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Project: Green Township Police Dept (Cincinnati, OH)

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Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: AHU/RTU

Asset: RTU-1 AREA:ROOF

Unit Data		
	Design	**Actual**
MFG	NA	TRANE
Serial Num	-	C24G03967
Model Num	NA	YCH480CEL*6D3N64A0
Configuration	HORIZONTAL	HORITONTAL
OA Filter Size 1	-	42"X 22"
Num OA Filters 2	-	3
Num PreFilter 1	-	17
PreFilter Size 1	-	16"X20"X4"

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	254T
Horsepower	15	15
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208	200
Rated Amperage	43.00	41
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	6"
Motor Bore Size	1.5"
Motor Sheave SetPt	NA
Fan Sheave Size	14"
Fan Sheave Bore	1.5"
Belt CL Distance	35"
Num of Belts	2
Belt Size	B X 97

Test Data		
	Design	**Actual**
SF CFM	13485	13057
SF RPM	-	100%
RA CFM	11191	9934
OA CFM	2294	2475
RL Voltage	208	199 VFD
RL Amperage	43.00	32.7 VFD
SF Motor Freq(HZ)	-	60 HZ
SF System SetPt	-	1.8”
Min OA Damper Position	-	3.4%
Brake Horse Power	7.6	12.5 VFD

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.60”
Fan Suction SP	-	-1.51”
Fan Discharge SP	-	1.31”
Total ESP	1.5	1.91”
Fan Total SP	3.242	2.82”
Pre-Filter P.D.	-	0.91”*
Cooling Coil P.D.	-	*

Completed By: Gabe Merk on 06/04/2025

Notes:
*PREFILTER AND COOLING COIL PD COMBINED.

Written By: Gabe Merk on 06/04/2025

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Project:Green Township Police Dept (Cincinnati, OH)

AHU/RTU

VAV - Single Duct

RTU-1/ROOF

Asset											
Asset Name	MFG	Model Num	Type	Inlet Size	Design Max CFM	Max CFM	Design Min CFM	Min CFM	Design Heat CFM	Heat CFM	Ak (max)
V1-01	TRANE	VCEF08	REHEAT	8	810	800	395	395	429	429	1.77
V1-02	TRANE	VCEF10	REHEAT	10	930	921	470	473	375	370	1.08
V1-03	TRANE	VCEF05	REHEAT	5	270	271	135	135	83	83	1.28
V1-04	TRANE	VCEF04	REHEAT	4	140	148	84	89	83	75	0.65
V1-05	TRANE	VCEF10	REHEAT	10	1000	979	500	493	301	315	1.08
V1-06	TRANE	VCEF05	REHEAT	5	300	298	150	149	83	87	1.5
V1-07	TRANE	VCEF10	REHEAT	10	1050	1071	525	539	210	216	1.06
V1-08	TRANE	VCEF08	REHEAT	8	560	544	280	276	219	212	1.17
V1-09	TRANE	VCEF08	REHEAT	8	510	513	255	252	423	427	0.96
V1-10	TRANE	VCEF05	REHEAT	5	85	83	50	54	84	84	1
V1-11	TRANE	VCEF04	REHEAT	4	330	337	60	56	86	87	0.21
V1-12	TRANE	VCEF04	REHEAT	4	120	123	43	46	83	82	0.33
V1-13	TRANE	VCEF06	REHEAT	6	250	247	175	168	256	248	0.69
V1-14	TRANE	VCEF05	REHEAT	5	320	300	160	160	224	224	1.37
V1-15	TRANE	VCEF04	REHEAT	4	160	157	80	83	83	87	1.03
V1-17	TRANE	VCEF06	REHEAT	6	250	253	145	145	290	290	1.16
V1-18	TRANE	VCEF05	REHEAT	7	310	299	155	162	202	211	0.75
V1-19	TRANE	VCEF05	REHEAT	5	140	153	70	77	166	173	1
V1-20	TRANE	VCEF08	REHEAT	8	650	662	325	327	157	160	1.14
V1-21	TRANE	VCEF08	REHEAT	8	460	445	255	250	266	257	1.37
V1-22	TRANE	VCEF10	REHEAT	8	560	550	280	277	121	122	1.12
V1-23	TRANE	VCEF10	REHEAT	10	1070	1089	533	535	536	540	1.10
V1-24	TRANE	VCEF08	REHEAT	8	700	693	350	344	398	399	1.16
V1-25	TRANE	VCEF10	REHEAT	10	1075	1067	538	536	554	552	1.00
V1-26	TRANE	VCEF08	REHEAT	8	490	477	258	263	250	251	1.12
V1-27	TRANE	VCEF10	REHEAT	10	865	855	433	428	229	224	1.08
V1-28	TRANE	VCEF05	REHEAT	5	160	157	80	81	124	127	1.10
V1-29	TRANE	VCEF10	REHEAT	10	1240	1243	615	621	707	717	1.07
V1-30	TRANE	VCEF05	REHEAT	5	280	276	140	137	217	215	1.14

