

Condition Discharge Information Pack Two

PSDS3 Decarbonisation Works

Manchester City Council
October 2023

Didsbury Library
692 Wilmslow Rd
Didsbury
Manchester
M20 2DN



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1.0 Introduction

This information pack has been prepared to support the discharge of conditions under City Council Development - Installation of air source heat pumps within a "living wall" compound reference 136152/VO/2023.

This information pack includes narrative around the proposed living wall installation, planting scheme, long term maintenance requirements and other construction details. Technical details are included where necessary in full in the document appendices.

2.0 Condition Discharge

The information pack is to discharge condition 4 as outlined below.

4) Prior to the installation of the 'Living Wall' as set out on the approved drawings and documents, full details of the system to be used including the types and species of planting; growing medium; section drawings of the supporting structure; irrigation system and drainage; timescales for its implementation; together with a long term maintenance and management plan for the 'Living Wall' shall be submitted to and approved in writing by the City Council as local planning authority. The development shall be undertaken and maintained and managed in accordance with the agreed details.

If within a period of 5 years from the date of the planting of the 'Living Wall' any planting is removed, uprooted or destroyed or dies, or becomes, in the opinion of the local planning authority, seriously damaged or defective, additional planting shall be planted at the same place.

Reason - In the interests of the visual amenity and special character of the area in which the site is located pursuant to policy SP1, EN3, and DM1 of the Core Strategy and saved Unitary Development Plan Policies DC18 and DC19.

2.1 Types and Species of Planting

1 *Dryopteris affinis Crispa* Perennial, Deciduous



2 *Pachysandra Terminalis* Perennial, Evergreen



3 *Asplenium Scolopendrium* Perennial, Evergreen



4 *Hedera Helix* Perennial, Evergreen



5 *Carex Green* Perennial, Evergreen



6 *Leucothoe Zebroides* Shrub, Evergreen



7 *Polypodium Vulgare* Perennial, Evergreen



2.2 Growing Medium

The proposed growing medium is a proprietary module from IWANTPLANTS Ltd. The module itself is “HYVERT by I Want Plants” living wall system; complete with HYVERT vertical mix compost and fixed with custom aluminium hanging split rails. Waterproof membrane and vertical fixing rails (if needed). Saturated weight of panels, growing medium and plants is expected as 60 kgs per m².

2.3 Section Drawings of the Supporting Structure

The HYVERT system is a proprietary module designed by IWANTPLANTS. The modules fix to a supporting structure formed of posts and rails over concrete pad foundations. The structural design has been undertaken by Clancy Consulting Ltd structural engineers, and in conjunction with the consulting arborist from Cheshire Woodlands Ltd, who undertook the arborist report included under the original planning application.

Full details of the HYVERT system and the supporting structure are included in the document appendices.

2.4 Irrigation System & Drainage

The living wall will include an automatic irrigation system. This will consist of a 16mm diameter polypropylene round drip line with a dripper rate of not less than 2.1 litres per hour, fixed to the top of the planting modules. The pipework will be positioned in the top section for optimum aesthetics, and to provide solar protection to reduce solar gain to drip line.

The distribution manifold will be connect to the mains supply, allowing the pressurised mains connection to be distributed and drip fed to the planting modules, providing the correct level of watering for the plants.

2.5 Timescales for Implementation

At the time of writing this information pack, the programme to install the living wall is still to be finalised. The installation is expected to be planted and complete by Spring 2024.

