



RIDGE

**ANCOATS DISPENSARY,
MANCHESTER
STRUCTURAL STATEMENT
GREAT PLACES HOUSING GROUP LTD.
May 2021**

5014349-RDG-XX-XX-RP-S-0001

**ANCOATS DISPENSARY, MANCHESTER
STRUCTURAL STATEMENT
GREAT PLACES HOUSING GROUP LTD.**

May 2021

Document Reference

5014349-RDG-XX-XX-RP-S-0001

Prepared for

Great Places Housing Group Ltd.

2a Derwent Avenue
Manchester
M217QP

Prepared by

Ridge and Partners LLP
Belvedere House
5th Floor
12 Booth Street
Manchester
M2 4AW
0161 833 9579

Contact

Ben Marsden
Senior Structural Engineer
bmarsden@ridge.co.uk

Tel: 07425 637683

VERSION CONTROL

[illegible]

CONTENTS

1.	INTRODUCTION	5
2.	EXISTING BUILDING	6
2.1.	Site Location	6
2.2.	Site Description	6
2.3.	Existing Building Construction & Current Condition	7
3.	PROPOSED DEVELOPMENT	9
3.1.	Proposed Building Construction	9
4.	APPENDIX A – STRUCTURAL DRAWINGS	13

1. INTRODUCTION

- 1.0.1 Ridge and Partners LLP has been appointed by Great Places to prepare this Structural Statement to support the planning application for the proposed refurbishment and restoration of the historic Ancoats Dispensary Building on Old Mill St, Manchester.
- 1.0.2 This report has been commissioned by Great Places Housing Group Ltd and is specific to their interests in the development proposals as described within this report.

2. EXISTING BUILDING

2.1. Site Location

2.1.1. The site details are summarised in Table 1 below:

Table 1: Site Referencing Information

Item	Brief Description
Site name	Ancoats Dispensary
Site address and location	Old Mill Street, Ancoats, M4 6EB
Planning Authority	Manchester City Council
Approximate Grid Reference	OS: 385450, 398429
General Locality	The site is located within the New Islington City Centre Regeneration Area

2.2. Site Description

2.2.1. The site is bound by Old Mill Street and Lampwick Lane to the North and East, respectively. To the west and south is a new residential development by Manchester Life Development Company.

2.2.2. Site History is largely of the Ancoats Hospital development with a mill and works to the east side of the site. A former canal arm also came close to the rear of the building in the past which has since been backfilled. The existing building was constructed sometime between 1872-1874 based on the historic maps available.

2.2.3. An aerial photograph of the existing site is shown in Figure 1 below.

Figure 1: Aerial Photograph of Existing Site (Google, 2021)



2.3. Existing Building Construction & Current Condition

2.3.1. A Condition Survey report was completed by Scott Hughes Design Ltd in January 2021, reference P4352-SHD-00-ZZ-RP-C-0100 rev 2. The construction and condition of the building was summarised as follows:

- The site is currently unoccupied and is being maintained by Manchester City Council. The building had deteriorated rapidly from 2010, including a partial demolition taking place which included the removal and storage of the historic tower. From 2013 addition scaffolding and façade retention have been installed to prevent further collapse of the structure and to allow the building to survive until refurbishment/redevelopment can take place.
- The form of construction of the Dispensary is load bearing brickwork masonry walls of various thickness consisting of a cavity with possible steel or iron wall ties. There are also hidden flues within the walls that can lead to a deceptive perception of thickness.
- Following the removal of the roof and floors the condition of the walls has deteriorated drastically.

- The building is not safe to access internally due to rotten and partially collapsed floors.
- The primary issue of concern for the existing building is the stability of the masonry walls. These have been secured around the perimeter by scaffold but internally the walls have loose bricks and vegetation growth that would provide a danger to anyone accessing the building. The scaffold has recently been strengthened so there is minimal danger of external collapse, but the internal walls could potentially collapse within the building footprint
- The primary structure of the building is currently kept stable and in place by the perimeter façade retention scheme. Should this be removed, without further structural intervention, the building will be at risk from collapse

2.3.2. A photograph of the original building is illustrated in Image 1 below.

Image 1: Photo of Original Building

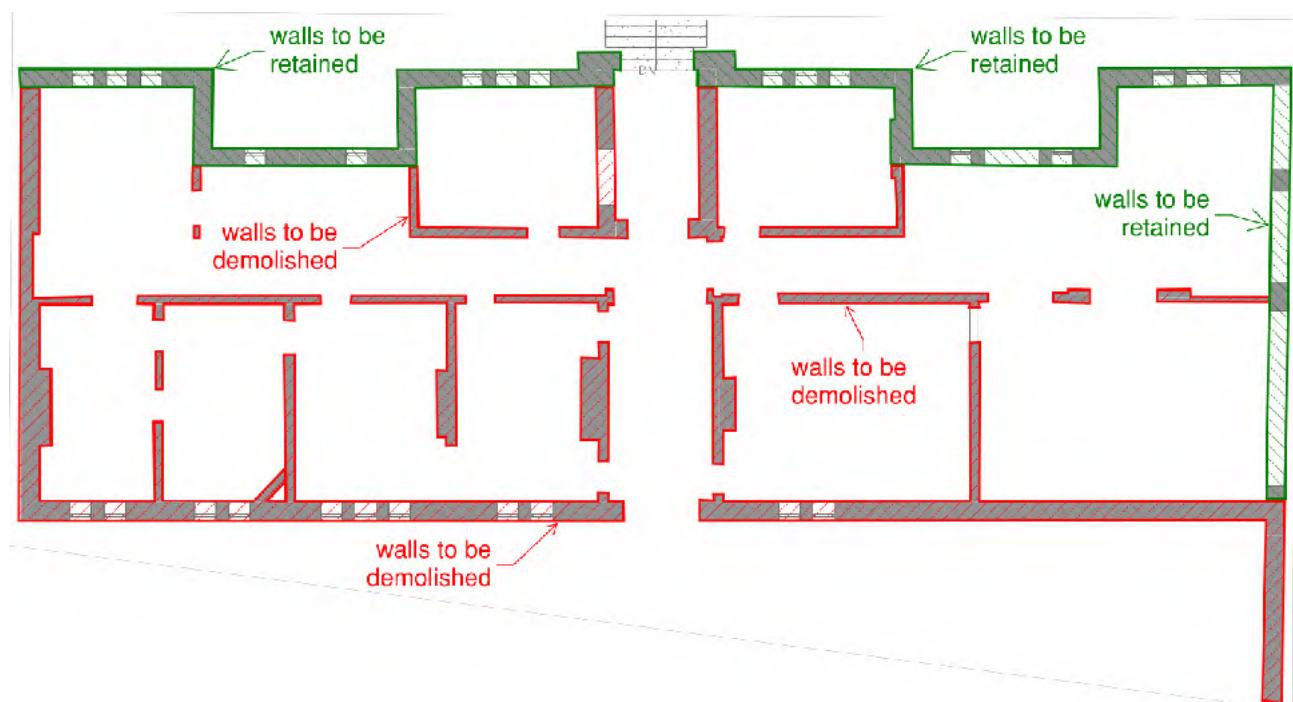


3. PROPOSED DEVELOPMENT

3.1. Proposed Building Construction

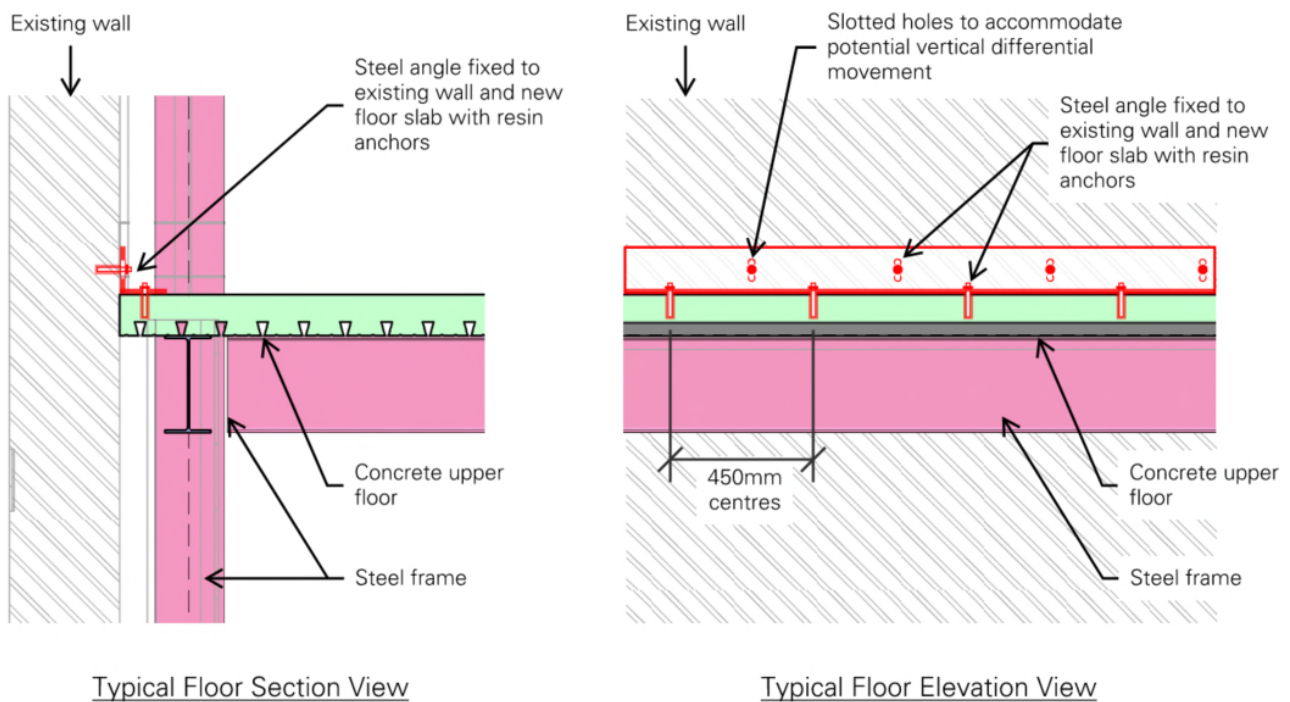
- 3.1.1. The proposed structural configuration is outlined on the Structural drawings contained in Appendix A. Note, the proposals are based on preliminary design information only and therefore all details are subject to development and change during detailed design stage.
- 3.1.2. The new build construction will comprise steel frame supporting concrete metal deck upper floors and roof, with a suspended reinforced concrete ground floor. Refer to drawings ending 0015, 0020, 0025, 0030, 0035 & 0040 in Appendix A for the upper floor and roof layouts. Refer to drawing ending 0010 in Appendix A for the ground floor layout.
- 3.1.3. The steel frame will be braced to provide lateral stability. Braced bays are identified on drawings ending 0010, 0015, 0020, 0025, 0030, 0035, 0040, 0050, 0055 & 0060 enclosed in Appendix A
- 3.1.4. The steel frame columns and ground floor will be supported on piled foundations with reinforced concrete pile caps and ground beams. The piles will be continuous flight auger (CFA) type, with specialist rig to minimise vibrations and impact on existing wall foundations. Refer to drawing 5014349-RDG-XX-FN-DR-S-0003 & 0004 in Appendix A for the foundation proposals.
- 3.1.5. Of the masonry walls that remain of the building, only the main elevation walls facing Old Mill St and Lampwick Lane are deemed salvageable from their current condition. Figure 2 below identifies the walls which are proposed to be retained and demolished.

Figure 2: Plan Layout of Existing Walls



- 3.1.6. Originally, the main façade walls were load bearing elements capable of supporting significant loads from the timber upper floors and roof. The proposed scheme alleviates the burden on these walls by utilising a steel frame to support the vertical loads from the new upper floor and roofs.
- 3.1.7. The structural frame will be fixed to the existing walls to provide lateral restraint. A steel angle will be fixed horizontally along the top of the floor slab and the inside face of existing brickwork wall with resin anchors at regular centres (typically 450mm). Slotted holes will be provided in face of the steel angle against the existing wall to accommodate potential vertical differential movement. The fixing system is to be installed after the erection of the steel frame and casting of concrete slabs to minimise the potential vertical differential movement as far as practicable. Figure 3 below illustrates the proposed fixing detail.

Figure 3: Fixing of Structural Frame to Retained Façade



- 3.1.8. At first floor level, the floor does not extend all the way to the front elevation wall. Refer to drawing 5014349-RDG-XX-01-DR-S-0015 in Appendix A for details. Therefore, in this location the steel angle will be fixed to a perimeter steel beam in lieu of the floor slab. The fixing to the existing wall will be the same as described in 3.1.7.
- 3.1.9. The increased number of upper floor levels compared to the original configuration results in an improved lateral support solution to ensure long term structural stability.
- 3.1.10. The existing masonry ties will be appropriately tied to the new steel frame. The existing walls which are to be retained are not relied on for any stability or restraint of the new structure. They will be supported at all times during the construction phase by utilising a temporary façade retention system.

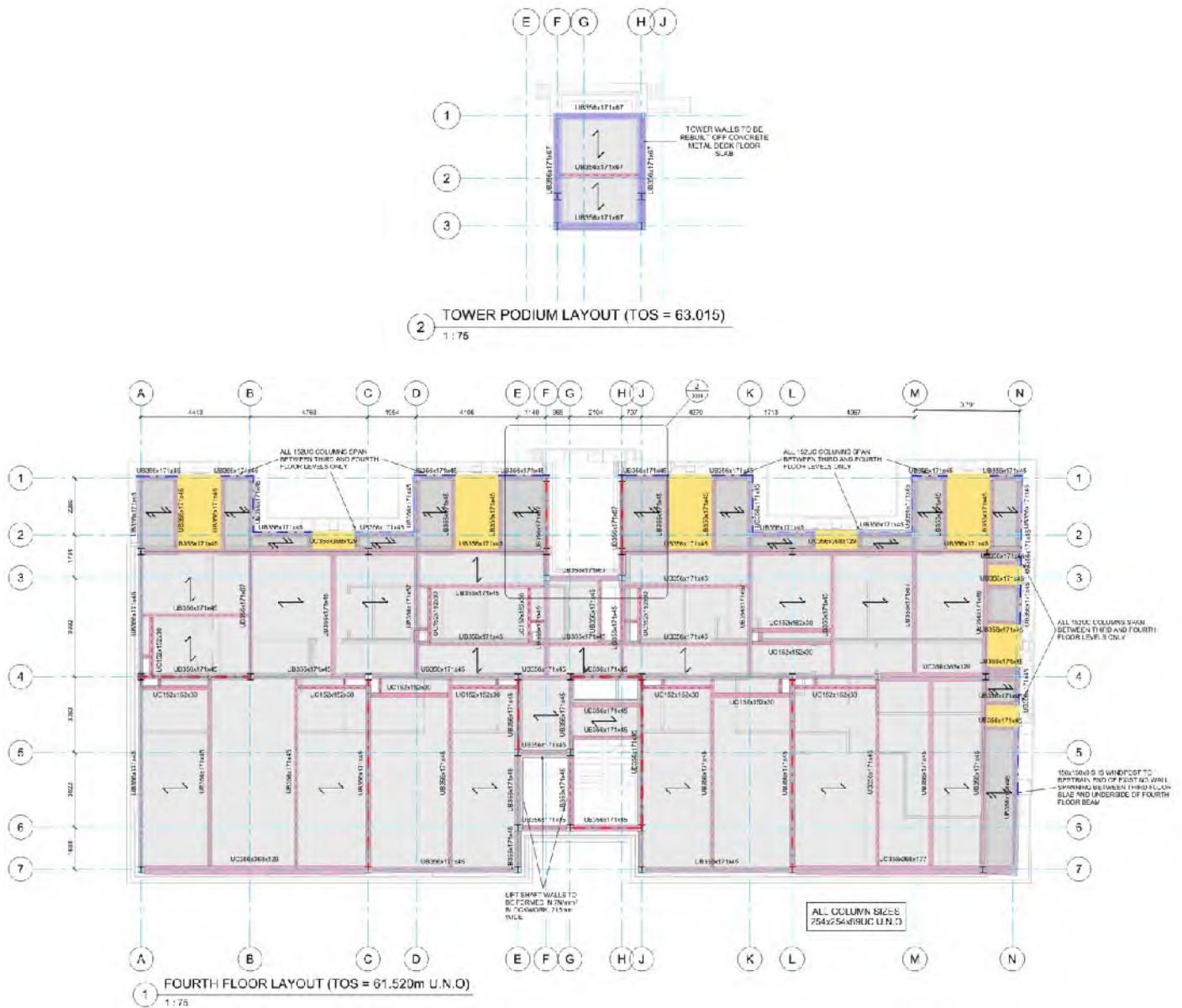
- 3.1.11. The tower was a prominent feature on the original building and this heritage is incorporated in proposed scheme by rebuilding the tower to restore it to its original form. Image 2 below provides a 3D visual illustration of the proposed tower at high level.

