

ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (ERV-1A)

UNIT DESIGNATION	OCCUPANCY CATEGORY	PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT]	NUMBER OF OCCUPANTS	ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR	OCCUPANT OUTSIDE AIR VOLUME [L/s]	OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	AREA OF SPACE [m ²]	AREA OUTSIDE AIR RATE [L/s PER m ²]	OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s]	*OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	**COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]
VESTIBULE 241	CORRIDOR	0	0	0.8	0	0	3.1	0.3	0.9	1.1	1.2
EXISTING EXAM AREA 231	WAREHOUSES	5.0	2	0.8	10.0	12.5	244.3	0.3	73.3	91.6	104.1
NEW LOCKER ROOM 236	OCCUPIABLE STORAGE ROOMS FOR LIQUIDS OR GELS	2.5	0	0.8	0	0	37.0	0.3	22.2	27.8	27.8
WAREHOUSE 240	WAREHOUSES	5.0	2	0.8	10.0	12.5	608.0	0.3	182.4	228.0	240.5
DRIVER WAITING 238	OFFICE SPACE	2.5	2	0.8	5.0	6.3	22.5	0.3	6.8	8.5	14.8
OFFICE 239	OFFICE SPACE	2.5	2	0.8	5.0	6.3	20.5	0.3	6.3	7.8	14.1
INTERVIEW 237	CONFERENCE/MEETING ROOM	2.5	2	0.8	5.0	6.3	9	0.3	2.7	3.4	9.7
TOTALS											412.2

NOTES: CALCULATIONS BASED ON ASHRAE STANDARD 62.1-2013, VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY.
 *THIS COLUMN INDICATED MINIMUM VENTILATION AIR VOLUME IF OUTSIDE AIR DAMPER IS CONTROLLED BY A CO₂ SENSOR.
 **INFORMATION PROVIDED FOR REFERENCE ONLY.

ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (RTU-1A)

UNIT DESIGNATION	OCCUPANCY CATEGORY	PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT]	NUMBER OF OCCUPANTS	ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR	OCCUPANT OUTSIDE AIR VOLUME [L/s]	OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	AREA OF SPACE [m ²]	AREA OUTSIDE AIR RATE [L/s PER m ²]	OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s]	*OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	**COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]
PIL BOOTH 405	OFFICE SPACE	2.5	1	0.8	2.5	3.1	11.0	0.3	3.4	4.1	7.2
TOTALS											7.2

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ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (RTU-2A)

UNIT DESIGNATION	OCCUPANCY CATEGORY	PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT]	NUMBER OF OCCUPANTS	ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR	OCCUPANT OUTSIDE AIR VOLUME [L/s]	OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	AREA OF SPACE [m ²]	AREA OUTSIDE AIR RATE [L/s PER m ²]	OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s]	*OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	**COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]
PIL BOOTH 406	OFFICE SPACE	2.5	1	0.8	2.5	3.1	11.0	0.3	3.4	4.1	7.2
TOTALS											7.2

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ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (RTU-3A)

UNIT DESIGNATION	OCCUPANCY CATEGORY	PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT]	NUMBER OF OCCUPANTS	ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR	OCCUPANT OUTSIDE AIR VOLUME [L/s]	OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	AREA OF SPACE [m ²]	AREA OUTSIDE AIR RATE [L/s PER m ²]	OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s]	*OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	**COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]
PIL BOOTH 407	OFFICE SPACE	2.5	1	0.8	2.5	3.1	11.0	0.3	3.4	4.1	7.2
TOTALS											7.2

NOTES: CALCULATIONS BASED ON ASHRAE STANDARD 62.1-2013, VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY.
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ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (RTU-4A)

UNIT DESIGNATION	OCCUPANCY CATEGORY	PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT]	NUMBER OF OCCUPANTS	ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR	OCCUPANT OUTSIDE AIR VOLUME [L/s]	OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	AREA OF SPACE [m ²]	AREA OUTSIDE AIR RATE [L/s PER m ²]	OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s]	*OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	**COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]
PIL BOOTH 408	OFFICE SPACE	2.5	1	0.8	2.5	3.1	11.0	0.3	3.4	4.1	7.2
TOTALS											7.2

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ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (TERTIARY EXAM)

UNIT DESIGNATION	OCCUPANCY CATEGORY	PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT]	NUMBER OF OCCUPANTS	ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR	OCCUPANT OUTSIDE AIR VOLUME [L/s]	OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	AREA OF SPACE [m ²]	AREA OUTSIDE AIR RATE [L/s PER m ²]	OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s]	*OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	**COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]
EXISTING TERTIARY EXAM 400	WAREHOUSES	5	0	0.8	0	0	123	0.03	37.5	47	47
NEW TERTIARY EXAM GARAGE ADDITION 401	WAREHOUSES	5	0	0.8	0	0	168	0.03	51.2	64	64
TOTALS											111