2.6 Long Term Maintenance & Management Plan

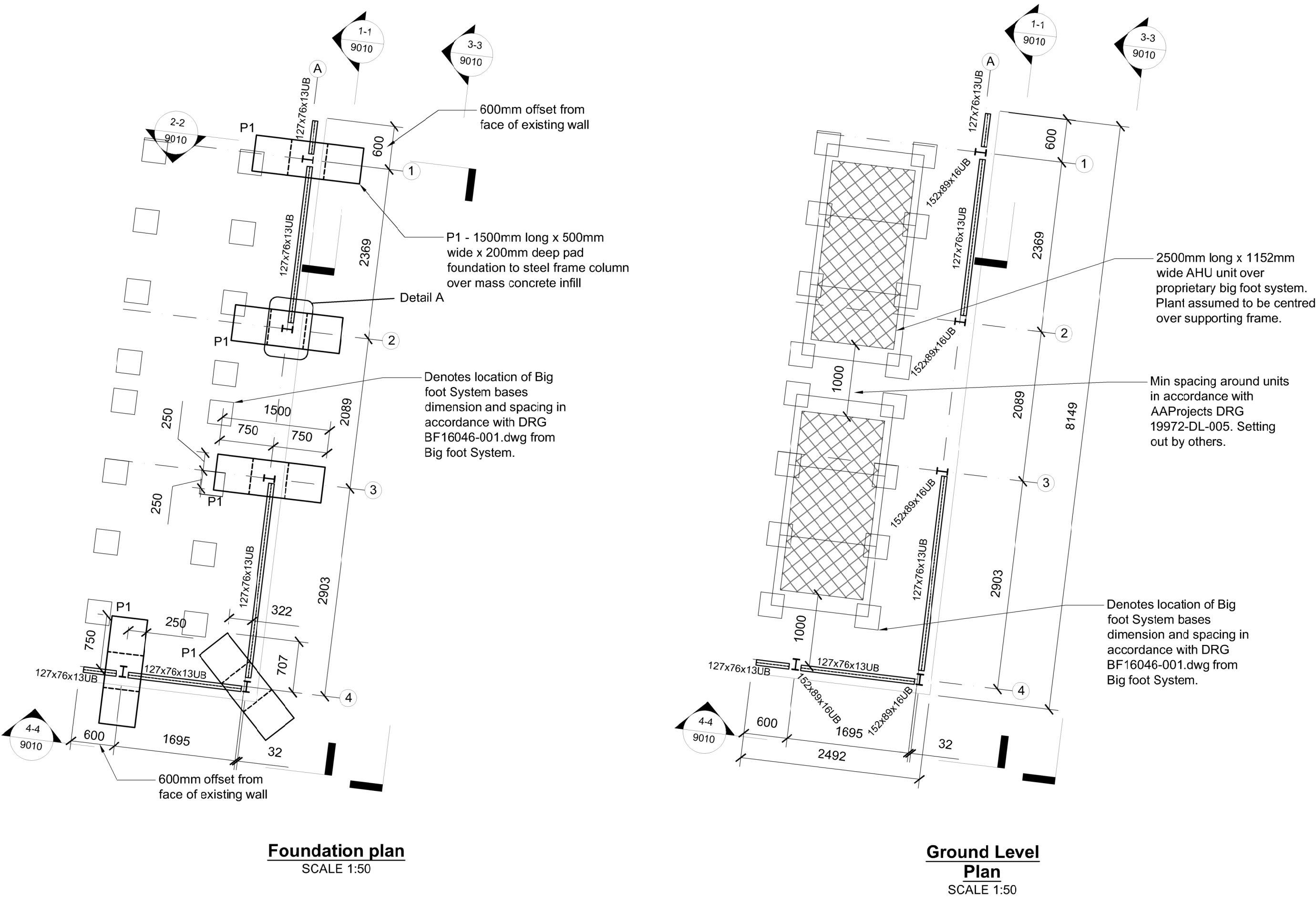
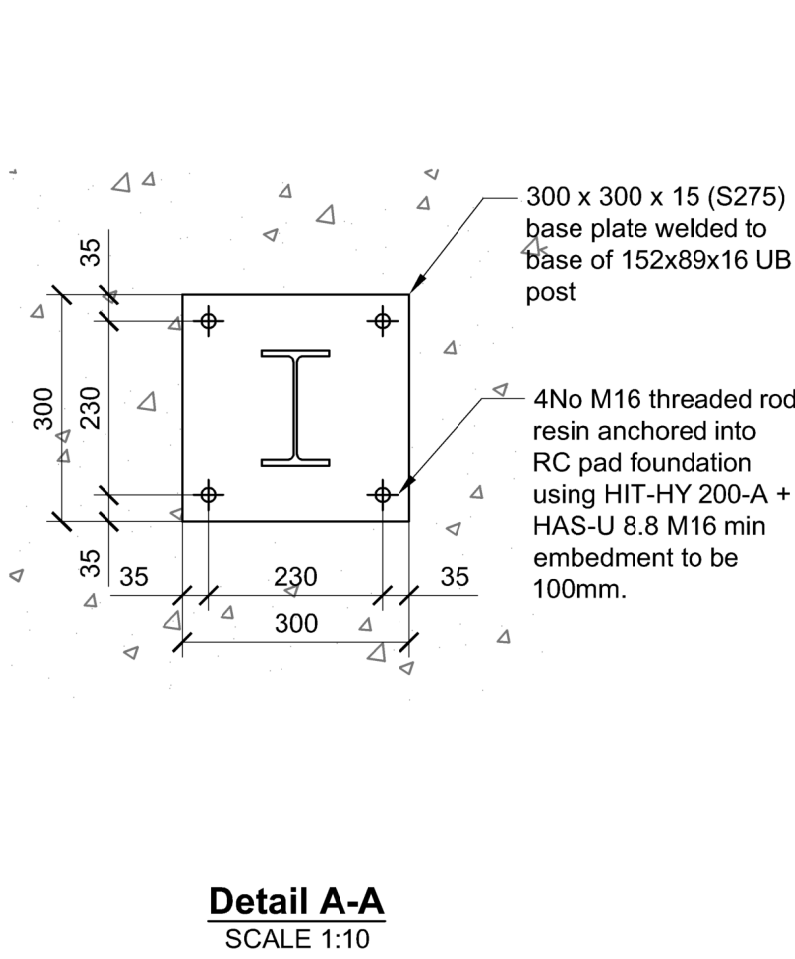
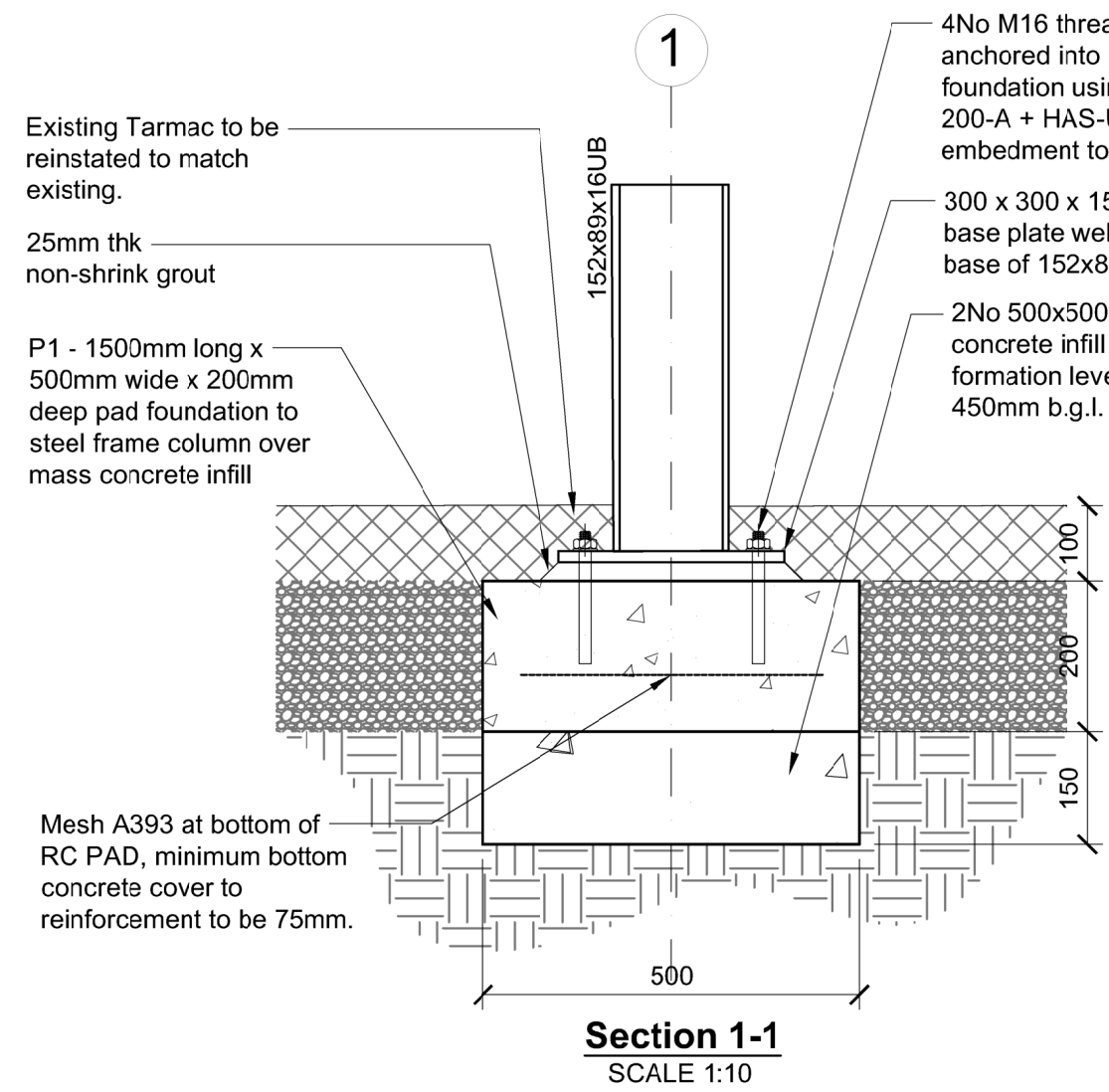
Like any live green infrastructure, a living wall is a constantly evolving installation and its future good health relies on regular maintenance and care. The first year of maintenance is included in the installation package. Ongoing long term maintenance will be undertaken by Manchester City Council grounds maintenance team, or by an ongoing annual contract with IWANTPLANTS.

