LOUVER SCHEDULE

MARK	MANUFACTURER	MODEL	AIRFLOW (CFM)	MAX. A.P.D. (in WC)	SIZE (W"xH")	MIN. FREE AREA (SQ. FT.)	TYPE	MATERIAL	SERVICE	NOTES
L-1	RUSKIN	LM6375D	3,550	0.05	36x48	6.00	ADJUSTABLE DRAINABLE BLADE	GALV. STEEL	EXHAUST FAN EF-1	(1)(2)(3)
L-2	RUSKIN	LM6375D	3,550	0.05	36x48	6.00	ADJUSTABLE DRAINABLE BLADE	GALV. STEEL	EXHAUST FAN EF-1	(1)(2)(3)

NOTES:
(1) PROVIDE FACTORY PRIMER. PAINT LOUVER TO MATCH ADJACENT SURFACE.
(2) PROVIDE 120V MOTORIZED DAMPER (TWO POSITION) WITH END SWITCH INTERLOCKED WITH EF-1 AND MAU-1. REFER TO SEQUENCE OF OPERATIONS.
(3) PROVIDE 1/4" MESH BIRD SCREEN.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	E.S.P. (in WC)	MOTOR HP	RPM	VOLT/PHASE	DRIVE	AREA SERVED	WEIGHT (LBS.)	TYPE	NOTES
EF-1	GREENHECK	SBE-3H36-20	7,100	0.500	2	846	460 / 3	BELT	BHC PROCESS AREA	475	WALL	(1) THRU (11)

NOTES:
(1) PROVIDE NEMA PREMIUM EFFICIENT MOTOR WITH THERMAL OVERLOAD.
(2) PROVIDE BEARINGS WITH GREASE FITTINGS AND EXTENDED LUBE LINES.
(3) PROVIDE WD-320-PB 38X38 DAMPER WITH END SWITCH.
(4) PROVIDE 115 V DAMPER ACTUATOR.
(5) PROVIDE LONG WALL HOUSING, FLUSH EXTERIOR, (1A-EXH), WITH OSHA APPROVED GUARD IN GALVANIZED STEEL.
(6) PROVIDE GALVANIZED 90 DEG WEATHERHOOD WITH 1/4" MESH BIRDSCREEN.
(7) PROVIDE PERMATECTOR COATING FOR FAN AND ACCESSORIES.
(8) PROVIDE CLOSURE ANGLES AT WALL.
(9) PROVIDE THERMOSTAT. SET AT 80°F (ADJ.)
(10) PROVIDE MOTOR STARTER (NEMA 4X)
(11) PROVIDE TWO INPUT CONTACTS OR RELAYS FOR AUTO MODE OPERATION. REFER TO SEQUENCE OF OPERATION.

AIR DISTRIBUTION SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	FACE SIZE	NECK SIZE	FINISH	FRAME	NOTES
A	TITUS	DL-SV	SUPPLY DRUM LOUVER	23 x 14	20 x 12	ALUMINUM	SURFACE MOUNT	(1)(2)

NOTES:
(1) DRUM LOUVER AND FRAME SHALL BE CONSTRUCTED OF ALUMINUM.
(2) REFER TO MOUNTING DETAIL ON SHEET MBH3.

MAKEUP AIR UNIT SCHEDULE

MARK	MAU-1
GENERAL DATA	
ELEVATION (FT)	5,420
AREA SERVED	BIOSOLIDS HANDLING COMPLEX
TYPE NAT. GAS FURNACES W/ 10-14"W.G. INPUT	HORIZ. DISCHARGE, 100% OUTSIDE AIR
MANUFACTURER	GREENHECK
MODEL	IGX-118-H32
SUPPLY FAN DATA	
AIRFLOW ACFM	7,100
EXT. STATIC PRESS. (in WC)	1.0
DRIVE TYPE	BELT
FAN MOTOR (HP)	7.5 HP, PREMIUM EFFICIENCY
HEATING SECTION DATA	STAINLESS STEEL HEAT EXCHANGER
ENT. AIR TEMP (deg F DB)	-20
LEAV. AIR TEMP (deg F DB)	87.1
HEAT OUTPUT (MBH)	840 ◇3◇
GAS HEATING INPUT (MBH)	1050 ◇3◇
◇3◇	◇3◇
GAS HEATING STAGES	MODULATING, 12:1, ELECTRONIC
ELECTRICAL DATA	
VOLTS / PHASE	460 / 3
MCA / MOCP (AMPS)	15.8 / 25.0
APPROX. UNIT WEIGHT (LBS)	3,110
NOTES:	(1) THRU (15)