Image 2: 3D Visual of Proposed Tower at High Level



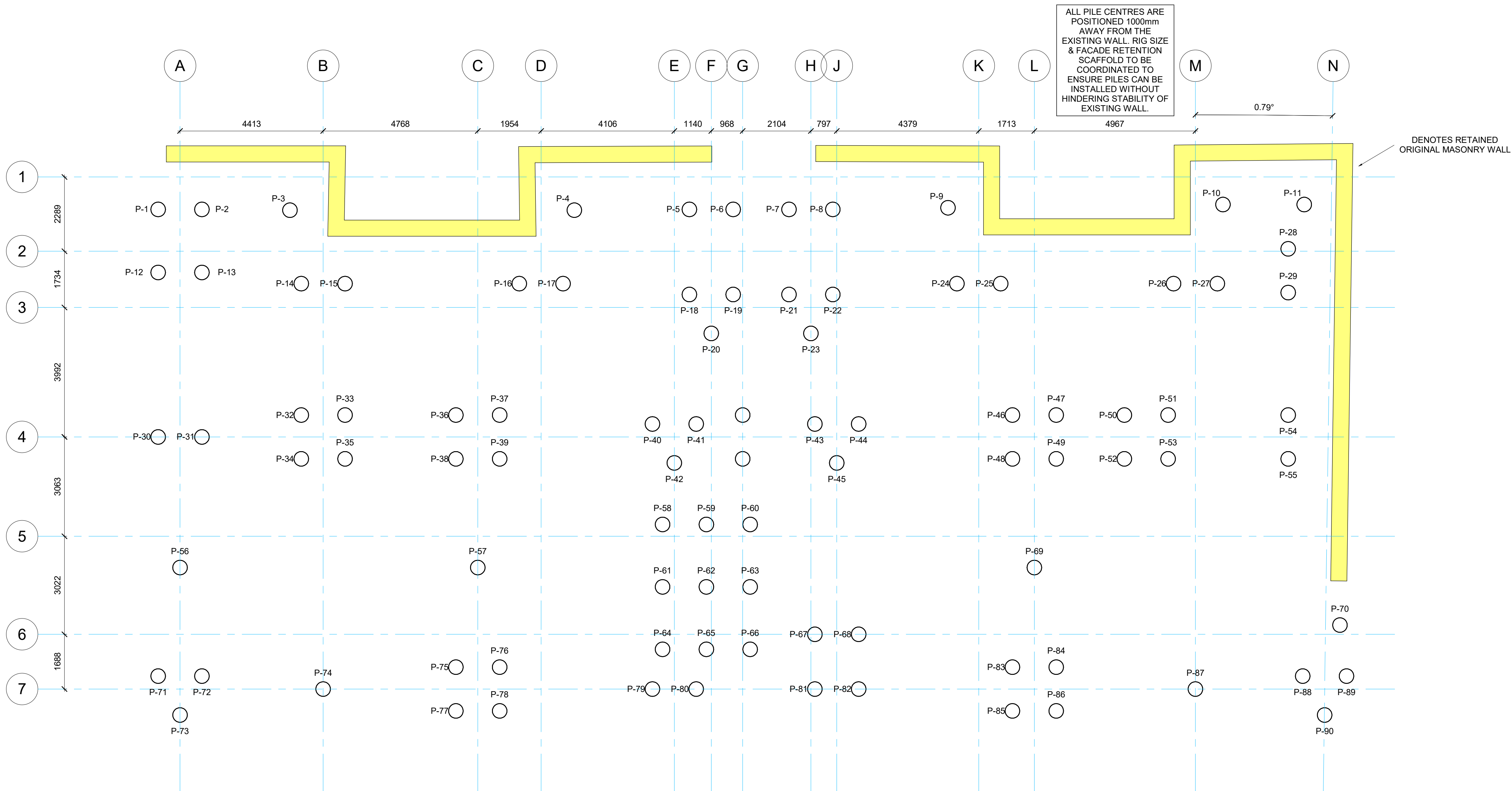
- 3.1.12. Given all the existing internal walls are in a state of disrepair, including the internal walls which formed the tower, long term structural stability of the tower will be provided by supporting it off a concrete floor deck and steel frame circa 1.5m above level 4 (fourth floor). At this level, the new structure above clashing with the existing windows in the front elevation which extend through level 4 (fourth floor level). Figure 4 below illustrates the proposed structural configuration at level 4. Refer to drawing 5014349-RDG-XX-04-DR-S-0030 for the level 4 (fourth floor) structural layout.

Figure 4: Proposed Structural Configuration at Level 4



- 3.1.13. The tower return walls extending into the building will also be rebuilt from this level, delivering an aesthetic solution in keeping with the original configuration whilst also ensuring longevity for years to come.
- 3.1.14. The heritage of the original tower will also be embodied by preserving the main entrance in its current location and maintaining the internal void space at levels 1, 2 & 3 in the footprint of the tower to replicate the grandeur within the tower itself.

4. APPENDIX A – STRUCTURAL DRAWINGS



SUB-STRUCTURE REINFORCEMENT ALLOWANCES

ALL SUB-STRUCTURE CONCRETE TO BE C38/35

BURIED CONCRETE REQUIREMENTS, NAMELY DESIGN SULPHATE AND ACEC TO BE CONFIRMED UPON SITE INVESTIGATION FINDINGS.

ALL REINFORCEMENT DRAWINGS AND BENDING SCHEDULES ARE A CONTRACTOR DESIGN ITEM. CONTRACTOR TO MAKE FOLLOWING ALLOWANCES FOR REINFORCEMENT QUANTITIES

PILE CAPS	-	175 kg/m3
GROUND BEAMS	-	175 kg/m3
LIFT PIT UPSTAND WALLS	-	200 kg/m3
SUSPENDED GROUND FLOOR SLAB	-	130 kg/m3

NOTE THESE RATES ARE PRELIMINARY ONLY. FINAL RATES AND REINFORCEMENT QUANTITIES TO BE DETERMINED FOLLOWING DETAILED DESIGN.

PILES NOTES:

FOR COSTING, PILES ASSUMED TO BE 450mm DIAMETER CFA PILES. FINAL DESIGN TO SPECIALIST SUB-CONTRACTOR DETAIL AND SPECIFICATION BASED ON THE BELOW LOADS :-

PILES TO BE DESIGNED AND SPECIFIED BY THE SPECIALIST SUB-CONTRACTOR FOR THE FOLLOWING LOADS:

- MAXIMUM VERTICAL LOAD = 750kN (SLS)
- MAXIMUM HORIZONTAL SHEAR = 75kN (SLS) FOR ALL BRACED BAY PILES, 10kN(SLS) FOR NON-BRACED BAY PILES

ALL PILE DESIGN TO BS EN 1992 AND BS EN 1997. A DETAILED SCHEDULE OF LOADS WILL BE PROVIDED FOR ALL PILES AT DETAILED DESIGN STAGE.

CONTRACTOR TO ALLOW FOR 1% (MIN. 2 No) STATIC LOAD TEST TO 150% WORKING LOAD CAPACITY IN LINE WITH SPERW AND 100% INTEGRITY TESTING OF ALL PILE.

PROSPECTIVE WARRANTY PROVIDER MAY HAVE MORE ONEROUS PILE TESTING REQUIREMENTS. CONTRACTOR TO ADVISE OF ADDITIONAL COST TO COMPLY WITH LABC/ NHBC/ PREMIER GUARANTEE CRITERIA.

PILE LAYOUT

1 : 75

PILE NOTE

- THESE NOTES SHOULD BE READ IN CONJUNCTION WITH THE FOUNDATION NOTES.
- THE FOUNDATION DESIGN IS BASED ON PRELIMINARY INFORMATION ONLY.
- THE PILES ARE IS TO BE DESIGNED BY THE PILING CONTRACTOR IN ACCORDANCE WITH THE FOLLOWING DESIGN CRITERIA. PILES SUBJECT TO VERTICAL AND HORIZONTAL LOADS AS QUANTIFIED IN THE PILE LOADING SCHEDULE.
- PILES ARE ASSUMED TO BE 450mm DIAMETER CFA EXTENDING APPROXIMATELY 19m BELOW GROUND LEVEL AS ADVISED BY GREEN PILING
- ALL REINFORCED CONCRETE WORKMANSHIP AND MATERIALS TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF BS EN 1992, BS EN 13670 AND THE NATIONAL STRUCTURAL CONCRETE SPECIFICATION.
- ALL PILING WORKS TO BE IN ACCORDANCE WITH THE RELEVANT PROJECT SPECIFICATION, THE INSTITUTION OF CIVIL ENGINEERS 'SPECIFICATION FOR PILING' AND SPERW THE 'SPECIFICATION FOR PILING AND EMBEDDED RETAINING WALLS'.
- THE PILING CONTRACTOR SHOULD VISIT SITE TO SATISFY THEMSELVES THAT THE ACCESS / SITE WORKING AREA CONSTRAINTS ARE ALLOWED FOR.
- THE PILING CONTRACTOR SHOULD REVIEW THE AVAILABLE GROUND INVESTIGATION REPORTS AND CARRY OUT ANY ADDITIONAL INVESTIGATIONS THEY DEEM NECESSARY TO PRODUCE A ROBUST AND ECONOMICAL PILE DESIGN.
- COPIES OF PILE CALCULATIONS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL AT LEAST 10 WORKING DAYS PRIOR TO THE WORKS COMMENCING.
- PILES TO BE INSTALLED WITHIN THE FOLLOWING TOLERANCES:- MAXIMUM DEVIATION FROM PLAN POSITION 75mm, MAXIMUM DEVIATION FROM PILE VERTICALITY 1 IN 75.
- IF PILES ARE OUT OF INSTALLATION TOLERANCE, THE ENGINEER WILL NEED TO RECONSIDER THE ADEQUACY OF THE FOUNDATION DESIGN. NO FORCIBLE CORRECTION WILL BE PERMITTED. IF PILES ARE MISALIGNED BY MORE THAN 150mm IN ANY DIRECTION OR ARE MORE THAN 5 DEGREES FROM THE SPECIFIED RAKE, THEY ARE TO BE REPLACED, OR ADDITIONAL PILES PROVIDED IN ACCORDANCE WITH DESIGN MODIFICATIONS AGREED WITH THE ENGINEER.
- THE PILING CONTRACTOR IS TO PROVIDE A DETAILED SURVEY OF ALL COMPLETED PILE POSITIONS TOGETHER WITH DIMENSIONAL IDENTIFICATION OF ALL PILES OUT OF TOLERANCE.
- THE PILES SHALL BE DESIGNED USING THE DESIGN LOADS DETAILED IN THE SCHEDULE AND SHALL BE ABLE TO CARRY THESE LOADS WITHOUT EXCEEDING THE PERMISSIBLE WORKING STRESSES OF THE MATERIALS IN THE PILE, THE BEARING STRATA AND WITHOUT EXCEEDING THE REQUIRED MAXIMUM SETTLEMENTS.
- PILES TO BE DESIGNED TO OVERALL FACTORS OF SAFETY GIVEN IN THE UK NA to BSEN1992-1-1:2004.
- LOADS IN THE SCHEDULE ARE BOTH FACTORED AND UNFACTORED LOADS TO BS EN 1991-1-1.
- THE PILE LOADS QUOTED HAVE NO ALLOWANCE FOR NEGATIVE SKIN FRICTION. THE PILING CONTRACTOR IS TO MAKE DUE ALLOWANCE WITHIN THE PILE DESIGN FOR NEGATIVE SKIN FRICTION AS APPROPRIATE.
- THE PILING CONTRACTOR SHALL ENSURE THAT ALL HORIZONTAL LOADS GIVEN AT THE HEAD OF THE PILES ARE ADEQUATELY CATERED FOR. ASSUMING UNI-AXIAL BENDING AND PILE HEAD FIXITY APPROPRIATE TO THE PILE CAP TYPE UNLESS NOTED OTHERWISE.
- ALL LOADS SHOULD BE APPLIED CONCENTRICALLY WITH THE AXIS OF THE PILE OR CENTRE OF GRAVITY OF THE PILE GROUP. ALLOWANCE SHALL BE MADE IN THE PILE DESIGN FOR INACURACIES IN POSITIONING PILES SUCH THAT THE PILES ACCOMMODATE THE RESULTING MOMENT OR ARE SUITABLY RESTRAINED.
- THE MAXIMUM TOTAL PERMISSIBLE SETTLEMENT AT ANY PILE SHALL BE 10mm. THE ENGINEER SHOULD BE NOTIFIED IF ANY SETTLEMENT OCCURS IN EXCESS OF 10mm.
- MINIMUM 2 no. STATIC LOAD TESTS REQUIRED TO BE ALLOWED FOR IN PILING PACKAGE.
- ALL CFA PILES SHALL BE SUBJECT TO INTEGRITY TESTING.
- THE PILING CONTRACTOR IS TO PROVIDE WRITTEN CONFIRMATION THAT THE DESIGNED AND INSTALLED PILES ARE SUITABLE FOR THE DESIGN LOADS.
- THE FINISHED PILES ARE TO EXTEND MIN. 75mm INTO PILE CAPS / GROUND BEAMS. PILE REINFORCEMENT IS TO EXTEND MIN. 50 TIMES THE BAR DIAMETER PAST THE CUT OFF LEVEL AND BE BENT ON SITE TO PROVIDE A FULL ANCHORAGE LENGTH INTO PILE CAPS / GROUND BEAMS.
- CFA PILE HEADS ARE TO BE CAST INITIALLY AT LEAST 150mm ABOVE CUT OFF LEVEL BEFORE BEING CUT DOWN TO THE REQUIRED LEVELS
- THE CONCRETE MIX DESIGN FOR ALL CONCRETE IN CONTACT WITH THE GROUND TO BE IN ACCORDANCE WITH BS8500-1.
- IT IS THE RESPONSIBILITY OF THE PILING CONTRACTOR AND THEIR TEMPORARY WORKS DESIGNER TO VERIFY THAT THE EXISTING CONCRETE HARDSTANDING IS A SUITABLE WORKING PLATFORM FOR THE CHOSEN PILING RIG. IF A PILING MAT IS REQUIRED TO ALLOW FOR THE INSTALLATION OF THE PILES THE DESIGN IS THE RESPONSIBILITY OF THE PILING CONTRACTOR.

INFORMATION CONTAINED ON THIS DRAWING IS STAGE 3 DESIGN ONLY. FURTHER DETAILED DESIGN AND CO-ORDINATION WITH THE CONTRACTOR, DESIGN TEAM AND APPROPRIATE SUB-CONTRACTORS WILL BE REQUIRED TO FULLY DEVELOP AND DETAIL THE FINAL CONSTRUCTION DETAILS. CONTRACTOR TO USE THEIR EXPERIENCE AND JUDGEMENT TO MAKE SUFFICIENT ALLOWANCES FOR DETAILS DESIGN DEVELOPMENT AND CO-ORDINATION.

P1	14.04.21	KLM	BM	ISSUED FOR INFORMATION
No	DATE	DRAWN	REV'D ENG.	AMENDMENT

STATUS	PURPOSE OF ISSUE
S2	FOR INFORMATION

COPYRIGHT:
The concepts and the information contained in this document are the copyright of Ridge & Partners LLP. Use or copying of the document in whole or in part without written permission of Ridge & Partners LLP. constitutes an infringement of copyright.