Diffuser Ret/Exh (GRD)

RTU-1/ROOF

Asset								
Asset Name	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
RTU-1-EGRD1	ER	6X6	80		979		920	1150.0
RTU-1-EGRD2	RR	8	190		1172		915	481.6
RTU-1-EGRD3	RR	8X6	160		420		146	91.3
RTU-1-EGRD4	RR	12	560		451		530	94.6
RTU-1-EGRD5	RR	12X10	490		30			-
RTU-1-EGRD6	RR	14X12	700		20			-
RTU-1-EGRD7	RR	10X8	230		15			-
RTU-1-EGRD8	RR	12X10	355		25			-
RTU-1-EGRD9	RR	8X6	160		40		146	91.3
RTU-1-EGRD10	RR	28X16	615		447		535	87.0
RTU-1-EGRD11	RR	28X16	615		411		583	94.8
RTU-1-EGRD12	RR	10X10	350		330		336	96.0
RTU-1-EGRD13	RR	10X8	280		207		261	93.2
RTU-1-EGRD14	RR	12X8	355		257		282	79.4
RTU-1-EGRD15	RR	8	160		23		145	90.6
RTU-1-EGRD16	RR	12X10	400		330		365	91.3
RTU-1-EGRD17	RR	14X8	550		415		475	86.4
RTU-1-EGRD18	RR	12X10	70		174		65	92.9
RTU-1-EGRD19	RR	10X10	80		163		72	90.0
RTU-1-EGRD20	RR	10X8	70		135		65	92.9
RTU-1-EGRD21	RR	8X6	120		148		135	112.5
RTU-1-EGRD22	RR	10X10	350		420		360	102.9
RTU-1-EGRD23	RR	6X6	75		144		74	98.7
RTU-1-EGRD24	RR	6X4	65		85		67	103.1
RTU-1-EGRD25	RR	10X8	260		410		265	101.9
RTU-1-EGRD26	RR	6X6	75		81		72	96.0
RTU-1-EGRD27	RR	6X6	80		72		79	98.8
RTU-1-EGRD28	RR	6X6	80		66		120	150.0
RTU-1-EGRD29	RR	6	40		80		37	92.5
RTU-1-EGRD30	RR	8	270		315		235	87.0
RTU-1-EGRD31	RR	8X6	100		182		95	95.0
RTU-1-EGRD32	RR	6	90		170		96	106.7
RTU-1-EGRD33	RR	22X14	1050		445		869	82.8
RTU-1-EGRD34	RR	18X8	560		289		461	82.3
RTU-1-EGRD35	RR	8X6	100		89		98	98.0
RTU-1-EGRD36	RR	8X6	140		146		135	96.4
RTU-1-EGRD37	RR	8X8	200		86		165	82.5
RTU-1-EGRD38	RR	16X12	930		461		730	78.5
Total			11055		9733	0	9934	89.86%

Diffuser Supply (GRD)

V1-01/ROOF

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-01-SGRD1	101	SR	6X6	100	103	103	103.0
V1-01-SGRD2	103	LD	6	100	95	95	95.0
V1-01-SGRD3	101	SR	10	255	248	248	97.3
V1-01-SGRD4	101	SR	10	255	262	262	102.7
V1-01-SGRD5	101	SR	8	100	92	92	92.0
Total				810	800	800	98.77%

