

EVERYTHING YOU WANT TO KNOW

(and if you don't, you can still just call us)

MAINTENANCE MANUAL

CLIENT: Manchester Metropolitan University

PROJECT: All Saints Building

INSTALLATION DATE: TBC

ITEMS: HYVERT Living Wall

1. Contractor Details

I Want Plants Ltd
Coppice Farm Barn
Ashley Mill Lane
Ashley
Cheshire
WA14 3PT

Tel :0161 928 4546

www.iwantplants.co.uk

General: Ruby@iwantplants.co.uk

Design: Ollie@iwantplants.co.uk

Operations: Ollie@iwantplants.co.uk

Procurement: Lisa@iwantplants.co.uk

Aftercare: Jo.Potter@iwantplants.co.uk

Accounts: Accounts@iwantplants.co.uk

2. Description of Works

Installation of a HYVERT Living Wall, With Joint Venture Signage from IWP & MMU. Edging to be installed to create a Recessed look. Full Irrigation System to be installed on the roof.

3. Suppliers Index

I Want Plants LTD - Supply & Production

Coppice Farm Barn
Ashley Mill Lane
Ashley
Altrincham
Cheshire
WA14 3PT

4. HYVERT Living Wall Service Schedule

The maintenance of the wall will be carried out on a monthly basis by the I Want Plants maintenance team, this will ensure the manicured trimming of the living wall to ensure no dried plants or visually unappealing features can be corrected i.e Damaged plants.

In addition to the monthly maintenance performed by I Want Plants, the research team based at MMU will be visually inspecting the site on a daily basis to collect data i.e plant foliage samples, monitoring air quality level, biodiversity indicators etc in accordance with the research project.

<u>January</u> Inspect irrigation – check for frost / ice damage Check no failing plants Dead Leaf Removal	<u>February</u> Winter inspection Remove and replace failing plants Ensure even distribution of irrigation Pest control Check for airborne weeds	<u>March</u> Check irrigation Check for any pests and diseases Visual inspection of wall Check for airborne weeds Sweep up any debris
<u>April</u> Re-calibrate irrigation for Summer Check weeds Check for plant failure from Winter Sweep up any debris Feed	<u>May</u> Spring clean up Spring feed to wall Check for pests and diseases Check for airborne weeds Remove and replace failing plants Check for any leak repairs if necessary	<u>June</u> Check irrigation Check for airborne weeds Prune as necessary Ensure even plant coverage Sweep up as necessary
<u>July</u> Check irrigation Visual inspection to wall Prune as necessary Pest / disease control	<u>August</u> Summer – close visual inspection Remove Spring foliage, dead leaves and flowers Summer feed Remove any airborne weeds Prune as necessary Apply insecticide as necessary	<u>September</u> Check even distribution Check for airborne weeds Prune as necessary Sweep up hard standing
<u>October</u> Autumn clean up Remove dead flower heads Autumn feed Replace any failing plants Sweep up	<u>November</u> Visual inspection of wall Ensure even distribution of irrigation Dead head / leaf as necessary Clean / sweep up	<u>December</u> Decommission irrigation for Winter Clean out solenoid valves and filters Check pump for correct working Consistency and presentation Pull out any weeds

5. COSHH Data

The following COSHH assessments and safety data sheets are attached: -

	METHOD STATEMENT FOR: MMU HYVERT
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Company: I Want Plants

Site: MMU All Saints campus

Main Contractor: I Want Plants

1 – Brief Outline of the Work to be Undertaken:

Green wall to be installed on the outside of All Saints building tower / stairwell

Irrigation to be installed on the green wall

2 – Tools and Equipment to be utilised

Include: Material type, quality and give details of specification

Hi-vis, hard hats and steel toe cap boots to be worn at all times to minimise the impact that an accident could cause.

Cherry Picker to be used to gain access to the high level works

Only people who are trained will be allowed to operate the Cherry Picker

Drills and drivers to be used. All operatives are competent workers with all tools - regular training is given. Equipment used for all works comes with a safety course that all IWP operatives have completed with the equipment partner.

3 – Setting up Site & Method Statement

3.1 Sign In

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Attend site reception and get passes.

3.2 Unload the equipment from vehicle into position on the site

Following the manual handling risk assessment - unload the equipment in accordance with the planned procedure.

Use of trolley to move the green wall and equipment, from vehicle to location to reduce the distance carrying the equipment. When using a trolley we will have one person transporting the trolley with the goods and a further person being a banksman in order to ensure that we do not come into contact with any members of the public while transporting goods.

We will agree the route through the building with the person in charge of the area on the day, to ensure we don't cause any disruption to the clients or members of the public who may also be using the same route. As previously mentioned our banksman will ensure that we are always a safe distance away from any one else who may be in the vicinity while we are transporting the goods.