The annual maintenance will consist of:

- Remove airborne, self-seeding weeds
- Prune in line with the season
- Spot treatments for pest and disease
- Application of plant feed and nutrients
- Neatness below the wall
- Ensure outlets are clear
- Failed plant replacement

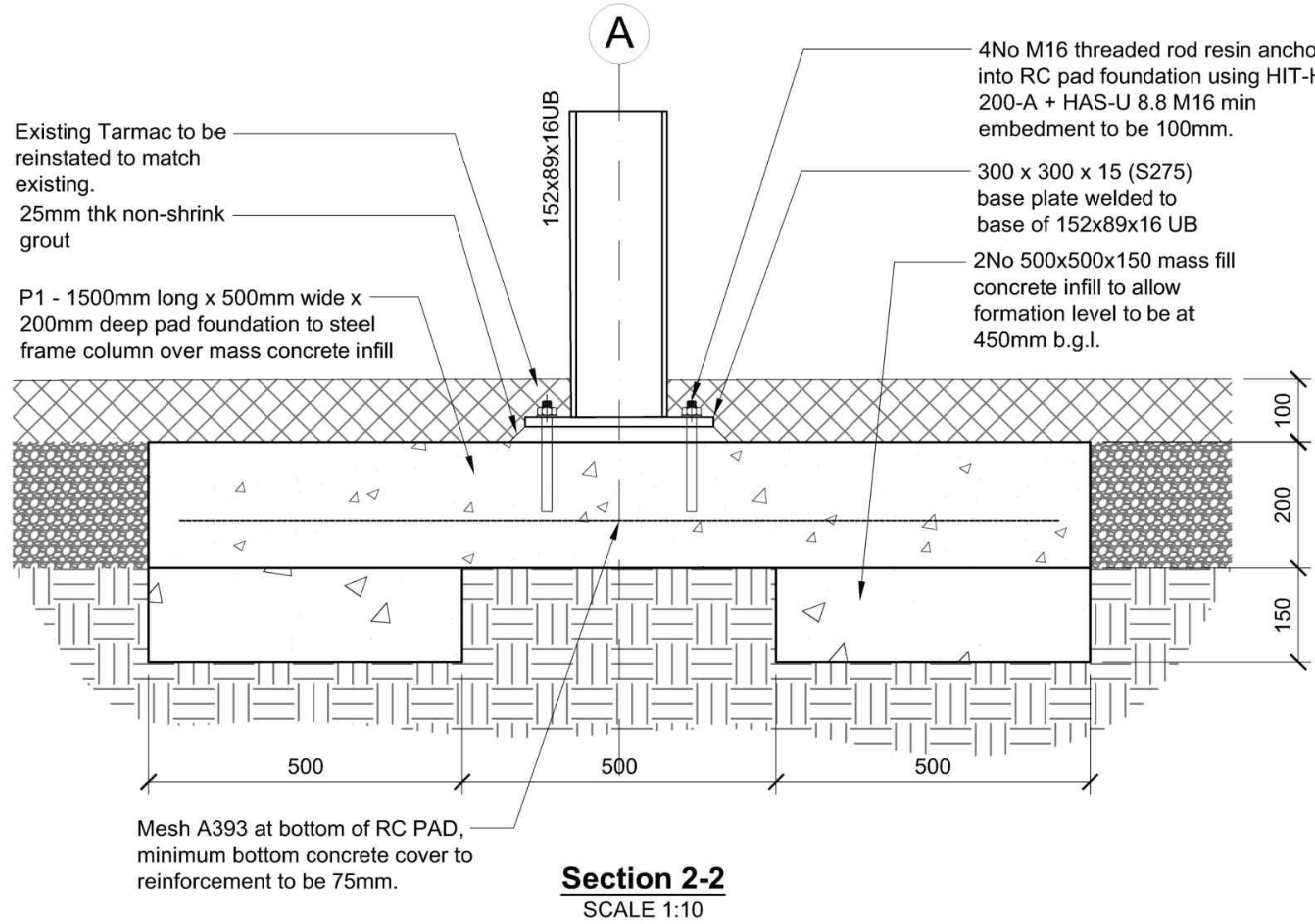
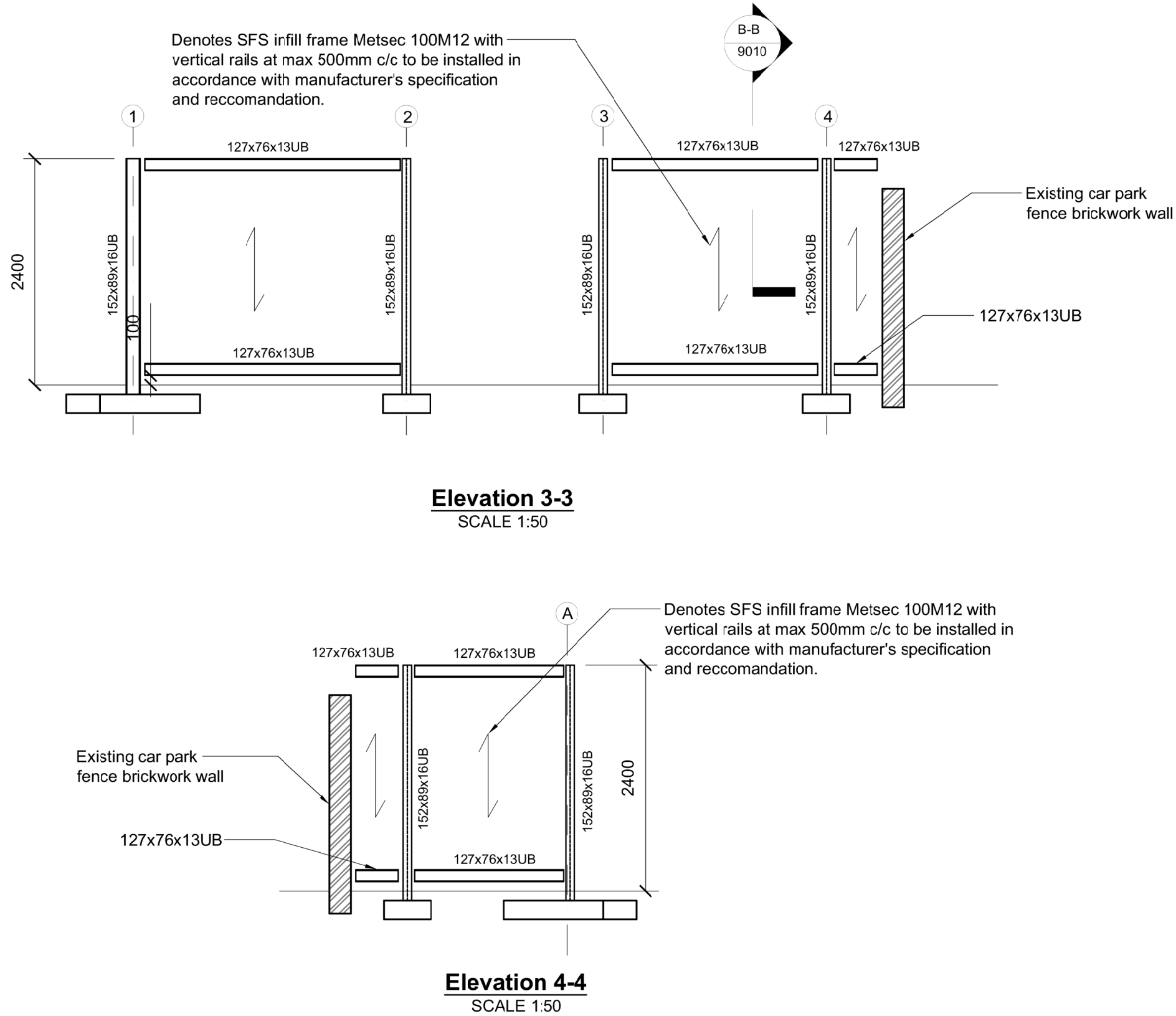
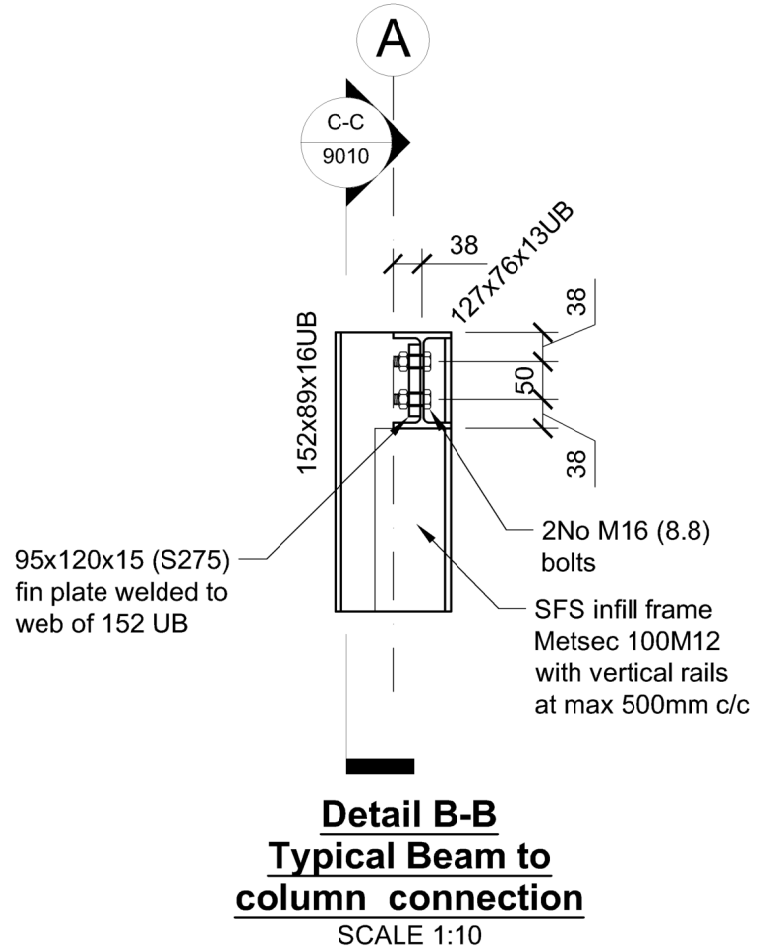
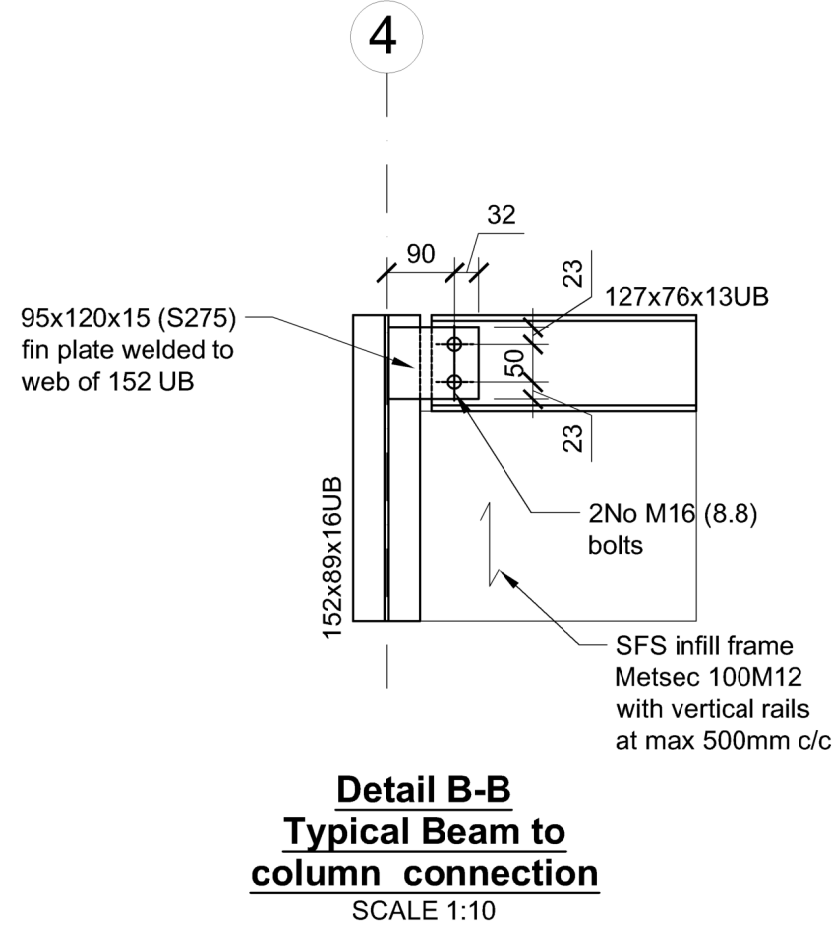
Appendix A

