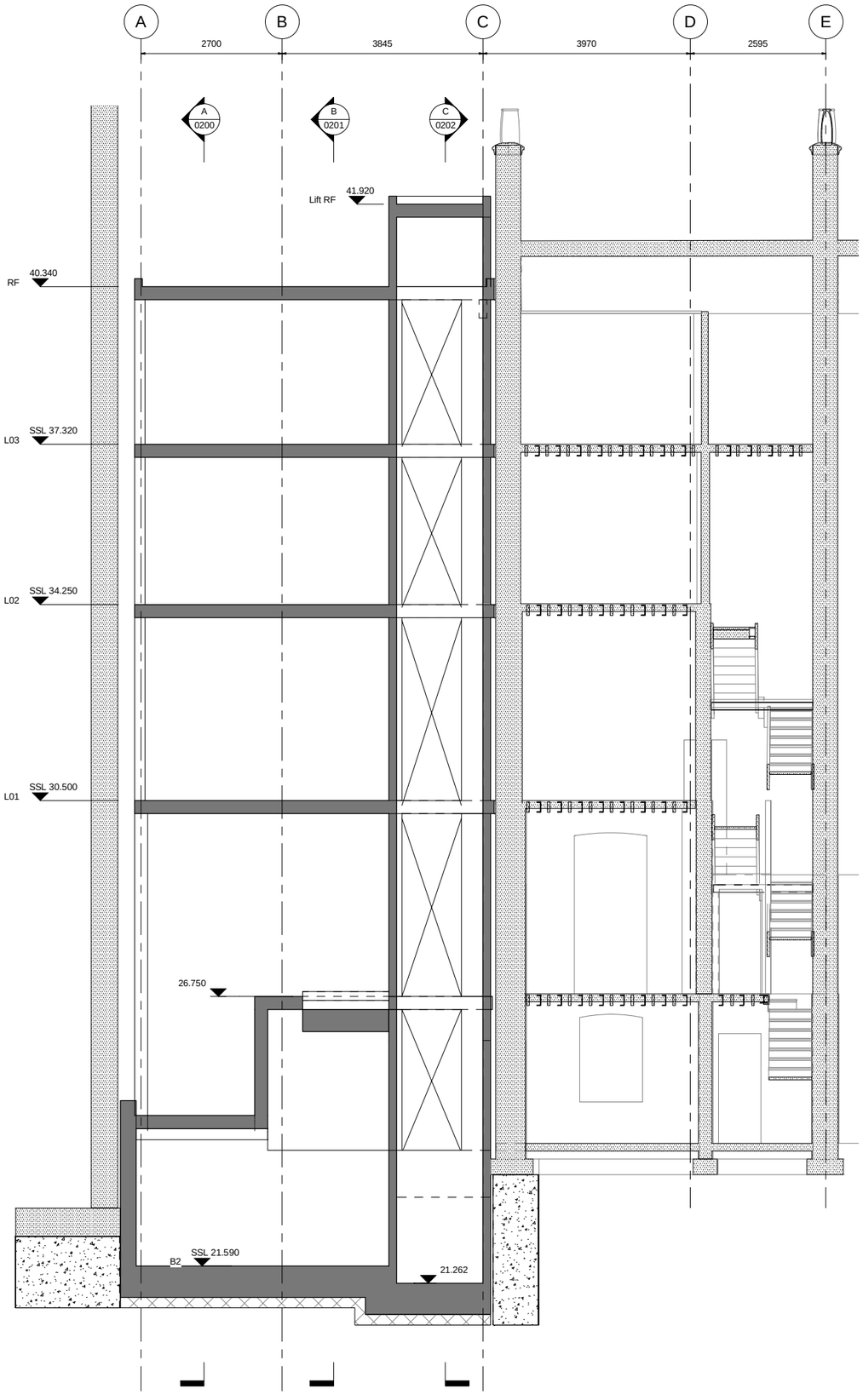
Drawing Title
General Arrangement
Sections - Sheet 3