V1-02/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-02-SGRD1	105	CD	8	155	146	146	94.2
V1-02-SGRD2	105	CD	14X12	155	153	149	96.1
V1-02-SGRD3	105	CD	8	155	161	154	99.4
V1-02-SGRD4	105	CD	8	155	185	158	101.9
V1-02-SGRD5	105	CD	12	155	200	150	96.8
V1-02-SGRD6	105	CD	8	155	166	164	105.8
Total				930	1011	921	99.03%

V1-03/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-03-SGRD1	119	CD	8	135	170	139	103.0
V1-03-SGRD2	119	CD	8	135	174	133	98.5
Total				270	344	272	100.74%

V1-04/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-04-SGRD1	121	SR	6	60	235	62	103.3
V1-04-SGRD2	121	CD	6	80	91	86	107.5
Total				140	326	148	105.71%

V1-05/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-05-SGRD1	STORM SHELTER	CD	10	280	264	264	94.3
V1-05-SGRD2	STORM SHELTER	CD	10	280	279	284	101.4
V1-05-SGRD3	STORM SHELTER	CD	10	280	315	263	93.9
V1-05-SGRD4	STORM SHELTER	CD	8	160	214	168	105.0
Total				1000	1072	979	97.9%

V1-06/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-06-SGRD1	109	SR	10X10	300	114	298	99.3
Total				300	114	298	99.33%

V1-07/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-07-SGRD1	111	SR	16	265	290	280	105.7
V1-07-SGRD2	111	SR	16	260	273	263	101.2
V1-07-SGRD3	111	SR	12	265	254	247	93.2
V1-07-SGRD4	111	SR	12	260	291	281	108.1
Total				1050	1108	1071	102%

V1-08/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-08-SGRD1	117	SR	8	200	230	205	102.5
V1-08-SGRD2	117	CD	8	180	250	177	98.3
V1-08-SGRD3	117	CD	8	180	191	162	90.0
Total				560	671	544	97.14%

V1-09/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-09-SGRD1	118	CD	8	110	93	107	97.3
V1-09-SGRD2	123	SR	12	100	115	104	104.0
V1-09-SGRD3	123	SR	12	100	121	100	100.0
V1-09-SGRD4	123	SR	8	100	119	103	103.0
V1-09-SGRD5	123	SR	8	100	108	99	99.0
Total				510	556	513	100.59%

V1-10/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-10-SGRD1	127	CD	6	85	130	83	97.6
Total				85	130	83	97.65%

V1-11/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-11-SGRD1	126	CD	10	165	133	164	99.4
V1-11-SGRD2	126	CD	8	165	142	173	104.8
Total				330	275	337	102.12%

V1-12/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-12-SGRD1	131	CD	8	120	83	123	102.5
Total				120	83	123	102.5%

V1-13/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-13-SGRD1	128	CD	6	85	66	81	95.3
V1-13-SGRD2	128	CD	6	80	73	74	92.5
V1-13-SGRD3	128	CD	6	85	110	92	108.2
Total				250	249	247	98.8%

V1-14/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-14-SGRD1	122	CD	8	130	76	118	90.8
V1-14-SGRD2	137	CD	6	20	55	22	110.0
V1-14-SGRD3	137	SR	6	40	71	38	95.0
V1-14-SGRD4	136	CD	8	130	113	122	93.8
Total				320	315	300	93.75%

V1-15/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-15-SGRD1	137	SR	6	80			-
V1-15-SGRD2	139	SR	6	80			-
Total				160	0	0	0%

V1-17/ROOF

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-17-SGRD1	141	SR	4	20	44	22	110.0
V1-17-SGRD2	143	SR	6	90	101	92	102.2
V1-17-SGRD3	143	SR	6	100	87	98	98.0
V1-17-SGRD4	146	SR	6	40	107	41	102.5
Total				250	339	253	101.2%

V1-18/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-18-SGRD1	150	SR	8	200	190	190	95.0
V1-18-SGRD2	145	SR	4	15	16	16	106.7
V1-18-SGRD3	142	SR	6	95	93	93	97.9
Total				310	299	299	96.45%

V1-19/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-19-SGRD1	135	CD	6	75	81	81	108.0
V1-19-SGRD2	132	CD	6	65	72	72	110.8
Total				140	153	153	109.29%

V1-20/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-20-SGRD1	121	SR	14	185	196	182	98.4
V1-20-SGRD2	121	SR	12	185	210	190	102.7
V1-20-SGRD3	121	SR	10	180	205	187	103.9
V1-20-SGRD4	134	SR	6	100	133	103	103.0
Total				650	744	662	101.85%

