LOUVER SCHEDULE

MARK	TYPE	AIR FLOW (CFM)	SIZE (W X H) (IN. X IN.)	FREE AREA (SF)	VELOCITY (FPM)	MAX PD AT AIR FLOW	NOTES
L-1	INTAKE	350	72 X 12	1.00	350	0.05	1,2,3
L-2	INTAKE	225	36 X 12	1.00	225	0.03	1

NOTES: 1. BASIS OF DESIGN: RUSKIN MODEL EME220DD.
2. PERFORMANCE BASED ON 36" WIDE LOUVER AREA.
3. BLANK OFF UNUSED 36" WIDE SECTION.

FAN SCHEDULE

MARK	LOCATION	TYPE	SERVES	CFM	ESP (IN WG)	BHP	HP	DRIVE	SONES	NOTES
EF-1	ROOF	CENTRIFUGAL DOWNBLAST	POLICE LOCKER ROOMS AND JANITOR CLOSETS	420	0.50	0.07	1/10	DIRECT	8.2	1
EF-2	ROOF	CENTRIFUGAL DOWNBLAST	WEAPON CLEANING	350	0.50	0.07	1/10	DIRECT	8.0	1
EF-3	ROOF	CENTRIFUGAL DOWNBLAST	ARMORER	145	0.40	0.04	1/6	DIRECT	4.9	2
EF-4	ROOF	CENTRIFUGAL DOWNBLAST	CANINE TRAINING	270	0.40	0.05	1/10	DIRECT	7.0	3
EF-5	ROOF	CENTRIFUGAL DOWNBLAST	FIRE LOCKER ROOMS	340	0.50	0.07	1/10	DIRECT	7.9	1
EF-6	ROOF	CENTRIFUGAL DOWNBLAST	ELECTRICAL	350	0.30	0.04	1/10	DIRECT	6.0	1
EF-7	ROOF	CENTRIFUGAL DOWNBLAST	FIRE CONTROL	225	0.30	0.02	1/10	DIRECT	4.1	4
EF-8	103 WOMEN	CEILING EXHAUST	PRIVATE RESTROOM	70	0.30	-	7W	DIRECT	0.9	5
EF-9	107 MEN	CEILING EXHAUST	PRIVATE RESTROOM	70	0.30	-	7W	DIRECT	0.9	5

NOTES: 1. BASIS OF DESIGN: GREENHECK MODEL G-085-VG.
2. BASIS OF DESIGN: GREENHECK MODEL G-097-B.
3. BASIS OF DESIGN: GREENHECK MODEL G-080-VG.
4. BASIS OF DESIGN: GREENHECK MODEL G-070-VG.
5. BASIS OF DESIGN: GREENHECK MODEL SP-80L-VG.

DIFFUSERS, REGISTERS AND GRILLES SCHEDULE

MARK	CFM RANGE	MAX SP (IN WG)	NECK/COLLAR SIZE (IN)	SHELL SIZE (IN)	MOUNTING/TYPE	MAX THROW AT 50 FPM (FT)	MAX NC	NOTES
A6	0-100	0.04	6	24 X 24	LAY-IN LOUVER FACE	5	20	1
A8	105-210	0.06	8	24 X 24	LAY-IN LOUVER FACE	7	20	1
A10	215-340	0.10	10	24 X 24	LAY-IN LOUVER FACE	9	20	1
C6	0-100	0.04	6	6 X 6	SURFACE MOUNT LOUVER FACE	8	20	5
C8	105-210	0.06	8	9 X 9	SURFACE MOUNT LOUVER FACE	12	20	5
G8/6	95-145	0.04	8 X 6	24 X 24	LAY-IN 1/2"X1/2"X1/2" EGGCRATE	-	20	2
G8/8	125-210	0.07	8 X 8	24 X 24	LAY-IN 1/2"X1/2"X1/2" EGGCRATE	-	20	2
G22/22	0-1696	0.07	22 X 22	24 X 24	LAY-IN 1/2"X1/2"X1/2" EGGCRATE	-	20	2
J6/6	0-125	0.07	6 X 6	8 X 8	SURFACE MOUNT 1/2"X1/2"X1/2" EGGCRATE	-	20	3
J10/10	200-400	0.07	10 X 10	10 X 10	SURFACE MOUNT 1/2"X1/2"X1/2" EGGCRATE	-	[illegible]	3
J14/12	500-700	0.07	14 X 12	24 X 24	SURFACE MOUNT 1/2"X1/2"X1/2" EGGCRATE	-	[illegible]	3
RD-1	2600	1.25	18	-	LAMINAR AIR FLOW RADIAL	[illegible]	-	4

