



RENOVATION AND
ADDITION FOR
**ABERDEEN
POLICE
DEPARTMENT**



10/25/2019

MECHANICAL
VENTILATION
SCHEDULES

DATE: 10/25/2019
PROJECT NO: 18062

REVISIONS
NO. DATE DESCRIPTION

SHEET NUMBER

M-002

2 OF 7

(IDU-1) VENTILATION CALCULATIONS (NCMC 2018, SECT 403):

OCCUPANCY CLASSIFICATION	PEOPLE O/A RATE IN BREATHING ZONE (CFM/PERSON)	AREA O/A RATE IN BREATHING ZONE (CFM/SQ. FT.)	DEFAULT OCCUPANCY DENSITY (PEOPLE/1000 SQ. FT.)	EXHAUST AIRFLOW RATE (CFM/SQ. FT.)	AREA (SQ. FT.)	CALCULATED OCCUPANCY (PEOPLE)	CALCULATED PEOPLE O/A (CFM)	CALCULATED AREA O/A (CFM)	CALCULATED AREA E/A (CFM)
HEALTH CLUB/WEIGHT ROOM	20	0.060000	10	0.000000	625	6	125	38	0
BLDG TOTAL OUTSIDE AIR REQ'D (Ez=0.8, CFM)									
BLDG TOTAL OUTSIDE AIR PROVIDED (CFM)									
BLDG TOTAL EXHAUST AIR REQUIRED (CFM)									
BLDG TOTAL EXHAUST AIR PROVIDED (CFM)									

(IDU-2) VENTILATION CALCULATIONS (NCMC 2018, SECT 403):

OCCUPANCY CLASSIFICATION	PEOPLE O/A RATE IN BREATHING ZONE (CFM/PERSON)	AREA O/A RATE IN BREATHING ZONE (CFM/SQ. FT.)	DEFAULT OCCUPANCY DENSITY (PEOPLE/1000 SQ. FT.)	EXHAUST AIRFLOW RATE (CFM/SQ. FT.)	AREA (SQ. FT.)	CALCULATED OCCUPANCY (PEOPLE)	CALCULATED PEOPLE O/A (CFM)	CALCULATED AREA O/A (CFM)	CALCULATED AREA E/A (CFM)
OFFICE SPACES	5	0.060000	5	0.000000	459	2	11	28	0
CORRIDORS	0	0.060000	0	0.000000	538	0	0	32	0
STORAGE ROOMS	0	0.120000	0	0.000000	513	0	0	62	0
BLDG TOTAL OUTSIDE AIR REQ'D (Ez=0.8, CFM)									
BLDG TOTAL OUTSIDE AIR PROVIDED (CFM)									
BLDG TOTAL EXHAUST AIR REQUIRED (CFM)									
BLDG TOTAL EXHAUST AIR PROVIDED (CFM)									

(IDU-3) VENTILATION CALCULATIONS (NCMC 2018, SECT 403):

OCCUPANCY CLASSIFICATION	PEOPLE O/A RATE IN BREATHING ZONE (CFM/PERSON)	AREA O/A RATE IN BREATHING ZONE (CFM/SQ. FT.)	DEFAULT OCCUPANCY DENSITY (PEOPLE/1000 SQ. FT.)	EXHAUST AIRFLOW RATE (CFM/SQ. FT.)	AREA (SQ. FT.)	CALCULATED OCCUPANCY (PEOPLE)	CALCULATED PEOPLE O/A (CFM)	CALCULATED AREA O/A (CFM)	CALCULATED AREA E/A (CFM)
OFFICE SPACES	5	0.060000	5	0.000000	237	1	6	14	0
CORRIDORS	0	0.060000	0	0.000000	521	0	0	31	0
STORAGE ROOMS	0	0.120000	0	0.000000	329	0	0	39	0
BLDG TOTAL OUTSIDE AIR REQ'D (Ez=0.8, CFM)									
BLDG TOTAL OUTSIDE AIR PROVIDED (CFM)									
BLDG TOTAL EXHAUST AIR REQUIRED (CFM)									
BLDG TOTAL EXHAUST AIR PROVIDED (CFM)									

(IDU-4) VENTILATION CALCULATIONS (NCMC 2018, SECT 403):