Supporting Structure Details



- GENERAL NOTES**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS AND SPECIFICATIONS.
 - DO NOT SCALE OFF THIS DRAWING.
 - ALL LEVELS AND DIMENSIONS ARE TO BE CHECKED BY THE CONTRACTOR/FABRICATOR PRIOR TO COMMENCEMENT OF CONSTRUCTION/FABRICATION. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER.
 - EXISTING CONSTRUCTION DETAILS ARE TO BE CONFIRMED ON SITE BY THE CONTRACTOR. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER.
 - ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
 - ALL PROPRIETARY PRODUCT TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURE'S REQUIREMENTS AND SPECIFICATIONS

- STEELWORK NOTES**
- ALL STEELWORK IS TO BE HOT ROLLED AND SHALL COMPLY WITH BS EN 1090 AND BE GRADE S355JR INTERNALLY, S355J2 EXTERNALLY (IN ACCORDANCE WITH EN10025-2) AND S355J2H FOR BOX SECTIONS - SHS, RHS & CHS (IN ACCORDANCE WITH EN 10210-1), UNLESS OTHERWISE NOTED.
 - ALL EXTERNAL STEELWORK TO BE HOT DIP GALVANISED TO BS EN 150 1461: 85mm MIN.
 - ALL STEELWORK BELOW GROUND TO EITHER BE CONCRETE ENCASED (MINIMUM 75mm COVER ALL ROUND) OR TREATED WITH TWO COATS OF SITE APPLIED BITUMINOUS PAINT IN ADDITION TO THE ABOVE SPECIFICATION. HOT DIPPED GALVANISING SHALL BE IN ACCORDANCE WITH BS EN 1461:2009.
 - MATERIAL DIMENSIONS AND TOLERANCE SHALL COMPLY WITH THE APPROPRIATE STANDARD SHOWN IN THE NSSS 5TH EDITION/CE MARKING EXECUTION CLASS TO BE EXC 2 TO BS EN 1090-2
 - AFTER ALL STEELWORK HAS BEEN LINED, LEVELLED AND PLUMBED THE CONTRACTOR IS TO GROUT THE BASES IN ACCORDANCE WITH BS EN 1993-1-8 WITH A PROPRIETARY NON-SHRINK GROUT.
 - WHERE RELEVANT, DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO FABRICATION.
 - FIRE PROTECTION & VISIBLE FINISHES SPECIFICATION TO BE PROVIDED BY THE ARCHITECT IN CONSULTATION WITH THE BUILDING CONTROL FABRICATION & ERECTION IN ACCORDANCE WITH NATIONAL STRUCTURAL STEELWORK SPECIFICATION (NSSS) 5TH CE MARKING EDITION.
 - ALL WELDS TO BE MIN. 6mm FILLET WELDS TO FULL PERIMETER IN ACCORDANCE WITH NSSS SECTION 5.
 - IT IS IMPERATIVE THAT ALL DIMENSIONS ARE TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF FABRICATION. ALL INFORMATION RELATING TO ITEMS OF EXISTING CONSTRUCTION IS TO BE VERIFIED BY THE FABRICATOR PRIOR TO COMMENCEMENT OF FABRICATION DETAILING. ANY DISCREPANCIES NOTED ARE TO BE REPORTED IMMEDIATELY TO THE DESIGN TEAM.



