

MECHANICAL LAYOUT PLAN

NEAREST RESIDENTIAL WINDOW ON FIRST FLOOR

HA PACK

ACU-1

ACU-2

HA GAS COOLER

GENERAL NOTES:

- ALL PLANT TO BE INSTALLED ON A PLAT & LEVEL BASE.
- PLANT AREA TO BE CLEAR OF ANY OBSTRUCTIONS.
- PLANT HAS BEEN SELECTED BASED ON:
 - 27.5m HT REMOTE CABINETS;
 - 5.0m BWS REMOTE CABINETS;
 - REMOTE CHILLER COLD ROOM;
 - 5 DOOR INTEGRAL FREEZER CABINET;
 - INTEGRAL FREEZER COLD ROOM WITH MONOBLOCK;
- INTERNAL UNITS TO CONSIDER HEAT EXTRACTION. SUBJECT TO BUILDER'S DESIGN.
- AC SYSTEM REFRIGERANT CHOICE IS SUBJECT TO FINAL DESIGN BY D&I CONTRACTOR.

BUILDING COMPONENTS:

- INTERNAL SALES FLOOR HEIGHT: 3m;
- CEILING TYPE: OPENED WITH PARTIAL SEPARATION WITH BACK OF HOUSE.
- STOREFRONT WINDOWS: 2.5m HEIGHT WITH 0.2m SILL.
- ROOF, FLATS, BASEMENT, NEIGHBORING BUILDING HAS BEEN TAKEN INTO CALCULATION.
- COMPONENTS OF BUILDING TO BE CONFIRMED BY BUILDER IF DIFFERENT FROM INDICATED ABOVE.

The diagram shows a floor plan of a coldroom facility. A large rectangular area is outlined in red and labeled "NEW REMOTE CHILLER COLDROOM". To its right, a smaller rectangular area is outlined in red and labeled "NEW INTEGRAL FREEZER COLDROOM WITH RECESSED FLOOR". A black dot is placed on the wall between these two rooms, with a line pointing to it from a text box. The text box contains the following information:

ASSET PLANNER TO REVIEW MEANS OF ESCAPE DESIGN:

- COLDROOM DOOR OPENING
- MONOBLOCK LOCATION

Below the text box, it states: "THERE IS AN OPTION OF A DUAL TEMPERATURE PACK TO CONVERT INTEGRAL FROZEN FIXTURES TO REMOTE".

The diagram also includes a north arrow in the bottom right corner, pointing towards the top right. Various other rooms and corridors are shown with dashed lines, and a parking area with several cars is visible at the bottom left.

GAS COOLER TO HAVE 1000mm EXTENDED LEGS

Top View Dimensions: 1000mm (width), 1000mm (depth).

Side View Dimensions: 1000mm (width), 1000mm (height).

[illegible][illegible]

DWG	R/V	REVISION	S/WC	APPROVED
		DESCRIPTION		
A		PARTIAL TITLE	05/10/2020	

Air Conditioning - Outdoor Units (Pipework to be pressure tested to 41.5Bar Tightness and 45.7Bar Strength)																						
System Ref	Model	Manufacturer	New/ Existing	Type	Position	Max Current (A)	Start Current (A)	Electrical Connections	Running Load (A)	FUSE RATING (A)	Refrigerant Charge (kg)	Minimal Room Area (m2)	Connections (S / I)	Maximum Working Pressure (Bar)	Length (mm)	Width (mm)	Height (mm)	Net Weight (kg)	Air Flow (m ³ /s)	External Maximum Static Pressure (Pa)	Noise Pressure Level (dB (A))	Refrigerant
AQU-1	R24000	Daikin	New	Sky Air - Inverter	Service Yard Acoustic Box	--	--	380-415V / 3ph / 50Hz	13.1	20	5.00	N/A	(7/8") / (1/8")	41.5	1300	460	870	117	2.10	45	53 (Cooling)	R32
AQU-3	R24000	Daikin	New	Sky Air - Inverter	Service Yard Acoustic Box	--	--	380-415V / 3ph / 50Hz	13.1	20	5.00	N/A	(7/8") / (1/8")	41.5	1300	460	870	117	2.10	45	53 (Cooling)	R32

ALL WORK TO COMPLY WITH THE LATEST CO-OP REFRIGERATION SPECIFICATION

PLANT NOTES

A **PLANT - COMPRESSOR PACK AND LEAD LIFECOVER**

COMPRESSOR PACK SHALL COMPRISE OF COMPRESSOR, LEAD LIFECOVER, OIL SEPARATOR AND CONTROL PANEL WITH INTEGRATED FLOW CONTROL SYSTEM, DISCHARGE PIPE WORK, SUCTION PIPE WORK WITH FLANGE (WITH FILTERS) AND ALL INTERCONNECTING PIPE WORK AND SHUT OFF VALVES REQUIRED FOR SAFE OPERATION. THE LEAD LIFECOVER COMPONENTS SHALL BE COLLECTED AND RECYCLED BY THE TRUCK MANUFACTURER TO ENSURE ENERGY EFFICIENT, LEAD FREE OPERATION.

