

January 2024



Full Planning Permission

DESIGN, ACCESS AND HERITAGE IMPACT STATEMENT

Conversion of Redundant First Floor & Rear Ground Floor of Commercial Premises to form Residential Apartments & Associated Works

13 Meneage Street, Helson, Cornwall. TR13 8AA

Prepared By Cornwall Planning Group



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1.0 Introduction

This planning application has been submitted to Cornwall Council in the form of full planning permission. The Design & Access Statement has been produced by the Cornwall Planning Group on behalf of the client Carlton Park Construction. This Statement accompanies associated plans and documentation, seeking the Council's permission on the principle of;

“Conversion of Redundant First Floor & Rear Ground Floor of Commercial Premises to form Residential Apartments & Associated Works”

After conducting research of the site and surrounding area it has been noted that recent development sites have been approved within the area. Confirming the area is suitable for development. Please see some examples of approved planning in the area below:

PA21/04553 | Certificate of lawfulness for proposed development to confirm commencement of works in relation to decision notice PA17/01841 (Conversion of vacant floors over existing shop to two flats) | 5 Meneage Street Helston TR13 8AA

PA17/01841 | Conversion of vacant floors over existing shop to two flats | 5 Meneage Street Helston TR13 8AA

Material Key Points of the Application Proposal

- The proposed works are sensitively designed to a high standard.
- The host building is of traditionally vernacular. The proposed works lead to an enhancement to the immediate and surrounding area.
- The proposed works do not provide any visual impact or harm to any immediate neighbours.
- The materials have been sensitively chosen to complement the relevant planning constraint restrictions and surrounding area.
- Several flats within the proposed scheme incorporate Mechanical Ventilation with Heat Recovery (MVHR) systems. This ventilation technology optimises indoor air quality by extracting stale air and recovering heat from it. The recovered heat is then transferred to incoming fresh air, ensuring energy efficiency, and maintaining comfortable living conditions.

2.0 Cornwall Local Plan & National Planning Policies

The Cornwall Local Plan was formally adopted on 22 November 2016. It provides a positive and flexible overarching planning policy framework for Cornwall. This will cover the period up to 2030.

In February 2016 Cornwall Council submitted the plan to the Secretary of State for examination. The inspector published a report in September 2016. The adopted plan includes the Inspector's recommended main modifications.

The Cornwall Local Plan replaces a number of policies from:

1. the Local plans of the former District and Borough Councils
2. the Minerals and Waste Plans of the former County Council

We believe our formal planning application confirms to the above Cornwall Local Plan Schedules;

Policy 1 Presumption in favour of sustainable development

Policy 2 Spatial strategy

Policy 2a Key targets

Policy 3 Role and function of places

Policy 7 Housing in the countryside

Policy 12 Design

Policy 13 Development standards

Policy 16 Health and wellbeing

Policy 21 Best use of land and existing buildings

Policy 23 Natural environment

Policy 24 Historic environment

Policy 25 Green infrastructure

3.0 Travel Plan and Transport Statement

In principle, this proposal has been designed in accordance with Cornwall Council Highways Department Design Guide, and therefore we feel we have satisfied all elements required for Cornwall Council Highways Department to accurately access our application in terms of required parking, highways safety and associated works.

The proposed application site and plan(s) outline the following:-

- There are no alterations to the existing parking arrangement of the dwelling house, and therefore this application seeks no permission for any Highways/Parking Arrangements.
- The consideration should also be given that the area is highly sustainable and there is no requirement to provide on site parking in support of our application.
- The application site is well located to existing bus links, trains, public transport and facilities. It is anticipated that the applicants will require minimal use of private vehicles.
- The area contains various sustainable services that can be accessed by foot. These are traditional public house(s), school(s), shopping facilities, post offices and church. It is assumed the transport activities of the application site could be regarded as minimum reducing the carbon activities of the occupants.