Vehicle to be parked in a safe location away from site once the unload has been completed.

We will ensure that traffic procedures and rules will be followed by all members of staff on the estate.

Once the goods have been transported to the correct location on site we will barrier off the area using red barriers to ensure that no members of the public will be able to get into the area in which we are working. As there is an emergency exit near to where we are working we will make sure that our barriers don't affect the exit incase of emergencies. After the barriers have been set up we will give the area where the greenwall is being installed a visual inspection to ensure it is safe for us to work on.

3.3 Set up the Cherry Picker

Once barriers have been set up we will start to set up our Cherry Picker, which will allow us to get to the required height on the wall. Only people who are IPAF trained will be allowed to set up the Cherry Picker and once it has been done we will give it a visual inspection to ensure all is in order.

We will ensure the green wall display is being installed in the correct location by referring back to the site drawings.

3.4 First fix

Now that the Cherry Picker is set up and we are happy we can start work safely, we will start with the first fix. This involves us attaching 2x1 batons onto the walls and then attaching our rails onto the batons. These rails will directly hold the modules of plants in place. To attach the batons we will of course use the correct fixings for the wall. In this case that will mean pre drilling the brick wall with a SDS drill and pre-drilling the baton with a wood bit in a drill. We will then use 8mm concrete screws to fix the batons straight onto the

wall. We will check all fixings are strong and secure, and only when we are 100% confident that they are, we will move onto the next phase which is the second fix.

3.5 Second Fix

After the batons and rails have been put onto the wall in a secure manner, we will start to hang the cassettes of plants, starting from the bottom and working our way up. We will make sure we put 2 screws in each cassette as they are designed in that way. 2 screws per cassette is more than enough to hold the weight of the plants, soil and cassettes. Once all cassettes are on the wall we will check if the client is happy with the wall.

Once all cassettes are on the wall we will check if the client is happy with the wall. We will also be setting up irrigation which involves cutting the drip pipe to the correct length and installing it on top of the cassettes. This will then be connected to the solenoid which will be prepped on the yard and screwed onto the wall using concrete screws and an SDS drill. All operatives of this are correctly trained.

Once the wall has been installed in the correct location and the client is happy with the works we have carried out we will tidy up the working area, removing any rubbish to the van.

After the tidy/clean up has been completed we will remove the red barriers and place them back on the van.

3.6 Sign out

Sign out of site and return passes once the work areas have been tidied and cleaned.

4 – Reporting Details

Details of person in charge:

Ollie Brighton - Operations manager
07469 853 391

5 – Other Information:

If there is any rubbish or mess created by the install team then we will ensure it is disposed of in the correct manner or brought back to our yard for us to dispose of correctly.

All members of staff are competent to do the job correctly and all members of staff regularly attend tool box talks and training sessions. Proof of these can be provided upon request.

There is always one member of staff on site who is health and safety trained, along with someone who is first aid trained. Again, proof of this can be provided upon request.

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I Want Plants Ltd Coppice Barn Ashley Mill Lane Ashley Cheshire WA14 3PT				Health and Safety Risk Assessment			
				Person Conducting Assessment: James Forster			
Risk Assessment Reference: MMU HYVERT Wall				Area: Exterior Greenwall		Location: MMU	
Persons Exposed: I Want Plants staff		No. of Employees: 2		No of Contractors: 1		No. of Public / Visitors: 0	
						Total Number Exposed: 2	
Hazard	Risk Rating			Control Measures to Reduce Risk (Existing Workplace Precautions & Risk Control Systems)	Residual Risk		
	Prob lty	Seve rity	Risk		Probl ty	Sever ity	Risk
Falls of Persons Falls of Materials	5	5	25	The Working at Height Regulations 2005 Harnesses will be worn and attached to the Cherry Picker whilst operating. All operatives must be trained in the safe use of the Cherry Picker. The manufacturer's/hirers representative will do this. All operatives must be trained in the wearing and use of a safety harness and lanyard; this equipment must be inspected / checked and recorded as fit for use. Also suspension syndrome and rescue must be arranged for by training and provision of emergency action	1	5	5
Unintentional Lowering of Bucket	4	5	20	Platform capacity will be checked to ensure sufficient height and SWL for the work undertaken, before use. Where hired, proof of servicing will be required Platforms must not be operated outside the safe operating limits set by the manufacturers. Platforms must not be moved until they are clear of loose material. Platforms require regular maintenance, which must be arranged at appropriate intervals. Managers are responsible for ensuring that only trained and authorised personnel use the platforms	1	4	4
Striking Against Overhead Obstructions, Cables Etc.	5	5	25		1	5	5
Cherry Picker Overturning	5	5	25	Where owned by the Company, this equipment is subject to a planned maintenance programme. The operating area shall be firm and level. Stabilisers shall be extended before the bucket is raised; buckets are not to be left unattended in the raised position.	1	5	5
Vehicles or Plant Striking Platform	5	5	25	The area of the work is to be fenced off and control of site traffic and pedestrians will be planned. All Workplace precautions and risk control systems to be adopted	1	5	5