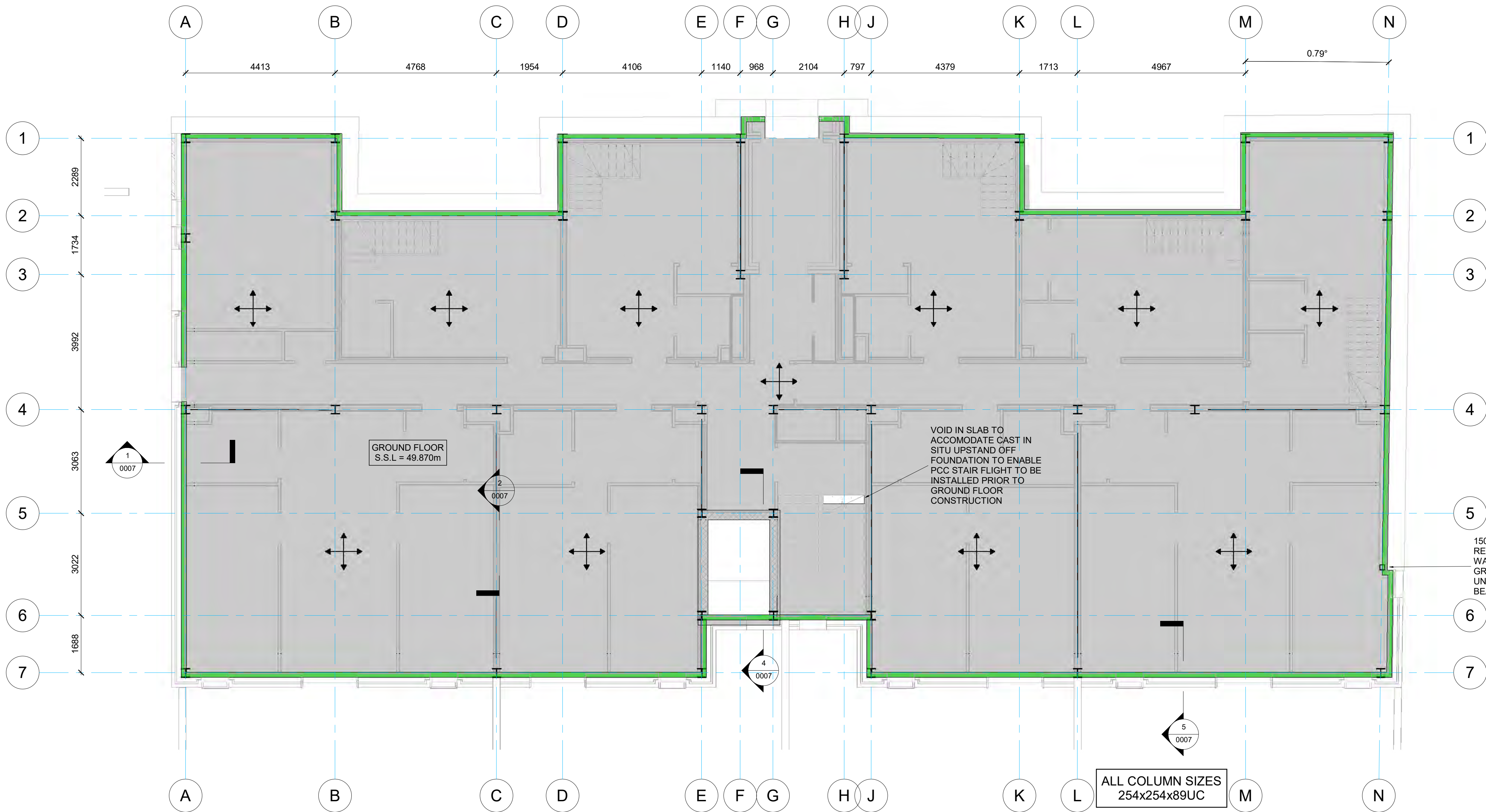
CLIENT GREAT PLACES HOUSING GROUP

PROJECT ANCOATS DISPENSARY

DRAFTER KLM	ENGINEER BM
-------------	-------------

TITLE PILE LAYOUT Project Reference: 3656

SCALE As indicated	SHEET A1	DRAWING No 5014349-RDG-XX-FN-DR-S-0004	AMDT P1
--------------------	----------	--	---------



GROUND FLOOR LAYOUT

1 : 75

NOTES

- DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ENGINEERS, ARCHITECTS AND SERVICES DRAWINGS, INCLUDING APPROVED BUILDERS WORK DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER OF DISCREPANCIES BETWEEN STRUCTURAL DRAWINGS AND SPECIFICATIONS / OTHER DRAWINGS.
- DO NOT SCALE FROM THE DRAWING, WORK TO DIMENSIONS AND COORDINATES PROVIDED. ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
- FOR GENERAL NOTES REFER TO RDG DRAWING 5014349-RDG-XX-XX-DR-S-0001.
- ARCHITECT TO CONFIRM ALL SETTING OUT AND DIMENSIONS.
- U.N.O. ALL COLUMNS CENTRED ON GRID.
- ALL SERVICES ARE RISERS/ PENETRATIONS T.B.C. BY M&E ENGINEER.

KEY

- 250mm THICK SUSPENDED RC C40 CONCRETE TWO-WAY SPANNING SLAB. REINFORCEMENT RATE OF 130kg/m³. THICKENINGS TO EXTEND DOWN TO ALL FOUNDATIONS. UPSTAND TO EXTEND UP TO FINISHED FLOOR LEVEL
- 150mm WIDE x 100mm HIGH RC C40 CONCRETE UPSTAND. REINFORCEMENT RATE OF 130kg/m³.

STEEL NOTES

- PRELIMINARY SIZES OF THE PRIMARY STEEL FRAME ARE INDICATED ON THE DRAWING. ALLOW FOR OVERALL FRAME WEIGHT OF 70kg/m²
- ALL STEELWORK TO BE HOT ROLLED GRADE S355 TO BS EN 10025:2004 & BS EN 10210.
- SECONDARY HOT ROLLED STEEL ALLOWANCE = 10% OF HOT ROLLED TONNAGE.
- ALL STEEL BEAMS SUPPORTING CONCRETE METAL DECK FLOORS AND SLABS ARE DESIGNED COMPOSITELY. ALLOW FOR 19mm DIAMETER x 105mm LONG SHEAR STUDS AT 300mm CENTRES ON PRIMARY BEAMS AND 150mm CENTRES ON SECONDARY BEAMS, THROUGH DECK WELDED ON SITE.
- ALLOW FOR TRANSVERSE SHEAR REINFORCEMENT WITHIN ALL CONCRETE METAL DECK FLOORS AND SLABS: H16 2000mm LONG AT 200mm CENTRES ON PRIMARY BEAMS AND 1000mm H16 U BARS TO PERIMETER BEAMS.
- ADDITIONAL STEEL PLATES/ANGLES WILL BE REQUIRED AT THE BASE OF ALL PARAPET POSTS AND COLUMNS LOCATED ON TRANSFER BEAMS, TO PROVIDE ADEQUATE BEARING SUPPORT FOR THE FLOOR AND ROOF DECKING.
- FLOOR TO FLOOR HEIGHT IS RESTRICTED AND THEREFORE M&E SERVICES ARE PROPOSED TO BE LOCATED WITHIN THE DEPTH OF THE STEELWORK. ALLOW FOR ADDITIONAL PLATE STIFFENERS AROUND ALL HOLES THROUGH BEAMS. 2 No. HOLES PER BEAM, POSITIONED CENTRALLY TO BEAM DEPTH AND UP TO 110mm DEEP x 300mm LONG TO BE TYPICALLY ALLOWED FOR.
- STEEL BEAMS DEPTH HAS BEEN LIMITED TO 356UB/356UC TO RESTRICT DEPTH TO 375mm.
- FIRE DESIGN: THE STEELWORK FRAME IS TO BE COATED WITH INTUMESCENT PAINT, WHICH SHALL BE COMPATIBLE WITH THE CORROSION PROTECTION PAINT SYSTEM.

CORROSION PROTECTION:

- ALL INTERNAL STEELWORK CONSIDERED TO BE ENVIRONMENT CATEGORY C2 LOW RISK. SURFACE PREPARATION: BLAST CLEAN TO Sa 2 1/2. COATING: 80 MICRON ZINC PHOSPHATE EPOXY PRIMER.

CONNECTIONS:

- ALL CONNECTIONS TO BE 'SIMPLE' DESIGNED IN ACCORDANCE WITH P212: JOINTS IN STEEL CONSTRUCTION, WITH MIN. 4No. BOLTS M16 GR 8.8. TYPICAL FACTORED FORCES AS FOLLOWS: ALL BEAM END CONNECTIONS TO BE DESIGNED FOR MIN. 75kN VERTICAL SHEAR AND AN AXIAL TIE FORCE EQUAL TO THE END REACTION, MIN. 75kN. ALL PRIMARY & SECONDARY BEAMS SUPPORTING FLOORS TO HAVE VERTICAL SHEAR OF 250kN & 125kN RESPECTIVELY. ALL TRANSFER BEAMS TO HAVE VERTICAL SHEAR OF 400kN. ALL PERIMETER STEELWORK TO BE DESIGNED FOR A HORIZONTAL SHEAR OF 25kN. ALL VERTICAL BRACES TO BE DESIGNED FOR 400kN AXIAL FORCE.

GAS MITIGATION STRATEGY:

NO GAS MONITORING WORKS POSSIBLE DUE TO ACCESS RESTRICTIONS ON SITE. AGREED STRATEGY WITH MCC IS TO PROVIDE A GAS MEMBRANE IN LIEU OF UNDERTAKING GAS MONITORING.

GROUND GAS PROTECTION SOLUTION TO MEET REQUIREMENTS FOR CHARACTERISTIC SITUATION 2 ACHIEVING 3.5 POINTS IN ACCORDANCE WITH BS8485:2015+A1:2019 COMPRISING:

GROUND FLOOR SLAB: REINFORCED CAST IN SITU SUSPENDED FLOOR TO CONTROL CRACKING AND HAVE MINIMAL PENETRATIONS. (1.5 POINTS)

AND

GAS MEMBRANE: SUFFICIENTLY IMPERVIOUS TO METHANE AND CARBON DIOXIDE, SUFFICIENTLY DURABLE TO REMAIN SERVICEABLE FOR THE ANTICIPATED LIFE OF THE BUILDING AND DURATION OF GAS EMISSIONS, SUFFICIENTLY STRONG TO WITHSTAND INSTALLATION PROCESS AND IN-SERVICE STRESSES. CAPABLE, AFTER INSTALLATION, OF PROVIDING A COMPLETE BARRIER TO ENTRY OF THE RELEVANT GAS AND VERIFIED IN ACCORDANCE WITH CIRIA C735 (INSTALLED TO REASONABLE LEVELS OF WORKMANSHIP IN LINE WITH GOOD PRACTICE UNDER COA, COMPLETE WITH INDEPENDENT INTEGRITY TESTING AND VALIDATION). (2 POINTS).

INFORMATION CONTAINED ON THIS DRAWING IS STAGE 3 DESIGN ONLY. FURTHER DETAILED DESIGN AND CO-ORDINATION WITH THE CONTRACTOR, DESIGN TEAM AND APPROPRIATE SUB-CONTRACTORS WILL BE REQUIRED TO FULLY DEVELOP AND DETAIL THE FINAL CONSTRUCTION DETAILS. CONTRACTOR TO USE THEIR EXPERIENCE AND JUDGEMENT TO MAKE SUFFICIENT ALLOWANCES FOR DETAILS DESIGN DEVELOPMENT AND CO-ORDINATION.

P1	30.04.21	AK	BM	STAGE 3 ISSUE
No	DATE	DRAWN	REV'D ENG.	AMENDMENT

STATUS	PURPOSE OF ISSUE
S2	FOR INFORMATION

COPYRIGHT:
The concepts and the information contained in this document are the copyright of Ridge LLP. Use or copying of the document in whole or in part without written permission of Ridge LLP, constitutes an infringement of copyright.

RIDGE LLP
The Flint Glass Works,
64 Jersey Street,
Manchester M4 6JW
T. 0161 605 0831
ridge.co.uk

CLIENT GREAT PLACES HOUSING GROUP

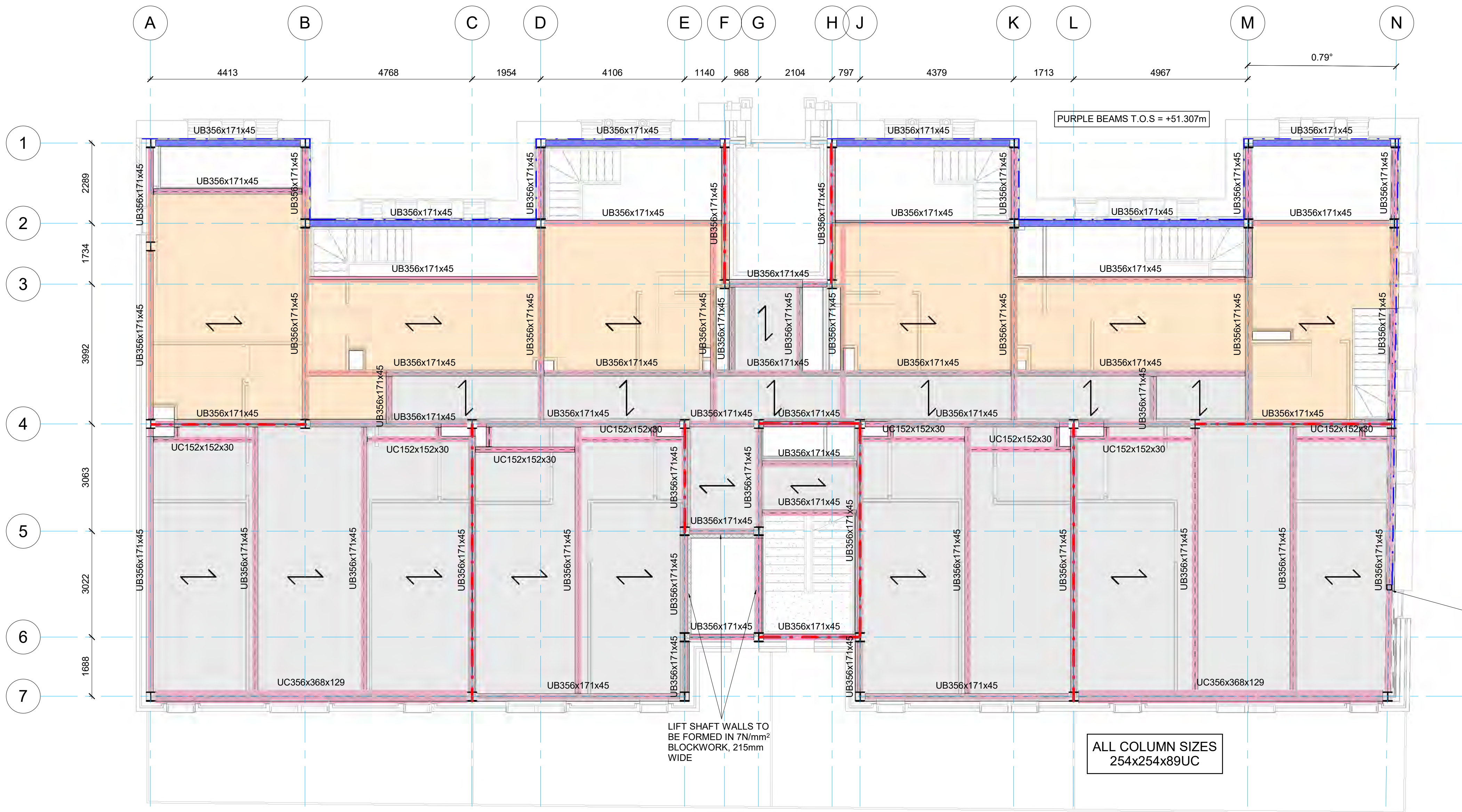
PROJECT ANCOATS DISPENSARY

DRAFTER AK ENGINEER BM

TITLE Project Reference: 3656

GROUND FLOOR LAYOUT

SCALE	SHEET	DRAWING No	AMDT
As indicated	A1	5014349-RDG-XX-GF-DR-S-0010	P1



- NOTES
- DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ENGINEERS, ARCHITECTS AND SERVICES DRAWINGS, INCLUDING APPROVED BUILDERS WORK DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER OF DISCREPANCIES BETWEEN STRUCTURAL DRAWINGS AND SPECIFICATIONS / OTHER DRAWINGS.
 - DO NOT SCALE FROM THE DRAWING, WORK TO DIMENSIONS AND COORDINATES PROVIDED. ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
 - FOR GENERAL NOTES REFER TO RDG DRAWING 5014349-RDG-XX-XX-DR-S-0001.
 - ARCHITECT TO CONFIRM ALL SETTING OUT AND DIMENSIONS.
 - U.N.O. ALL COLUMNS CENTRED ON GRID.
 - ALL SERVICES ARE RISERS/ PENETRATIONS T.B.C. BY M&E ENGINEER.

