MCPS Office of Facilities Management
Division of Sustainability and Compliance
Indoor Air Quality (IAQ)

Poolesville High School IAQ Sensor Monitoring

Reporting Period: February 19, 2024 – February 23, 2024
Report Date: February 26, 2024

MCPS personnel reviewed the following:

- Construction Activities as reported by the MCPS Division of Design and Construction (DDC) to the Poolesville High School (PHS) Administration for inclusion in the community update notification.
- IAQ sensor data included in the Poolesville HS On-Site Construction IAQ Report.
- Note: MCPS Schools were closed for the Presidents Day Holiday on Monday February 19, 2024.

Summary Observations:

- No notifications or alerts were triggered during the reporting period.
- IAQ Sensor data were reviewed daily by IAQ and DDC personnel.
- Approximately ten (10) classrooms consistently indicate TVOC concentrations higher than the other classrooms for limited durations. These concentrations rise and fall at the same time as rises and falls in other IAQ parameters monitored, most likely related to occupancy changes.
- PM data show higher concentrations for limited durations throughout the instructional day in approximately ten (10) different classrooms. These concentrations rise and fall at the same time as rises and falls in other IAQ parameters monitored, most likely related to occupancy changes.

Construction Activities:

- Review of planned construction activities against the data collected indicates that construction activities are not likely to have impacted indoor air quality at PHS.

Response Action(s):

- Both IAQ and DDC staff will continue to monitor sensor data at PHS.

Attachments:

- Poolesville HS On-Site Construction IAQ Reports for February 19, 2024 through February 23, 2024.

POOLESVILLE HS ON-SITE CONSTRUCTION IAQ REPORT

This report was generated on 02/20/2024 at 03:00 AM (America/New_York)

This daily report is for IAQ data collected between 6:00 AM and 6:00 PM for the day previous to the report generated date above.

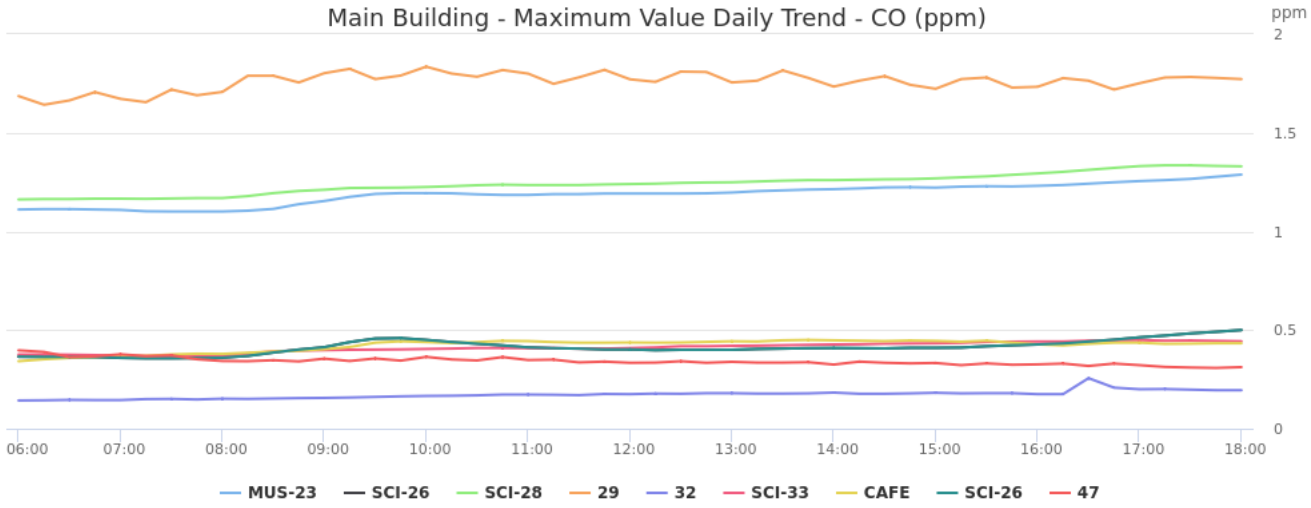
This report includes the parameters that are most affected by construction activities in close proximity to an occupied buildings:
CO - carbon monoxide
TVOC - total volatile organic compounds
PM10 - particulate matter <=10 micron(ug)
PM2.5 - particulate matter <=2.5 ug
PM1.0 - particulate matter <=1.0 ug
ppm - parts per million
ppb - parts per billion
ug/m3 - micrograms per cubic meter of air