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Falls from height / Use of access equipment	5	5	25	All work at height to take place from suitably constructed Working Platforms. (The Work at Height Regulations 2005) and be subject to the requirements of Regulation 6. All access equipment to be compliant with the above regulations and secured to the structure with a suitable anchorage device. Work at Height Avoid work at height where we can. Use work equipment or other measures to prevent falls where we cannot avoid working at height. Where we cannot eliminate the risk of a fall, use work equipment or other measures to minimise the distance and consequences of a fall should a fall occur.	1	5	5
Falling materials / objects / tools	5	5	25	Anti fall devices in place (splatter boards etc). Good standards of Housekeeping. All tools and materials to be secured. Head protection to be worn to current industry standards.	1	5	5
COVID-19 General	5	5	25	Anyone who meets one of the following criteria must follow the Government's guidance on Self Isolation: Has a high temperature, loss / change in taste or smell or a new persistent cough? Is a vulnerable person (by virtue of their age, underlying health condition or clinical condition. Is living with someone in self-isolation or a vulnerable person.	1	5	5
Site Personnel Showing Symptoms	5	5	25	Return home immediately Avoid touching anything Cough or sneeze into a tissue and put it in a bin, or if they do not have tissues, cough, and sneeze into the crook of their elbow Follow the guidance on self-isolation and not return to work until their period of self-isolation has been completed. Request that the individual be tested as per the test and trace guidelines If a positive test is given, assess all other employees who may have been in close contact with the individual for 15 minutes or over and then follow the current government self-isolation and test and trace guidelines Isolate the area/s that the individual has spent time in for 24 hours Following the 24-hour isolation of the areas, carry out a full deep clean of each area before any work re-commences within those areas	1	5	5
Injury to Hands, Feet and Body	3	4	12	Tools provided by I Want Plants Ltd must comply with the Provision and Use of Work Equipment Regulations 1998 they must be assessed to ensure that they are fit for purpose, the environment in which they are to be used and are in good working condition and a record of such inspections kept. Insulated tools must be used where there is a possibility of live electrical work. Management will monitor hand tools, which can deteriorate with use; to ensure they are sharpened or replaced as necessary, and to ensure the correct tools are being used properly. Operatives are to be instructed in the correct method of use and in maintenance	1	4	4

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				requirements at induction if not part of their craft training. Stanley / craft knives, screwdrivers and other sharp tools are to remain sheathed when not in use, they must be carried and used so as not to cause injury to the user and or others.			
Manual Handling	3	3	9	Operatives trained in manual handling via regular tool box talks. Lifting aids will be used where possible and manual handling trollies to move items from one area to another. If trollies or lifting aids can't be used then there will be more than 1 person lifting at any one time, ensuring the manual handling risk assessment is always followed (correct posture, lifting with the legs etc).	1	3	3
SIGNED BY: James Forster		DATE: May 2022		REVISION DATE: May 2023		Overall residual risk with control measures in place Low	

Persons at Risk	Probability		Severity	5	4	3	2	1		
				L	Pr	Po	R	I		
P – Public	Likely (L) 5	5	Fatal	25	20	15	10	5		8-25 Not Acceptable
E - Employee	Probable (Pr) 4	4	Major	20	16	12	8	4		
C – Contractor	Possible (Po) 3	3	7 Day	15	12	9	6	3		
V – Visitor	Remote (R) 2	2	Minor	10	8	6	4	2		1-6 Acceptable
	Improbable (I) 1	1	None	5	4	3	2	1		

6. Warranties and Guarantees

HYVERT

5 years warranty for hardware of HYVERT as per HYVERT sales order contract 'terms and conditions', aftercare with IWP extends the warranty of the Live plants for terms of the contract 'as per maintenance terms and conditions'.

If the client chooses to service the wall themselves, the warranty of the plants is deemed 'as good' on final payment and warranty expires.

Support is offered to all clients please get in touch with any concern.

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7. Residual Hazards

HYVERT Living Wall

There are no residual hazards associated with I Want Plants HYVERT however they are decorative so we would strongly advise that you do not consume any part of the plants (and some varieties can be toxic to humans and animals).

8. Portfolio of works

Previous examples of work can be found on this link;

<https://www.iwantplants.co.uk/previous-work-hyvert/>

This is to highlight the premium service provided by I Want Plants as a high end provider of Green Living Wall systems. This high quality service is why I Want Plants is used by Manchester City Football Club, Bank of America, Bently, Bruntwood and The Co-operative.

If you would like to see in person examples of living walls then please get in touch and we can give you a tour of similar sites used in Manchester.