- KEY
- SPAN OF 1.2mm GAUGE KINGSPAN MD50-V3 METAL DECK FLOOR SLAB WITH C28/35 CONCRETE AND 1 LAYER OF A252 MESH. OVERALL DEPTH OF FLOOR TO BE 150mm.
 - SPAN OF TIMBER TJI FLOOR SYSTEM TO SUB-CONTRACTOR DESIGN. TIMBER FLOOR TO SIT PARTIALLY WITHIN THE DEPTH OF THE STEELWORK. ALL VOIDS TO BE FORMED IN TIMBER.
 - DENOTES VERTICAL BRACED BAY. 150x15 FLATS.
 - FIXING OF STRUCTURAL FRAME TO RETAINED FACADE:
200x150x15RSA FIXED HORIZONTALLY ALONG UNDERSIDE OF ALL STEEL BEAMS AND VERTICALLY UP STEEL COLUMNS ON GRIDS A1, F1, H1, N2 & N4 WITH M16 BOLTS AT 450mm CENTRES. AND FIXED TO INSIDE FACE OF EXISTING BRICKWORK WITH 18mm DIAMETER HILTI HIT-270 RESIN ANCHORS AT 300mm CENTRES. PROVIDE SLOTTED HOLES IN RSA FACE ON EXISTING WALL TO ACCOMMODATE 40mm VERTICAL MOVEMENT. FIXING SYSTEM TO BE INSTALLED AFTER ERECTION OF STEEL FRAME & CASTING OF CONCRETE SLABS

FIRST FLOOR LAYOUT (TOS = 52.745m U.N.O)

1 : 75

STEEL NOTES

- PRELIMINARY SIZES OF THE PRIMARY STEEL FRAME ARE INDICATED ON THE DRAWING. ALLOW FOR OVERALL FRAME WEIGHT OF 70kg/m².
- ALL STEELWORK TO BE HOT ROLLED GRADE S355 TO BS EN 10025:2004 & BS EN 10210.
- SECONDARY HOT ROLLED STEEL ALLOWANCE = 10% OF HOT ROLLED TONNAGE.
- ALL STEEL BEAMS SUPPORTING CONCRETE METAL DECK FLOORS AND SLABS ARE DESIGNED COMPOSITELY. ALLOW FOR 19mm DIAMETER x 105mm LONG SHEAR STUDS AT 300mm CENTRES ON PRIMARY BEAMS AND 150mm CENTRES ON SECONDARY BEAMS, THROUGH DECK WELDED ON SITE.
- ALLOW FOR TRANSVERSE SHEAR REINFORCEMENT WITHIN ALL CONCRETE METAL DECK FLOORS AND SLABS: H16 2000mm LONG AT 200mm CENTRES ON PRIMARY BEAMS AND 1000mm H16 U BARS TO PERIMETER BEAMS.
- ADDITIONAL STEEL PLATES/ANGLES WILL BE REQUIRED AT THE BASE OF ALL PARAPET POSTS AND COLUMNS LOCATED ON TRANSFER BEAMS, TO PROVIDE ADEQUATE BEARING SUPPORT FOR THE FLOOR AND ROOF DECKING.
- FLOOR TO FLOOR HEIGHT IS RESTRICTED AND THEREFORE M&E SERVICES ARE PROPOSED TO BE LOCATED WITHIN THE DEPTH OF THE STEELWORK. ALLOW FOR ADDITIONAL PLATE STIFFENERS AROUND ALL HOLES THROUGH BEAMS. 2 No. HOLES PER BEAM. POSITIONED CENTRALLY TO BEAM DEPTH AND UP TO 110mm DEEP x 300mm LONG TO BE TYPICALLY ALLOWED FOR.
- STEEL BEAMS DEPTH HAS BEEN LIMITED TO 356UB/356UC TO RESTRICT DEPTH TO 375mm.
- FIRE DESIGN: THE STEELWORK FRAME IS TO BE COATED WITH INTUMESCENT PAINT, WHICH SHALL BE COMPATIBLE WITH THE CORROSION PROTECTION PAINT SYSTEM.

CORROSION PROTECTION:

- ALL INTERNAL STEELWORK CONSIDERED TO BE ENVIRONMENT CATEGORY C2 LOW RISK. SURFACE PREPARATION: BLAST CLEAN TO Sa 2 1/2. COATING: 80 MICRON ZINC PHOSPHATE EPOXY PRIMER.

CONNECTIONS:

- ALL CONNECTIONS TO BE 'SIMPLE' DESIGNED IN ACCORDANCE WITH P212: JOINTS IN STEEL CONSTRUCTION, WITH MIN. 4No. BOLTS M16 GR 8.8. TYPICAL FACTORED FORCES AS FOLLOWS: ALL BEAM END CONNECTIONS TO BE DESIGNED FOR MIN. 75kN VERTICAL SHEAR AND AN AXIAL TIE FORCE EQUAL TO THE END REACTION, MIN. 75kN. ALL PRIMARY & SECONDARY BEAMS SUPPORTING FLOORS TO HAVE VERTICAL SHEAR OF 250kN & 125kN RESPECTIVELY. ALL TRANSFER BEAMS TO HAVE VERTICAL SHEAR OF 400kN. ALL PERIMETER STEELWORK TO BE DESIGNED FOR A HORIZONTAL SHEAR OF 25kN. ALL VERTICAL BRACES TO BE DESIGNED FOR 400kN AXIAL FORCE.

INFORMATION CONTAINED ON THIS DRAWING IS STAGE 3 DESIGN ONLY. FURTHER DETAILED DESIGN AND CO-ORDINATION WITH THE CONTRACTOR, DESIGN TEAM AND APPROPRIATE SUB-CONTRACTORS WILL BE REQUIRED TO FULLY DEVELOP AND DETAIL THE FINAL CONSTRUCTION DETAILS. CONTRACTOR TO USE THEIR EXPERIENCE AND JUDGEMENT TO MAKE SUFFICIENT ALLOWANCES FOR DETAILS DESIGN DEVELOPMENT AND CO-ORDINATION.

P2	30.04.21	AK	BM	STAGE 3 ISSUE
P1	23.04.21	AK	BM	PRELIMINARY ISSUE
No	DATE	DRAWN	REV'D ENG.	AMENDMENT

STATUS	PURPOSE OF ISSUE
S2	FOR INFORMATION

COPYRIGHT:
The concepts and the information contained in this document are the copyright of Ridge & Partners LLP. Use or copying of the document in whole or in part without written permission of Ridge & Partners LLP, constitutes an infringement of copyright.



CLIENT	GREAT PLACES HOUSING GROUP		
PROJECT	ANCOATS DISPENSARY		
DRAFTER	AK	ENGINEER	BM
TITLE	Project Reference: 3656		
FIRST FLOOR LAYOUT			
SCALE	SHEET	DRAWING No	AMDT
As indicated	A1	5014349-RDG-XX-01-DR-S-0015	P2



1 SECOND FLOOR LAYOUT (TOS = 55.670m U.N.O)
1 : 75

NOTES

- DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ENGINEERS, ARCHITECTS AND SERVICES DRAWINGS, INCLUDING APPROVED BUILDERS WORK DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER OF DISCREPANCIES BETWEEN STRUCTURAL DRAWINGS AND SPECIFICATIONS / OTHER DRAWINGS.
- DO NOT SCALE FROM THE DRAWING. WORK TO DIMENSIONS AND COORDINATES PROVIDED. ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
- FOR GENERAL NOTES REFER TO RDG DRAWING 5014349-RDG-XX-XX-DR-S-0001.
- ARCHITECT TO CONFIRM ALL SETTING OUT AND DIMENSIONS.
- U.N.O. ALL COLUMNS CENTRED ON GRID.
- ALL SERVICES ARE RISERS/ PENETRATIONS T.B.C. BY M&E ENGINEER.

KEY

- SPAN OF 1.2mm GAUGE KINGSPAN MD50-V3 METAL DECK FLOOR SLAB WITH C28/35 CONCRETE AND 1 LAYER OF A252 MESH. OVERALL DEPTH OF FLOOR TO BE 150mm.
- DENOTES VERTICAL BRACED BAY. 150x15 FLATS.
- FIXING OF STRUCTURAL FRAME TO RETAINED FACADE:
200x150x15RSA FIXED HORIZONTALLY ALONG TOP OF FLOOR SLAB AND VERTICALLY UP STEEL COLUMNS ON GRIDS A1, F1, H1, N2 & N4 WITH M16 BOLTS AT 450mm CENTRES, AND FIXED TO INSIDE FACE OF EXISTING BRICKWORK WITH 16mm DIAMETER HILTI HIT-270 RESIN ANCHORS AT 300mm CENTRES. PROVIDE SLOTTED HOLES IN RSA FACE ON EXISTING WALL TO ACCOMMODATE 40mm VERTICAL MOVEMENT. FIXING SYSTEM TO BE INSTALLED AFTER ERECTION OF STEEL FRAME & CASTING OF CONCRETE SLABS

150x150x8 SHS WINDPOST TO RESTRAIN END OF EXISTING WALL, SPANNING BETWEEN SECOND FLOOR SLAB AND UNDERSIDE OF THIRD FLOOR BEAM

STEEL NOTES

- PRELIMINARY SIZES OF THE PRIMARY STEEL FRAME ARE INDICATED ON THE DRAWING. ALLOW FOR OVERALL FRAME WEIGHT OF 70kg/m²
- ALL STEELWORK TO BE HOT ROLLED GRADE S355 TO BS EN 10025:2004 & BS EN 10210.
- SECONDARY HOT ROLLED STEEL ALLOWANCE = 10% OF HOT ROLLED TONNAGE.
- ALL STEEL BEAMS SUPPORTING CONCRETE METAL DECK FLOORS AND SLABS ARE DESIGNED COMPOSITELY. ALLOW FOR 19mm DIAMETER x 105mm LONG SHEAR STUDS AT 300mm CENTRES ON PRIMARY BEAMS AND 150mm CENTRES ON SECONDARY BEAMS, THROUGH DECK WELDED ON SITE.
- ALLOW FOR TRANSVERSE SHEAR REINFORCEMENT WITHIN ALL CONCRETE METAL DECK FLOORS AND SLABS: H16 2000mm LONG AT 200mm CENTRES ON PRIMARY BEAMS AND 1000mm H16 U BARS TO PERIMETER BEAMS.
- ADDITIONAL STEEL PLATES/ANGLES WILL BE REQUIRED AT THE BASE OF ALL PARAPET POSTS AND COLUMNS LOCATED ON TRANSFER BEAMS, TO PROVIDE ADEQUATE BEARING SUPPORT FOR THE FLOOR AND ROOF DECKING.
- FLOOR TO FLOOR HEIGHT IS RESTRICTED AND THEREFORE M&E SERVICES ARE PROPOSED TO BE LOCATED WITHIN THE DEPTH OF THE STEELWORK. ALLOW FOR ADDITIONAL PLATE STIFFENERS AROUND ALL HOLES THROUGH BEAMS. 2 No. HOLES PER BEAM, POSITIONED CENTRALLY TO BEAM DEPTH AND UP TO 110mm DEEP x 300mm LONG TO BE TYPICALLY ALLOWED FOR.
- STEEL BEAMS DEPTH HAS BEEN LIMITED TO 356UB/356UC TO RESTRICT DEPTH TO 375mm.
- FIRE DESIGN: THE STEELWORK FRAME IS TO BE COATED WITH INTUMESCENT PAINT, WHICH SHALL BE COMPATIBLE WITH THE CORROSION PROTECTION PAINT SYSTEM.

CORROSION PROTECTION:

- ALL INTERNAL STEELWORK CONSIDERED TO BE ENVIRONMENT CATEGORY C2 LOW RISK. SURFACE PREPARATION: BLAST CLEAN TO Sa 2 1/2. COATING: 80 MICRON ZINC PHOSPHATE EPOXY PRIMER.

CONNECTIONS:

- ALL CONNECTIONS TO BE 'SIMPLE' DESIGNED IN ACCORDANCE WITH P212: JOINTS IN STEEL CONSTRUCTION, WITH MIN. 4No. BOLTS M16 GR 8.8. TYPICAL FACTORED FORCES AS FOLLOWS: ALL BEAM END CONNECTIONS TO BE DESIGNED FOR MIN. 75kN VERTICAL SHEAR AND AN AXIAL TIE FORCE EQUAL TO THE END REACTION, MIN. 75kN. ALL PRIMARY & SECONDARY BEAMS SUPPORTING FLOORS TO HAVE VERTICAL SHEAR OF 250kN & 125kN RESPECTIVELY. ALL TRANSFER BEAMS TO HAVE VERTICAL SHEAR OF 400kN. ALL PERIMETER STEELWORK TO BE DESIGNED FOR A HORIZONTAL SHEAR OF 25kN. ALL VERTICAL BRACES TO BE DESIGNED FOR 400kN AXIAL FORCE.

INFORMATION CONTAINED ON THIS DRAWING IS STAGE 3 DESIGN ONLY. FURTHER DETAILED DESIGN AND CO-ORDINATION WITH THE CONTRACTOR, DESIGN TEAM AND APPROPRIATE SUB-CONTRACTORS WILL BE REQUIRED TO FULLY DEVELOP AND DETAIL THE FINAL CONSTRUCTION DETAILS. CONTRACTOR TO USE THEIR EXPERIENCE AND JUDGEMENT TO MAKE SUFFICIENT ALLOWANCES FOR DETAILS DESIGN DEVELOPMENT AND CO-ORDINATION.

P2	30.04.21	AK	BM	STAGE 3 ISSUE
P1	23.04.21	AK	BM	PRELIMINARY ISSUE
No	DATE	DRAWN	REV'D ENG.	AMENDMENT

STATUS	PURPOSE OF ISSUE
S2	FOR INFORMATION

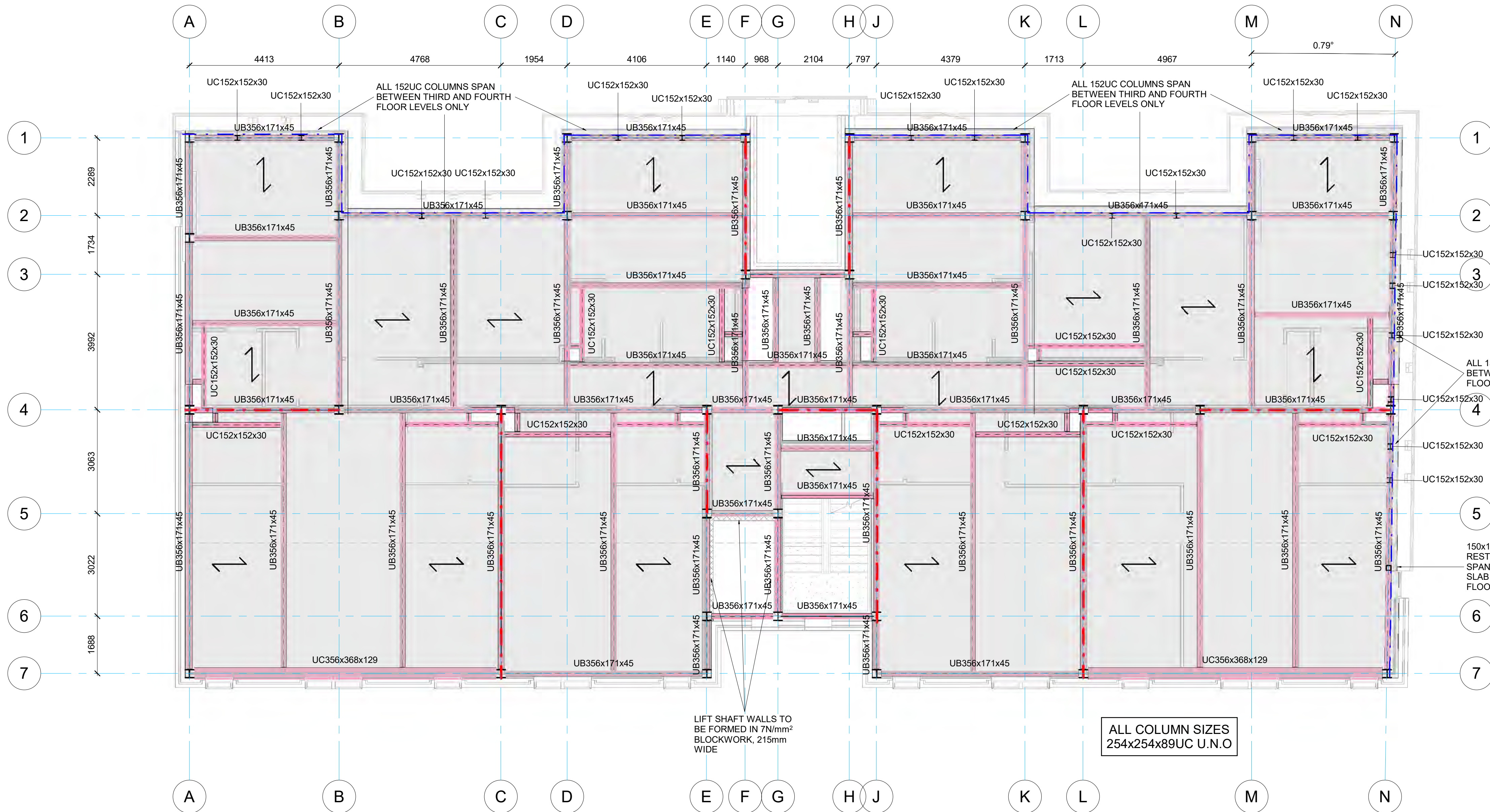
COPYRIGHT:
The concepts and the information contained in this document are the copyright of Ridge LLP. Use or copying of the document in whole or in part without written permission of Ridge LLP, constitutes an infringement of copyright.



