



Always a Better Plan

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COLLABORATION



PROJECT INFORMATION

PROPOSED BUILD-OUT FOR:  
**ASPEN DENTAL**  
6 LOCEY LANE • HARRIMAN, NY 10926

PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE JULY 12, 2023

REVISIONS

JOB NUMBER

230264900

SHEET NUMBER

H4.0

HVAC SCHEDULES

ELECTRIC WALL HEATER SCHEDULE - (E.W.H.)

NO.	CFM	EAT F	LAT F	MBH	KW	THERMOSTAT	CABINET RECESS DEPTH	HGT. AFF	MODEL	REMARKS
1	100	60	107	5.1	1.5	INTEG., PREWIRED, TAMPER-RESISTANT	3-3/4"	12"	FRC-1512	"BERKO"

- ACCEPTABLE MANUFACTURERS: BERKO, RAYWALL, Q-MARK, MARKEL.
- PROVIDE ALL EWH'S WITH PREWIRED DISCONNECT SWITCH, PREWIRED AUTOMATIC RESET THERMAL OVERLOAD PROTECTION, BUILT-IN FAN DELAY CONTROLS, 16 GAUGE FRONT BAR GRILLE.
- COLOR TO BE NORTHERN WHITE. PROVIDE COLOR SAMPLE TO OWNER FOR FINAL SELECTION AND CONFIRMATION.

SUPPLY GRILLE SCHEDULE (S.G.)

NO.	TYPE	CFM RANGE	NECK/ FACE SIZE	INLET DUCT DIA.	MAT'L	VOL. DMPR	FINISH	FRAME	THROW	MODEL	REMARKS
5-6	LOUVER	0-75	24 X 24	6"	ALUM.	(1)	WHITE	LAY-IN	4-WAY	TMS-AA	"TITUS"
5-8	LOUVER	76-275	24 X 24	8"	ALUM.	(1)	WHITE	LAY-IN	4-WAY	TMS-AA	"TITUS"
5-10	LOUVER	276-375	24 X 24	10"	ALUM.	(1)	WHITE	LAY-IN	4-WAY	TMS-AA	"TITUS"
5-12	LOUVER	376-550	24 X 24	12"	ALUM.	(1)	WHITE	LAY-IN	4-WAY	TMS-AA	"TITUS"
5-14	LOUVER	551-750	24 X 24	14"	ALUM.	(1)	WHITE	LAY-IN	4-WAY	TMS-AA	"TITUS"

- ACCEPTABLE MANUFACTURERS: TITUS, PRICE, KRUEGER, CARNES, SHOEMAKER.
- NOT ALL SUPPLY GRILLES SCHEDULED ARE USED ON THE PROJECT.
- PROVIDE R-6 MOLDED BACKED INSULATION BLANKET.
- BRANCH DUCT SIZE TO GRILLE SHALL BE SAME SIZE AS NECK UNLESS OTHERWISE NOTED.
- (1) VOLUME DAMPER AT THE GRILLE INDICATED BY A "D" AFTER THE GRILLE DESIGNATION. EXAMPLE: SG5D-6 IS SG5-6 WITH A DAMPER.

RETURN GRILLE SCHEDULE (R.G.)

NO.	TYPE	MAX. CFM	NECK/ FACE SIZE	FLEX. DUCT. DIA.	MAT'L	VOL. DMPR	FINISH	FRAME	MODEL	REMARKS
2-6	EGG CRATE	75	24 X 24	6"	ALUM.	(1)	WHITE	LAY-IN (3)	50F (5)	"TITUS"
2-8	EGG CRATE	250	24 X 24	8"	ALUM.	(1)	WHITE	LAY-IN (3)	50F (5)	"TITUS"
2-10	EGG CRATE	450	24 X 24	10"	ALUM.	(1)	WHITE	LAY-IN (3)	50F (5)	"TITUS"
2-12	EGG CRATE	750	24 X 24	12"	ALUM.	(1)	WHITE	LAY-IN (3)	50F (5)	"TITUS"
2-14	EGG CRATE	1,100	24 X 24	14"	ALUM.	(1)	WHITE	LAY-IN (3)	50F (5)	"TITUS"
2-16	EGG CRATE	1,600	24 X 24	16"	ALUM.	(1)	WHITE	LAY-IN (3)	50F (5)	"TITUS"
2-18	EGG CRATE	2,200	24 X 24	18"	ALUM.	(1)	WHITE	LAY-IN (3)	50F (5)	"TITUS"

- ACCEPTABLE MANUFACTURERS: TITUS, PRICE, KRUEGER, CARNES, SHOEMAKER.
- NOT ALL RETURN GRILLES SCHEDULED ARE USED ON THE PROJECT.
- PROVIDE MIN. 8" DEEP PLENUM BOX AT ALL RETURN GRILLES (TRP).
- BRANCH DUCT SIZE TO GRILLE SHALL BE SAME SIZE AS NECK UNLESS OTHERWISE NOTED.
- (1) VOLUME DAMPER AT THE GRILLE INDICATED BY A "D" AFTER THE GRILLE DESIGNATION. EXAMPLE: RG2D-6 IS RG2-6 WITH A DAMPER.
- (3) SURFACE MOUNT BORDER WITH NO SCREW HOLES FOR LAY-IN APPLICATION.
- (5) 1/2 X 1/2 X 1/2 CORE