NOTES: 1. BASIS OF DESIGN: TITUS MODEL TDC-AA, 4-WAY PATTERN, BORDER #3.
2. BASIS OF DESIGN: TITUS MODEL 50F, BORDER #3.
3. BASIS OF DESIGN: TITUS MODEL 50F, BORDER #1 WITH COUNTERSUNK SCREW HOLES.
4. BASIS OF DESIGN: RANGE VENTILATION DESIGN, INC., MODEL RD-3000, LENGTH = 45.5".
5. BASIS OF DESIGN: TITUS MODEL TDC-AA, 4-WAY PATTERN, BORDER #1 WITH COUNTERSUNK SCREW HOLES.

SHUT OFF VARIABLE AIR VOLUME BOX SCHEDULE

MARK	MIN INLET DIA (IN.)	MIN INLET SP (IN. WG)	MAX RADIATED NOISE (NC)	AIR VOL REG: MAX CFM	AIR VOL REG: MIN CFM	ELECTRIC HEATING COIL: AIR TEMP (°F) ENT	AIR TEMP (°F) LVG	MAX KW	MAX APD (IN. WG)
VAV-101	6	0.5	35	465	465	55	85	4.6	0.1
VAV-102	4	0.5	35	160	50	55	85	0.6	0.1
VAV-103	4	0.5	35	140	50	55	85	0.6	0.1
VAV-104	4	0.5	35	110	40	55	85	0.6	0.1
VAV-105	6	0.5	35	300	160	55	85	1.6	0.1
VAV-106	4	0.5	35	130	130	55	85	1.4	0.1
VAV-107	4	0.5	35	90	90	55	85	1.0	0.1
VAV-108	6	0.5	35	330	330	55	85	3.4	0.1
VAV-109	4	0.5	35	185	75	55	85	0.8	0.1
VAV-110	8	0.5	35	500	150	55	85	1.6	0.1
VAV-201	5	0.5	35	260	110	55	85	1.2	0.1
VAV-202	4	0.5	35	210	60	55	85	0.6	0.1
VAV-203	4	0.5	35	140	40	55	85	0.6	0.1
VAV-204	4	0.5	35	140	40	55	85	0.6	0.1
VAV-205	4	0.5	35	140	40	55	85	0.6	0.1
VAV-206	4	0.5	35	140	40	55	85	0.6	0.1
VAV-207	4	0.5	35	140	40	55	85	0.6	0.1
VAV-208	6	0.5	35	360	230	55	85	2.4	0.1
VAV-209	5	0.5	35	250	75	55	85	0.8	0.1
VAV-210	6	0.5	35	480	200	55	85	2.0	0.1
VAV-301	8	0.5	35	630	310	55	85	3.2	0.1
VAV-302	8	0.5	35	640	310	55	85	3.2	0.1
VAV-303	8	0.5	35	630	310	55	85	3.2	0.1
VAV-304	8	0.5	35	580	190	55	85	2.0	0.1
VAV-305	1. BASIS OF DESIGN: DAIKIN MODEL MQTHI5.			500	190	55	85	1.8	0.1

NOTES:

ELECTRIC HEATER SCHEDULE

MARK	LOCATION	TYPE	KW	FAN CFM	FAN MOTOR HP	FAN MOTOR RPM	MTG HT (FT AFF)
UH-1	FIRE CONTROL 136	HORIZONTAL DISCHARGE	2.0	510	1/30	1550	8 FT
UH-2	FIRE LOGISTICS STORAGE 135	HORIZONTAL DISCHARGE	3.0	510	1/30	1550	8 FT

NOTES: 1. SEE ELCTRICAL EQUIPMENT SCHEDULE ON SHEET EP101 FOR POWER REQUIREMENTS.
2. BASIS OF DESIGN: REZNOR MODEL EGHB.
3. WALL MOUNT OR HANG FROM STRUCTURE ABOVE IN ACCORDANCE WITH MANUFACTURER;S INSTRUCTIONS.