CLIENT	GREAT PLACES HOUSING GROUP
PROJECT	ANCOATS DISPENSARY
DRAFTER	AK
ENGINEER	BM
TITLE	Project Reference: 3656

SECOND FLOOR LAYOUT

SCALE	SHEET	DRAWING No	AMDT
As indicated	A1	5014349-RDG-XX-02-DR-S-0020	P2



1 THIRD FLOOR LAYOUT (TOS = 58.595m U.N.O)
1 : 75

NOTES

1. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ENGINEERS, ARCHITECTS AND SERVICES DRAWINGS, INCLUDING APPROVED BUILDERS WORK DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER OF DISCREPANCIES BETWEEN STRUCTURAL DRAWINGS AND SPECIFICATIONS / OTHER DRAWINGS.
2. DO NOT SCALE FROM THE DRAWING, WORK TO DIMENSIONS AND COORDINATES PROVIDED. ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
3. FOR GENERAL NOTES REFER TO RDG DRAWING 5014349-RDG-XX-XX-DR-S-0001.
4. ARCHITECT TO CONFIRM ALL SETTING OUT AND DIMENSIONS.
5. U.N.O. ALL COLUMNS CENTRED ON GRID.
6. ALL SERVICES ARE RISERS/ PENETRATIONS T.B.C. BY M&E ENGINEER.

KEY

- SPAN OF 1.2mm GAUGE KINGSPAN MD50-V3 METAL DECK FLOOR SLAB WITH C28/35 CONCRETE AND 1 LAYER OF A252 MESH. OVERALL DEPTH OF FLOOR TO BE 150mm.
- DENOTES VERTICAL BRACED BAY. 150x15 FLATS.
- FIXING OF STRUCTURAL FRAME TO RETAINED FACADE:
200x150x15RSA FIXED HORIZONTALLY ALONG TOP OF FLOOR SLAB AND VERTICALLY UP STEEL COLUMNS ON GRIDS A1, F1, H1, N2 & N4 WITH M16 BOLTS AT 450mm CENTRES, AND FIXED TO INSIDE FACE OF EXISTING BRICKWORK WITH 16mm DIAMETER HILTI HIT-270 RESIN ANCHORS AT 300mm CENTRES. PROVIDE SLOTTED HOLES IN RSA FACE ON EXISTING WALL TO ACCOMMODATE 40mm VERTICAL MOVEMENT. FIXING SYSTEM TO BE INSTALLED AFTER ERECTION OF STEEL FRAME & CASTING OF CONCRETE SLABS

STEEL NOTES

- PRELIMINARY SIZES OF THE PRIMARY STEEL FRAME ARE INDICATED ON THE DRAWING. ALLOW FOR OVERALL FRAME WEIGHT OF 70kg/m²
- ALL STEELWORK TO BE HOT ROLLED GRADE S355 TO BS EN 10025:2004 & BS EN 10210.
- SECONDARY HOT ROLLED STEEL ALLOWANCE = 10% OF HOT ROLLED TONNAGE.
- ALL STEEL BEAMS SUPPORTING CONCRETE METAL DECK FLOORS AND SLABS ARE DESIGNED COMPOSITELY. ALLOW FOR 19mm DIAMETER x 105mm LONG SHEAR STUDS AT 300mm CENTRES ON PRIMARY BEAMS AND 150mm CENTRES ON SECONDARY BEAMS, THROUGH DECK WELDED ON SITE.
- ALLOW FOR TRANSVERSE SHEAR REINFORCEMENT WITHIN ALL CONCRETE METAL DECK FLOORS AND SLABS: H16 2000mm LONG AT 200mm CENTRES ON PRIMARY BEAMS AND 1000mm H16 U BARS TO PERIMETER BEAMS.
- ADDITIONAL STEEL PLATES/ANGLES WILL BE REQUIRED AT THE BASE OF ALL PARAPET POSTS AND COLUMNS LOCATED ON TRANSFER BEAMS, TO PROVIDE ADEQUATE BEARING SUPPORT FOR THE FLOOR AND ROOF DECKING.
- FLOOR TO FLOOR HEIGHT IS RESTRICTED AND THEREFORE M&E SERVICES ARE PROPOSED TO BE LOCATED WITHIN THE DEPTH OF THE STEELWORK. ALLOW FOR ADDITIONAL PLATE STIFFENERS AROUND ALL HOLES THROUGH BEAMS. 2 No. HOLES PER BEAM, POSITIONED CENTRALLY TO BEAM DEPTH AND UP TO 110mm DEEP x 300mm LONG TO BE TYPICALLY ALLOWED FOR.
- STEEL BEAMS DEPTH HAS BEEN LIMITED TO 356UB/356UC TO RESTRICT DEPTH TO 375mm.
- FIRE DESIGN: THE STEELWORK FRAME IS TO BE COATED WITH INTUMESCENT PAINT, WHICH SHALL BE COMPATIBLE WITH THE CORROSION PROTECTION PAINT SYSTEM.

CORROSION PROTECTION:

- ALL INTERNAL STEELWORK CONSIDERED TO BE ENVIRONMENT CATEGORY C2 LOW RISK. SURFACE PREPARATION: BLAST CLEAN TO Sa 2 1/2. COATING: 80 MICRON ZINC PHOSPHATE EPOXY PRIMER.

CONNECTIONS:

- ALL CONNECTIONS TO BE 'SIMPLE' DESIGNED IN ACCORDANCE WITH P212: JOINTS IN STEEL CONSTRUCTION, WITH MIN. 4No. BOLTS M16 GR 8.8. TYPICAL FACTORED FORCES AS FOLLOWS: ALL BEAM END CONNECTIONS TO BE DESIGNED FOR MIN. 75kN VERTICAL SHEAR AND AN AXIAL TIE FORCE EQUAL TO THE END REACTION, MIN. 75kN. ALL PRIMARY & SECONDARY BEAMS SUPPORTING FLOORS TO HAVE VERTICAL SHEAR OF 250kN & 125kN RESPECTIVELY. ALL TRANSFER BEAMS TO HAVE VERTICAL SHEAR OF 400kN. ALL PERIMETER STEELWORK TO BE DESIGNED FOR A HORIZONTAL SHEAR OF 25kN. ALL VERTICAL BRACES TO BE DESIGNED FOR 400kN AXIAL FORCE.

INFORMATION CONTAINED ON THIS DRAWING IS STAGE 3 DESIGN ONLY. FURTHER DETAILED DESIGN AND CO-ORDINATION WITH THE CONTRACTOR, DESIGN TEAM AND APPROPRIATE SUB-CONTRACTORS WILL BE REQUIRED TO FULLY DEVELOP AND DETAIL THE FINAL CONSTRUCTION DETAILS. CONTRACTOR TO USE THEIR EXPERIENCE AND JUDGEMENT TO MAKE SUFFICIENT ALLOWANCES FOR DETAILS DESIGN DEVELOPMENT AND CO-ORDINATION.

P2	30.04.21	AK	BM	STAGE 3 ISSUE
P1	23.04.21	AK	BM	PRELIMINARY ISSUE
No	DATE	DRAWN	REV'D ENG.	AMENDMENT

STATUS	PURPOSE OF ISSUE
S2	FOR INFORMATION

COPYRIGHT:
The concepts and the information contained in this document are the copyright of Ridge & Partners LLP. Use or copying of the document in whole or in part without written permission of Ridge & Partners LLP, constitutes an infringement of copyright.

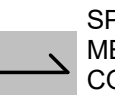


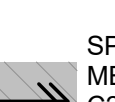
CLIENT	GREAT PLACES HOUSING GROUP		
PROJECT	ANCOATS DISPENSARY		
DRAFTER	AK	ENGINEER	BM
TITLE	Project Reference: 3656		
THIRD FLOOR LAYOUT			
SCALE	SHEET	DRAWING No	AMDT
As indicated	A1	5014349-RDG-XX-03-DR-S-0025	P2



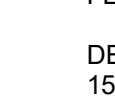
ALL COLUMN SIZES
254x254x89UC U.N.O

KEY

 SPAN OF 1.2mm GAUGE KINGSPAN MD50-V3 METAL DECK FLOOR SLAB WITH C28/35 CONCRETE AND 1 LAYER OF A252 MESH. OVERALL DEPTH OF FLOOR TO BE 150mm.

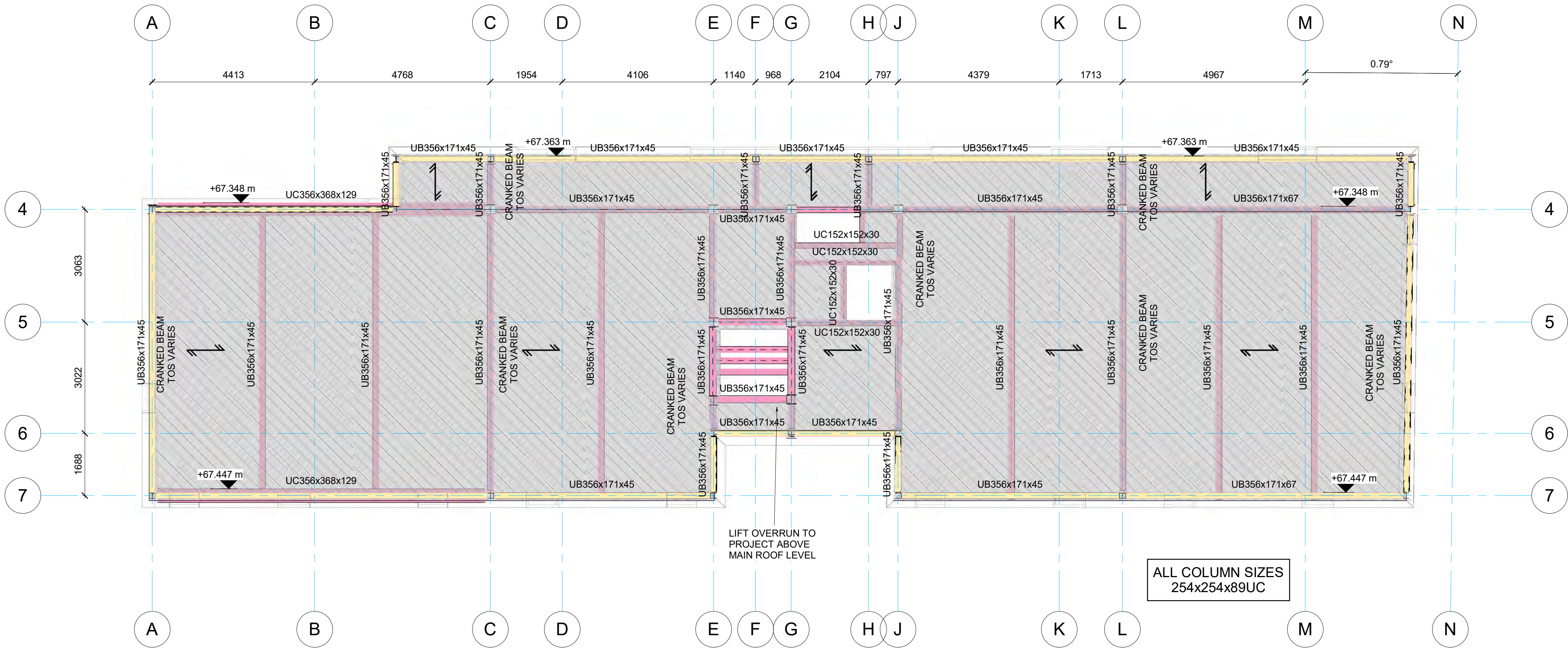
 SPAN OF 1.2mm GAUGE KINGSPAN MD60-V2 METAL DECK ROOF SLAB LAID TO FALL WITH C28/35 CONCRETE AND 1 LAYER OF A252 MESH. OVERALL DEPTH OF ROOF TO BE 150mm.

 DENOTES VERTICAL BRACED BAY. 150x15 FLATS.

 DENOTES EXTENT OF PARAPET FORMED IN 150x90x24PFC LAID FLAT (TOES DOWN) WITH A T.O.S. OF 65, 140m SUPPORTED ON 152x152x30UC PARAPET POSTS POSITIONED ON TOP OF THE MAIN COLUMNS

INFORMATION CONTAINED ON THIS DRAWING IS STAGE 3 DESIGN ONLY. FURTHER DETAILED DESIGN AND CO-ORDINATION WITH THE CONTRACTOR, DESIGN TEAM AND APPROPRIATE SUB-CONTRACTORS WILL BE REQUIRED TO FULLY DEVELOP AND DETAIL THE FINAL CONSTRUCTION DETAILS. CONTRACTOR TO USE THEIR EXPERIENCE AND JUDGEMENT TO MAKE SUFFICIENT ALLOWANCES FOR DETAILS DESIGN DEVELOPMENT AND CO-ORDINATION.

SCALE As indicated	SHEET A1	DRAWING No 5014349-RDG-XX-05-DR-S-0035	AMDT P2
-----------------------	-------------	---	------------



- NOTES
- DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ENGINEERS, ARCHITECTS AND SERVICES DRAWINGS, INCLUDING APPROVED BUILDERS WORK DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER OF DISCREPANCIES BETWEEN STRUCTURAL DRAWINGS AND SPECIFICATIONS / OTHER DRAWINGS.
 - DO NOT SCALE FROM THE DRAWING, WORK TO DIMENSIONS AND COORINATES PROVIDED. ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
 - FOR GENERAL NOTES REFER TO RDG DRAWING 5014349-RDG-XX-XX-DR-S-0001.
 - ARCHITECT TO CONFIRM ALL SETTING OUT AND DIMENSIONS.
 - U.N.O. ALL COLUMNS CENTRED ON GRID.
 - ALL SERVICES ARE RISERS/ PENETRATIONS T.B.C. BY M&E ENGINEER.

KEY

SPAN OF 1.2mm GAUGE KINGSPAN MD60-V2 METAL DECK ROOF SLAB LAID TO FALL WITH C28/35 CONCRETE AND 1 LAYER OF A252 MESH. OVERALL DEPTH OF ROOF TO BE 150mm.

OR

SPAN OF 1.25mm GAUGE TATA STEEL D153 METAL ROOF DECK

DENOTES EXTENT OF PARAPET FORMED IN 150x90x24PFC LAID FLAT (TOES DOWN) WITH A T.O.S. OF 68.056m SUPPORTED ON 152x152x30UC PARAPET POSTS POSITIONED ON TOP OF THE MAIN COLUMNS

1 ROOF LAYOUT (TOS VARIES - STEEL LAID FALLS)

1 : 75

STEEL NOTES

- PRELIMINARY SIZES OF THE PRIMARY STEEL FRAME ARE INDICATED ON THE DRAWING. ALLOW FOR OVERALL FRAME WEIGHT OF 70kg/m².
- ALL STEELWORK TO BE HOT ROLLED GRADE S355 TO BS EN 10025:2004 & BS EN 10210.
- SECONDARY HOT ROLLED STEEL ALLOWANCE = 10% OF HOT ROLLED TONNAGE.
- ALL STEEL BEAMS SUPPORTING CONCRETE METAL DECK FLOORS AND SLABS ARE DESIGNED COMPOSITELY. ALLOW FOR 19mm DIAMETER x 105mm LONG SHEAR STUDS AT 300mm CENTRES ON PRIMARY BEAMS AND 150mm CENTRES ON SECONDARY BEAMS, THROUGH DECK WELDED ON SITE.
- ALLOW FOR TRANSVERSE SHEAR REINFORCEMENT WITHIN ALL CONCRETE METAL DECK FLOORS AND SLABS: H16 2000mm LONG AT 200mm CENTRES ON PRIMARY BEAMS AND 1000mm H16 U BARS TO PERIMETER BEAMS.
- ADDITIONAL STEEL PLATES/ANGLES WILL BE REQUIRED AT THE BASE OF ALL PARAPET POSTS AND COLUMNS LOCATED ON TRANSFER BEAMS, TO PROVIDE ADEQUATE BEARING SUPPORT FOR THE FLOOR AND ROOF DECKING.
- FLOOR TO FLOOR HEIGHT IS RESTRICTED AND THEREFORE M&E SERVICES ARE PROPOSED TO BE LOCATED WITHIN THE DEPTH OF THE STEELWORK. ALLOW FOR ADDITIONAL PLATE STIFFENERS AROUND ALL HOLES THROUGH BEAMS. 2 No. HOLES PER BEAM, POSITIONED CENTRALLY TO BEAM DEPTH AND UP TO 110mm DEEP x 300mm LONG TO BE TYPICALLY ALLOWED FOR.
- STEEL BEAMS DEPTH HAS BEEN LIMITED TO 356UB/356UC TO RESTRICT DEPTH TO 375mm.
- FIRE DESIGN: THE STEELWORK FRAME IS TO BE COATED WITH INTUMESCENT PAINT, WHICH SHALL BE COMPATIBLE WITH THE CORROSION PROTECTION PAINT SYSTEM.

CORROSION PROTECTION:

- ALL INTERNAL STEELWORK CONSIDERED TO BE ENVIRONMENT CATEGORY C2 LOW RISK. SURFACE PREPARATION: BLAST CLEAN TO Sa 2 1/2. COATING: 80 MICRON ZINC PHOSPHATE EPOXY PRIMER.