Drawing Status
Developed Design

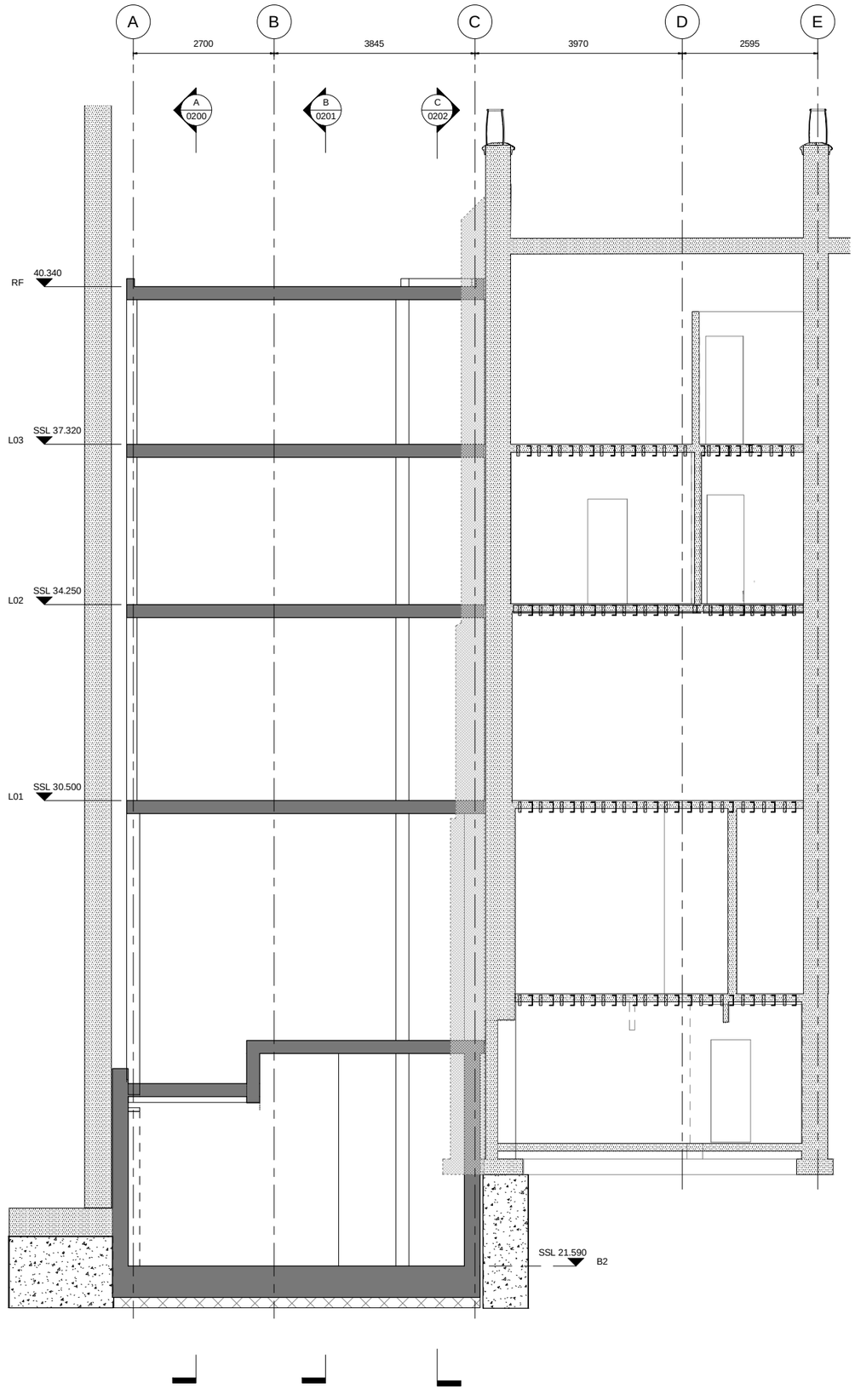
Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 50	S3