SOUND ATTENUATOR SCHEDULE

MARK	SERVICE	TYPE	CFM	FACE VELOCITY (FPM)	MAX PD (IN. WG)	SIZE W X H (IN. X IN.)	LENGTH (IN.)	NOISE REDUCTION: 63 HZ IL / GN	125 HZ IL / GN	250 HZ IL / GN	500 HZ IL / GN	1000 HZ IL / GN	2000 HZ IL / GN	4000 HZ IL / GN	8000 HZ IL / GN	BASIS OF DESIGN: MANUFACTURER	MODEL NO.
SA-1	MAU-1	RECTANGULAR, DISSIPATIVE	33800	+1800	0.25	52 X 52	60	[illegible]	5 / 61	13 / 55	[illegible]	29 / 51	23 / 54	16 / 48	11 / 40	VIBRO-ACOUSTICS	RD-HV-F7
SA-2	FAU-1	RECTANGULAR, DISSIPATIVE	37180	-1859	0.25	60 X 48	60	6 / 64	7 / 60	16 / 59	28 / 58	33 / 60	23 / 61	17 / 53	14 / 43	VIBRO-ACOUSTICS	RD-HV-F8

NOTES: 1. DYNAMIC INSERTION LOSS (IL) SHALL NOT BE LESS THAN INDICATED.
2. GENERATED NOISE (GN) SHALL NOT BE GREATER THAN INDICATED.

DUCTLESS SPLIT SYSTEM HEAT PUMP SCHEDULE

MARK	TYPE	LOCATION	SUPPLY FAN DATA: TOTAL CFM	MAX HP	COOLING CAPACITY: TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	ENTERING AIR (°F) DB	ENTERING AIR (°F) WB	MIN SEER	HEATING CAPACITY (REVERSE CYCLE HEAT PUMP): HEATING (MBH)	ENTERING AIR (°F)	EFFICIENCY (HSPF)	SPLIT SYSTEM OUTDOOR UNIT: MARK (OUTDOOR UNIT)	LOCATION	CAPACITY
DSS-1	WALL-MOUNTED	TELECOMM 128	635	[illegible]W	24.0	18.5	80.0	67.0	21.4	26.0	70.0	11.0	HP-1	ROOF	MATCH INDOOR UNIT

NOTES: 1. SEE ELECTRICAL EQUIPMENT SCHEDULE ON SHEET EP1-1 FOR POWER REQUIREMENTS.
2. BASIS OF DESIGN: MITSUBISHI MR. SLIM MODEL PKA-A24KA7 (INDOOR UNIT), PUZ-A24NHA7 (OUTDOOR UNIT).
3. PROVIDE WITH MANUFACTURER'S STANDARD CONTROL INCLUDING WALL MOUNTED THERMOSTAT.
4. WALL MOUNTED INDOOR UNIT TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
5. REFRIGERANT R-410A.
6. COOLING CAPACITY BASED ON 95°F OUTDOOR TEMPERATURE; HEATING CAPACITY BASED ON 47°F OUTDOOR TEMPERATURE.