4.0 Effects on Heritage Assets

Conservation Statement

The proposed site is situated within the Helston Conservation Area, governed by specific preservation guidelines and planning regulations. The distinctive characteristics of the Helston Conservation Area are delineated as follows:

- Remarkable retention of well-preserved eighteenth and nineteenth-century structures, many of which are listed, contributing significantly to the Conservation Area's architectural and historic fabric.
- Aesthetic enhancements in the form of a charming historic public realm.
- Pleasant topographical situation, with views through the town that focus on its significant landmarks, and beyond to the countryside.
- An interconnected network of pedestrian thoroughfares ('opeways') facilitating movement within and between various parts of the town centre.
- A cohesive urban grain within the historic core, characterized by predominantly 2-3 storey buildings aligned along the street frontage. The use of materials such as granite, killas, and slate imparts a unified architectural palette. The architectural vernacular is predominantly restrained, with occasional classical motifs, particularly in buildings of high social standing. The presence of historic shopfronts contributes to the overall streetscape.
- Beyond the historic core, there exist suburban zones with historical significance, featuring a less dense built environment and, in some instances, a rural character.

Paragraph 16 of the NPPF seeks the provision of an appropriate and proportionate level of information to understand the impact of the proposed development on the significance of any heritage assets identified on the application site and in the surrounding area.

We believe our proposal conforms to paragraphs 184 to 202 for the following reason as outlined below.

5.0 Regenerative, Low Impact Assets

We believe that development should be regenerative and low impact, with a focus on sustainability and minimizing our environmental footprint. Our proposed development plan aims to achieve these goals by incorporating renewable energy sources, reducing waste, and promoting biodiversity. We are committed to creating a space that is not only functional and aesthetically pleasing, but also contributes to the health and well-being of the local ecosystem.

Regenerative, Low Impact Plan:

- **Renewable Energy:** The proposed development incorporates Mechanical Ventilation with Heat Recovery (MVHR) systems. This ventilation technology optimises indoor air quality by extracting stale air and recovering heat from it. The recovered heat is then transferred to incoming fresh air, ensuring energy efficiency, and maintaining comfortable living conditions. The owner could incorporate renewable energy sources such as solar panels and wind turbines to reduce our reliance on non-renewable energy sources. This could be installed under permitted development where applicable.
- **Reduced Waste:** The applicants will implement a waste reduction plan that includes recycling, composting, and minimizing single-use plastics.

- Sustainable Materials: We will use sustainable materials wherever possible, such as reclaimed wood and recycled metal.
- Water Conservation: Our development will implement water conservation measures such as rainwater harvesting and low-flow fixtures to minimize water usage.
- The proposed works would be built in accordance with the latest building regulations Conservation Fuel & Power Approved Document L. This provides high levels of insulation, heat loss, SAP, & air tightness.
- The proposed dwelling in accordance with government legislation will have electric car charging points.

6.0 Green Infrastructure Statement

While some flats may lack direct access to outside space and natural daylight, the project is committed to integrating green infrastructure elements to mitigate these limitations and create a healthy and vibrant living environment. Specifically, the following measures will be implemented:

Internal Green Spaces: Despite the limited external space, the development will feature green spaces strategically incorporated within communal areas. These spaces will be designed to promote relaxation, social interaction, and well-being among residents.

Natural Ventilation and Lighting: Efforts will be made to optimise natural ventilation and lighting strategies within the building design. Where possible skylights and ventilation shafts will be utilised to introduce natural daylight and fresh air into the internal spaces, enhancing occupant comfort and reducing reliance on artificial lighting and mechanical ventilation.

Sustainable Materials and Practices: The selection of sustainable building materials and construction practices will be prioritized to minimise environmental impact and promote resource efficiency throughout the project's lifecycle.

Community Engagement and Education: Residents will be actively engaged in promoting sustainable living practices and encouraged to participate in communal gardening initiatives, recycling programs, and other environmentally friendly activities.

7.0 Conclusion

We believe that the details submitted clearly show that the site can be developed in a way that the locality will not be adversely affected, indeed, there is a clear opportunity to provide a high-quality development to meet the needs of present and future generations.

As previously mentioned, there are several comparable application sites that have been approved. We have transparently demonstrated this certainly accords to the Cornwall Local Plan & National Planning Policy Framework.

