DIFFUSER, GRILLE, AND REGISTER SCHEDULE

CALLOUT	DESCRIPTION	FACE SIZE (IN)	INLET SIZE (IN)	NOISE CRITERIA @ MAX CFM	MODEL
RS1818	EGGCRATE GRILLE	18x18	18x18	25	TITUS 50F
SCP06	SUPPLY CEILING PLAQUE DIFFUSER	24x24	6Ø	25	TITUS OMNI
SR06	SUPPLY ROUND CEILING	16Ø	6Ø	25	TITUS TMR-AA
SSD604	DOUBLE DEFLECTION SUPPLY	10x6	6x4	25	TITUS 300FS
SSD0906	DRUM LOUVER	11x8	9x6	30	TITUS DL
SSD1806	DRUM LOUVER	20x8	16x6	30	TITUS DL

A. AIR DEVICE (I.E. DIFFUSERS, REGISTERS AND GRILLES) COLOR SELECTION SHALL BE MADE BY ARCHITECT. CONTRACTOR SHALL SUBMIT COLOR/FINISH CHARTS FOR ARCHITECTURAL REVIEW AND SELECTION.
B. THE CONTRACTOR SHALL COORDINATE AIR DEVICE FRAME AND/OR SUSPENSION TYPE WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.

SPLIT DIRECT EXPANSION (DX) EQUIPMENT

MARK	SERVES	INDOOR UNIT TOTAL S.A. (CFM)	O.A. (CFM)	E.S.P. (IN WG)	MOTOR (hp)	HEATING GAS TYPE	HEATING EFF. AFUE	HEATING GAS IN (BTUH)	HEATING GAS OUT (BTUH)	CARRIER FURNACE BASIS OF DESIGN	CARRIER COIL BASIS OF DESIGN	MIN. SEER	REFR.	CARRIER BASIS OF DESIGN	NOMINAL TONNAGE	COMBINED COOLING CAPACITIES COOLING TOTAL (MBH)	COOLING SENS. (MBH)	COOLING LAT (DB T/Rt)	COOLING Ent. Dbt. Temp (°F)	COOLING Ent. Wbt. Temp (°F)	COOLING Lvg. Dbt. Temp (°F)	COOLING Lvg. Wbt. Temp (°F)	REMARKS 1	2	3	4	5	6	7	8	9	10
FURN-1 / CU-1	STORAGE	1,200	300	0.50	1/2 ECM	NATURAL	92%	40,000	37,600	58TQB2C060S17-12	CNVP37175L	15.0	R-410A	24ACC442	5.0	57.9	37.7	10.3	75.0	62.5	56.0	55.0	X	X		X	X	X	X	X	X	
FURN-2 / CU-2	STORAGE	1,400	115	0.50	1/2 ECM	NATURAL	92%	60,000	56,000	58TQB2C060S17-16	CNVP42175L	15.0	R-410A	24ACC442	5.0	40.2	30.0	10.2	76.0	64.9	56.0	55.0	X	X		X	X	X	X	X	X	
FURN-3 / CU-3	STORAGE	1,890	175	0.90	3/4 ECM	NATURAL	92%	80,000	75,000	58TQB2C060S21-20	CNPVP1248A	14.0	R-410A	24ACC460	5.0	57.6	42.9	14.7	76.7	64.9	56.0	55.0	X	X		X	X	X	X	X	X	
FURN-4 / CU-4	STORAGE	1,880	140	0.50	3/4 ECM	NATURAL	92%	60,000	75,000	58SSB2C060S21-20	CNPVP1248A	14.0	R-410A	24ACC460	5.0	41.6	44.3	17.3	76.3	64.8	56.0	54.0	X	X		X	X	X	X	X	X	
FURN-5 / CU-5	OFFICE	1,200	200	0.50	1/2 ECM	NATURAL	92%	40,000	37,600	58TQB2C040S17-12	CNVP37175L	15.5	R-410A	24ACC430	3.5	32.7	23.7	9.1	75.8	62.3	56.0	55.0	X	X	X		X	X	X	X	X	