Drawing Number
J2889-S-DR-0202

Revision
02



Section - D



Section - E

Notes

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Toddler Lab,
32 Torrington Square

Drawing Title

General Arrangement
Sections - Sheet 4

Drawing Status

Developed Design

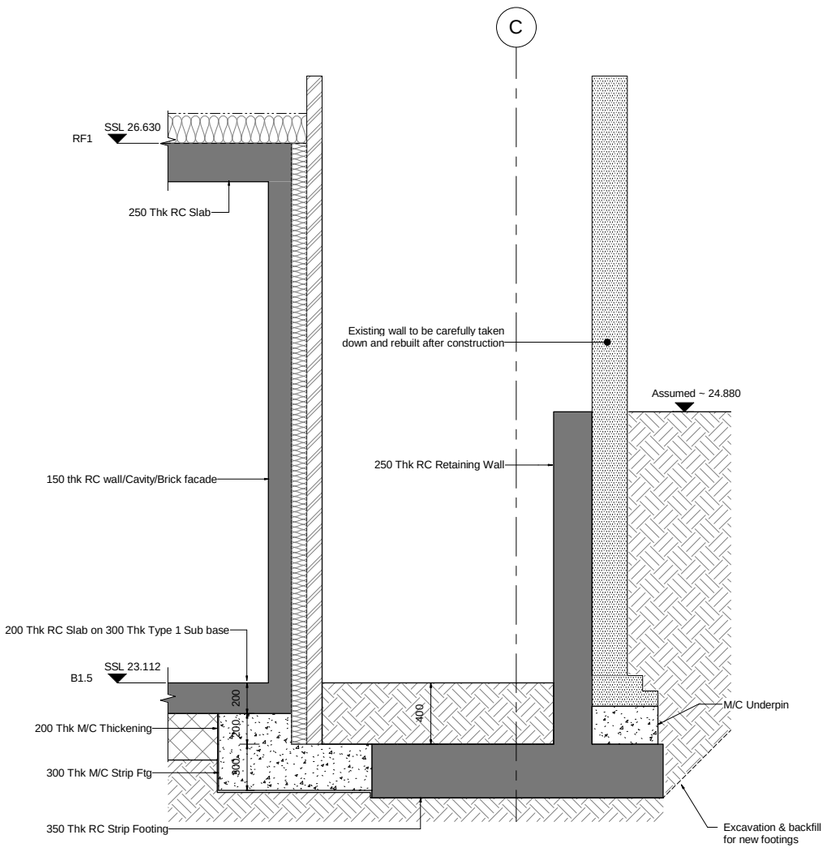
Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 50	S3