Overall, the proposed development of the site would represent sustainable development, supported by the NPPF and the policies of the emerging CLP and as such, we believe Cornwall Council should support the principle of the proposals contained within this formal planning application.

Lo-Carbon Sentinel Kinetic Advance

- Backlit user interface
- Lightweight for easier installation
- Full summer bypass
- Approved Document F aligned commissioning wizard
- Smartphone connectivity as standard
- Left/Right handing through the controller
- Pre-heater option for cold climates
- Post-heater control option
- Developed and manufactured in the UK
- ISO ePM10 and ePM2.5 filter options
- Acoustic Enclosure option for reduced breakout noise
- Acoustic Top Box option for reduced in-duct noise



The award winning Sentinel Kinetic[®] Advance from Vent-Axia is the next generation of heat recovery ventilation systems. It is designed to offer the highest level of comfort and control available ensuring the best possible customer experience.

A whole new experience

The highly sculpted interior surfaces, designed using the latest CFD techniques, ensures airflows are maximised through the unit, minimising noise and energy use. This feature alone provides an experience which we are confident will delight home owners and fulfil our ambition of providing the most discrete and efficient ventilation available.

With the widest range of options available, installers can now order a system that is tailored to their client's needs.

Air Quality and Health

We have strived to make the Advance system the most flexible solution available on the market. Optimisation has been targeted in every aspect of the design to ensure that it really does improve quality of life. Whatever the outside environment, we have a method to help reduce air pollution from entering the living space. Our range of filter options, up to and including ePM2.5 (F7), ensures that even homes in heavily urbanised areas have the opportunity to filter out the impurities and help protect their family from respiratory issues.

Low noise levels

The most common concern with home owners is that ventilation devices create noise. With Advance, absolute optimisation of every element does everything possible to minimise generation and transmission of both motor and airflow noise. We believe that we have one of the quietest units available. The Sentinel Kinetic Advance Acoustic Solution is also available for scenarios where noise is critical; an Acoustic Enclosure will reduce breakout noise and the Top Box will reduce in-duct noise at key frequencies.

Ventilation how you want it

The Vent-Axia Connect smartphone application, available on iOS and Android, allows the multitude of functions to be adjusted from the comfort of your sofa.

We have spent our time considering every element of the ventilation control. Should you want to run the system at certain times and a various speed, all the options are available. With smartphone compatible controls, you are in full control of your ventilation all year round, for example increasing the ventilation rate during hot periods in the summer or reducing the speed while away to minimise running costs.

Simultaneously, the smart logic built within our controls also ensures that your system operates optimally, with automated functions such as frost protection and summer bypass, ensuring your comfort is the number one priority.



Airtight Buildings

Low energy buildings typically have very low leakage rates (below 3m³/(h.m²) at 50Pa). This reduces the effectiveness of the standard frost protection strategy which imbalances the airflows. For airtight buildings in cold climates it is advisable to use the Sp models with built-in pre-heater.

SEC Class

Model	SEC Class
Advance S/SX	A+

Model

Model	Stock Ref
Advance S	405215
Advance S with Acoustic Top Box & Enclosure	479550
Advance S with Acoustic Top Box	479549
Advance S with Acoustic Enclosure	479548
Advance SX	405216
Advance SX with Acoustic Top Box & Enclosure	479553
Advance SX with Acoustic Top Box	479552
Advance SX with Acoustic Enclosure	479551
Advance Sp LH	476808
Advance Sp RH	476809

Accessories

Model	Stock Ref
Volt-free Expansion (Four additional inputs)	472697
Switched Live Expansion (Two additional inputs)	472699
0V - 10V Input Board (Two inputs)	472701
Acoustic Purge Fan	477988
Acoustic Purge Fan XL	479829