V1-21/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-21-SGRD1	215	CD-7	8	120	130	118	98.3
V1-21-SGRD2	218	SR-3	4X4	20	92	21	105.0
V1-21-SGRD3	216	CD-6	6	30	82	30	100.0
V1-21-SGRD4	217	SR-3	4X4	20	110	20	100.0
V1-21-SGRD5	214	SR-1	12X6	80	99	83	103.8
V1-21-SGRD6	220	SR-6	8	190	205	173	91.1
Total				460	718	445	96.74%

V1-22/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-22-SGRD1	213	CD	10	280	306	264	94.3
V1-22-SGRD2	213	CD	10	280	329	286	102.1
Total				560	635	550	98.21%

V1-23/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-23-SGRD1	212	CD	12	535	586	534	99.8
V1-23-SGRD2	212	CD	12	535	595	555	103.7
Total				1070	1181	1089	101.78%

V1-24/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-24-SGRD1	211	CD	14	700	820	693	99.0
Total				700	820	693	99%

V1-25/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-25-SGRD1	208	CD	10	355	330	343	96.6
V1-25-SGRD2	209	CD	10	230	349	229	99.6
V1-25-SGRD3	210	CD	10	490	413	495	101.0
Total				1075	1092	1067	99.26%

V1-26/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-26-SGRD1	201	CD	10	245	308	255	104.1
V1-26-SGRD2	201	CD	10	245	251	222	90.6
Total				490	559	477	97.35%

V1-27/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-27-SGRD1	207	CD	8	160	257	158	98.8
V1-27-SGRD2	206	CD	10	355	373	372	104.8
V1-27-SGRD3	205	CD	10	350	323	325	92.9
Total				865	953	855	98.84%

V1-28/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-28-SGRD1	203	CD	8	160	175	157	98.1
Total				160	175	157	98.12%

V1-29/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-29-SGRD1	202	CD	8	205	212	199	97.1
V1-29-SGRD2	202	CD	8	205	240	218	106.3
V1-29-SGRD3	202	CD	8	205	193	186	90.7
V1-29-SGRD4	202	CD	8	205	211	195	95.1
V1-29-SGRD5	202	CD	12	210	231	216	102.9
V1-29-SGRD6	202	CD	8	210	251	229	109.0
Total				1240	1338	1243	100.24%

V1-30/

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
V1-30-SGRD1	204	CD	10	280	320	276	98.6
Total				280	320	276	98.57%

Asset	Notes	Date	Written By
V1-04	Boxes 4 and 6 were swapped upon install. Per controls tech, we switched set points and then b alanced to design.	04/24/2025	Jordan Best
V1-06	Boxes 4 and 6 were swapped upon install. Per controls tech, we switched set points and then b alanced to design.	04/24/2025	Jordan Best
V1-15	not driving up to max	04/23/2025	Chase Wright
RTU-1-EGRD28	no damper available	06/03/2025	Corey Dick
RTU-1-EGRD32	Damper is shut as far as possible	06/03/2025	Corey Dick

National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust

Asset: EF-1 AREA:151

Unit Data		
	Design	**Actual**
MFG	NA	GREENHECK
Model Num	NA	G-098-VG
Serial Num	-	25372370
Type	CRE DNBLAST	CRE DNBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	NA
Horsepower	0.25	0.25
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.8
Service Factor	-	NA

Test Data		
	Design	**Actual**
CFM	300	295
RL Voltage	208	212
RL Amperage	1.7	0.2
Discharge ESP	-	ATM
Total ESP	0.3	0.16”

Completed By: Gabe Merk on 05/05/2025

National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust

Asset: EF-2 AREA:149

Unit Data		
	Design	**Actual**
MFG	NA	GREENHECK
Model Num	NA	G-100-VG
Serial Num	-	25372372
Type	CRE DNBLAST	CRE DNBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	NA
Horsepower	0.25	0.25
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.8
Service Factor	-	NA

Test Data		
	Design	**Actual**
CFM	650	673
RL Voltage	208	213
RL Amperage	1.7	0.3
Discharge ESP	-	ATM
Total ESP	0.3	0.18”