NOTES (APPLY TO ALL):
A. SEE ELECTRICAL DRAWINGS FOR POWER REQUIREMENTS.
B. SUBMITTED UNIT CAPACITIES SHOULD BE WITHIN +/- 10% OF SCHEDULED CAPACITIES.
C. BASIS OF DESIGN: CARRIER. SEE SPECIFICATIONS.
ACCEPTABLE ALTERNATES: JOHNSON CONTROLS, TRANE, DAIKIN/MCQUAY, LENNOX
D. ALL EVAPORATORS AND COOLING COILS LOCATED ABOVE THE LOWEST LEVEL FINISHED FLOOR SHALL BE EQUIPPED WITH AN AUXILIARY CONDENSATE DRAIN PAN UNDER THE UNIT. PROVIDE AN ELECTRONIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN THE UNIT UPON DETECTION OF WATER IN THE AUXILIARY DRAIN PAN.
E. AS AN ALTERNATIVE TO THE AUXILIARY CONDENSATE DRAIN PAN, AN ELECTRONIC WATER LEVEL DETECTOR WIRED TO SHUTDOWN THE UNIT UPON DETECTION OF WATER MAY BE INSTALLED IN THE PRIMARY DRAIN LINE, THE OVERFLOW DRAIN LINE OR THE EQUIPMENT SUPPORTED DRAIN PAN. THE WATER LEVEL DETECTOR SHALL BE LOCATED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE CONNECTION AND BELOW THE OVERFLOW SIDE OF EACH PAN.

REMARKS (APPLY AS SCHEDULED):
1. PROGRAMMABLE THERMOSTAT.
2. 2-PIPE DIRECT VENTING KIT. PROVIDE CONCENTRIC TERMINATION AT ROOF OR WALL; REFER TO PLANS FOR EXACT LOCATION. TERMINATION SHALL BE PER MANUFACTURER'S REQUIREMENTS.
3. LOW AMBIENT PACKAGE.
4. DISPOSABLE FILTER.
5. ANTI-SHORT CYCLE TIMER.
6. BLOWER FAN DELAY KIT.
7. DISCONNECT SWITCH PROVIDED BY ELECTRICAL SUBCONTRACTOR. REFER TO BOTH THE INDOOR AND OUTDOOR UNIT. REFER TO THE ELECTRICAL DOCUMENTS.
8. MOUNT OUTDOOR CONDENSING UNIT ON ROOF DECK TOP. REFER TO ROOFTOP EQUIPMENT UNIT DETAIL.
9. CONDENSATE PUMP: SHALL BE PLACED [illegible] WITH MANUFACTURER'S RECOMMENDATIONS.
10. FIELD PROVIDED FAMILY OF DX ACCESSORIES TO BE INSTALLED IN ACCORDANCE WITH ECONOMIZER DETAIL.

DUCTLESS SPLIT DIRECT EXPANSION (DX) EQUIPMENT

MARK	SERVES	INDOOR UNIT TYPE	MODEL/SERIES	NOMINAL TONS	CFM	OUTDOOR UNIT MARK	OUTDOOR UNIT MIN. SEER	OUTDOOR UNIT MIN. HSPF	OUTDOOR UNIT MODEL/SERIES	COMBINED CAPACITIES COOLING TOTAL (MBH)	COMBINED CAPACITIES HEATING @ 47°F (MBH)
MINI-1	ELEVATOR EQUIPMENT ROOM	WALL-MOUNTED, HEAT PUMP	PKA-A18HA4	1.50	320/370/420	MHP-1	19.3	9.3	PUZ-A18NHA4	18.0	19.0
MINI-2	ELECTRICAL ROOM	WALL-MOUNTED, HEAT PUMP	PKA-A18HA4	1.50	320/370/420	MHP-2	19.3	9.6	PUZ-A18NHA4	18.0	19.0