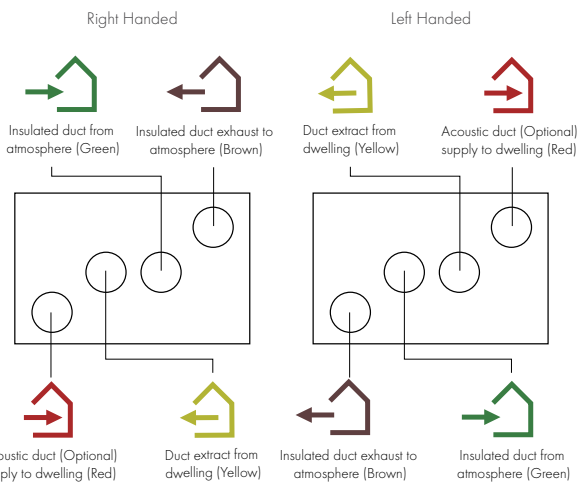
Spare Filters

Model	Stock Ref
ISO 45% Coarse (G3) 2x Filter	472667
ISO ePM10 50% Pollen (M5) 1x Filter	472669
ISO ePM2.5 70% Fine (F7) 1x Filter	472671

SAP PCDB Test Results

	SAP 2009		SAP 2012	
	Thermal Efficiency %	SFP (W/l/s)	Thermal Efficiency %	SFP (W/l/s)
K+1	93	0.38	93	0.39
K+2	93	0.38	92	0.46
K+3	92	0.42	91	0.55
K+4	92	0.50	91	0.70
K+5	91	0.58	90	0.85
K+6	91	0.68	89	1.07
K+7	90	0.82	89	1.31

Spigot Configuration

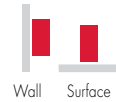


Hand-able through controller (except if pre-heater fitted)

Model Range Overview

Models	Advance S	Advance SX	Advance Sp
Acoustic Enclosure	○	○	X
Acoustic Top Box	○	○	X
App Control	✓	✓	✓
App Commissioning	✓	✓	✓
Auto Summer Bypass	✓	✓	✓
Easy Access Filters	✓	✓	✓
ISO 45% Coarse (G3) Filter	✓	✓	✓
ISO ePM10 50%, ePM2.5 70% Filter Options	✓	✓	✓
Very Low Noise Levels	✓	✓	✓
Built-In Humidistat	✓	✓	✓
Active Frost Protection to -20°C	✓	✓	✓
Delay-On	✓	✓	✓
Clean Filter Indicator (Time)	✓	✓	✓
Clean Filter Indicator (Pressure)	X	✓	X
Fault Code Indicator	✓	✓	✓
Switched Live	✓	✓	✓
Volt Free	✓	✓	✓
0V - 10V Proportional Control	○	○	○
Lightweight	✓	✓	✓
22mm or 32mm Condensate Connection	✓	✓	✓
Left/Right Orientation Through Control	✓	✓	✓
PIN Number Lock	✓	✓	✓
Running Time Indicator	✓	✓	✓
External Pre-Heater Controller	○	○	○
External Post-Heater Controller	○	○	○
Built-in Pre-Heater	X	X	✓
Enthalpy Heater Exchanger	○	○	○
Fan Curve Flow	✓	✓	✓
Constant Volume	X	✓	X
Soft-Start Boost	✓	✓	✓

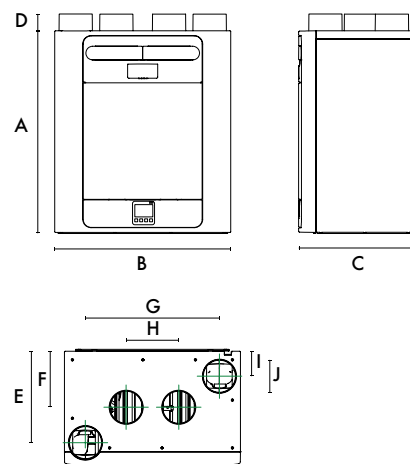
Mounting Options



○ - Optional extra. Contact us for more information.