Completed By: Gabe Merk on 05/05/2025

National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust

Asset: EF-3 AREA:148

Unit Data		
	Design	**Actual**
MFG	NA	GREENHECK
Model Num	NA	G-098-VG
Serial Num	-	25372371
Type	CRE DNBLAST	CRE DNBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	NA
Horsepower	0.25	0.25
Motor Rpm	1725	1750
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.8
Service Factor	-	NA

Test Data		
	Design	**Actual**
CFM	300	312
RL Voltage	208	212
RL Amperage	-	0.2
Discharge ESP	-	ATM
Total ESP	0.3	0.12”

Completed By: Gabe Merk on 05/05/2025

National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust

Asset: EF-4 AREA:116

Unit Data		
	Design	**Actual**
MFG	NA	GREENHECK
Model Num	NA	BCF-108-TH-10
Serial Num	-	25405929
Type	CABINET	INLINE

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	56
Horsepower	1	1
Motor Rpm	1725	1770
Phase	3	3
Voltage (rated)	208	208
Amperage (rated)	-	3.2
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	3"
Motor Bore Size	5/8"
Motor Sheave SetPt	5 TURNS OUT
Fan Sheave Size	4-1/2"
Fan Sheave Bore	3/4"
Belt CL Distance	14"
Num of Belts	1
Belt Size	A35

Test Data		
	Design	**Actual**
CFM	1140	1173
Fan RPM	1287	962
RL Voltage	208	NOT SAFELY ACCESSIBLE
RL Amperage	4.6	2.4/2.4/2.2
Suction ESP	-	-0.23"
Discharge ESP	-	0.05"
Total ESP	1.0	0.28"
Brake Horse Power	-	0.73

Completed By: Gabe Merk on 06/04/2025

Notes:
CFM(1) COLUMN ARE READINGS OF RESTROOM GRILLS AND REMAINING TOTAL VIA TRAVERSE. CFM(2) COLUMN IS UNIT TOTAL TRAVERSE AFTER REDUCING FANSPEED. FINAL COLUMN IS TRAVERSE OF EACH EXHAUST LEG AND THE 4 GRILLES IN THE BATHROOM SETTING EACH LEG TO 10 CFM/LOCKER.

Written By: Gabe Merk on 06/04/2025

Diffuser Ret/Exh (GRD)

EF-4/116

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	116	DUCT	4	80		64	1508	87	108.8
EGRD2	116	DUCT	4	160		92		156	97.5
EGRD3	116	DUCT	4	160		89		149	93.1
EGRD4	116	DUCT	4	80		71		72	90.0
EGRD5	116	DUCT	4	10		1702		43	430.0
EGRD6	116	DUCT	4	10				76	760.0
EGRD7	116	DUCT	4	10				83	830.0
EGRD8	116	DUCT	4	10				151	1510.0
EGRD9	116	DUCT	4	10				87	870.0
EGRD10	116	DUCT	4	10				149	1490.0
EGRD11	116	DUCT	4	10				44	440.0
EGRD12	116	DUCT	4	10				76	760.0
EGRD13	116	DUCT	4	10					-
EGRD14	116	DUCT	4	10					-
EGRD15	116	DUCT	4	10					-
EGRD16	116	DUCT	4	10					-
EGRD17	116	DUCT	4	10					-
EGRD18	116	DUCT	4	10					-
EGRD19	116	DUCT	4	10					-
EGRD20	116	DUCT	4	10					-
EGRD21	116	DUCT	4	10					-
EGRD22	116	DUCT	4	10					-
EGRD23	116	DUCT	4	10					-
EGRD24	116	DUCT	4	10					-
EGRD25	116	DUCT	4	10					-
EGRD26	116	DUCT	4	10					-
EGRD27	116	DUCT	4	10					-
EGRD28	116	DUCT	4	10					-
EGRD29	116	DUCT	4	10					-
EGRD30	116	DUCT	4	10					-
EGRD31	116	DUCT	4	10					-
EGRD32	116	DUCT	4	10					-
EGRD33	116	DUCT	4	10					-
EGRD34	116	DUCT	4	10					-
EGRD35	116	DUCT	4	10					-
EGRD36	116	DUCT	4	10					-
EGRD37	116	DUCT	4	10					-
EGRD38	116	DUCT	4	10					-
EGRD39	116	DUCT	4	10					-
EGRD40	116	DUCT	4	10					-
EGRD41	116	DUCT	4	10					-
EGRD42	116	DUCT	4	10					-
EGRD43	116	DUCT	4	10					-
EGRD44	116	DUCT	4	10					-
EGRD45	116	DUCT	4	10					-
EGRD46	116	DUCT	4	10					-
EGRD47	116	DUCT	4	10					-
EGRD48	116	DUCT	4	10					-
EGRD49	116	DUCT	4	10					-
EGRD50	116	DUCT	4	10					-
EGRD51	116	DUCT	4	10					-
EGRD52	116	DUCT	4	10					-
EGRD53	116	DUCT	4	10					-
EGRD54	116	DUCT	4	10					-
EGRD55	116	DUCT	4	10					-
EGRD56	116	DUCT	4	10					-
EGRD57	116	DUCT	4	10					-
EGRD58	116	DUCT	4	10					-
EGRD59	116	DUCT	4	10					-
EGRD60	116	DUCT	4	10					-
EGRD61	116	DUCT	4	10					-
EGRD62	116	DUCT	4	10					-
EGRD63	116	DUCT	4	10					-
EGRD64	116	DUCT	4	10					-
EGRD65	116	DUCT	4	10					-
EGRD66	116	DUCT	4	10					-
EGRD67	SHOWERS	ER-1	6X6	10					-