Drawing Number

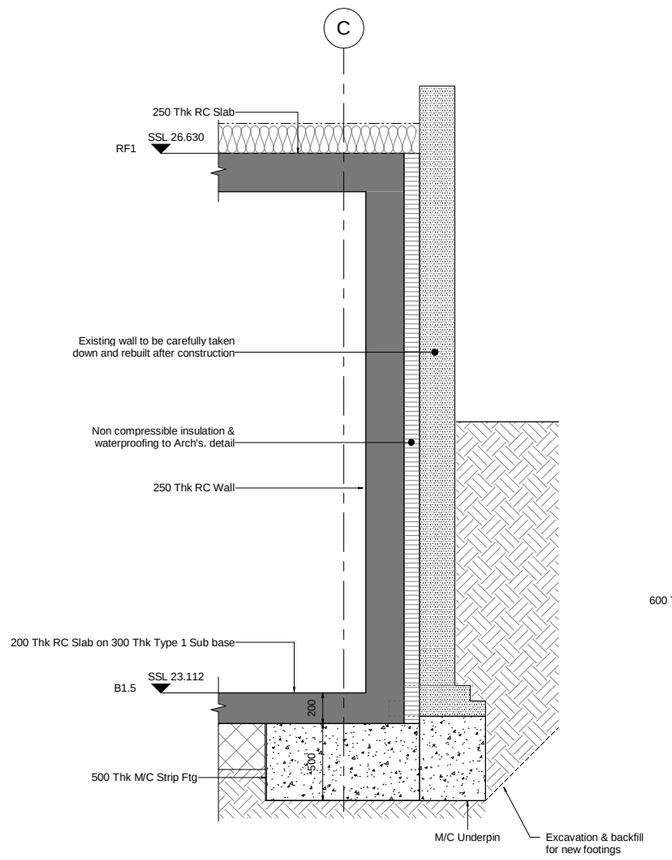
J2889-S-DR-0203

Revision

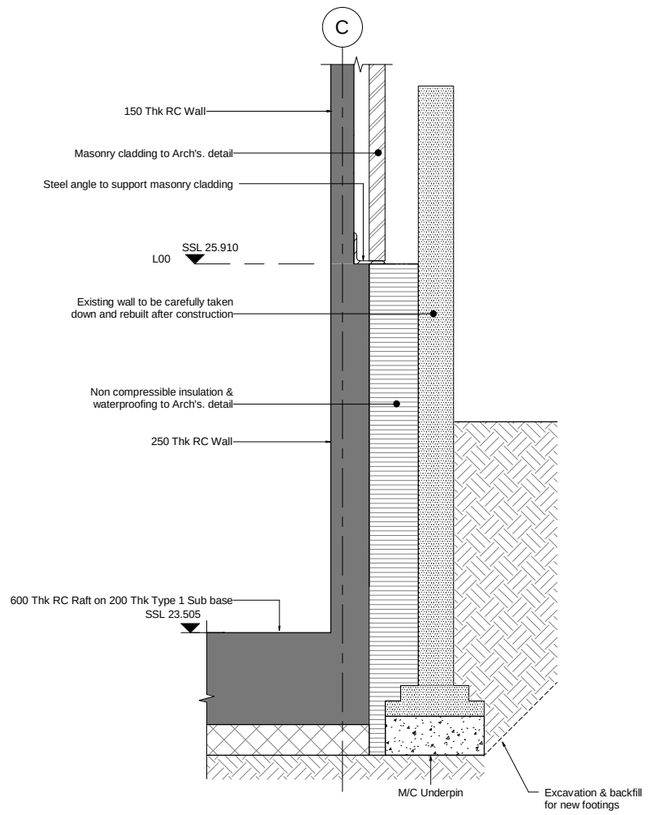
02



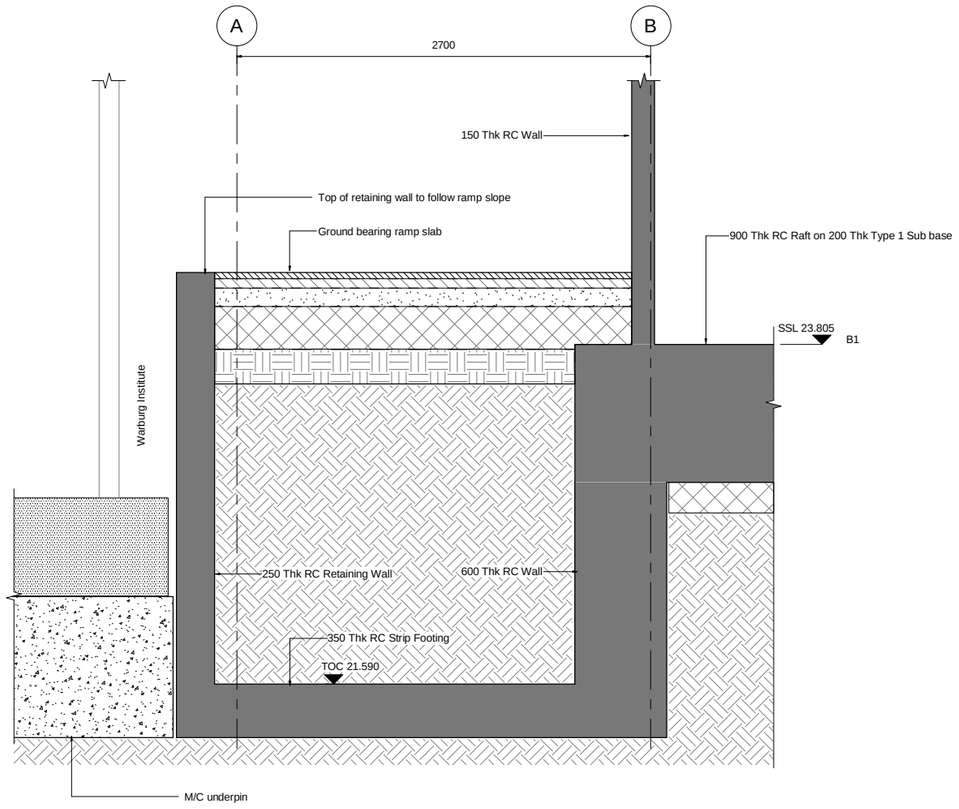
Detail Section - B01



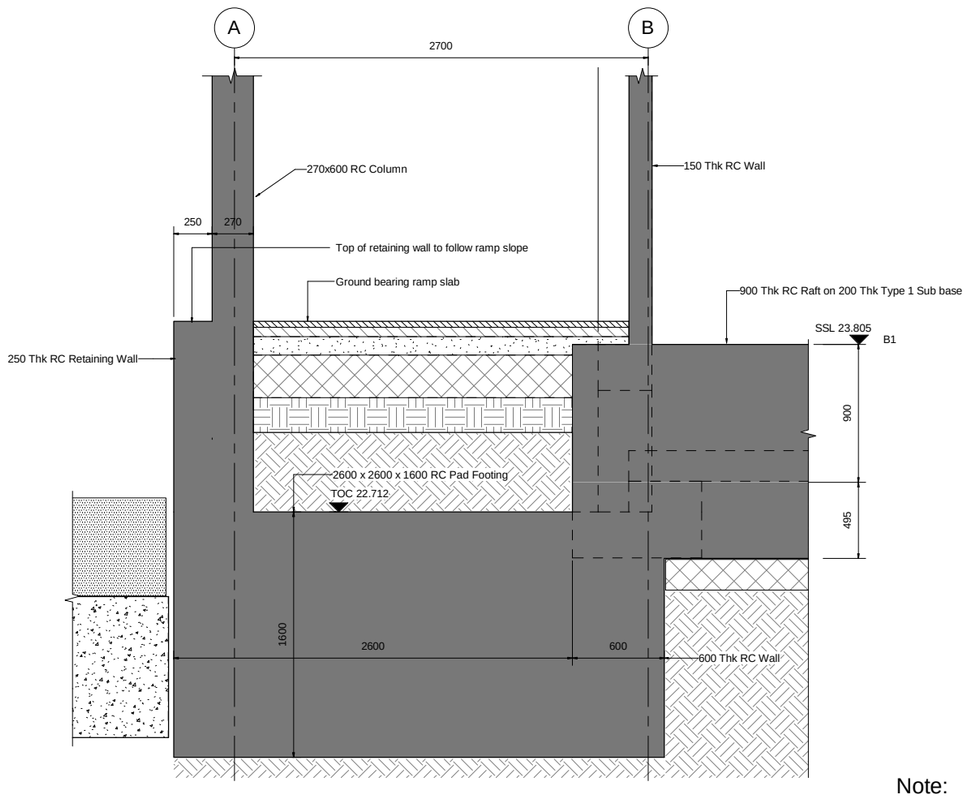
Detail Section - B02



Detail Section - B03



Detail Section - B04



Detail Section - B05

Note:

1. All SSL's ,TOC's & slopes TBC by Architect

Notes

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Project

Toddler Lab,
32 Torrington Square

Drawing Title

Substructure Details
Sheet 1

Drawing Status

Developed Design

Drawn by	Checked by	Sheet size	Scale	Rev Status
JD	TW	A1	1 : 20	S3

Drawing Number

J2889-S-DR-0400

Revision

02