OCCUPANCY CLASSIFICATION	PEOPLE O/A RATE IN BREATHING ZONE (CFM/PERSON)	AREA O/A RATE IN BREATHING ZONE (CFM/SQ. FT.)	DEFAULT OCCUPANCY DENSITY (PEOPLE/1000 SQ. FT.)	EXHAUST AIRFLOW RATE (CFM/SQ. FT.)	AREA (SQ. FT.)	CALCULATED OCCUPANCY (PEOPLE)	CALCULATED PEOPLE O/A (CFM)	CALCULATED AREA O/A (CFM)	CALCULATED AREA E/A (CFM)
SPORTS LOCKER ROOMS	0	0.000000	0	0.500000	0	0	0	0	0
LOCKER/CHANGING ROOMS	0	0.000000	0	0.250000	630	0	0	0	198
CORRIDORS	0	0.060000	0	0.000000	0	0	0	0	0
SHOWER ROOM (PER SHOWER HEAD)	0	0.000000	0	50.000000	5 (HEADS)	0	0	0	250
TOILET ROOMS - PUBLIC	0	0.000000	0	70.000000	6 (FIXTURES)	0	0	0	420
STORAGE ROOMS	0	0.120000	0	0.000000	0	0	0	0	0
BLDG TOTAL OUTSIDE AIR REQ'D (Ez=0.8, CFM)									
BLDG TOTAL OUTSIDE AIR PROVIDED (CFM)									
BLDG TOTAL EXHAUST AIR REQUIRED (CFM)									
BLDG TOTAL EXHAUST AIR PROVIDED (CFM)									

(IDU-5) VENTILATION CALCULATIONS (NCMC 2018, SECT 403):

OCCUPANCY CLASSIFICATION	PEOPLE O/A RATE IN BREATHING ZONE (CFM/PERSON)	AREA O/A RATE IN BREATHING ZONE (CFM/SQ. FT.)	DEFAULT OCCUPANCY DENSITY (PEOPLE/1000 SQ. FT.)	EXHAUST AIRFLOW RATE (CFM/SQ. FT.)	AREA (SQ. FT.)	CALCULATED OCCUPANCY (PEOPLE)	CALCULATED PEOPLE O/A (CFM)	CALCULATED AREA O/A (CFM)	CALCULATED AREA E/A (CFM)
CONFERENCE ROOMS	5	0.060000	5	0.000000	125	2	11	28	0
STORAGE ROOMS	0	0.120000	0	0.000000	10	0	0	12	0
BLDG TOTAL OUTSIDE AIR REQ'D (Ez=0.8, CFM)									
BLDG TOTAL OUTSIDE AIR PROVIDED (CFM)									
BLDG TOTAL EXHAUST AIR REQUIRED (CFM)									
BLDG TOTAL EXHAUST AIR PROVIDED (CFM)									

(IDU-6) VENTILATION CALCULATIONS (NCMC 2018, SECT 403):

OCCUPANCY CLASSIFICATION	PEOPLE O/A RATE IN BREATHING ZONE (CFM/PERSON)	AREA O/A RATE IN BREATHING ZONE (CFM/SQ. FT.)	DEFAULT OCCUPANCY DENSITY (PEOPLE/1000 SQ. FT.)	EXHAUST AIRFLOW RATE (CFM/SQ. FT.)	AREA (SQ. FT.)	CALCULATED OCCUPANCY (PEOPLE)	CALCULATED PEOPLE O/A (CFM)	CALCULATED AREA O/A (CFM)	CALCULATED AREA E/A (CFM)
OFFICE SPACES	5	0.060000	5	0.000000	1,156	6	29	69	0
CORRIDORS	0	0.060000	0	0.000000	536	0	0	32	0
TOILET ROOMS - PUBLIC	0	0.060000	0	70.000000	2 (FIXTURES)	0	0	0	140
BLDG TOTAL OUTSIDE AIR REQ'D (Ez=0.8, CFM)									
BLDG TOTAL OUTSIDE AIR PROVIDED (CFM)									
BLDG TOTAL EXHAUST AIR REQUIRED (CFM)									
BLDG TOTAL EXHAUST AIR PROVIDED (CFM)									

(IDU-7) VENTILATION CALCULATIONS (NCMC 2018, SECT 403):

OCCUPANCY CLASSIFICATION	PEOPLE O/A RATE IN BREATHING ZONE (CFM/PERSON)	AREA O/A RATE IN BREATHING ZONE (CFM/SQ. FT.)	DEFAULT OCCUPANCY DENSITY (PEOPLE/1000 SQ. FT.)	EXHAUST AIRFLOW RATE (CFM/SQ. FT.)	AREA (SQ. FT.)	CALCULATED OCCUPANCY (PEOPLE)	CALCULATED PEOPLE O/A (CFM)	CALCULATED AREA O/A (CFM)	CALCULATED AREA E/A (CFM)
CONFERENCE ROOMS	5	0.060000	5	0.000000	306	15	77	17	0
OFFICE SPACES	5	0.060000	5	0.000000	0	0	0	0	0
CORRIDORS	0	0.060000	0	0.000000	0	0	0	0	0
TOILET ROOMS - PUBLIC	0	0.000000	0	70.000000	3 (FIXTURES)	0	0	0	210
STORAGE ROOMS	0	0.120000	0	0.000000	0	0	0	0	0
BLDG TOTAL OUTSIDE AIR REQ'D (Ez=0.8, CFM)									
BLDG TOTAL OUTSIDE AIR PROVIDED (CFM)									
BLDG TOTAL EXHAUST AIR REQUIRED (CFM)									
BLDG TOTAL EXHAUST AIR PROVIDED (CFM)									

(IDU-8) VENTILATION CALCULATIONS (NCMC 2018, SECT 403):