Dimensions (mm)

Unit

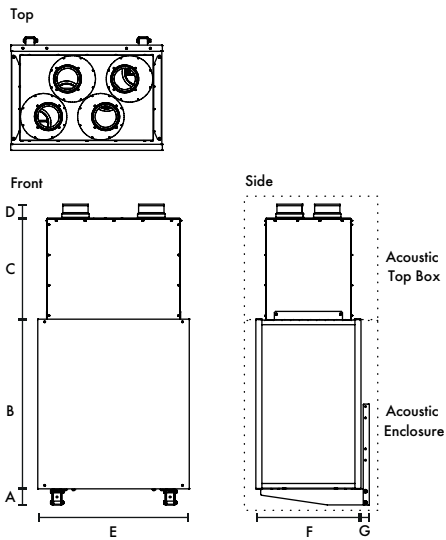


A	B	C	D	E	F	G	H	I	J	kg
760	660	443	63	343	210	503	197	93	125	27

Packed weight: 32kg

Dimensions (mm) Cont.

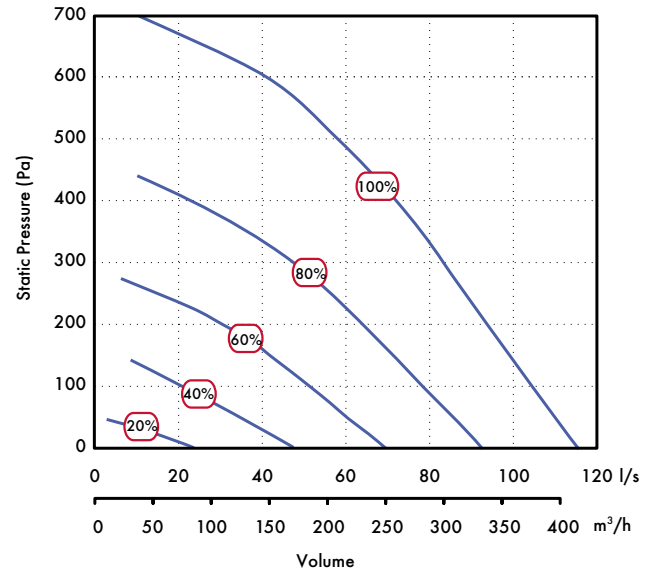
Acoustic Solution



Acoustic Acoustic
Top Box Enclosure

A	B	C	D	E	F	G	kg	kg	Spigot
80	840	501	68	750	520	40	14	27	125

Performance



Sound Spectrum (Unit only)

Speed	Test mode	Octave Band (Hz) Sound Power Levels, dB								SPL dB(A) @ 3m	
		63	125	250	500	1k	2k	4k	8k		LwA
20%	Supply	52.9	50.9	46.8	43.0	34.6	27.1	19.2	25.4	43.9	26.4
	Extract	50.3	49.0	36.0	31.5	23.6	16.1	18.9	25.3	36.4	18.9
	Breakout	34.6	34.8	35.7	34.9	29.6	25.1	21.0	25.3	36.0	15.5
40%	Supply	59.5	56.5	59.4	55.0	48.2	42.6	31.8	26.1	55.9	38.4
	Extract	51.9	51.3	50.4	41.2	35.0	25.3	19.8	25.4	44.8	27.3
	Breakout	40.2	42.6	46.5	45.4	41.0	36.2	25.5	25.3	46.5	26.0
60%	Supply	66.9	62.4	63.3	62.0	57.9	53.5	43.4	34.2	63.2	45.7
	Extract	60.6	60.3	54.2	49.5	44.4	36.2	27.9	26.3	51.7	34.2
	Breakout	45.5	49.8	52.5	53.1	49.7	46.7	36.2	26.9	54.5	34.0
80%	Supply	82.4	67.6	65.2	67.6	64.2	60.8	50.8	43.2	69.2	51.7
	Extract	75.5	68.6	59.3	56.0	48.3	44.2	36.9	31.3	58.6	41.1
	Breakout	59.2	55.0	56.8	60.0	55.4	53.9	44.1	33.4	61.0	40.5
100%	Supply	79.4	69.6	66.6	75.1	64.9	63.6	53.4	45.7	73.7	56.2
	Extract	72.4	70.5	60.5	56.4	49.8	46.3	39.0	33.4	59.5	42.0
	Breakout	63.0	57.1	58.5	63.7	56.8	55.9	46.4	36.2	63.5	43.0