EGRD68	SHOWERS	ER-1	8X8	10					-
EGRD69	SHOWERS	ER-1	8X8	10					-
EGRD70	SHOWERS	ER-1	6X6	10					-
Total				1140		2018	1508	1173	102.89%

Asset	Notes	Date	Written By
EGRD1	NUMBERS PLACED IN CFM(1) AND FINAL COLUMN FOR EGRD1 AND 2 REPRESENT TRA VERSE TOTALS FOR THE LOCKER PLENUMS. EACH LOCKER IS NOT INDIVIDUALLY DUC TED TO THE EXHAUST. ~3 DUCT DROPS PER LOCKER ROW. THE TOTAL FOR EACH TRA VERSE HAS BEEN SET FOR 10 CFM PER LOCKER.	06/04/2025	Gabe Merk

National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust

Asset: EF-5 AREA:109,110

Unit Data		
	Design	**Actual**
MFG	NA	GREENHECK
Model Num	NA	GB-098-4
Serial Num	-	25432882
Type	CRE DNBLAST	CRE DNBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	56Z
Horsepower	0.25	0.25
Motor Rpm	1725	1745
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.35
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	VP25
Motor Bore Size	0.75"
Motor Sheave SetPt	1/2 TURNS OUT
Fan Sheave Size	4”
Fan Sheave Bore	0.75"
Belt CL Distance	5.25"
Num of Belts	1
Belt Size	3L200R

Test Data		
	Design	**Actual**
CFM	465	467
Fan RPM	1224	1194
RL Voltage	208	211
RL Amperage	3.2	0.8
Suction ESP	-	-0.11”
Discharge ESP	-	ATM
Total ESP	0.4	0.11”
Brake Horse Power	-	0.15

Completed By: Gabe Merk on 06/04/2025

National TAB

Project:Green Township Police Dept (Cincinnati, OH)

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF-5/109,110

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	109	DUCT	4	10		206		113	1130.0
EGRD2	109	DUCT	4	10		310		103	1030.0
EGRD3	109	DUCT	4	10					-
EGRD4	109	DUCT	4	10					-
EGRD5	110	ER-1	6X6	80				79	98.8
EGRD6	109	DUCT	4	10					-
EGRD7	110	ER-1	8X8	160				145	90.6
EGRD8	109	DUCT	4	10					-
EGRD9	109	DUCT	4	10					-
EGRD10	109	DUCT	4	10					-
EGRD11	109	DUCT	4	10					-
EGRD12	109	DUCT	4	10					-
EGRD13	109	DUCT	4	10					-
EGRD14	109	DUCT	4	10					-
EGRD15	109	DUCT	4	10					-
EGRD16	109	DUCT	4	10					-
EGRD17	109	DUCT	4	10					-
EGRD18	109	DUCT	4	10					-
EGRD19	109	DUCT	4	10					-
EGRD20	109	DUCT	4	10					-
EGRD21	109	DUCT	4	10					-
EGRD22	109	DUCT	4	10					-
EGRD23	109	DUCT	4	25				27	108.0
Total				465		516	0	467	100.43%