CONNECTIONS:

- ALL CONNECTIONS TO BE 'SIMPLE' DESIGNED IN ACCORDANCE WITH P212: JOINTS IN STEEL CONSTRUCTION, WITH MIN. 4No. BOLTS M16 GR 8.8. TYPICAL FACTORED FORCES AS FOLLOWS: ALL BEAM END CONNECTIONS TO BE DESIGNED FOR MIN. 75kN VERTICAL SHEAR AND AN AXIAL TIE FORCE EQUAL TO THE END REACTION, MIN. 75kN. ALL PRIMARY & SECONDARY BEAMS SUPPORTING FLOORS TO HAVE VERTICAL SHEAR OF 250kN & 125kN RESPECTIVELY. ALL TRANSFER BEAMS TO HAVE VERTICAL SHEAR OF 400kN. ALL PERIMETER STEELWORK TO BE DESIGNED FOR A HORIZONTAL SHEAR OF 25kN. ALL VERTICAL BRACES TO BE DESIGNED FOR 400kN AXIAL FORCE.

INFORMATION CONTAINED ON THIS DRAWING IS STAGE 3 DESIGN ONLY. FURTHER DETAILED DESIGN AND CO-ORDINATION WITH THE CONTRACTOR, DESIGN TEAM AND APPROPRIATE SUB-CONTRACTORS WILL BE REQUIRED TO FULLY DEVELOP AND DETAIL THE FINAL CONSTRUCTION DETAILS. CONTRACTOR TO USE THEIR EXPERIENCE AND JUDGEMENT TO MAKE SUFFICIENT ALLOWANCES FOR DETAILS DESIGN DEVELOPMENT AND CO-ORDINATION.

P2	30.04.21	AK	BM	STAGE 3 ISSUE
P1	23.04.21	AK	BM	PRELIMINARY ISSUE
No	DATE	DRAWN	REV'D ENG.	AMENDMENT

STATUS	PURPOSE OF ISSUE
S2	FOR INFORMATION

COPYRIGHT:
The concepts and the information contained in this document are the copyright of Ridge LLP. Use or copying of the document in whole or in part without written permission of Ridge LLP, constitutes an infringement of copyright.

RIDGE LLP
The Flint Glass Works,
64 Jersey Street,
Manchester M4 6JW
T. 0161 605 0831
ridge.co.uk

CLIENT GREAT PLACES HOUSING GROUP

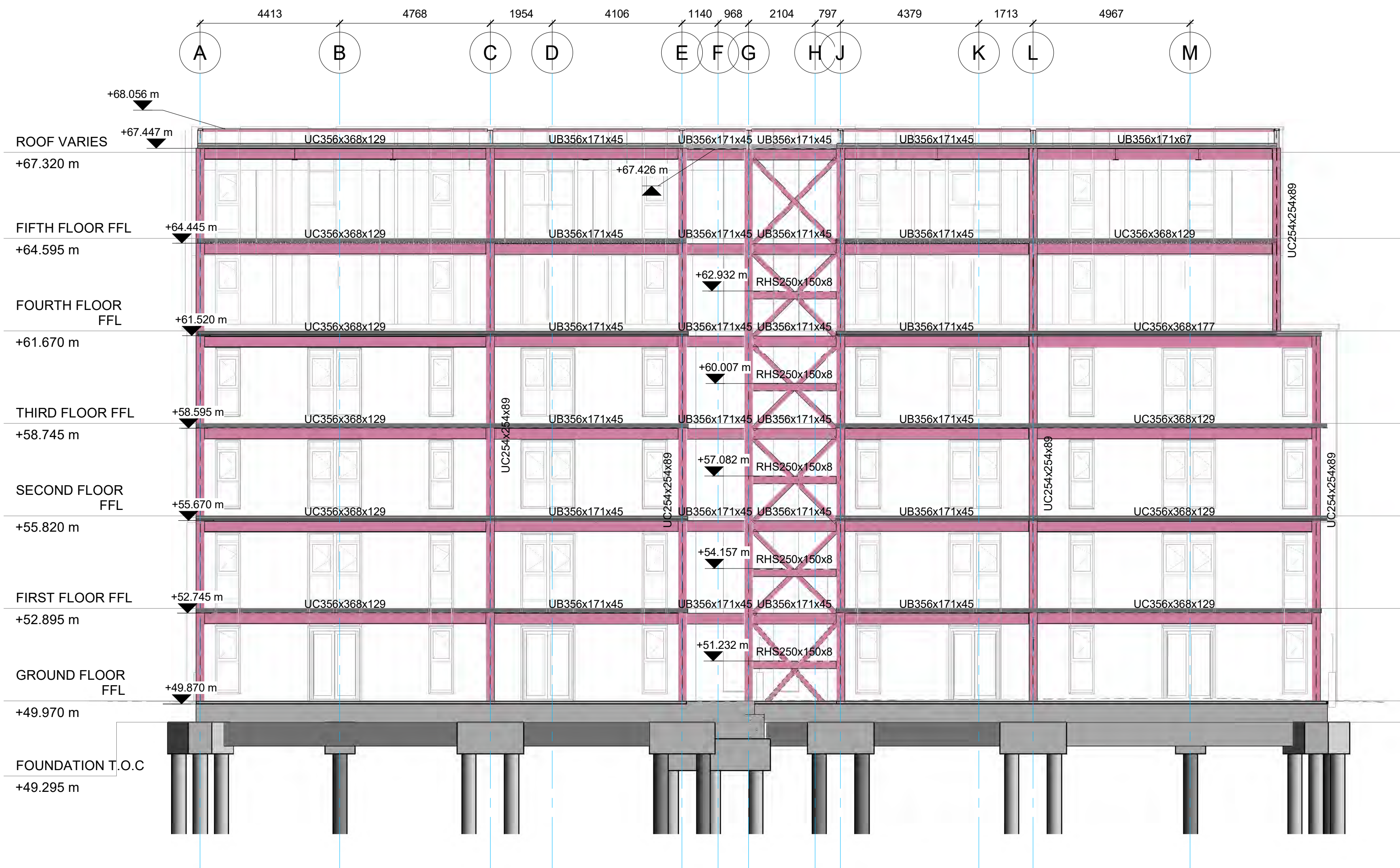
PROJECT ANCOATS DISPENSARY

DRAFTER AK ENGINEER BM

TITLE Project Reference: 3656

ROOF LAYOUT

SCALE	SHEET	DRAWING No	AMDT
As indicated	A1	5014349-RDG-XX-RF-DR-S-0040	P2



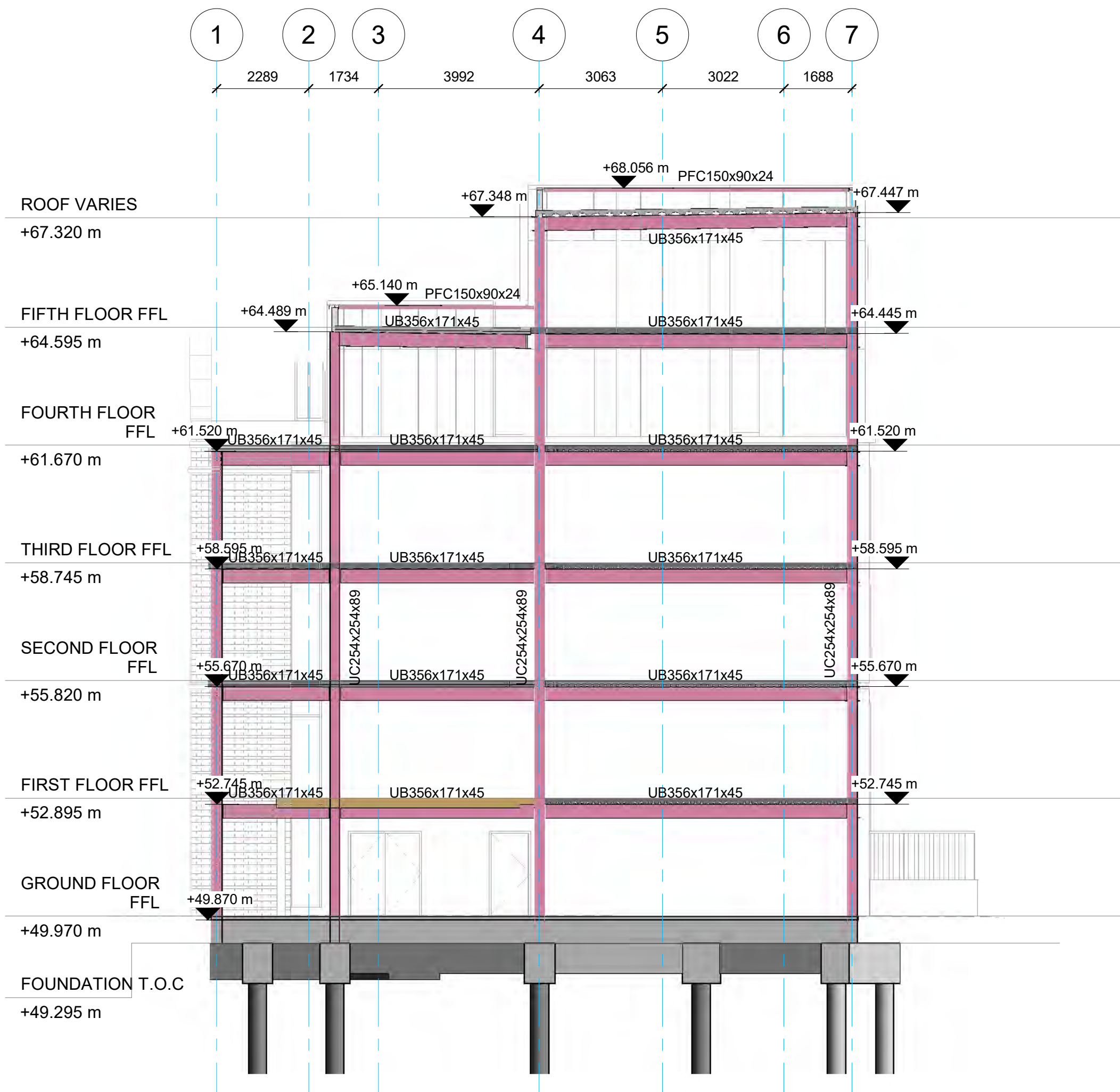
ELEVATION SOUTH (VIEW ON GRIDLINES 6 & 7)

1 : 100

NOTES

- DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ENGINEERS, ARCHITECTS AND SERVICES DRAWINGS, INCLUDING APPROVED BUILDERS WORK DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER OF DISCREPANCIES BETWEEN STRUCTURAL DRAWINGS AND SPECIFICATIONS / OTHER DRAWINGS.
- DO NOT SCALE FROM THE DRAWING. WORK TO DIMENSIONS AND COORDINATES PROVIDED. ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
- FOR GENERAL NOTES REFER TO RDG DRAWING 5014349-RDG-XX-XX-DR-S-0001.
- ARCHITECT TO CONFIRM ALL SETTING OUT AND DIMENSIONS.
- U.N.O. ALL COLUMNS CENTRED ON GRID.
- ALL SERVICES ARE RISERS/ PENETRATIONS T.B.C. BY M&E ENGINEER.

INFORMATION CONTAINED ON THIS DRAWING IS STAGE 3 DESIGN ONLY. FURTHER DETAILED DESIGN AND CO-ORDINATION WITH THE CONTRACTOR, DESIGN TEAM AND APPROPRIATE SUB-CONTRACTORS WILL BE REQUIRED TO FULLY DEVELOP AND DETAIL THE FINAL CONSTRUCTION DETAILS. CONTRACTOR TO USE THEIR EXPERIENCE AND JUDGEMENT TO MAKE SUFFICIENT ALLOWANCES FOR DETAILS DESIGN DEVELOPMENT AND CO-ORDINATION.



ELEVATION WEST (VIEW ON GRIDLINE A)

1 : 100

STEEL NOTES

- PRELIMINARY SIZES OF THE PRIMARY STEEL FRAME ARE INDICATED ON THE DRAWING. ALLOW FOR OVERALL FRAME WEIGHT OF 70kg/m²
- ALL STEELWORK TO BE HOT ROLLED GRADE S355 TO BS EN 10025:2004 & BS EN 10210.
- SECONDARY HOT ROLLED STEEL ALLOWANCE = 10% OF HOT ROLLED TONNAGE.
- ALL STEEL BEAMS SUPPORTING CONCRETE METAL DECK FLOORS AND SLABS ARE DESIGNED COMPOSITELY. ALLOW FOR 19mm DIAMETER x 105mm LONG SHEAR STUDS AT 300mm CENTRES ON PRIMARY BEAMS AND 150mm CENTRES ON SECONDARY BEAMS, THROUGH DECK WELDED ON SITE.
- ALLOW FOR TRANSVERSE SHEAR REINFORCEMENT WITHIN ALL CONCRETE METAL DECK FLOORS AND SLABS: H16 2000mm LONG AT 200mm CENTRES ON PRIMARY BEAMS AND 1000mm H16 U BARS TO PERIMETER BEAMS.
- ADDITIONAL STEEL PLATES/ANGLES WILL BE REQUIRED AT THE BASE OF ALL PARAPET POSTS AND COLUMNS LOCATED ON TRANSFER BEAMS, TO PROVIDE ADEQUATE BEARING SUPPORT FOR THE FLOOR AND ROOF DECKING.
- FLOOR TO FLOOR HEIGHT IS RESTRICTED AND THEREFORE M&E SERVICES ARE PROPOSED TO BE LOCATED WITHIN THE DEPTH OF THE STEELWORK. ALLOW FOR ADDITIONAL PLATE STIFFENERS AROUND ALL HOLES THROUGH BEAMS. 2 No. HOLES PER BEAM, POSITIONED CENTRALLY TO BEAM DEPTH AND UP TO 110mm DEEP x 300mm LONG TO BE TYPICALLY ALLOWED FOR.
- STEEL BEAMS DEPTH HAS BEEN LIMITED TO 356UB/356UC TO RESTRICT DEPTH TO 375mm.
- FIRE DESIGN: THE STEELWORK FRAME IS TO BE COATED WITH INTUMESCENT PAINT, WHICH SHALL BE COMPATIBLE WITH THE CORROSION PROTECTION PAINT SYSTEM.

CORROSION PROTECTION:

- ALL INTERNAL STEELWORK CONSIDERED TO BE ENVIRONMENT CATEGORY C2 LOW RISK. SURFACE PREPARATION: BLAST CLEAN TO Sa 2 1/2. COATING: 80 MICRON ZINC PHOSPHATE EPOXY PRIMER.

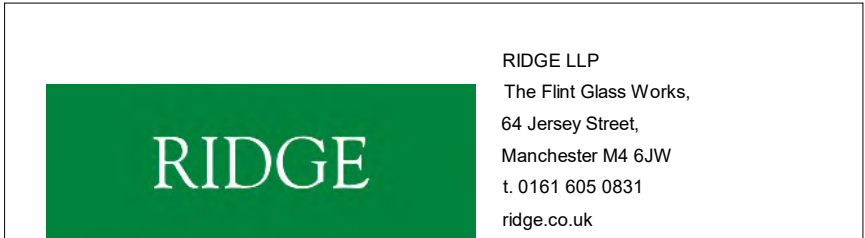
CONNECTIONS:

- ALL CONNECTIONS TO BE 'SIMPLE' DESIGNED IN ACCORDANCE WITH P212: JOINTS IN STEEL CONSTRUCTION, WITH MIN. 4No. BOLTS M16 GR 8.8. TYPICAL FACTORED FORCES AS FOLLOWS: ALL BEAM END CONNECTIONS TO BE DESIGNED FOR MIN. 75kN VERTICAL SHEAR AND AN AXIAL TIE FORCE EQUAL TO THE END REACTION, MIN. 75kN. ALL PRIMARY & SECONDARY BEAMS SUPPORTING FLOORS TO HAVE VERTICAL SHEAR OF 250kN & 125kN RESPECTIVELY. ALL TRANSFER BEAMS TO HAVE VERTICAL SHEAR OF 400kN. ALL PERIMETER STEELWORK TO BE DESIGNED FOR A HORIZONTAL SHEAR OF 25kN. ALL VERTICAL BRACES TO BE DESIGNED FOR 400kN AXIAL FORCE.

P1	30.04.21	AK	BM	GRID UPDATED STAGE 3 ISSUE
No	DATE	DRAWN	REV'D ENG.	AMENDMENT

STATUS	PURPOSE OF ISSUE
S2	FOR INFORMATION

COPYRIGHT:
The concepts and the information contained in this document are the copyright of Ridge LLP. Use or copying of the document in whole or in part without written permission of Ridge LLP, constitutes an infringement of copyright.