DUCTWORK AND DUCTWORK INSULATION SCHEDULE

SERVICE		LOCATION	DUCT MAT'L	SMACNA PRESS. CLASS	INSULATION		INSUL. JACKET
					RECTANGULAR DUCT	ROUND DUCT	
SUPPLY	SINGLE ZONE SYSTEMS	CONCEALED	GALV. ST.	+1"	1.5" FLEX. F.G.	1.5" FLEX. F.G.	N.R.
RETURN	UPSTREAM OF FAN	CONCEALED	GALV. ST.	-1"	1.5" FLEX. F.G.	1.5" FLEX. F.G.	N.R.
EXHAUST	DOWNSTREAM OF FAN	CONCEALED	GALV. ST.	+1"	1.5" FLEX. F.G. (1)	1.5" FLEX. F.G. (1)	N.R.

- N.R. = NOT REQUIRED
- EXPOSED = VISIBLE FROM OCCUPIED SPACE.
- CONCEALED = HIDDEN FROM VIEW BY WALLS AND CEILINGS.

- MATERIALS:
- GALV. STEEL: ASTM A653, LOCK FORMING QUALITY, 1.25 OUNCES/ S.F. ZINC COATING (G90 IN ACCORDANCE WITH ASTM A90 BOTH SIDES).
- ALL JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS AND CONNECTIONS IN DUCTWORK SHALL BE SEALED PER 2020 NYECC 403.11.1.
- (1) INSULATE FROM 18" UPSTREAM OF THE BACKDRAFT DAMPER TO THE POINT WHERE THE DUCT EXITS THE BUILDING.

ELECTRICAL/STARTER/DISCONNECT SCHEDULE

SYM.	ELECTRICAL DATA				STARTER		FURN. BY	AUX. CONTACT	ACCESS-ORIES	SMOKE DETECTOR	DISCONNECT	FURN. BY	REMARKS
	HP	KW	AMPS	MCA	MOP	VOLT PH.							
RTAC-1	-	-	-	28.0	40	208 3	INTEG.	INTEGRAL	EM	-	-	3R	EM (4) -
RTAC-2	-	-	-	26.0	30	208 3	INTEG.	INTEGRAL	EM	-	-	3R	EM (4) -
RTAC-3	-	-	-	20.0	30	208 3	INTEG.	INTEGRAL	EM	-	-	3R	EM (4) -
EWI-1	-	1.5	-	-	-	120 1	INTEG.	INTEGRAL	EM	-	-	R	EM -
CEF-1	-	0.08	-	-	-	120 1	(1)	(1)	EC	-	-	R	EM -
CEF-2	-	0.08	-	-	-	120 1	(1)	(1)	EC	-	-	R	EM -
CEF-3	-	0.23	-	-	-	120 1	(2)	(2)	EC	-	-	R	EM -
CEF-4	-	0.23	-	-	-	120 1	(3)	(3)	EC	-	-	R	EM -

- STARTER TYPE:
- INTEG = INTEGRAL: PROVIDED INTEGRAL WITH EQUIPMENT.

- FURNISHED BY:
- EM = EQUIPMENT MANUFACTURER
- HC = HEATING CONTRACTOR
- EC = ELECTRICAL CONTRACTOR
- ACCESSORIES:
- HOA = HAND-OFF-AUTO
- PL =LED PILOT LIGHT
- PB = PUSH BUTTON
- DISCONNECT:
- NR= NOT REQUIRED
- R = REQUIRED
- 3R = NEMA 3R
- REMARKS:
- REC.=RECEPTACLE

- VERIFY VOLTAGE AND PHASE WITH ELECTRICAL CONTRACTOR BEFORE ORDERING EQUIPMENT.
- (1) POWER ROUTED THRU INTERIOR LIGHTING CONTACTOR BY E.C. SEE ELECTRICAL PLANS.
- (2) LOCAL WALL SWITCH PROVIDED BY E.C. TO TURN ON FAN.
- (3) FAN WIRED TO REVERSE ACTING THERMOSTAT BY E.C.
- (4) DISCONNECT FACTORY MOUNTED AND PREWIRED BY EQUIPMENT MANUFACTURER.

CABINET EXHAUST FAN SCHEDULE (C.E.F.)