Asset	Notes	Date	Written By
EGRD1	NUMBERS PLACED IN CFM(1) AND FINAL COLUMN FOR EGRD1 AND 2 REPRESENT TRAVERSE TOTALS FOR THE LOCKER PLENUMS. EACH LOCKER IS NOT INDIVIDUALLY DUCTED TO THE EXHAUST. ~3 DUCT DROPS PER LOCKER ROW. THE TOTAL FOR EACH TRAVERSE HAS BEEN SET FOR 10 CFM PER LOCKER.	06/04/2025	Gabe Merk

National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust

Asset: EF-6 AREA:150,142,141,143,144

Unit Data		
	Design	**Actual**
MFG	NA	GREENHECK
Model Num	NA	GB-098-4
Serial Num	-	25432883
Type	CRE DNBLAST	CRE DNBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	56Z
Horsepower	0.25	0.25
Motor Rpm	1725	1745
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.35
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	VP25
Motor Bore Size	5/8”
Motor Sheave SetPt	0 TURNS OUT
Fan Sheave Size	AK35
Fan Sheave Bore	3/4”
Belt CL Distance	5-1/2”
Num of Belts	1
Belt Size	3L200R

Test Data		
	Design	**Actual**
CFM	555	521
Fan RPM	1404	1440
RL Voltage	208	211
RL Amperage	3.2	0.9
Suction ESP	-	-0.15”
Discharge ESP	-	ATM
Total ESP	0.4	0.15”
Brake Horse Power	-	0.17

Completed By: Gabe Merk on 06/04/2025

National TAB

Project:Green Township Police Dept (Cincinnati, OH)

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF-6/150,142,141,143,144

Asset								
Asset Name	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EF-6-EGRD1	ER	10X8	200		153	158	181	90.5
EF-6-EGRD2	ER	8	95		72	99	93	97.9
EF-6-EGRD3	ER	4	20		19	22	21	105.0
EF-6-EGRD4	ER	8	90		105	118	88	97.8
EF-6-EGRD5	ER	8	150		87	108	138	92.0
Total			555		436	505	521	93.87%

National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust

Asset: EF-7 AREA:140

Unit Data		
	Design	**Actual**
MFG	NA	GREENHECK
Model Num	NA	SP-B110
Serial Num	-	174676790-0008
Type	CEILING	CEILING

Test Data		
	Design	**Actual**
CFM	80	115

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Motor Rpm	802	950
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.5

Completed By: Gabe Merk on 05/05/2025

Notes:
Single speed ef. Unable to reduce flow to design.

Written By: Gabe Merk on 05/05/2025

National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust

Asset: EF-8 AREA:104

Unit Data		
	Design	**Actual**
MFG	NA	GREENHECK
Model Num	NA	SP-B110
Serial Num	-	174572494-0072
Type	CEILING	CEILING

Test Data		
	Design	**Actual**
CFM	80	110

Motor Data		
	Design	**Actual**
Motor MFG	-	GREENHECK
Motor Rpm	802	950
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.15

Completed By: Gabe Merk on 05/05/2025

Notes:
Single speed ef. Unable to reduce flow to design.

Written By: Gabe Merk on 05/05/2025

National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust

Asset: EF-9 AREA:RR 217

Unit Data		
	Design	**Actual**
MFG	NA	GREENHECK
Model Num	NA	CSP-A390
Serial Num	-	NA
Type	INLINE	INLINE

Motor Data		
	Design	**Actual**
Motor MFG	-	McMILLAN
Frame	-	NL
Horsepower	51W	NL
Motor Rpm	1025	1350
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.4
Service Factor	-	NL

Test Data		
	Design	**Actual**
CFM	210	99
RL Voltage	115	
RL Amperage	1.42	
Discharge ESP	-	
Total ESP	0.5	

National TAB

Project:Green Township Police Dept (Cincinnati, OH)

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF-9/RR 217

Asset									
Asset Name	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**	**Location**
EF-9-EGRD1	ER-1	6X6	80	1	24			-	
EF-9-EGRD2	ER-1	6X6	80	1	24			-	
EF-9-EGRD3	ER-5		50	1	51			-	
Total			210		99	0	0	0%	

