

OUTDOOR AIR AND EXHAUST CALCULATIONS

Area	Area	Peo/1000SF	# People	CFM/SF	Area CFM	CFM/Person	People CFM	Total CFM	# Fixtures	CFM/Fix	CFM/SF	Min Exhaust	Supply Air	Zp EQ 4-5
RTU-1														
Transfere Holding 154-158	265	25	6.625	0.12	31.8	5	35	67				0	500	0.334
Corridor 139	535	0	0	0.06	32.1	0	0	33				0	300	0.11
Intake 160	360	50	18	0.06	21.6	7.5	135	157				0	250	0.628
Breakroom 161	115	25	2.875	0.12	13.8	7.5	22.5	36.5				0	100	0.365
Hall 162	700	0	0	0.09	42	0	0	42				0	150	0.28
Holding Cells 143 - 150	400	75	80	0.12	48	5	50	98				0	600	0.243333
Hall 142	525	0	0	0.06	31.5	0	0	32				0	150	0.213333
Medical Triage 164	300	5	1.5	0.06	18	5	10	28				0	200	0.14
Mental Health 169	100	5	0.5	0.06	6	5	5	11				0	150	0.073333
Processing 163	415	30	12.45	0.06	24.9	5	65	90				0	200	0.45
Hall 166	140	0	0	0.06	8.4	0	0	9				0	100	0.09
Staff Shower 165									2	70		140	100	0
Staff Toilet 167									2	70		140	100	0
Staff Toilet 168									2	70		140	100	0
Cumulative CFM													603.5	3000

Max "Zp" 0.628
 "Ev" 0.5
 "Vent" Total OSA EQ 4-6 664.0809
 Total Building Occupancy 52
 Zone Occupancy 31.95
 "D" from EQ 4-7 1.000962
 "Vent" Equation 4-8 1208.162
 TOTAL OSA 1208.162

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GAU-1 AND GAU2														
Sallyport 153	4918	0	0	0	0	0	0	0			0.75	3689	4600	0
Cumulative CFM													0	4600

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GAU-4														
Corridor 117	425	5	2.125	0.06	25.5	5	15	41				0	525	0.078095
Holding 130	215	25	5.375	0.12	25.8	5	30	56				0	215	0.102901
Holding 131	215	25	5.375	0.12	25.8	5	30	56				0	215	0.100901
Holding 129	215	25	5.375	0.12	25.8	5	30	56				0	200	0.193333
Holding 126	215	0	0	0.06	12.9	0	0	13				0	200	0.044528
Holding 127	215	25	5.375	0.12	25.8	5	30	56				0	215	0.133199
Storage 128	215	25	5.375	0.12	25.8	5	30	56				0	215	0.123077
Hall 125	485	0	0	0.06	29.1	0	0	30				0	140	0.234286
Hall 124	220	0	0	0.06	13.2	0	0	14				0	140	0.1
Dressing Intake 118-123	450	25	11.25	0.12	54	5	60	114				0	450	0.3
Corridor 102	320	5	1.6	0.06	19.2	5	10	30				0	455	0.065934
Cumulative CFM													452	3310

Max "Zp" 0.3
 "Ev" 0.8
 "Vent" Total OSA EQ 4-6 521.871
 Total Building Occupancy 42
 Zone Occupancy 31.85
 "D" from EQ 4-7 1.003594
 "Vent" Equation 4-8 654.8387
 TOTAL OSA 654.8387

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Area	Area	Peo/1000SF	# People	CFM/SF	Area CFM	CFM/Person	People CFM	Total CFM	# Fixtures	CFM/Fix	CFM/SF	Min Exhaust	Supply Air	Zp EQ 4-5
RTU-2														
Warden 246	240	5	1.7	0.06	20.4	5	10	31				0	400	0.0775
Deputy Warden 247	245	5	1.225	0.06	14.7	5	10	29				0	300	0.063333
Hall 249a	72	0	0	0.06	3.2	0	0	5				0	72	0.0625
Reception 245	488	30	1	0.06	29.28	5	5	95				0	770	0.045455
Ventilator 244	110	10	1	0.06	6.6	5	5	12				0	150	0.08
Office 240	155	5	0.775	0.06	9.3	5	5	15				0	150	0.1
Office 248	160	5	0.8	0.06	9.6	5	5	15				0	150	0.1
Cumulative CFM													138	2000