COMPRESSOR PACKS WILL BE SUPPLIED COWBRED WITH THE CORRECT OIL TO THE MIDDLE OF THE OIL RESERVOIR DRY OUT.

PACKS ARE TO BE DELIVERED WITH A HOLDING CHARGE OF OXYGEN FREE NITROGEN AT 2 BAR. THE CONTROL PANEL WILL BE COMPLETE WITH ALL NECESSARY CONTROLS AND EQUIPMENT TO CONTROL THE FLOW COMPONENTS AND GAS COOLER HOLDING WITH SUITABLY FINISHED BACKSHELL, COMPLETE WITH ELECTRICAL FITTING, REMEDIATION OF MANUFACTURING AND INTEGRATE FLEET, INTERLOCKING MANGS COLLIDER AND WARNING LABELS.

THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND CONNECT ALL ELECTRICAL AND CONTROL WIRING TO THE COMPRESSOR PACK.

THE REFRIGERATION CONTRACTOR IS RESPONSIBLE FOR THE SUPPLY, POSITIONING AND CONNECTION OF THE REFRIGERATION EQUIPMENT AND REFRIGERATION SERVICES.

ANY CHANGE TO EQUIPMENT SPECIFICATION SHALL BE CO-ORDINATED TO ORIGINEL DESIGN ASSOCIATES IMMEDIATELY TO AVOID COST OMISSION ISSUES ON SITE.

B

PAK / MOTORS ARE TO BE DERIVY EFFICIENT AND OF VARIABLE SPEED, I.E. 0.5 KW OR COUNTER COOLED

PAK CONTROLLER MUST BE CAPABLE OF OPERATING THESE FAN CONVEYOR V.A. 90% SIGNAL MANIPULATES STANDARD COLOUR PRINTS IS A CEPTABLE LINE SITE CONDITIONS DICTATE OTHERWISE

THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL ELECTRICAL AND CONTROL WIRING TO THE CONVEYER

THE CONVEYER FAN SPEED FOR DAY AND NIGHT OPERATION MUST BE SET AND INDICATED BY THE REFRIGERATION CONTROLLER RUN SPEED AND CONTROL. V.O.LTA ARE EXCEED THE ON CLAY OUT FOR EXAMPLE, SHOULD THE NIGHT SET POINT BE 47.39, THIS WOULD BE 40% AND THE NIGHT SET POINT SHOULD BE SET TO 57.10% OR 100% WOULD INCREASE THE RPM SET POINT TO 86.2

C

PLANT - SUPPORT

ALL REFRIGERATION PLANT SHALL BE INSTALLED ON A FLAT AND LEVEL BASE, PROVIDED BY OTHERS. ANTI VIBRATION PADS TO BE SUPPLIED BY THE REFRIGERATION CONTRACTOR

A NEW PIPED FLAT AT LEVEL, WORKING AREA IS TO BE POSITIONED ADJACENT TO THE PLANT HOUSING FOR COMPRESSOR REMOVAL

SECONDARY SUPPORT PLANT WORK FOR NEW PLANT TO BE DETAILED AND SUPPLIED BY THE STRUCTURAL ENGINEER, WHERE REQUIRED

ALL PLANT IS TO BE REKID TO THOSE SUPPORTS

- ALL REFRIGERATION EQUIPMENT WITH AN EQUIVALENT REFRIGERANT TONNAGE CHARGE OF 5 TONNES OR MORE MUST SHOW THE FOLLOWING INFORMATION: **REFRIGERANT TYPE INSTALLED, ENTRAINED VOLUME, REFRIGERANT TONNAGE.**
- PRESSURE EQUIPMENT DIRECTLY EXPOSED TO ALL APPLICABLE NEW REFRIGERATION SHALL CARRY A DECLARATION OF CONFORMITY AND AN ASSEMBLY LABEL, SHOWING THE FOLLOWING INFORMATION: **HIGH-LOW SIDE MWP, HIGH-LOW SIDE TEST PRESSURES, REFRIGERANT TYPE AND CHARGE, REFRIGERANT TONNAGE.**
- REFRIGERATION CONTRACTOR SHALL SUPPLY AND FIX PERMANENT TRAFFIC-LITE TYPE LABELS TO ALL ITEMS OF PLUMB, EQUIPMENT, CONTROL PANELS AND COLD STORES CLEARLY IDENTIFYING THE ITEM AND INDICATING THE SYSTEM NUMBER, IF APPLICABLE.

- PROTECTED WALKWAYS TO BE PROVIDED AND DETAILED FOLLOWING CONFIRMATION OF ROOF ACCESS POSITION.
- ACCESS STAIRS AND STEEL WALKWAY TO BE SUPPLIED AND INSTALLED BY OTHERS.
- ADEQUATE TASK LIGHTING TO BE SUPPLIED AND INSTALLED BY OTHERS FOR MAINTENANCE AND ACCESS.
- EXTERNAL HOUSED REFRIGERATION PLANT TO BE PROVIDED WITH INTERNAL LIGHTING WITH GENERAL ROOF ACCESS ROUTE LIGHTING PROVIDED BY OTHERS.
- PLANT POSITIONS TO BE REVIEWED FOR FIRE ALARM REQUIREMENTS BY THE MAIN CONTRACTOR.