NOTES (APPLY TO ALL):
A. BASIS OF DESIGN: MITSUBISHI. EQUAL PRODUCTS: DAIKIN, LENNOX, SAMSUNG, LG, SANYO, JOHNSON CONTROLS.
B. SINGLE POWER CONNECTION AT OUTDOOR UNIT. DISCONNECT SWITCHES PROVIDED AT THE INDOOR AND OUTDOOR UNITS BY ELECTRICAL SUBCONTRACTOR. REFER TO THE ELECTRICAL DOCUMENTS.
C. R-410A REFRIGERANT.
D. FACTORY CONDENSATE PUMP OR CONDENSATE LIFT MECHANISM.
E. WALL MOUNTED WIRED REMOTE CONTROLLER.
F. INVERTER DRIVEN COMPRESSOR.
G. REFRIGERANT LINE SET TOTAL EQUIVALENT LENGTH SHALL NOT EXCEED 150 FEET. SHOULD AN ALTERNATE MANUFACTURER BE USED, CONTRACTOR SHALL COMPLY WITH ALTERNATE MANUFACTURER LINE SET LIMITATIONS.

LOUVERS

SYMBOL	MODEL/ SERIES	SERVES	SIZE WxH (IN)	MIN FREE AREA (SQ FT)	CFM	MAX PRESS. DROP (IN WC)	OPERATOR	INTERLOCK	FRAME	REMARKS 1	2	3	4	5
WL-A	ESP-635	FURN OUTSIDE AIR	12x12	0.4	300	0.05	N/A	N/A	ALUMINUM	Y	X	X		

NOTES (APPLY TO ALL):
A. FINAL COLOR SELECTION SHALL BE MADE BY ARCHITECT AS PART OF SHOP DRAWING APPROVAL. PROVIDE COLOR/FINISH CHARTS AS PART OF SUBMITTAL.
B. DESIGN IS BASED ON PRODUCTS BY GREENHECK. ACCEPTABLE ALTERNATES SHALL BE BY UNITED ENERTECH, ARROW, RUSKIN.

REMARKS (APPLY AS SCHEDULED):
1. BIRD SCREEN.
2. BASED ON ENAMEL FINISH.
3. GRAVITY BACKDRAFT DAMPER.

FAN SCHEDULE

MARK	DUTY	TYPE	CFM	E.S.P. (IN WG)	MOTOR (W / hp)	DRIVE	MAX. NOISE (SONES)	CONTROL BY	BASIS OF DESIGN MODEL	REMARKS 1	2	3	4	5	6
EF-A	EXHAUST	CEILING CABINET	70	0.5	100	DIRECT	2.0	SWITCHED WITH LIGHTS	GREENHECK, SP	X	X	X			

NOTES (APPLY TO ALL):
A. SEE ELECTRICAL PLANS FOR POWER CHARACTERISTICS.
B. DESIGN IS BASED ON PRODUCTS BY GREENBECK. ACCEPTABLE ALTERNATES SHALL BE BY LOREN COOK, TWIN CITY, PENN BARRY.

REMARKS (APPLY AS SCHEDULED):
1. FAN SPEED CONTROLLER.
2. FACTORY DISCONNECT SWITCH/PLUG.
3. GRAVITY BACKDRAFT DAMPER.

ELECTRIC WALL HEATER

MARK	CFM	WATTS	HEAT (MBH)	BASIS OF DESIGN	REMARKS 1	2	3	4	5	6
EWH-A	100	3500	10.735	QMARK AWH	X	X	X	X	X	X
EWH-1	100	1500	5.120	QMARK AWH	X	X	X	X	X	X

REMARKS:
1. PROVIDE WITH INTEGRAL THERMOSTAT AT 68°F TO MAINTAIN MINIMUM 45°F (ADJUSTABLE).
2. COORDINATE ELECTRICAL CHARACTERISTICS WITH ELECTRICAL CONTRACTOR.
3. FAN DELAY SWITCH.
4. THERMAL CUTOUT.
5. FACTORY DISCONNECT SWITCH.
6. SURFACE MOUNTING KIT.