T1	18/08/23	ISSUED FOR INFORMATION	KH	GS	GS
Rev	Date	Description	By	Check	App.

COPYRIGHT: THE COPYRIGHT OF THIS DRAWING IS VESTED IN CLANCY CONSULTING. IT SHALL NOT BE USED WITHOUT PERMISSION BY ANYONE FOR ANY PURPOSE. DO NOT SCALE THIS DRAWING ELECTRONICALLY OR MANUALLY. WORK TO FIGURED DIMENSIONS ONLY. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE. DO NOT TURN ON LAYERS THAT HAVE BEEN TURNED OFF. DO NOT TURN LAYERS THAT HAVE BEEN FROZEN.

Client	AA PROJECTS				
Project	MANCHESTER CITY COUNCIL DECARBONISATION WORK				
Office	ALTRINCHAM				
Discipline	STRUCTURE				
Title	DIDSURRY LIBRARY GREEN WALL FRAME PLAN AND DETAIL				
Scale @ A1	AS NOTED	Status	CONSTRUCTION		

Originator	Job Number	Discipline	Building/Zone
CCL	12/3982	S	ALL
Type	Level	Drawing No.	Revision
DE	0	9010	T1

FOUNDATION NOTES

- CONTRACTOR TO NOTE THE POSSIBILITY OF RELIC FOUNDATIONS AND UNDERGROUND OBSTRUCTIONS REMAINING FROM PREVIOUS DEMOLITION WORKS/STRUCTURES.
- CONTRACTOR SHALL HIGHLIGHT ANY REMNANTS OF RELIC FOUNDATIONS OR UNIDENTIFIED UNDERGROUND OBSTRUCTIONS WHICH ARE ENCOUNTERED DURING EXCAVATIONS ON SITE. RELIC FOUNDATIONS UNDER THE FOOTPRINT OF THE PROPOSED WORKS SHALL BE REMOVED & TREATED AS SOFT SPOTS IN ACCORDANCE WITH FOUNDATION NOTES ABOVE
- SOFT SPOTS ENCOUNTERED WHILST EXCAVATING MUST BE REPORTED TO THE ENGINEER AND SHALL, WITH THE APPROVAL OF THE ENGINEER BE REMOVED AND MADE UP EITHER IN WELL COMPACTED ENGINEERED FILL OR GEN 3 MASS CONCRETE.
- FOUNDATIONS TO BE CONSTRUCTED WITHIN TREE PROTECTION ZONE AND ALL THE WORKS SHOULD BE CARRIED OUT IN ACCORDANCE WITH BS5837
- FOUNDATIONS TO BE CONSTRUCTED WITHIN ROOT PROTECTION AREA (RPA) AND ALL THE WORKS SHOULD BE CARRIED OUT IN ACCORDANCE WITH BS5837
- TREE ROOT WITH A DIAMETER LARGER THAN 25mm ENCOUNTERED WHILST EXCAVATING MUST BE REPORTED TO THE STRUCTURAL ENGINEER AS IT MIGHT EFFECT THE PROPOSED FOUNDATION ARRANGEMENT.
- ALL CONCRETE SHALL BE RC28/35 (DS-1 & AC-32) AND IS TO COMPLY WITH THE REQUIREMENTS OF BS EN 1992; BS EN 206; AND BS 8500.REINFORCEMENT SHALL BE GRADE B500B OR B500C CONFORMING TO BS 4449. MESH REINFORCEMENT TO BS 4483.
- REINFORCEMENT SHALL BE LAPPED BY THE GREATER OF 45 x BAR DIAMETERS OR 400mm.
- CONCRETE COVER TO REINFORCEMENT TO BE 50mm TOP, 50mm SIDES, 75mm BOTTOM U.N.O..
- THE CONTRACTOR SHALL ENSURE THAT ADEQUATE SPACERS / CHAIRS ARE PROVIDED IN ACCORDANCE WITH BS 7973.

NOTE:

THE PROPOSED STRUCTURE IS WITHIN TREE PROTECTION AREA. THE PROPOSED GROUND BEARING PAD FOUNDATION PROPOSAL MIGHT BE SUBJECT TO DIFFERENTIAL SETTLEMENT AND MOVEMENT DUE TO THE PRESENCE OF THE TREE ROOTS. PILED FOUNDATION OPTION IS TO BE USED TO REDUCE THIS RISK.

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION BOX		
Construction Risks	Maintenance/Cleaning Risks	Demolition/Adaptation Risks
Construction works take place immediately adjacent to existing structure and foundations. Contractor must carry out trial pits to expose existing foundations prior to carrying out the works and ensure that they are not undermined at any stage of the works. If asbestos is detected during demolition of the existing structure. All traces are to be removed by a suitably qualified contractor prior to any further excavation works. It is understood existing services are present within the work area - refer to site records provided by the Client. There exists a possibility of unrecorded services - Each work area shall be cat scanned by Contractor prior to commencement of works. After casting of replacement surfacing, new concrete slabs & drainage goods, works shall be protected from trafficking until such time that the concrete / surfacing has attained sufficient strength to meet with the acceptance of the Engineer. Working at height to be minimised with detailed method statement to be prepared by the Contractor.	All maintenance shall be by qualified personnel with safe and suitable access. All steelwork in contact with existing building to be inspected periodically to check for any signs of water ingress and corrosion of the steelwork.	External works construction make-up are designed for the trafficking & use of the proposed development. Any change of use, change of range of vehicles or frequency of use shall not be permitted without an assessment by a suitably qualified Design Engineer.
IN ADDITION TO THE HAZARDS / RISKS NORMALLY ASSOCIATED WITH THE TYPE OF WORK DETAILED ON THIS DRAWING - THE CONTRACTOR IS TO TAKE NOTE OF THE ABOVE & ALSO THE HAZARDS IDENTIFIED IN THE RISK ASSESSMENT DOCUMENT. IT IS ASSUMED THAT ALL WORKS DETAILED ON THIS DRAWING WILL BE PERFORMED BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT.		