CLIENT GREAT PLACES HOUSING GROUP

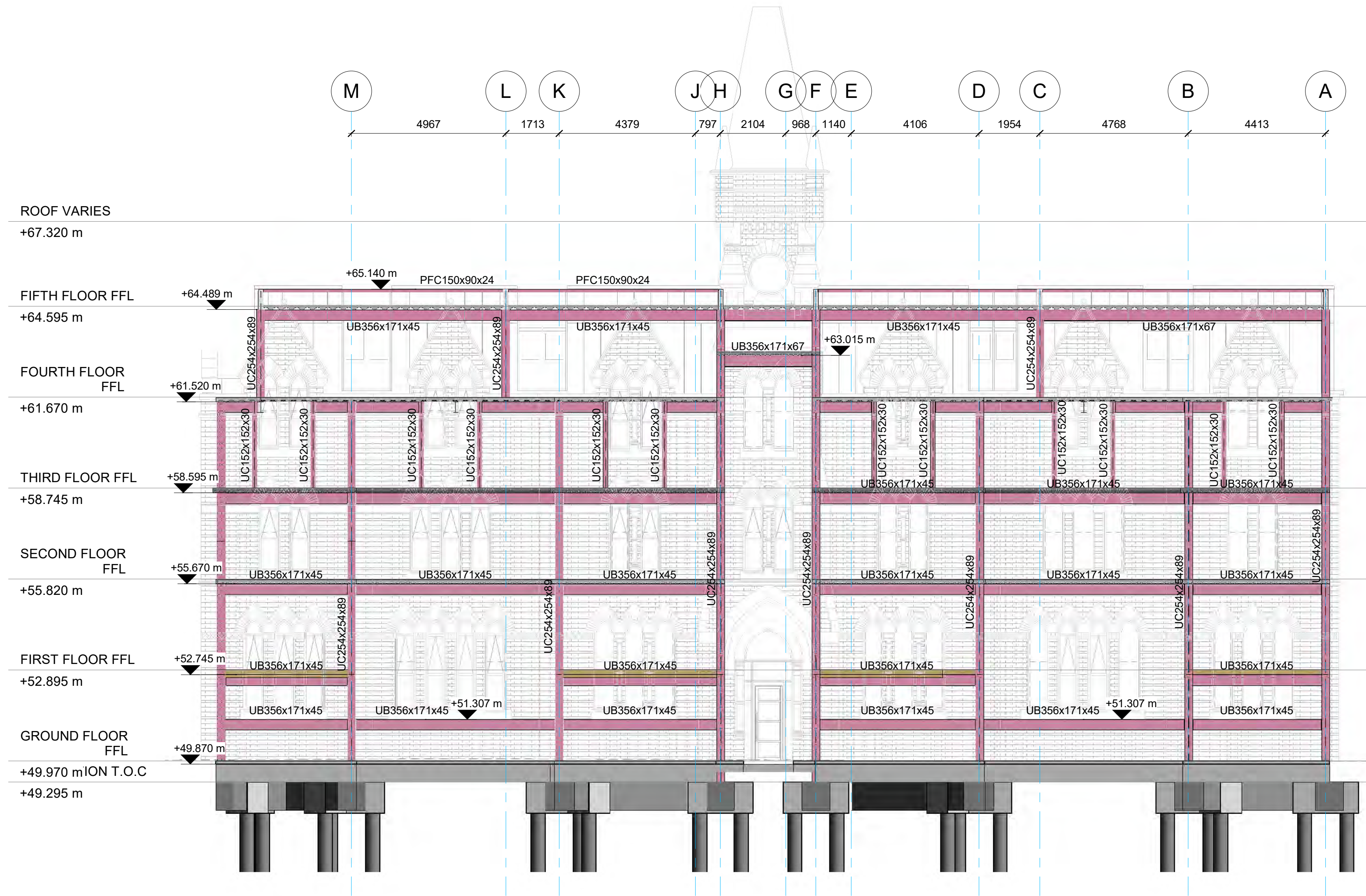
PROJECT ANCOATS DISPENSARY

DRAFTER AK ENGINEER BM

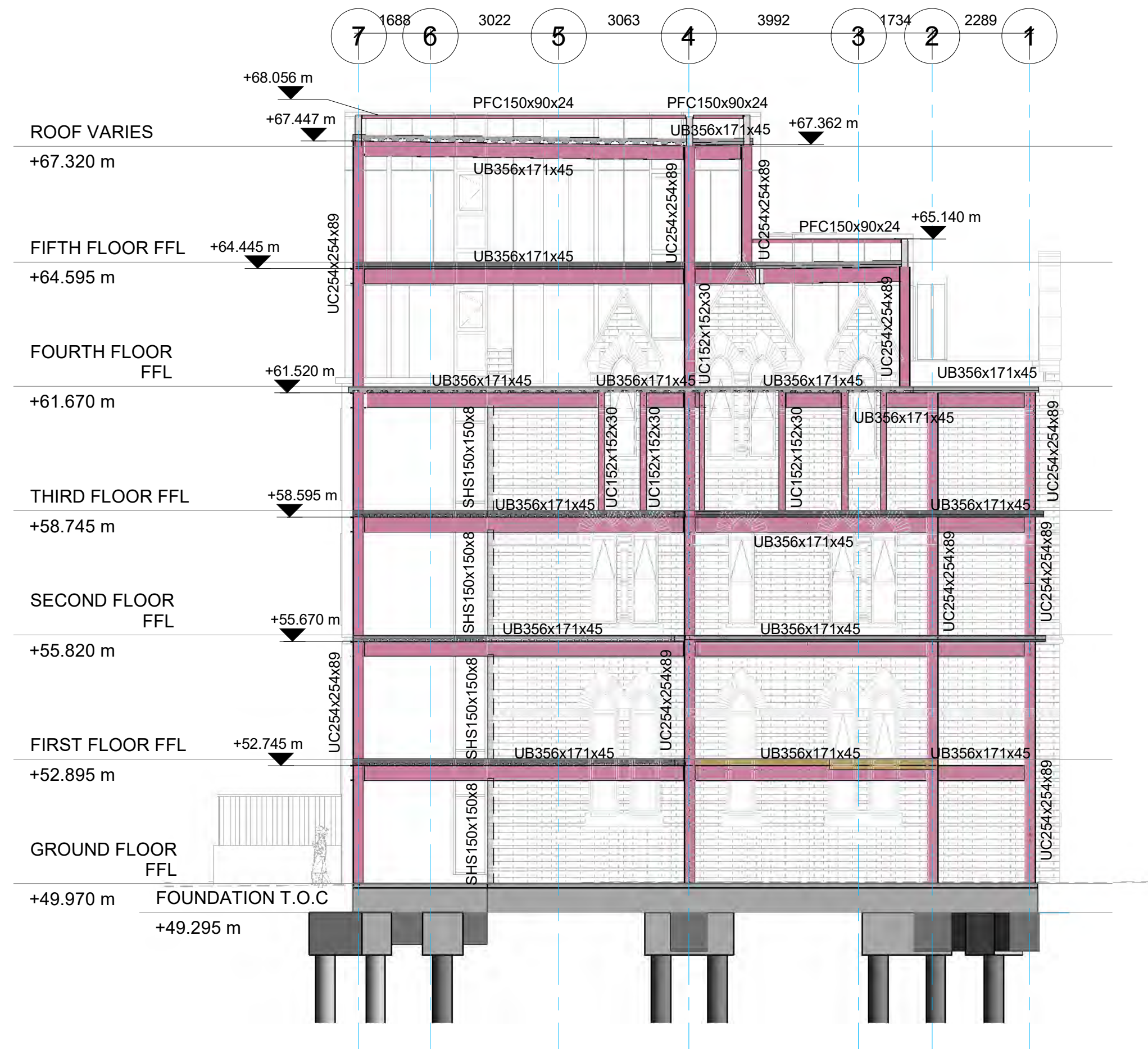
TITLE Project Reference: 3656

STRUCTURAL ELEVATIONS
SHEET 1

SCALE As indicated SHEET A1 DRAWING No 5014349-RDG-XX-ZZ-DR-S-0050 AMDT P1



1 ELEVATION NORTH (VIEW ON GRIDLINES 1 & 2)
1 : 100



2 ELEVATION EAST (VIEW ON GRIDLINES N & M)
1 : 100

NOTES

- DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ENGINEERS, ARCHITECTS AND SERVICES DRAWINGS, INCLUDING APPROVED BUILDERS WORK DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER OF DISCREPANCIES BETWEEN STRUCTURAL DRAWINGS AND SPECIFICATIONS / OTHER DRAWINGS.
- DO NOT SCALE FROM THE DRAWING, WORK TO DIMENSIONS AND COORINDATES PROVIDED. ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
- FOR GENERAL NOTES REFER TO RDG DRAWING 5014349-RDG-XX-XX-DR-S-0001.
- ARCHITECT TO CONFIRM ALL SETTING OUT AND DIMENSIONS.
- U.N.O. ALL COLUMNS CENTRED ON GRID.
- ALL SERVICES ARE RISERS/ PENETRATIONS T.B.C. BY M&E ENGINEER.

INFORMATION CONTAINED ON THIS DRAWING IS STAGE 3 DESIGN ONLY. FURTHER DETAILED DESIGN AND CO-ORDINATION WITH THE CONTRACTOR, DESIGN TEAM AND APPROPRIATE SUB-CONTRACTORS WILL BE REQUIRED TO FULLY DEVELOP AND DETAIL THE FINAL CONSTRUCTION DETAILS. CONTRACTOR TO USE THEIR EXPERIENCE AND JUDGEMENT TO MAKE SUFFICIENT ALLOWANCES FOR DETAILS DESIGN DEVELOPMENT AND CO-ORDINATION.

STEEL NOTES

- PRELIMINARY SIZES OF THE PRIMARY STEEL FRAME ARE INDICATED ON THE DRAWING. ALLOW FOR OVERALL FRAME WEIGHT OF 70kg/m².
- ALL STEELWORK TO BE HOT ROLLED GRADE S355 TO BS EN 10025:2004 & BS EN 10210.
- SECONDARY HOT ROLLED STEEL ALLOWANCE = 10% OF HOT ROLLED TONNAGE.
- ALL STEEL BEAMS SUPPORTING CONCRETE METAL DECK FLOORS AND SLABS ARE DESIGNED COMPOSITELY. ALLOW FOR 19mm DIAMETER x 105mm LONG SHEAR STUDS AT 300mm CENTRES ON PRIMARY BEAMS AND 150mm CENTRES ON SECONDARY BEAMS, THROUGH DECK WELDED ON SITE.
- ALLOW FOR TRANSVERSE SHEAR REINFORCEMENT WITHIN ALL CONCRETE METAL DECK FLOORS AND SLABS: H16 2000mm LONG AT 200mm CENTRES ON PRIMARY BEAMS AND 1000mm H16 U BARS TO PERIMETER BEAMS.
- ADDITIONAL STEEL PLATES/ANGLES WILL BE REQUIRED AT THE BASE OF ALL PARAPET POSTS AND COLUMNS LOCATED ON TRANSFER BEAMS, TO PROVIDE ADEQUATE BEARING SUPPORT FOR THE FLOOR AND ROOF DECKING.
- FLOOR TO FLOOR HEIGHT IS RESTRICTED AND THEREFORE M&E SERVICES ARE PROPOSED TO BE LOCATED WITHIN THE DEPTH OF THE STEELWORK. ALLOW FOR ADDITIONAL PLATE STIFFENERS AROUND ALL HOLES THROUGH BEAMS. 2 No. HOLES PER BEAM, POSITIONED CENTRALLY TO BEAM DEPTH AND UP TO 110mm DEEP x 300mm LONG TO BE TYPICALLY ALLOWED FOR.
- STEEL BEAMS DEPTH HAS BEEN LIMITED TO 356UB/356UC TO RESTRICT DEPTH TO 375mm.
- FIRE DESIGN: THE STEELWORK FRAME IS TO BE COATED WITH INTUMESCENT PAINT, WHICH SHALL BE COMPATIBLE WITH THE CORROSION PROTECTION PAINT SYSTEM.

CORROSION PROTECTION:

- ALL INTERNAL STEELWORK CONSIDERED TO BE ENVIRONMENT CATEGORY C2 LOW RISK. SURFACE PREPARATION: BLAST CLEAN TO Sa 2 1/2. COATING: 80 MICRON ZINC PHOSPHATE EPOXY PRIMER.

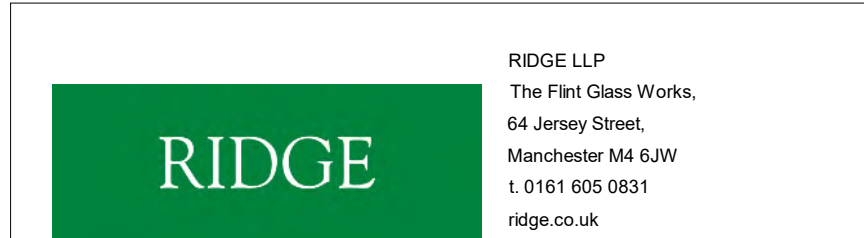
CONNECTIONS:

- ALL CONNECTIONS TO BE 'SIMPLE' DESIGNED IN ACCORDANCE WITH P212: JOINTS IN STEEL CONSTRUCTION. WITH MIN. 4no. BOLTS M16 GR 8.8. TYPICAL FACTORED FORCES AS FOLLOWS: ALL BEAM END CONNECTIONS TO BE DESIGNED FOR MIN. 75kN VERTICAL SHEAR AND AN AXIAL TIE FORCE EQUAL TO THE END REACTION, MIN. 75kN. ALL PRIMARY & SECONDARY BEAMS SUPPORTING FLOORS TO HAVE VERTICAL SHEAR OF 250kN & 125kN RESPECTIVELY. ALL TRANSFER BEAMS TO HAVE VERTICAL SHEAR OF 400kN. ALL PERIMETER STEELWORK TO BE DESIGNED FOR A HORIZONTAL SHEAR OF 25kN. ALL VERTICAL BRACES TO BE DESIGNED FOR 400kN AXIAL FORCE.

No	DATE	DRAWN	AK	BM	REV'D ENG.	AMENDMENT
P1	30.04.21					GRID UPDATED STAGE 3 ISSUE

STATUS	PURPOSE OF ISSUE
S2	FOR INFORMATION

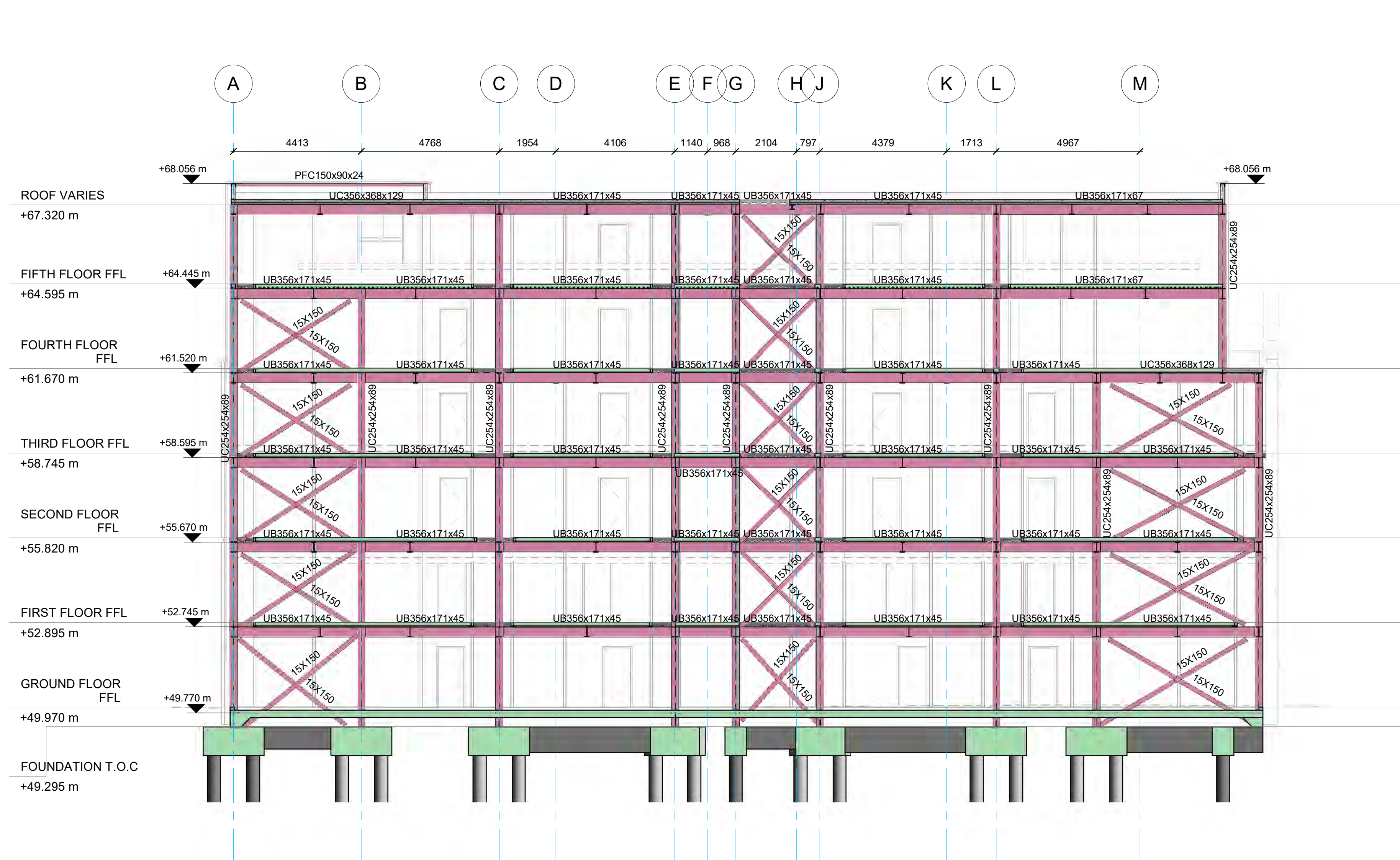
COPYRIGHT:
The concepts and the information contained in this document are the copyright of Ridge LLP.
Use or copying of the document in whole or in part without written permission of Ridge LLP,
constitutes an infringement of copyright.