A) PREVENT THE PLANT FROM OVERHEATING. A THERMOSTAT SHOULD BE PROVIDED IN THE PLANTROOM TO REGULATE THE TEMPERATURE.

G PLANT - LEAK DETECTION

- LEAK DETECTION SENSORS SHALL BE POSITIONED IN CLOSE PROXIMITY TO THE MOST LIKELY SOURCE OF A LEAKS OF REFRIGERANT
- ALARM TRIGGERS SHALL BE SET IN LINE WITH CO-OP SPECIFICATION (BS EN378 FOR THE REFRIGERANTS) WITHIN THE ALARM. **NOTE** THIS COULD BE AN AT OR A REFRIGERANT
- SENSORS SHALL BE CAPABLE OF CALIBRATION, SERVICE AND PROTECTED FROM DAMAGE
- THERE SHOULD BE A FACILITY TO TEST THE ALARM; THE ALARM SHALL BE TESTED IN LINE WITH CO-OP MAINTENANCE STRATEGY AND F-GAS REGULATIONS
- THE ALARM SYSTEM SHOULDWarn BOTH VISIBLY AND AUDIBLY WITH A SOUNDER AND BEACON (APPROX 105DBA) AROUND THE BACKGROUNDS LEVEL BOTH INSIDE AND OUTSIDE THE SPACE. WARRIOR SHALL BE INSTALLED WITHIN A MAJOR ROOM, SEE ANNOTATION TO LINK THE EMERGENCY VENTILATION SYSTEM ON DETECTION OF A LEAK OF REFRIGERANT

H	AS A MINIMUM THE FOLLOWING TEXT SHALL BE INCLUDED IN A NOTICE ON ALL PLANTROOM DOORS:-
	AUTHORISED ACCESS ONLY
	NO SMOKING, NAKED LIGHTS OR FLAMES
	NO AUTHORISED OPERATION OF THE REFRIGERATION SYSTEM
	IF THE BUZZER / SOUNDER ACTIVATES, EXIT THE SPACE IMMEDIATELY, CLOSE THE DOOR AND DO NOT ENTER OR RE-ENTER THE BUZZER / SOUNDER HAS BEEN SEALED AND YOU HAVE BEEN AUTHORISED BY THE SENIOR MANAGER AND THE REFRIGERATION CONTRACTOR

I AIR CONDITIONING - CONDENSING UNITS - EXTERNAL HIGH LEVEL

- REFRIGERATION CONTRACTOR TO SUPPLY & INSTALL THE UNIT, FIRM BRACKETS AND ANY ANTI-VIBRATION MOUNTS REQUIRED.

J AIR CONDITIONING - CONDENSING UNITS - EXTERNAL LOW LEVEL

- A FLAT & LEVEL SURFACE SHALL BE PROVIDED BY OTHERS.
- REFRIGERATION CONTRACTOR TO SUPPLY & INSTALL THE UNIT WITH ANY ANTI-VIBRATION MOUNTS.

02	PLANT UPDATED TO SUIT NOISE AT NEAREST RECEPTOR	LB	24.02.22
01	UPDATED ISSUE BASED ON TEAN P1F8M0	LB	21.02.22
00	FIRST ISSUE BASED ON TEAN P1F3M0	AT	03.12.19

Site Address: TEAN, HIGH STREET
(BLACKS HEAD) (PC-24631)

Drawing Title:	PLANT FEASIBILITY LAYOUT
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Refrigeration Contractor: -			
Date: 03.12.19		Drawn By: AT	
Signature 1:	Signature 2:	Signature 3:	
Signatures indicate compliance with the latest version of the Check and Verification 00/00/00008 document			
Revision: 02		Scale: 1:50 @ A1	
Drawing No: E3523-CR3		Contract No: -	



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Refrigerant : R32

Note: Only engineers who have been trained in the safe handling and use of mildly flammable A2L refrigerants should work on this system

- Work on this system in a well ventilated area or outside
- Use a local leak detector to locate if there is refrigerant in the air around the system before and during work on this system (place it at low level - R32 is heavier than air)
- Ensure there are no sources of ignition (flames or sparking electrical components) with 3M (10 ft) of your working area, however, this can be replaced should there be sufficient air movement
- If replacing components, use like for like replacements
- Take great care when brazing to ensure all refrigerant has been removed from the system

Use refrigerant grade R32

PLEASE NOTE
R32
REFRIGERANT USED ON THIS SITE

PLEASE NOTE
CO₂ (R744)
REFRIGERANT USED ON THIS SITE

NOTE:
FOR FULL DETAIL OF REFRIGERATION AND
AIR CONDITIONING COMPLIANCE REFER TO
THE LATEST CO-OPERATIVE SPECIFICATION