ADDITIVE BID ITEM # 1

PACKAGED ROOFTOP AIR CONDITIONING UNIT SCHEDULE

MARK	LOCATION	SERVICE	FAN DATA: SUPPLY AIRFLOW CFM	DESIGN OUTSIDE AIRFLOW CFM	MINIMUM OUTSIDE AIRFLOW (CFM)	ESP (IN WG)	FAN TYPE	DRIVE	MOTOR / ELECTRICAL DATA: HP	BHP	VOLTS	PHASE	HZ
RTU-1	ROOF	POLICE ADMIN	2350	1355	250	1.5	SWSI-AF	DIRECT	4.0	1.96	460	60	3
RTU-2	ROOF	FIRE DEPT ADMIN	2200	860	150	1.5	SWSI-AF	DIRECT	4.0	1.56	460	60	3
RTU-3	ROOF	LOBBY & TRAINING	3000	100	200	1.5	SWSI-AF	DIRECT	4.0	2.29	460	60	3
RTU-4	ROOF	MAT ROOM	1250	550	125	1.0	SWSI-AF	DIRECT	1	0.72	460	60	3

MARK	DX COOLING SECTION: TOTAL (MBH)	SENSIBLE (MBH)	ENTERING AIR TEMP (°F) DB	ENTERING AIR TEMP (°F) WB	LEAVING AIR TEMP (°F) DB	LEAVING AIR TEMP (°F) WB	EFFICIENCY EER	EFFICIENCY IEER	GAS HEATING SECTION: CAPACITY (MBH) INPUT	CAPACITY (MBH) OUT PUT	AIR TEMP (°F) ENT	AIR TEMP (°F) LVG	NOTES
RTU-1	169.4	93.2	85.6	72.4	49.8	49.6	10.8	17.5	200.0	160.0	45.0	75.0	1,4,5,6,7,8,9,10,11,12,13
RTU-2	112.0	66.5	82.2	69.4	54.8	53.4	12.1	18.8	200.0	160.0	45.0	75.0	2,4,5,6,7,8,9,10,11,12,13
RTU-3	154.2	94.0	81.2	68.5	52.7	51.8	11.2	17.6	200.0	160.0	45.0	75.0	3,4,5,6,7,8,9,10,11,12,13
RTU-4	81.9	47.8	83.1	69.8	48.0	48.0	11.7	19.3	200.0	160.0	45.0	75.0	4,5,6,7,8,9,10,11,12,13,14

NOTES: 1. BASIS OF DESIGN: DAIKIN REBEL SERIES, MODEL DPS015A.
2. BASIS OF DESIGN: DAIKIN REBEL SERIES, MODEL DPS010A.
3. BASIS OF DESIGN: DAIKIN REBEL SERIES, MODEL DPS012A.
4. MODULATING GAS HEAT, 10:1 TURNDOWN.
5. MULTIPLE SCROLL COMPRESSORS, REFRIGERANT R-401A.
6. PREMIUM EFFICIENCY ECM SUPPLY FAN MOTOR.
7. INTERNAL COMPESSOR VIBRATION ISOLATION.
8. MERV-8 DISPOSABLE FILTERS.
9. DOUBLE WALL CONSTRUCTION, R-6.5 INSULATION (WALLS AND ROOF), R-4.2INSULATION (FLOOR).
10. STAINLESS STEEL DRAIN PAN.
11. 0-100% ECONOMIZER WITH BARAMETRIC RELIEF.
12. MINIMUM 12" HIGH ROOF CURB.
13. MODULATING HOT GAS REHEAT.
14. BASIS OF DESIGN: DAIKIN REBEL SERIES, MODEL DPS007A.

MAKEUP AIR UNIT SCHEDULE

MARK	LOCATION	SERVICE	FAN DATA: SUPPLY AIRFLOW CFM	OUTSIDE AIRFLOW CFM	ESP (IN WG)	RPM	FAN TYPE	DRIVE	MOTOR / ELECTRICAL DATA: HP	BHP	RPM	VOLTS	PHASE	HZ
MAU-1	GRADE	FIRING RANGE SUPPLY AIR	16900	8450	2.5	864	AF-DWDI	BELT	25	18.85	1800	480	3	60