HILTI High performance nail
X-P 24 B3 MX @ 500mm
vertical spacing to fix channel

HILTI Aluminium I -
Channel
MM-C-16 @ 500mm
horizontal spacing

Waterproof
membrane

HYVERT
aluminium hangers

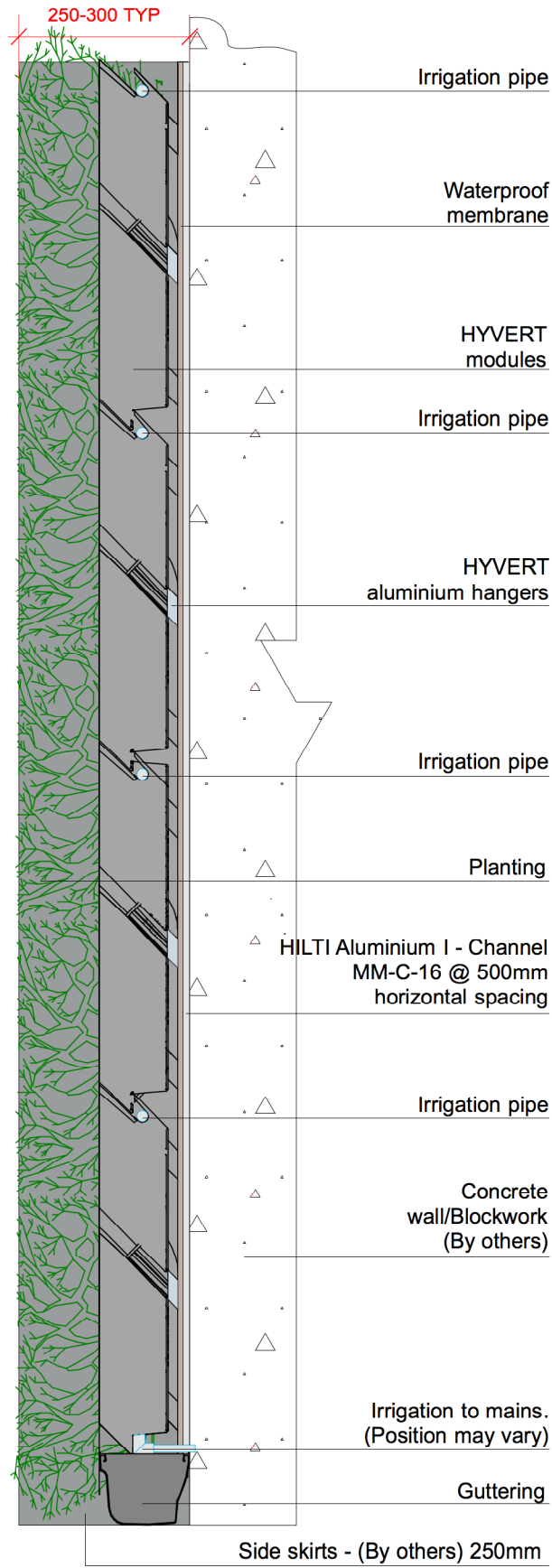
HILTI HUS3 - H 6
Concrete screw anchor
through channel @
500mm spacing