Max "Zp" 0.1
 "Ev" 1
 "Vent" Total OSA EQ 4-6 148.6154
 Total Building Occupancy 7
 Zone Occupancy 6.5
 "D" from EQ 4-7 1.026923
 "Vent" Equation 4-8 148.6154
 TOTAL OSA 148.6154

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Area	Area	Peo/1000SF	# People	CFM/SF	Area CFM	CFM/Person	People CFM	Total CFM	# Fixtures	CFM/Fix	CFM/SF	Min Exhaust	Supply Air	Zp EQ 4-5
GAU-3														
Corridor 139	425	5	2.125	0.06	25.5	5	15	41				0	525	0.078095
Holding 137	215	25	5.375	0.12	25.8	5	30	56				0	215	0.104901
Holding 138	215	25	5.375	0.12	25.8	5	30	56				0	215	0.100901
Single Secure 132-136	220	25	5.5	0.12	26.4	5	30	56				0	200	0.186552
Hall 134	500	0	0	0.06	30	0	0	30				0	280	0.103448
Holding 130	215	25	5.375	0.12	25.8	5	30	56				0	215	0.193103
Holding 131	215	25	5.375	0.12	25.8	5	30	56				0	215	0.123077
I.T. Office 175	132	5	0.66	0.06	7.92	5	13	16				0	140	0.028571
Security Ventilate 174	250	10	2.5	0.06	15	5	10	20				0	380	0.078847
Recess 172	170	5	0.85	0.06	10.2	5	5	15				0	455	0.025165
Cumulative CFM													355	860

Max "Zp" 0.196552
 "Ev" 0.8
 "Vent" Total OSA EQ 4-6 558.1711
 Total Building Occupancy 45
 Zone Occupancy 33.185
 "D" from EQ 4-7 1.358081
 "Vent" Equation 4-8 620.1911
 TOTAL OSA 620.1911

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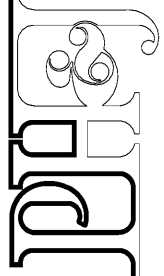
Area	Area	Peo/1000SF	# People	CFM/SF	Area CFM	CFM/Person	People CFM	Total CFM	# Fixtures	CFM/Fix	CFM/SF	Min Exhaust	Supply Air	Zp EQ 4-5
GAU-5														
Corridor 117	425	0	0	0.06	25.5	0	0	26				0	300	0.028667
Storage 116	375	0	0	0.12	45	0	0	45				0	375	0.225
Transport Holding 113	150	25	3.75	0.12	18	5	20	38				0	150	0.126667
Security Holding 114	250	25	6.5	0.12	31.2	5	35	62				0	450	0.188889
Transport Holding 113	206	25	5.15	0.12	24.72	5	30	55				0	350	0.137143
Liberty Room 112	2060	0	0	0.12	240	0	0	240				0	2000	0.15
Corridor 110	400	0	0	0.06	24	0	0	24				0	400	0.053333
Corridor 102	380	0	0	0.06	21.6	0	0	22				0	450	0.048889
Release Dressing 104-109	210	5	1.05	0.06	12.6	5	10	23				0	300	0.076667
Cumulative CFM													479	2925

Max "Zp" 0.225
 "Ev" 0.9
 "Vent" Total OSA EQ 4-6 558.0547
 Total Building Occupancy 17
 Zone Occupancy 16.45
 "D" from EQ 4-7 1.03435
 "Vent" Equation 4-8 620.0609
 TOTAL OSA 620.0609

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