COMcheck Software Version 4.1.1.0

Mechanical Compliance Certificate

Project Information

Energy Code:	90.1 (2013) Standard
Project Title:	Life Storage Facility #357
Location:	Montgomery, Alabama
Climate Zone:	3a
Project Type:	New Construction

Construction Site:
115 S. Arrowhead Dr.
Montgomery, AL 36117

Owner/Agent:

Designer/Contractor
STANDARD ARCHITECTURE, INC
217 SOUTH ERWIN STREET
CARTERSVILLE, GA 30120
7704057400

Mechanical Systems List

Quantity System Type & Description

1 2.5 TON PURH (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 37 kBtuh
Proposed Efficiency = 92.00% Et, Required Efficiency: 80.00 % Et per 78% AFUE)
Cooling: 1 each - Split System, Capacity = 30 kBtuh, Air-Cooled Condenser
Proposed Efficiency = 15.50 SEER, Required Efficiency: 13.00 SEER
Fan System: 2.5 TON FAN – Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 1 Supply: Constant Volume, 1200 CFM, 0.5 motor nameplate hp, 0.6 fan efficiency grade.

1 3 TON PURH (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 37 kBtuh
Proposed Efficiency = 92.00% Et, Required Efficiency: 80.00 % Et per 78% AFUE)
Cooling: 1 each - Split System, Capacity = 36 kBtuh, Air-Cooled Condenser
Proposed Efficiency = 15.00 SEER, Required Efficiency: 13.00 SEER
Fan System: 3 TON FAN – Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 2 Supply, Constant Volume, 1680 CFM, 0.5 motor nameplate hp, 0.6 fan efficiency grade.

1 3.5 TON PURH (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 56 kBtuh
Proposed Efficiency = 90.00% Et, Required Efficiency: 80.00 % Et per 78% AFUE)
Cooling: 1 each - Split System, Capacity = 40 kBtuh, Air-Cooled Condenser
Proposed Efficiency = 15.00 SEER, Required Efficiency: 13.00 SEER
Fan System: 3.5 TON FAN – Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 3 Supply, Constant Volume, 1400 CFM, 0.5 motor nameplate hp, 0.6 fan efficiency grade.

2 5 TON PURH (Single Zone):
Heating: 1 each - Central Furnace, Gas, Capacity = 75 kBtuh
Proposed Efficiency = 90.00% Et, Required Efficiency: 80.00 % Et per 78% AFUE)
Cooling: 1 each - Split System, Capacity = 60 kBtuh, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 14.00 SEER, Required Efficiency: 13.00 SEER
Fan System: 5.0 TON FAN – Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 5 Supply, Constant Volume, 1400 CFM, 5.0 motor nameplate hp, 0.6 fan efficiency grade

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed mechanical systems have been designed to meet the 90.1 (2013) Standard requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Jennifer Duthac - PE
Name - Title

Signature

04/30/2019
Date

COMcheck Software Version 4.1.1.0

Inspection Checklist

Energy Code: 90.1 (2013) Standard

Requirements: 100.0% were addressed directly in the COMcheck software
Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section & Requir.	Plan Review	Complies?	Comments/Assumptions
4.2.2, 6.4.2.2.1, 6.7.2 (2012)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and documents where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and procedures.	☐ Complies ☐ Does Not ☐ Not Observable ☑ Not Applicable	Requirement will be met.
4.2.2, 6.4.2.2.1, 6.7.2 (2012)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and documents where exceptions are claimed. Fan/pump connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.	☐ Complies ☐ Does Not ☑ Not Observable ☐ Not Applicable	Requirement will be met.
6.7.2.4 (2012)	Detailed instructions for HVAC systems commissioning (including the plans or specifications) for projects >=50,000 SQ.	☐ Complies ☐ Does Not ☑ Not Observable ☐ Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

Order Plans @ WWW.LDLine.com

ALABAMA LICENSED No. 30661 PROFESSIONAL ENGINEER JOHN P. KEVING

PROFICIENT ENGINEERING
6981 Peachtree Industrial Blvd Building 700
Peachtree Corners, Georgia 30092
404.200.0997
PROJECT #118575

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Life Storage #357

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ISSUE: FOR CONSTRUCTION
REVISIONS:

1	City Comments	5-6-2019

PROJECT NUMBER
201841

DATE
4-8-2019

SHEET NUMBER
M0.3