OCCUPANCY CLASSIFICATION	PEOPLE O/A RATE IN BREATHING ZONE (CFM/PERSON)	AREA O/A RATE IN BREATHING ZONE (CFM/SQ. FT.)	DEFAULT OCCUPANCY DENSITY (PEOPLE/1000 SQ. FT.)	EXHAUST AIRFLOW RATE (CFM/SQ. FT.)	AREA (SQ. FT.)	CALCULATED OCCUPANCY (PEOPLE)	CALCULATED PEOPLE O/A (CFM)	CALCULATED AREA O/A (CFM)	CALCULATED AREA E/A (CFM)
CORRIDORS	0	0.060000	0	0.000000	396	0	0	24	0
STORAGE ROOMS	0	0.120000	0	0.000000	1,053	0	0	128	0
BLDG TOTAL OUTSIDE AIR REQ'D (Ez=0.8, CFM)									
BLDG TOTAL OUTSIDE AIR PROVIDED (CFM)									
BLDG TOTAL EXHAUST AIR REQUIRED (CFM)									
BLDG TOTAL EXHAUST AIR PROVIDED (CFM)									

(IDU-9) VENTILATION CALCULATIONS (NCMC 2018, SECT 403):

OCCUPANCY CLASSIFICATION	PEOPLE O/A RATE IN BREATHING ZONE (CFM/PERSON)	AREA O/A RATE IN BREATHING ZONE (CFM/SQ. FT.)	DEFAULT OCCUPANCY DENSITY (PEOPLE/1000 SQ. FT.)	EXHAUST AIRFLOW RATE (CFM/SQ. FT.)	AREA (SQ. FT.)	CALCULATED OCCUPANCY (PEOPLE)	CALCULATED PEOPLE O/A (CFM)	CALCULATED AREA O/A (CFM)	CALCULATED AREA E/A (CFM)
DORMITORY SLEEPING AREA	0	0.060000	20	0.000000	817	16	82	49	0
OFFICE SPACES	0	0.060000	5	0.000000	1,167	6	29	70	0
BLDG TOTAL OUTSIDE AIR REQ'D (Ez=0.8, CFM)									
BLDG TOTAL OUTSIDE AIR PROVIDED (CFM)									
BLDG TOTAL EXHAUST AIR REQUIRED (CFM)									
BLDG TOTAL EXHAUST AIR PROVIDED (CFM)									

(IDU-10) VENTILATION CALCULATIONS (NCMC 2018, SECT 403):

OCCUPANCY CLASSIFICATION	PEOPLE O/A RATE IN BREATHING ZONE (CFM/PERSON)	AREA O/A RATE IN BREATHING ZONE (CFM/SQ. FT.)	DEFAULT OCCUPANCY DENSITY (PEOPLE/1000 SQ. FT.)	EXHAUST AIRFLOW RATE (CFM/SQ. FT.)	AREA (SQ. FT.)	CALCULATED OCCUPANCY (PEOPLE)	CALCULATED PEOPLE O/A (CFM)	CALCULATED AREA O/A (CFM)	CALCULATED AREA E/A (CFM)
OFFICE SPACES	5	0.060000	5	0.000000	644	3	15	39	0
CORRIDORS	0	0.060000	0	0.000000	456	0	0	27	0
TOILET ROOMS - PUBLIC	0	0.000000	0	70.000000	1 (FIXTURES)	0	0	0	70
STORAGE ROOMS	0	0.120000	0	0.000000	99	0	0	12	0
BLDG TOTAL OUTSIDE AIR REQ'D (Ez=0.8, CFM)									
BLDG TOTAL OUTSIDE AIR PROVIDED (CFM)									
BLDG TOTAL EXHAUST AIR REQUIRED (CFM)									
BLDG TOTAL EXHAUST AIR PROVIDED (CFM)									

(FAN F-1 AND F-2) VENTILATION CALCULATIONS (NCMC 2018, SECT 403):

OCCUPANCY CLASSIFICATION	PEOPLE O/A RATE IN BREATHING ZONE (CFM/PERSON)	AREA O/A RATE IN BREATHING ZONE (CFM/SQ. FT.)	DEFAULT OCCUPANCY DENSITY (PEOPLE/1000 SQ. FT.)	EXHAUST AIRFLOW RATE (CFM/SQ. FT.)	AREA (SQ. FT.)	CALCULATED OCCUPANCY (PEOPLE)	CALCULATED PEOPLE O/A (CFM)	CALCULATED AREA O/A (CFM)	CALCULATED AREA E/A (CFM)
REPAIR GARAGES, ENCLOSED PARKING GARAGES	0	0.000000	0	0.750000	784	0	0	0	588
BLDG TOTAL OUTSIDE AIR REQ'D (Ez=0.8, CFM)									
BLDG TOTAL OUTSIDE AIR PROVIDED (CFM)									
BLDG TOTAL EXHAUST AIR REQUIRED (CFM)									
BLDG TOTAL EXHAUST AIR PROVIDED (CFM)									

Order Plans