NO.	AREA SERVED	TYPE	CFM	S.P.-W.C.	RPM	MOTOR WATTS	MAX. SONES	DUCT COLLAR SIZE (IN.)	MODEL	REMARKS
1	TOILET RM	CEILING	100	0.38	950	80	2	6	SP-B110 (3)	"GREENHECK"
2	TOILET RM	CEILING	100	0.38	950	80	2	6	SP-B110 (3)	"GREENHECK"
3	LAB	CEILING	300	0.5	1,054	224	3.5	8 X 8	SP-AS10 (3)	"GREENHECK"
4	MECH RM	CEILING	300	0.5	1,054	224	3.5	8 X 8	SP-AS10 (3)	"GREENHECK"

- ACCEPTABLE MANUFACTURERS: GREENHECK, COOK, PENN-BARRY, CARNES.
- SUPPORT FROM STRUCTURE, ISOLATE FAN AND ASSOCIATED DUCTWORK.
- PROVIDE SPEED CONTROL MOUNTED ON FAN HOUSING. INTERNAL PLUG-IN DISCONNECT AND BACKDRAFT DAMPER
- (3) PROVIDE WHITE ALUMINUM GRILLE.

ROOF CAP SCHEDULE (R.C.)

NO.	SERVICE	TYPE	THROAT	CFM	APD.	SCREEN	DAMPER	MODEL	REMARKS
1	EXHAUST	FLAT	7	100	0.01	BIRD	NO	RCC-7 (1)	"GREENHECK"
2	EXHAUST	FLAT	7	100	0.01	BIRD	NO	RCC-7 (1)	"GREENHECK"
3	EXHAUST	FLAT	10	600	0.09	BIRD	NO	GRS-10 (1)	"GREENHECK"

- ACCEPTABLE MANUFACTURERS: GREENHECK, CARNES
- (1) PROVIDE 14" HIGH ROOF CURB.

ROOFTOP AIR CONDITIONING UNIT SCHEDULE (R.T.A.C.)

NO.	NOM. TONS	SUPPLY FAN		EXT. SP	DRIVE TYPE	MOTOR BHP	MOD. TYPE	RELIEF		COOLING				HEATING				OUTSIDE AIR	SMOKE DETECTOR	CURB		MCA	MOP	VOLT/ PHASE	EFFICIENCY		TEST PROC.	WEIGHT (LBS.)	MODEL	REMARKS	
		CFM	OA CFM					BAR.	FAN	EAT DB / WB	MBH CAP.	AMB. TEMP F	NO. COMP.R.	NO. STAGES	KW	MBH IN	MBH OUT			NO. STAGES	HEIGHT BY MFR.				TYPE	MIN. SEER					UNIT RATING
1	5	1,975	250	1	DIRECT	1.49	-	X	-	80/67	54.7	105	1	1	-	150	120	2	ECON (2)	NO (1)	14"	STANDARD	28.0	40	208/3	14.0 SEER	14.0 SEER	ARI 210/240	850	48FC	CARRIER (4)(5)
2	4	1,425	200	1	DIRECT	0.92	-	X	-	80/67	43.6	105	1	1	-	67	54	2	ECON (2)	NO (1)	14"	STANDARD	26.0	30	208/3	14.0 SEER	14.0 SEER	ARI 210/240	850	48FC	CARRIER (4)(5)
3	3	1,150	150	1	DIRECT	0.55	-	X	-	80/67	31.9	105	1	1	-	67	54	2	ECON (2)	NO (1)	14"	STANDARD	20.0	30	208/3	14.0 SEER	14.0 SEER	ARI 210/240	850	48FC	CARRIER (4)(5)

- H.C. TO PROVIDE ROOFTOP UNITS AND CURBS. ROOFTOP UNITS ARE PRE-ORDERED BY ASPEN DENTAL MANAGEMENT (ADMI), QUOTES AND SELECTIONS ARE SENT BY ADMI TO THE G.C. FOR DISTRIBUTION TO THE H.C.
- SEE MOTOR SPECIFICATIONS FOR MOTOR REQUIREMENTS.
- PROVIDE WITH 2" ASHRAE STD 52.2 MERV 8 T.A. FILTERS
- RTAC DESIGNED TO PREVENT RAIN INTRUSION INTO THE AIRSTREAM WHEN TESTED AT DESIGN AND NO AIRFLOW PER SECTION 58 OF UL 1995.
- PROVIDE UNIT MOUNTED NEMA 3R DISCONNECT. STAINLESS STEEL HEAT EXCHANGER, LIQUID-TIGHT THRU UNIT BASE ELECTRICAL CONNECTION. HINGED ACCESS PANELS AND HINGED DOOR FOR ECONOMIZER.
- (1) DUCT SMOKE DETECTOR IS NOT REQUIRED PER IMC 606.2.1 AS RETURN AIR FLOW DOES NOT EXCEED 2,000 CFM IN ANY LOCATION AND SYSTEMS DO NOT SHARE COMMON SUPPLY OR RETURN AIR DUCTS.
- (2) PROVIDE ULTRA LOW LEAK CODE COMPLIANT ECONOMIZER WITH FAULT DETECTION, ENTHALPY CONTROL AND BAROMETRIC RELIEF.
- (4) PROVIDE WITH HAIL GUARD FOR CONDENSING COILS.
- (5) PROVIDE EPOXY COATED CONDENSER COIL TO PROVIDE PROTECTION IN COASTAL ENVIRONMENTS.