MARK	COOLING SECTION: CAPACITY (BTU/H)	ENTERING AIR TEMP (°F) DB	ENTERING AIR TEMP (°F) WB	LEAVING AIR TEMP (°F) DB	LEAVING AIR TEMP (°F) WB	EFFICIENCY EER	EFFICIENCY IEER	HOT GAS REHEAT: ENTERING AIR TEMP (°F) DB	ENTERING AIR TEMP (°F) WB	LEAVING AIR TEMP (°F) DB	LEAVING AIR TEMP (°F) WB	HEATING SECTION: CAPACITY (MBH) INPUT	CAPACITY (MBH) OUTPUT	AIR TEMP (°F) ENT	AIR TEMP (°F) LVG
MAU-1	1,075,347	85.7	72.2	53.0	52.5	9.7	13.4	53.0	-	72.0	-	625.0	500.0	40.0	75.0

NOTES: 1. BASIS OF DESIGN: DAIKIN ROOFPAK SERIES, MODEL RPS090D.
2. MODULATING NATURAL GAS HEAT, 20:1 TURNDOWN.
3. MULTIPLE SCROLL COMPRESSORS, REFRIGERANT R-401A.
4. PREMIUM EFFICIENCY, INVERTER DUTY RATED SUPPLY FAN MOTOR.
5. INTERNAL FAN AND COMPRESSOR VIBRATION ISOLATION.
6. MODULATING HOT GAS REHEAT.
7. MERV-8 DISPOSABLE FILTERS. DPS SET POINT 1.0.
8. DOUBLE WALL CONSTRUCTION, R-6.5 INSULATION (WALLS AND ROOF), R-4.2INSULATION (FLOOR).
9. STAINLESS STEEL DRAIN PAN.
10. 0-100% LOW LEAKAGE OUTSIDE AIR DAMPER.
11. 95°F AMBIENT AIR TEMPERATURE.

FILTRATION AIR HANDLING UNIT SCHEDULE

MARK	LOCATION	SERVICE	FAN DATA: SUPPLY AIRFLOW CFM	ESP (IN WG)	RPM	FAN TYPE	DRIVE	MOTOR / ELECTRICAL DATA: HP	BHP	RPM	VOLTS	PHASE	HZ
FAU-1	GRADE	FIRING RANGE EXHAUST AIR	37180	2.5	1186	PLENUM	DIRECT	75	65.88	1800	460	3	60

MARK	PREFILTER: QUANTITY ( ) & SIZES (IN.)	TYPE	EFFEICIENCY	FACE AREA (SQFT)	DESIGN FACE VELOCITY (FPM)	INITIAL	FINAL
FAU-1	(20) 24X24X2	PLEATED	MERV-8	80.0	465	0.25	1.0

MARK	FILTER: QUANTITY ( ) & SIZES (IN.)	TYPE	EFFICIENCY	FACE AREA (SQFT)	DESIGN FACE VELOCITY (FPM)	INITIAL	FINAL
FAU-1	(20) 24X24X2	CARTRIDGE	MERV-14	80.0	465	0.50	1.5

MARK	FINAL FILTER: QUANTITY ( ) & SIZES (IN.)	TYPE	EFFICIENCY	FACE AREA (SQFT)	MAX FACE VELOCITY (FPM)	INITIAL	FINAL
FAU-1	(20) 24X24X2	HEPA	MERV-17 99.97%	80.0	500	1.3	2.8

NOTES: 1. BASIS OF DESIGN: DAIKIN SKYLINE SERIES, MODEL OAH090GVGC.
2. PROVIDE WITH FACTORY INSTALLED VARIABLE FREQUENCY DRIVE.
3. PREMIUM EFFICIENCY, INVERTER DUTY RATED FAN MOTOR.
4. INTERNAL FAN VIBRATION ISOLATION.
5. EXTERNAL STATIC PRESSURE (ESP) DOES NOT INCLUDE PRESSURE DROP THROUGH UNIT AND FILTERS.

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WILMINGTON, NC

HAYNES / LACEWELL POLICE AND FIRE TRAINING FACILITY

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DESIGNER

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SEALS

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SUBMITTAL

4 MAY 2018

CONSTRUCTION DOCUMENTS

REVISIONS

SHEET

SCHEDULES

M-601

DESIGN: JLD
DRAWN: DRL
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CN 5938

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