NOTES:
(1) MAKEUP AIR UNIT SHALL BE MOUNTED ON STEEL STAND AND CONCRETE PIERS. REFER TO SHEET MBH3 FOR DETAILS.
(2) PROVIDE WITH COMMERCIAL HEAT-ONLY THERMOSTAT, WITH DIGITAL DISPLAY. SET ROOM TEMPERATURE TO 50°F (ADJ.).
(3) PROVIDE LEFT-HAND ACCESS TO UNIT.
(4) MAKEUP AIR UNIT SIZED FOR MIN. 6 AIR CHANGES PER HOUR IN PROCESS AREA.
(5) EXTERIOR CABINET SHALL BE INSULATED DOUBLE WALL. COLOR SHALL BE SELECTED BY OWNER FROM MANUFACTURER STANDARD COLOR PALETTE.
(6) PROVIDE FREEZE PROTECTION AND HEAT INLET AIR SENSOR.
(7) PROVIDE ROOM TEMPERATURE OVERRIDE OPTION TO CONTROL DISCHARGE AIR TEMPERATURE.
(8) PROVIDE LOUVERED AIR INTAKE WITH ALUMINUM MESH FILTERS.
(9) PROVIDE FILTER SECTION WITH 2" THROWAWAY FILTERS.
(10) PROVIDE PANELED BOTTOM.
(11) PROVIDE SAIL SWITCH AND MAKEUP AIR UNIT STATUS SHALL BE MONITORED IN SCADA SYSTEM.
(12) PROVIDE COMMON REMOTE CONTROL PANEL (NEMA 4X) FOR MAU-1 AND EF-1 WITH HOA SWICHES FOR EACH.
(13) PROVIDE STAINLESS STEEL HEAT EXCHANGER (10 YR WARRANTY)
(14) PROVIDE FAN MOTOR WITH TWO AUXILIARY INPUT CONTACTS OR RELAYS (ONE FOR MANUAL FAN ONLY, ONE FOR REMOTE RUN CALL FAN ONLY). REFER TO SEQUENCE OF OPERATION.
(15) PROVIDE SUPPLY AIR SMOKE DETECTOR (120 V). INSTALLATION IS BY MECHANICAL, WIRING IS BY ELECTRICAL.

XREF FILENAME: G:\
BASE DWG: G:\
PLOT STYLE FILE: 1050C.CTB
FILENAME: G:\LFMSDD\20166\310\MBH4\MBH4.DWG

REVISIONS		
NO.◇1◇	DATE	DESCRIPTION
1	11/29/2012	ISSUED FOR VALUE ENGINEERING REVIEW AND PRICING
2	01/07/2013	ISSUED FOR BUILDING PERMIT SUBMITTAL TO PPRBD (BIOSOLIDS HANDLING COMPLEX)
3	03/14/2013	ISSUED FOR CONSTRUCTION PER PPRBD BLDG PERMIT #65132 (BIOSOLIDS HANDLING COMPLEX)

MECHANICAL DETAILS

HAROLD D. THOMPSON REGIONAL WATER RECLAMATION FACILITY
LOWER FOUNTAIN METROPOLITAN SEWAGE DISPOSAL DISTRICT

DRAWN JE
DESIGNED MK
CHECKED CF
DATE SEPTEMBER 2012
PROJECT NO. 20166.382
GMS FILE NO. 2599

GMS, INC.
CONSULTING ENGINEERS
611 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

SHEET MBH-4 OF —

G:\LFMSDD\20166\310\MBH4\MBH4.dwg, MBH4, 3/14/2013 11:26:41 AM, ac, DWG To PDF.pc3, 1:1