HYVERT
modules

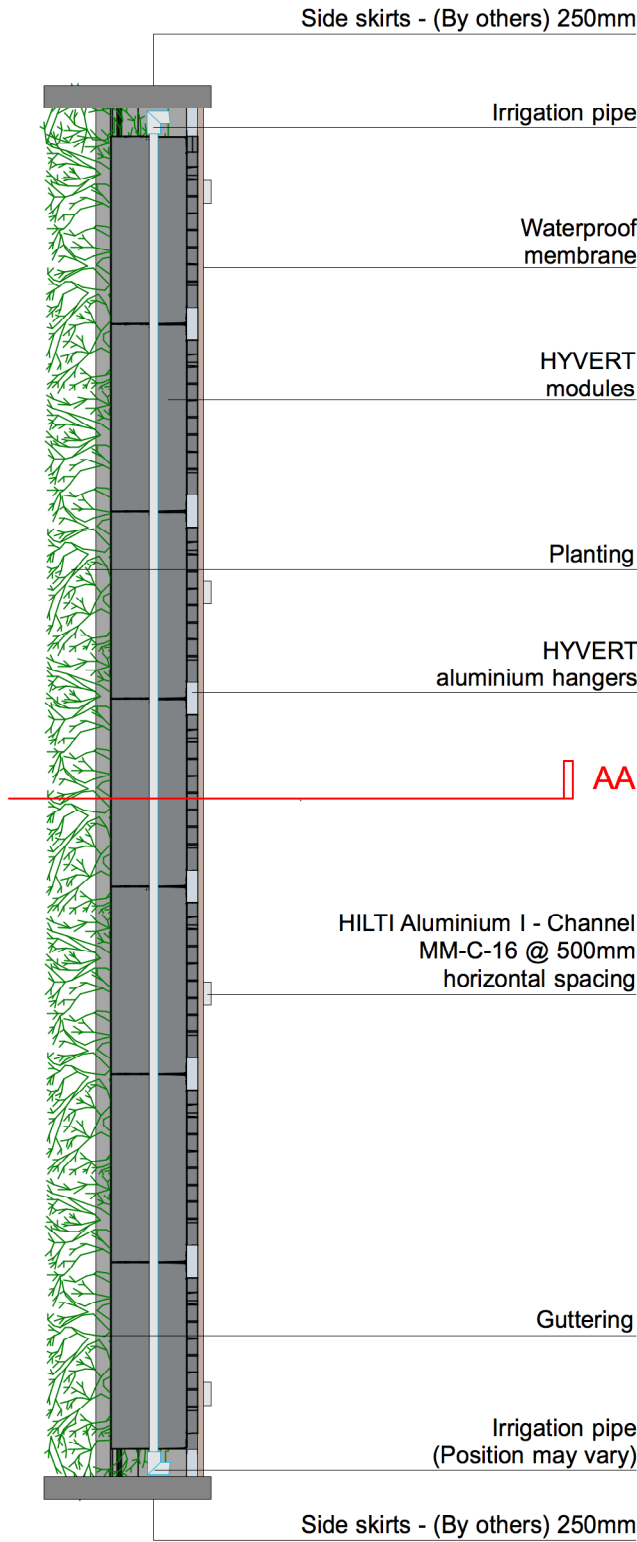
Planting

Irrigation pipe
(Position may vary)

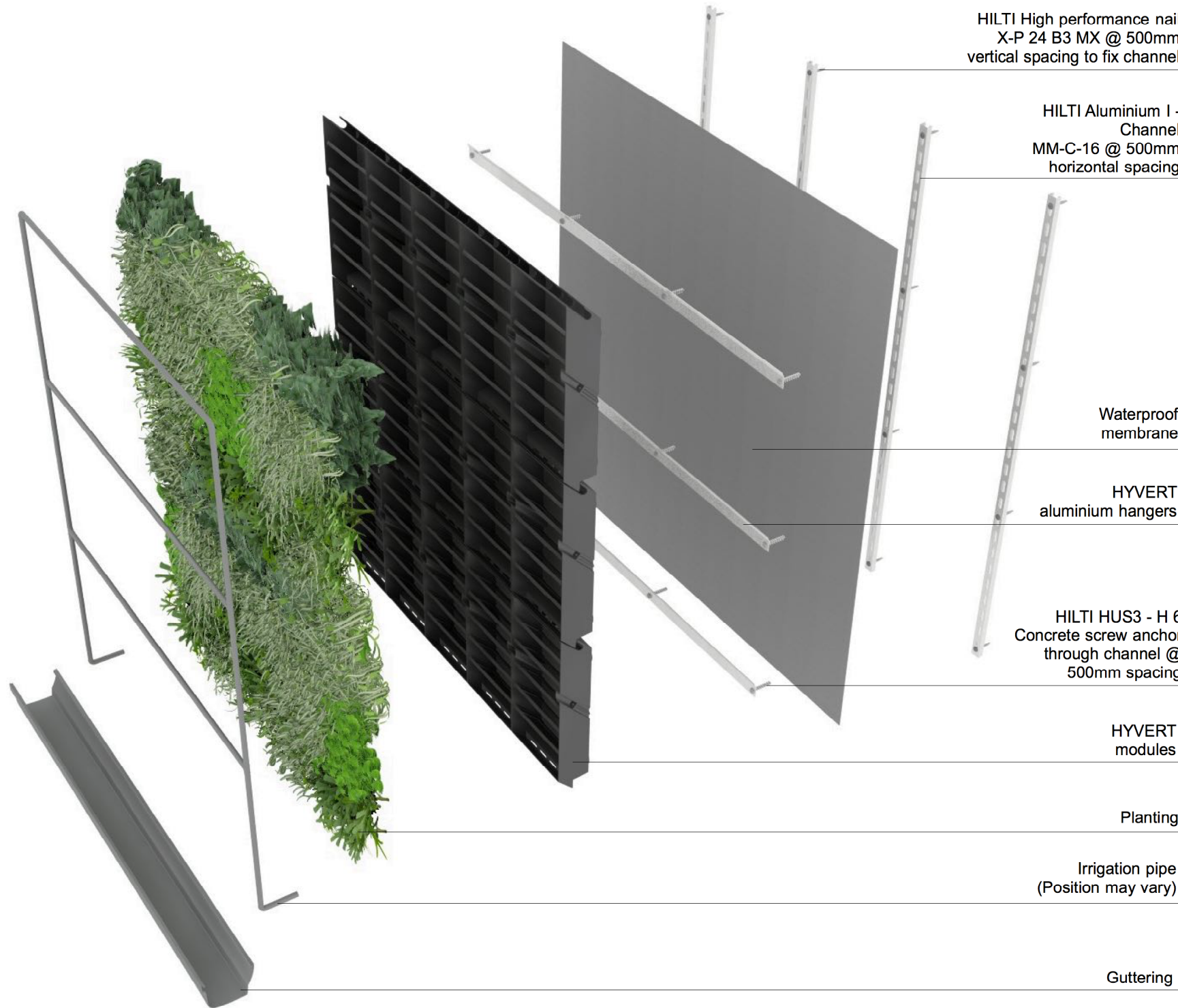
Guttering



Section AA - Typical detail
1:10@ A3



Plan layout - Typical detail
1:10@ A3



Break-down
Not to scale

NOTES

Do not scale from drawing, indicative concept drawings, check before construction detail

All measurements given are indicative, on site dimensions must be determined prior to the purchase or manufacture of any components

All discrepancies between indicative dimensions given and those measured on site to be brought to I Want Plants attention

I WANT PLANTS®

I WANT PLANTS LTD
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e: hyvert@iwantplants.co.uk

HYVERT - Patent Pending
'UK Registered Design 6071963'
Project: **HYVERT SYSTEM**

Title: 205_004 Plan & section/break-down
HILITI HUS3-H 6

Date: **MARCH 2022** Scale: **AS SHOWN**

Status: **FOR INFORMATION ONLY**

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