National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust

Asset: EF-10 AREA:134

Unit Data		
	Design	**Actual**
MFG	NA	GREENHECK
Model Num	NA	GB-097-3
Serial Num	-	25432884
Type	CRE DNBLAST	DOWNBLAST

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	56Z
Horsepower	0.33	0.33
Motor Rpm	1725	1740
Phase	1	1
Voltage (rated)	208	208
Amperage (rated)	-	1.6
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	VP34S
Motor Bore Size	5/8”
Motor Sheave SetPt	1 OUT
Fan Sheave Size	4”
Fan Sheave Bore	3/4”
Belt CL Distance	5-1/2”
Num of Belts	1
Belt Size	4L230R

Test Data		
	Design	**Actual**
CFM	150	152
Fan RPM	1161	1170
RL Voltage	208	212
RL Amperage	4	0.8
Suction ESP	-	-0.18”
Discharge ESP	-	ATM
Total ESP	0.4	0.18”
Brake Horse Power	-	0.16

Completed By: Gabe Merk on 05/05/2025

National TAB

Project:Green Township Police Dept (Cincinnati, OH)

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF-10/134

Asset								
Asset Name	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	ER-2	8X8	150		152	152	152	101.3
Total			150		152	152	152	101.33%

National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Exhaust

Asset: SEF-1 AREA:116

Unit Data		
	Design	**Actual**
MFG	NA	GREENHECK
Model Num	NA	BCF-107-TH-5
Serial Num	-	25405934
Type	CABINET	INLINE

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	56
Horsepower	0.5	0.5
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	7.4
Service Factor	-	1.25

Drive Data	
	Actual
Motor Sheave Size	3”
Motor Bore Size	1.75”
Motor Sheave SetPt	4 TURNS OUT
Fan Sheave Size	NA
Fan Sheave Bore	NA
Belt CL Distance	NA
Num of Belts	1
Belt Size	4L330R/0224*

Test Data		
	Design	**Actual**
CFM	800	856
Fan RPM	1513	1757
RL Voltage	115	NA
RL Amperage	9.8	6.9
Suction ESP	-	-0.13
Discharge ESP	-	
Total ESP	1	
Brake Horse Power	-	

Completed By: Aaron Cosby on 06/03/2025

Notes:
Motor rpm recorded. Fan rpm NA

Written By: Aaron Cosby on 06/03/2025

National TAB

Project:Green Township Police Dept (Cincinnati, OH)

FAN - Exhaust

Diffuser Ret/Exh (GRD)

SEF-1/116

Asset								
Asset Name	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SEF-1-EGRD1	ER	16X12	800	1	950	926	859	107.4
Total			800		950	926	859	107.38%

National TAB

Project: Green Township Police Dept (Cincinnati, OH)

System/Unit: FAN - Supply

Asset: SF-1 AREA:116

Unit Data		
	Design	**Actual**
MFG	NA	GREENHECK
Model Num	NA	BCF-108-5
Serial Num	-	25405936

Motor Data		
	Design	**Actual**
Motor MFG	-	BALDOR
Frame	-	56
Horsepower	0.5	0.5
Motor Rpm	1725	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	7.4
Service Factor	-	1.25

Drive Data	
	Actual
Motor Sheave Size	3.5”
Motor Bore Size	1”
Fan Sheave Size	4.5”
Fan Sheave Bore	0.75”
Belt CL Distance	13.5”
Num of Belts	1
Belt Size	4L380R/5123*

Test Data		
	Design	**Actual**
CFM	800	1212
SF RPM	1072	879
RL Voltage	115	NA
RL Amperage	9.8	6.6
Suction ESP	-	-0.19
Discharge ESP	-	0.03"
Total ESP	0.75	0.22"
Brake Horse Power	-	

Completed By: Aaron Cosby on 06/03/2025

Notes:
5 Turns out. Above design

Written By: Aaron Cosby on 06/03/2025

National TAB

Project:Green Township Police Dept (Cincinnati, OH)

FAN - Supply

Diffuser Supply (GRD)

SF-1/116

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
SF-1-SGRD1	STORM SHELTER	OR	9X8	800	1278		-
Total				800	1278	0	0%