Sound Spectrum (Unit with Acoustic Solution)

Speed	Test mode	Octave Band (Hz) Sound Power Levels, dB								SPL dB(A) @ 3m	
		63	125	250	500	1k	2k	4k	8k		LwA
20%	Supply	54.7	50.5	41.5	30.8	18.6	14.7	18.2	24.0	38.0	20.5
	Extract	54.8	41.7	31.4	20.2	15.2	13.8	18.3	24.3	31.9	14.4
	Breakout	36.6	47.3	38.0	24.7	19.3	16.6	19.1	23.6	34.0	13.5
40%	Supply	61.0	57.7	56.0	39.0	27.5	16.6	18.4	24.1	48.9	31.4
	Extract	55.7	50.8	44.6	26.8	19.1	15.0	18.2	24.0	39.2	21.7
	Breakout	55.9	55.2	48.2	35.5	29.9	20.9	20.4	25.3	42.6	22.1
60%	Supply	64.5	64.3	56.2	48.6	36.0	22.8	19.0	24.2	52.3	34.8
	Extract	59.4	57.3	46.6	36.0	25.6	17.4	18.6	24.5	43.9	26.4
	Breakout	43.5	60.5	49.5	43.5	39.0	32.0	23.8	23.7	47.6	27.1
80%	Supply	68.9	65.9	59.9	53.9	41.4	29.3	21.6	24.7	55.9	38.4
	Extract	63.1	69.3	52.6	43.0	33.4	23.7	20.2	24.6	54.5	37.0
	Breakout	48.3	69.8	52.7	48.3	44.7	39.8	33.2	25.9	57.1	36.6
100%	Supply	72.5	70.5	63.1	56.1	43.9	33.0	23.7	25.2	59.3	41.8
	Extract	70.3	61.9	56.2	45.4	36.6	28.0	22.9	24.6	51.5	34.0
	Breakout	54.3	67.1	63.3	51.3	47.9	43.9	38.5	28.7	57.7	37.2

Tested according to BS EN 13141-7:2010. Breakout quoted spherical. Supply and Extract quoted hemispherical. For induct data, end reflections are added based on the spigot size of the unit.

Consultant's Specification

The supply and extract ventilation unit shall be the Sentinel Kinetic Advance as manufactured by Vent-Axia and shall be sized as indicated on the drawings and shall be in accordance with the particular specification.

The unit shall be fully insulated for thermal and acoustic performance and shall incorporate a counterflow multiplate heat exchanger with independently verified thermal efficiency up to 93%. The heat exchanger shall be protected by ISO 45% Coarse (G3) Grade filters on intake and extract air-flows. The unit shall have the facility to accommodate ISO ePM10 (M5) and ePM2.5 (F7) filters. The filters shall be accessible via tool-free access doors. The heat exchanger, motors, summer bypass and all other serviceable parts shall be accessible through the front of the unit.

Supply air to the room shall be pre-heated by the extract air via the integrated composite plastic counter-flow heat recovery cell. The Sentinel Kinetic shall automatically vary the ventilation rate via EC/DC motors, as it receives signals from optional or in-built sensor inputs. When a signal is received, the fans shall either vary their speed proportionally or on a trickle/boost principle.

The unit shall have the facility to commission the supply and extract fans individually via in-built minimum and maximum speed adjustment, or alternative wired remote control unit. The fans themselves shall have independent, infinitely variable speed control.

Unit Specification

The unit shall be manufactured with an ABS Outer case construction, with the ability to alter the spigot configuration via the on-board controller. The unit shall have a high efficiency composite plastic counter-flow heat exchanger, supply and extract filters (up to ISO ePM2.5 (F7)), automatic 100% summer bypass, integral minimum and maximum infinitely variable speed controls with fascia mounted failure indication.

The unit shall have low energy, high efficiency EC/DC fan/motor assemblies with sealed for life bearings. The impellers shall be high efficiency backward curved centrifugal type, achieving an SFP as low as 0.38W/l/s (EN 308).