NOTES: CALCULATIONS BASED ON ASHRAE STANDARD 62.1-2013, VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY.
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ASHRAE 62.1-2013 COMPLIANCE SCHEDULE (HRV-1B)

UNIT DESIGNATION	OCCUPANCY CATEGORY	PEOPLE OUTSIDE AIR RATE [L/s PER OCCUPANT]	NUMBER OF OCCUPANTS	ZONE AIR DISTRIBUTION EFFECTIVENESS FACTOR	OCCUPANT OUTSIDE AIR VOLUME [L/s]	OCCUPANT OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	AREA OF SPACE [m ²]	AREA OUTSIDE AIR RATE [L/s PER m ²]	OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME [L/s]	*OCCUPIED MINIMUM AREA OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]	**COMBINED OUTSIDE AIR VOLUME W/ EFFECTIVENESS [L/s]
NEW WAITING AREA 402	MAIN ENTRY LOBBY	2.36	5	0.8	11.80	14.75	60	0.03	18.29	22.86	37.61
OFFICE AREA 403	OFFICE SPACE	2.5	2	0.8	5	6.25	176	0.3	52.8	66	118.8
TOTALS											156.41

NOTES: CALCULATIONS BASED ON ASHRAE STANDARD 62.1-2013, VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY.
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GRILLE, DIFFUSER & LOUVER SCHEDULE

MARK	SERVICE	TYPE	BORDER	COLOUR	CORE	BLADE	FRAME	FASTEN	FINISH	REMARKS
A	SUPPLY AIR	ALUMINUM SQUARE CONE DIFFUSER	---	WHITE	3 CONCENTRIC CONES	---	TBAR	---	WHITE POWDER COAT	REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. FINISHES BY ARCHITECTURAL.
B	RETURN AIR	ALUMINUM EGG GRATE GRILLE	FLAT	WHITE	---	---	TBAR	---	WHITE POWDER COAT	REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. FINISHES BY ARCHITECTURAL.
C	EXHAUST AIR	ALUMINUM EGG GRATE GRILLE	DUCT	WHITE	---	---	---	COUNTER SINK SCREW HOLES C/W OVER HEAD SCREW	WHITE POWDER COAT	REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. FINISHES BY ARCHITECTURAL.
D	SUPPLY AIR	STEEL GRILLE	FLAT	WHITE	DOUBLE BLADE	FRONT BLADES PARALLEL TO LONG DIMENSION	---	COUNTER SINK SCREW HOLES C/W OVER HEAD SCREW	WHITE POWDER COAT	REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. FINISHES BY ARCHITECTURAL.
E	SUPPLY AIR	SIDEWALL STEEL GRILLE	DUCT	WHITE	DOUBLE BLADE	FRONT BLADES PARALLEL TO LONG DIMENSION	---	COUNTER SINK SCREW HOLES C/W OVER HEAD SCREW	WHITE POWDER COAT	REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. FINISHES BY ARCHITECTURAL.
F	TRANSFER AIR	SIDEWALL STEEL GRILLE	FLAT	WHITE	SINGLE BLADE	ADJUSTABLE BLADES PARALLEL TO LONG DIMENSION	---	COUNTER SINK SCREW HOLES C/W OVER HEAD SCREW	WHITE POWDER COAT	REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. FINISHES BY ARCHITECTURAL.
PENTHOUSE	OUTSIDE AIR	LOUVER EXTRUDED	PENTHOUSE	ALUMINUM	---	EXTRUDED ALUMINUM	---	---	ALUMINUM	REFER TO MECHANICAL DRAWINGS FOR SIZES AND LOCATIONS. RAIN RESISTANT BLADE SLOPED SILL, DRAINAGE BLADES.



DO NOT SCALE DRAWINGS

0	ISSUED FOR CONSTRUCTION	2016/11/02
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PUBLIC WORKS AND GOVERNMENT SERVICES AGENCY

Project title/Titre du projet
EMERSON, MANITOBA HIGHWAY 75, UNITED STATES BORDER
EXPANSION AND REDEVELOPMENT OF THE EMERSON PORT OF ENTRY

Approved by/Approve par
AL
 Designed by/Concept par
CD/AL
 Drawn by/Dessine par
KL
 PWGSC Project Manager/Administrateur de Projets TPSCG
JAMES HUTCHINGS
 PWGSC, Architectural and Engineering Resources Manager/Ressources Architectural et de Directeur d'ingénierie, TPSCG

Drawing title/Titre du dessin
VENTILATION CHARTS