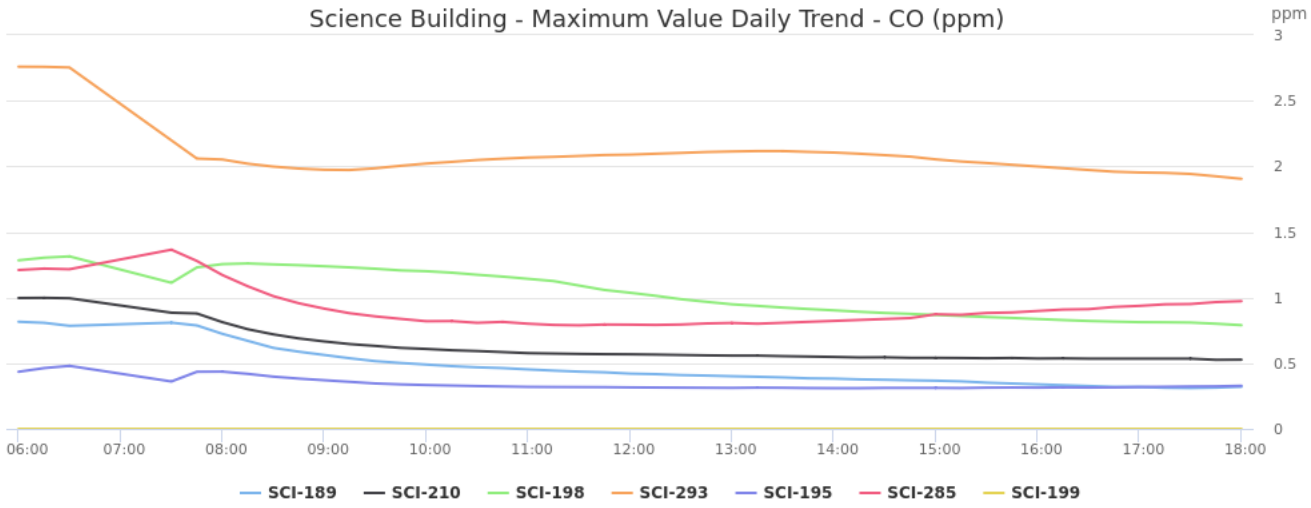
All data is monitored as an indicator of ventilation performance. Where suspect ventilation concerns are identified IAQ team members investigate to determine best next steps, including but not limited to - submit work orders to mechanical teams for repairs, review occupancy and use, review occupant activities and or continue to monitor data collected for patterns and trends.

CO Monitoring

Carbon Monoxide (CO): Carbon monoxide is a colorless, odorless gas. It results from incomplete combustion processes. Common sources of CO in schools are improperly vented furnaces, malfunctioning gas ranges, canned heat (e.g. a Sterno), or exhaust fumes that have been drawn back into the building. Worn or poorly adjusted and maintained combustion devices (e.g., boilers, furnaces), or a flue that is improperly sized, blocked, disconnected, or leaking, can be significant sources. Auto, truck, or bus exhaust from attached garages, nearby roads, or idling vehicles in parking areas can also be sources. Carbon monoxide at high concentrations is considered to be a serious health hazard.

CO Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 4 ppm; MCPS notified at 4-hours
Ventilation - orange = 9 ppm; MCPS notified at 1-hour; immediate text, investigation
Health & Safety - red = 25 ppm; MCPS notified at 8-hours, immediate text, community notification if during school hours





The carbon monoxide standards for indoor air quality are the U.S. Environmental Protection Agency (US EPA) National Ambient Air Quality Standard (NAAQS) of 9 ppm CO on a 8-hour time-weighted average (TWA), and the World Health organization Guidelines for Indoor Air Quality – Selected Pollutants of 6 ppm. However, MCPS will be notified at a sustained measurement of 4 ppm or greater for 4-hours as a more conservative and precautionary approach to this health-based standard.