CLIENT	GREAT PLACES HOUSING GROUP
PROJECT	ANCOATS DISPENSARY
DRAFTER	AK
ENGINEER	BM
TITLE	Project Reference: 3656

STRUCTURAL ELEVATIONS SHEET 2

SCALE	SHEET	DRAWING No	AMDT
As indicated	A1	5014349-RDG-XX-ZZ-DR-S-0051	P1

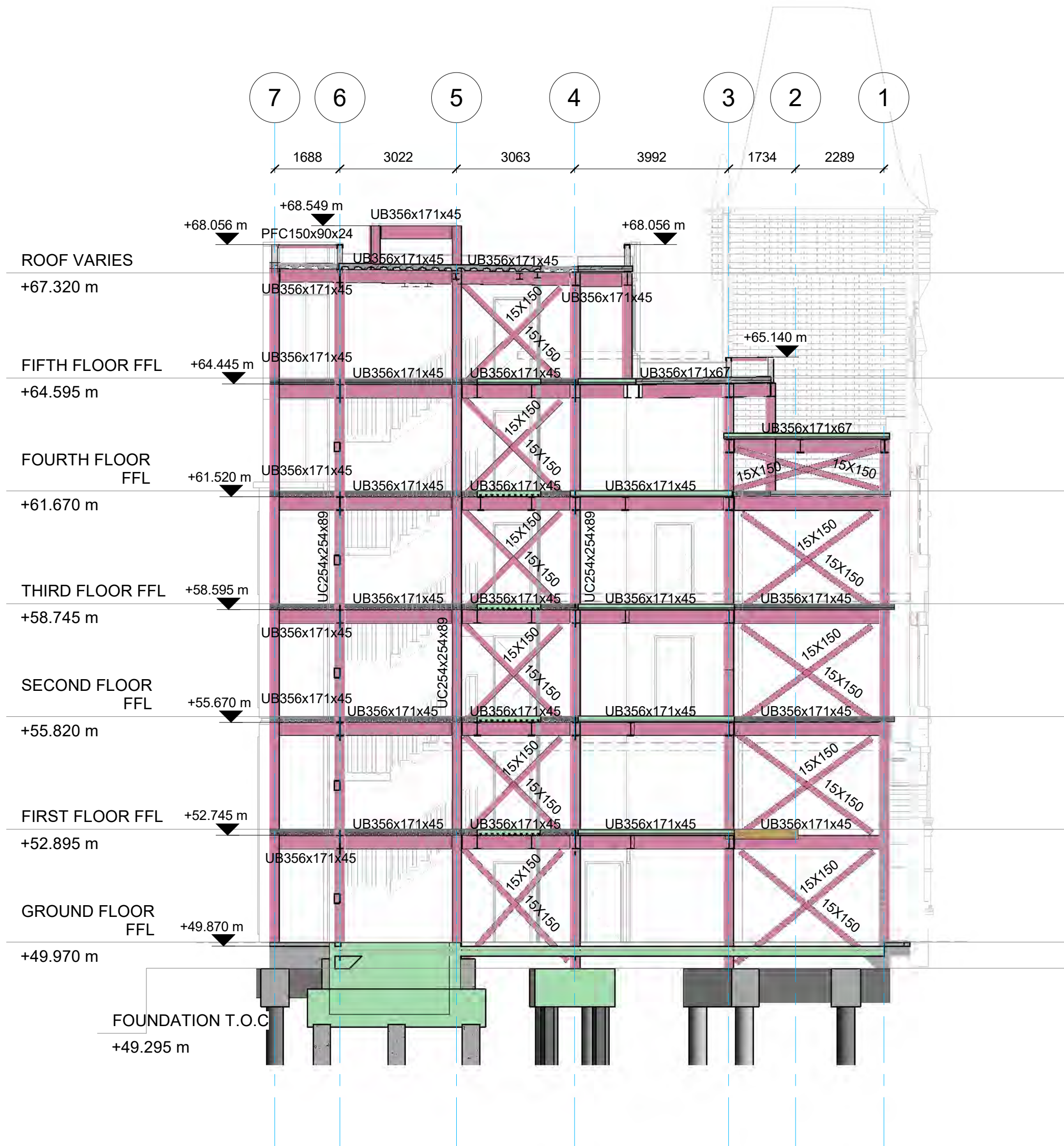


1 SECTION ALONG GRIDLINE 4
1 : 100

NOTES

- DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS, ENGINEERS, ARCHITECTS AND SERVICES DRAWINGS, INCLUDING APPROVED BUILDERS WORK DRAWINGS. CONTRACTOR TO NOTIFY ENGINEER OF DISCREPANCIES BETWEEN STRUCTURAL DRAWINGS AND SPECIFICATIONS / OTHER DRAWINGS.
- DO NOT SCALE FROM THE DRAWING, WORK TO DIMENSIONS AND COORDINATES PROVIDED. ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES.
- FOR GENERAL NOTES REFER TO RDG DRAWING 5014349-RDG-XX-XX-DR-S-0001.
- ARCHITECT TO CONFIRM ALL SETTING OUT AND DIMENSIONS.
- U.N.O. ALL COLUMNS CENTRED ON GRID.
- ALL SERVICES ARE RISERS/ PENETRATIONS T.B.C. BY M&E ENGINEER.

INFORMATION CONTAINED ON THIS DRAWING IS STAGE 3 DESIGN ONLY. FURTHER DETAILED DESIGN AND CO-ORDINATION WITH THE CONTRACTOR, DESIGN TEAM AND APPROPRIATE SUB-CONTRACTORS WILL BE REQUIRED TO FULLY DEVELOP AND DETAIL THE FINAL CONSTRUCTION DETAILS. CONTRACTOR TO USE THEIR EXPERIENCE AND JUDGEMENT TO MAKE SUFFICIENT ALLOWANCES FOR DETAILS DESIGN DEVELOPMENT AND CO-ORDINATION.



2 SECTION ALONG GRIDLINE G
1 : 100

STEEL NOTES

- PRELIMINARY SIZES OF THE PRIMARY STEEL FRAME ARE INDICATED ON THE DRAWING. ALLOW FOR OVERALL FRAME WEIGHT OF 70kg/m²
- ALL STEELWORK TO BE HOT ROLLED GRADE S355 TO BS EN 10025:2004 & BS EN 10210.
- SECONDARY HOT ROLLED STEEL ALLOWANCE = 10% OF HOT ROLLED TONNAGE.
- ALL STEEL BEAMS SUPPORTING CONCRETE METAL DECK FLOORS AND SLABS ARE DESIGNED COMPOSITELY. ALLOW FOR 19mm DIAMETER x 105mm LONG SHEAR STUDS AT 300mm CENTRES ON PRIMARY BEAMS AND 150mm CENTRES ON SECONDARY BEAMS, THROUGH DECK WELDED ON SITE.
- ALLOW FOR TRANSVERSE SHEAR REINFORCEMENT WITHIN ALL CONCRETE METAL DECK FLOORS AND SLABS: H16 2000mm LONG AT 200mm CENTRES ON PRIMARY BEAMS AND 1000mm H16 U BARS TO PERIMETER BEAMS.
- ADDITIONAL STEEL PLATES/ANGLES WILL BE REQUIRED AT THE BASE OF ALL PARAPET POSTS AND COLUMNS LOCATED ON TRANSFER BEAMS, TO PROVIDE ADEQUATE BEARING SUPPORT FOR THE FLOOR AND ROOF DECKING.
- FLOOR TO FLOOR HEIGHT IS RESTRICTED AND THEREFORE M&E SERVICES ARE PROPOSED TO BE LOCATED WITHIN THE DEPTH OF THE STEELWORK. ALLOW FOR ADDITIONAL PLATE STIFFENERS AROUND ALL HOLES THROUGH BEAMS. 2 No. HOLES PER BEAM, POSITIONED CENTRALLY TO BEAM DEPTH AND UP TO 110mm DEEP x 300mm LONG TO BE TYPICALLY ALLOWED FOR.
- STEEL BEAMS DEPTH HAS BEEN LIMITED TO 356UB/356UC TO RESTRICT DEPTH TO 375mm.
- FIRE DESIGN: THE STEELWORK FRAME IS TO BE COATED WITH INTUMESCENT PAINT, WHICH SHALL BE COMPATIBLE WITH THE CORROSION PROTECTION PAINT SYSTEM.

CORROSION PROTECTION:

- ALL INTERNAL STEELWORK CONSIDERED TO BE ENVIRONMENT CATEGORY C2 LOW RISK. SURFACE PREPARATION: BLAST CLEAN TO Sa 2 1/2. COATING: 80 MICRON ZINC PHOSPHATE EPOXY PRIMER.

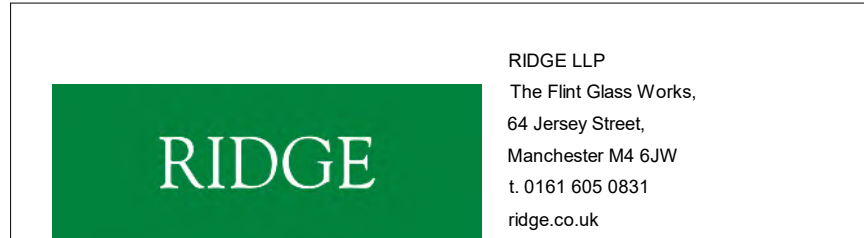
CONNECTIONS:

- ALL CONNECTIONS TO BE 'SIMPLE' DESIGNED IN ACCORDANCE WITH P212: JOINTS IN STEEL CONSTRUCTION, WITH MIN. 4no. BOLTS M16 GR 8.8. TYPICAL FACTORED FORCES AS FOLLOWS: ALL BEAM END CONNECTIONS TO BE DESIGNED FOR MIN. 75kN VERTICAL SHEAR AND AN AXIAL TIE FORCE EQUAL TO THE END REACTION, MIN. 75kN. ALL PRIMARY & SECONDARY BEAMS SUPPORTING FLOORS TO HAVE VERTICAL SHEAR OF 250kN & 125kN RESPECTIVELY. ALL TRANSFER BEAMS TO HAVE VERTICAL SHEAR OF 400kN. ALL PERIMETER STEELWORK TO BE DESIGNED FOR A HORIZONTAL SHEAR OF 25kN. ALL VERTICAL BRACES TO BE DESIGNED FOR 400kN AXIAL FORCE.

P1	30.04.21	AK	BM	GRID UPDATED STAGE 3 ISSUE
No	DATE	DRAWN	REV'D ENG.	AMENDMENT

STATUS	PURPOSE OF ISSUE
S2	FOR INFORMATION

COPYRIGHT:
The concepts and the information contained in this document are the copyright of Ridge LLP.
Use or copying of the document in whole or in part without written permission of Ridge LLP,
constitutes an infringement of copyright.



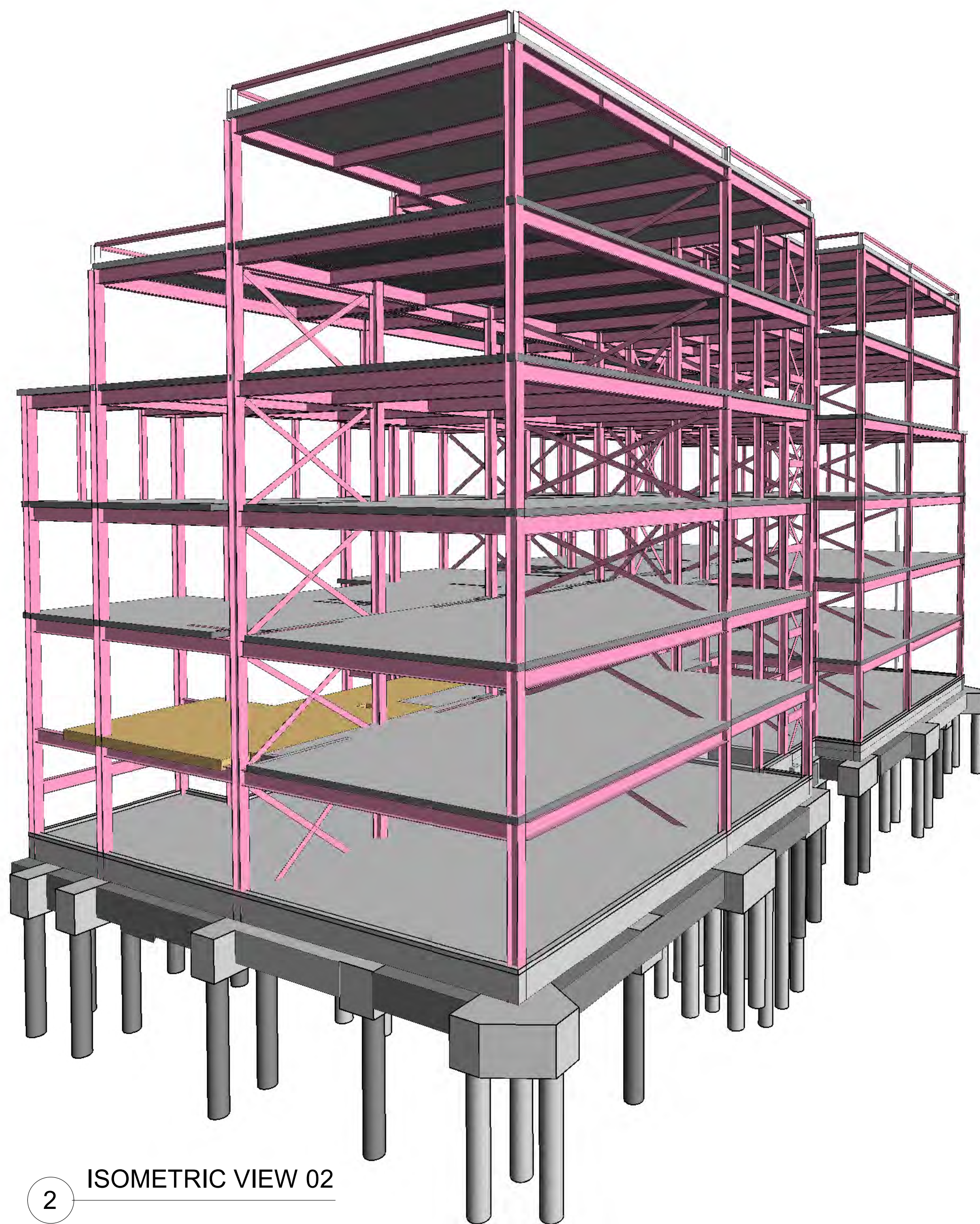
CLIENT	GREAT PLACES HOUSING GROUP
PROJECT	ANCOATS DISPENSARY
DRAFTER	AK
ENGINEER	BM
TITLE	Project Reference: 3656

SECTIONS SHEET 1

SCALE	SHEET	DRAWING No	AMDT
As indicated	A1	5014349-RDG-XX-ZZ-DR-S-0055	P1



1 ISOMETRIC VIEW 01



2 ISOMETRIC VIEW 02

P1	30.04.21	AK	BM	GRID UPDATED STAGE 3 ISSUE
No	DATE	DRAWN	REV'D ENG.	AMENDMENT

STATUS	PURPOSE OF ISSUE
S2	FOR INFORMATION

COPYRIGHT:
The concepts and the information contained in this document are the copyright of Ridge LLP.
Use or copying of the document in whole or in part without written permission of Ridge LLP,
constitutes an infringement of copyright.



RIDGE LLP
The Flint Glass Works,
64 Jersey Street,
Manchester M4 6JW
T. 0161 605 0831
ridge.co.uk

CLIENT GREAT PLACES HOUSING GROUP

PROJECT ANCOATS DISPENSARY

DRAFTER	AK	ENGINEER	BM
---------	----	----------	----

TITLE Project Reference: 3656

3D VIEWS

SCALE	SHEET	DRAWING No	AMDT
	A1	5014349-RDG-XX-ZZ-DR-S-0060	P1



RIDGE



www.ridge.co.uk