The unit shall have a heat exchanger cell with a thermal efficiency of up to 93% when tested to EN 308. This shall be protected by ISO 45% Coarse (G3) grade synthetic filters on supply and extract, with the option of ISO ePM10 (M5), ISO ePM2.5 (F7) or external carbon activated filters. The unit shall come with both a 22mm and 32mm connection for draining condensation.

The unit shall have wireless control capabilities as standard, using RF858 connectivity, 802.11b/g/n Wi-Fi and Bluetooth low energy 4.2. The unit shall use RF858 to connect to a wide ecosystem of wireless sensors including but not limited to CO2, temperature, and relative humidity. The unit shall be able to engage Wi-Fi to connect to local devices and create a local area network to allow for a larger network to be created for commissioning. The unit shall have Bluetooth low energy 4.2 to allow connectivity onto compatible smart phone devices.

The unit shall be constructed with a removable tool-free front panel which gives access to the removable on-board controller and other accessories. The EPS panel can then be removed with 4 screws allowing full maintenance access. This shall provide access to the following:

- ✓ Supply or extract fan
- ✓ Heat exchanger
- ✓ Access to the electrical connections

To reduce breakout noise, the MVHR unit shall be provided with an Acoustic Enclosure of steel construction lined with class '0' acoustic foam. To reduce in-duct noise, the top of the MVHR shall be fitted with an Acoustic Top Box to provide attenuation to the 4 ducts of the unit. This Acoustic Top Box shall be of steel construction lined with acoustic class '0' foam with the MVHR spigots linked to the Top Box via 4 separate attenuated ducts. The acoustic enclosure and top box shall each be independently tested for noise to BS EN 13141-7.

Access shall be provided for wiring termination and setup/commissioning. The unit can be supplied with either a backlit user interface or a blank plate, both of which shall be removable for remote mounting if required. Filters shall be accessed via the two pull out drawers near the top of the unit.

Units shall be as manufactured by Vent-Axia Ltd.

Standard Controls

The Sentinel Kinetic Advance shall incorporate the following functions through a user interface fitted by the manufacturer or a paired smartphone with the Vent-Axia Connect application: -

- ✓ Integral infinitely variable fan speed control on supply and extract.
- ✓ 6 speeds; 4 adjustable
- ✓ Left or Right hand spigot configuration, programmable by the on board controller
- ✓ Filter change wizard which stops the motors during filter replacement
- ✓ 0-10V proportional speed adjustment
- ✓ Volt free contacts
- ✓ 24V external sensor supply, eg PIR sensor

- ✓ Filter check facility
- ✓ Tool free filter access
- ✓ Integral BMS interfaces - control and status indication
- ✓ Heating interlocks
- ✓ 0-10V proportional speed adjustment
- ✓ Fully automatic summer bypass
- ✓ Control panel pin number lock

The unit shall incorporate:

- ✓ An integral humidity sensor with the following features:
Ambient Response; Raises the humidity trigger point as dwelling temperature reduces.
- ✓ Rapid Response: Monitors the rate of change in humidity and triggers increased airflow even if the humidity trigger threshold is not reached.
- ✓ Proportional Response; incrementally increases the fan speed to reduce noise and reduce energy consumption.
- ✓ RS485 connectivity - Long distance cabling to support multiple sensor connection.
- ✓ RF858 connectivity - Radio reference 868 MHZ for multiple wireless sensors pairing Bluetooth low energy 4.2 - Enable pairing within compatible smartphone device
- ✓ 802.11b/g/n Wi-Fi - Enable localised access point or connecting onto local area network using the Vent-Axia Connect application, via compatible smartphone device
- ✓ The unit shall incorporate an automatic 100% summer bypass damper which monitors internal and external temperatures to maintain the user comfort temperature (default 21°C) :
- 'Evening Fresh' turns the unit to maximum speed with the bypass operational for 2 hours or until the user comfort temperature is reached (default 21°C).
- 'Night Time Fresh' will run the unit on maximum speed with the bypass operational throughout the night or until the dwelling reaches minimum temperature (default 14°C).

Independently acoustically tested to BS EN 13141-7:2010

Electrical Connection