TVOC Monitoring

TVOC Graphs Legend:
solid lines indicate data from each room
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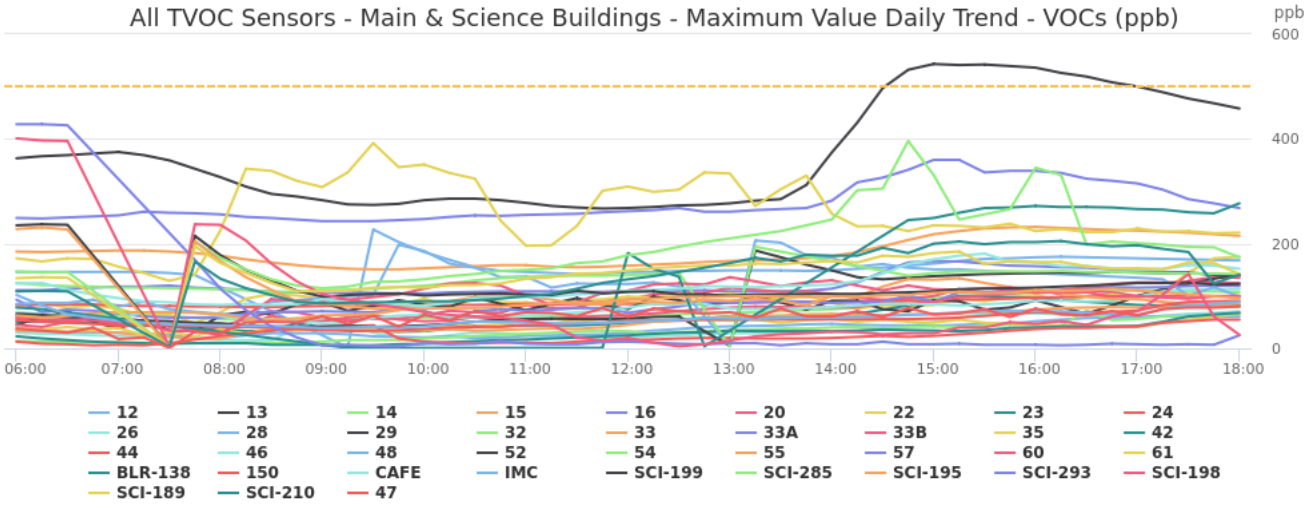
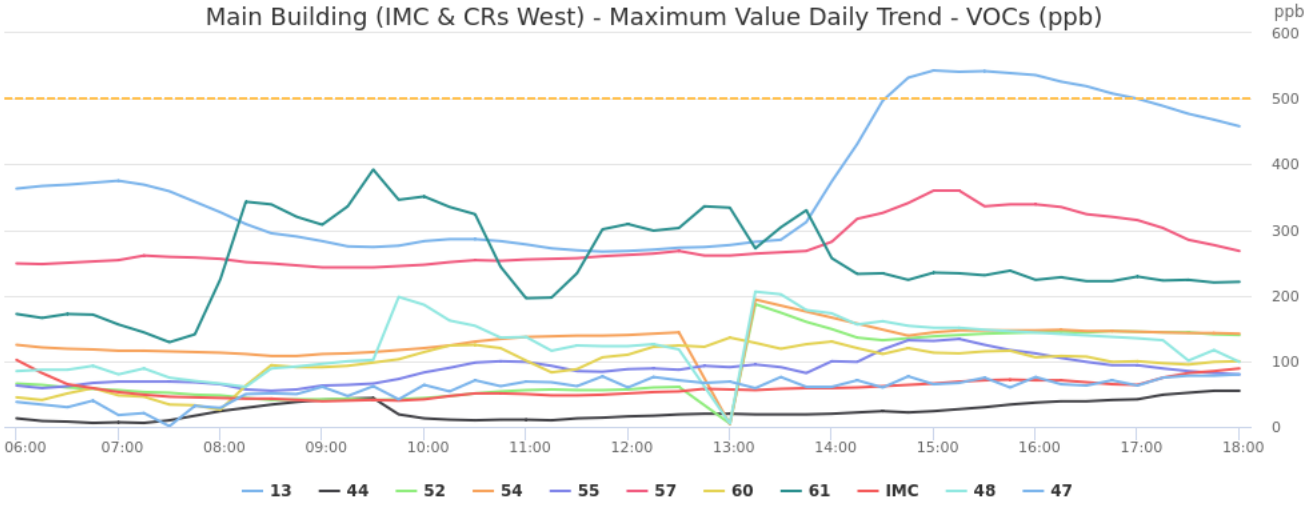
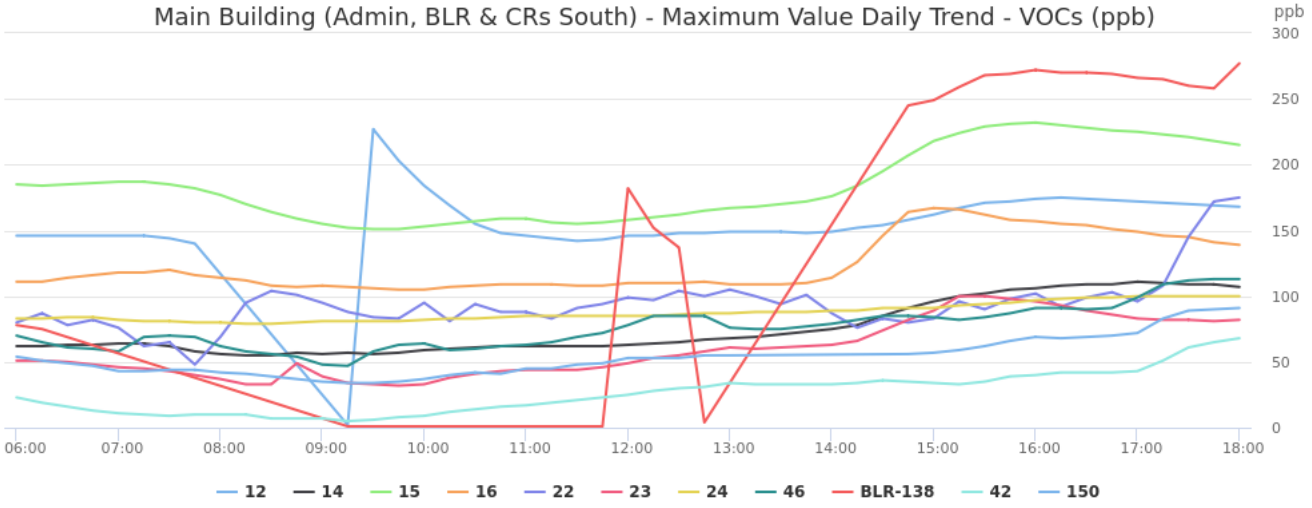
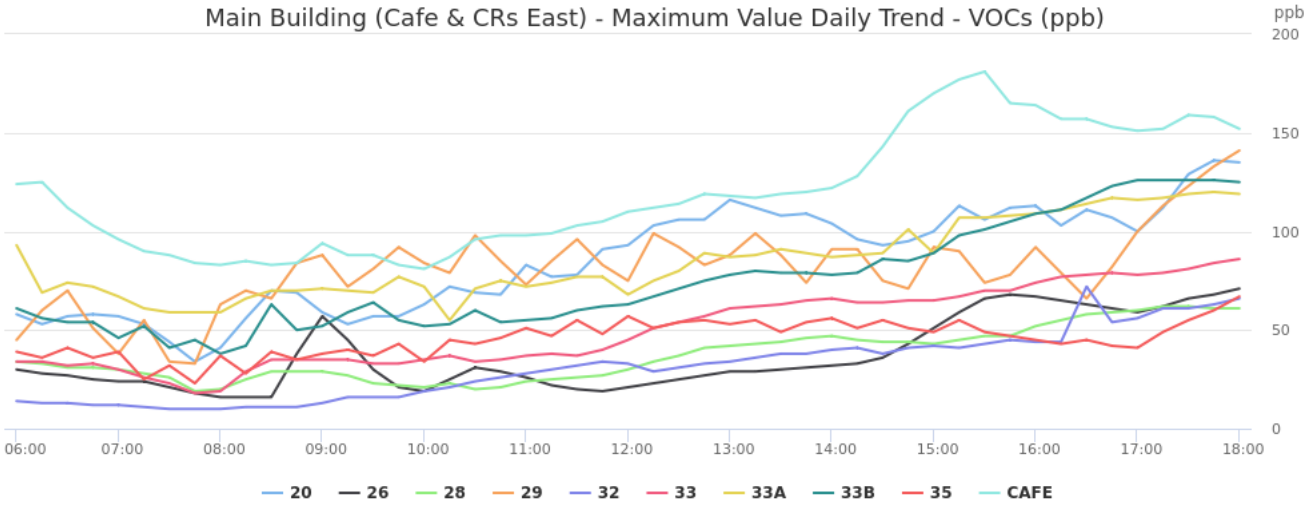
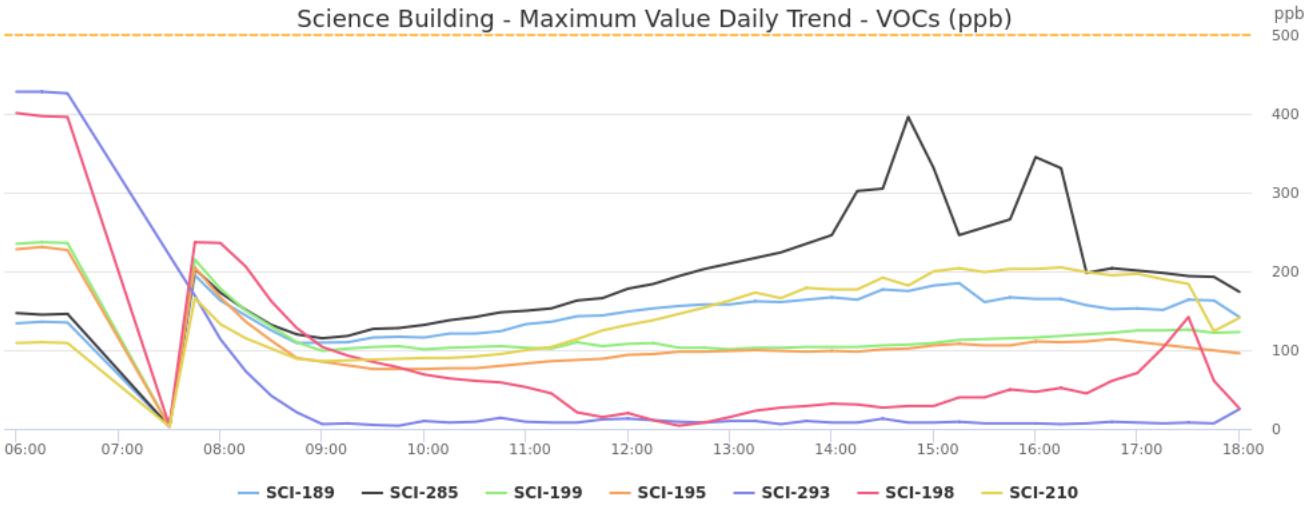
IAQ - yellow = 500 ppb (0.5 ppm); MCPS notified at 4-hours
Ventilation - red = 10,000 ppb (10 ppm); MCPS notified at 4-hours


All TVOC Sensors - Main & Science Buildings - Maximum Value Daily Trend - VOCs (ppb)
ppb
600
400
200
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
23
24
26
28
29
32
33
33A
33B
35
42
44
46
48
52
54
55
57
60
61
BLR-138
150
CAFE
IMC
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-189
SCI-210
47


Main Building (IMC & CRs West) - Maximum Value Daily Trend - VOCs (ppb)
ppb
600
500
400
300
200
100
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47


Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - VOCs (ppb)
ppb
300
250
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
14
15
16
22
23
24
46
BLR-138
42
150

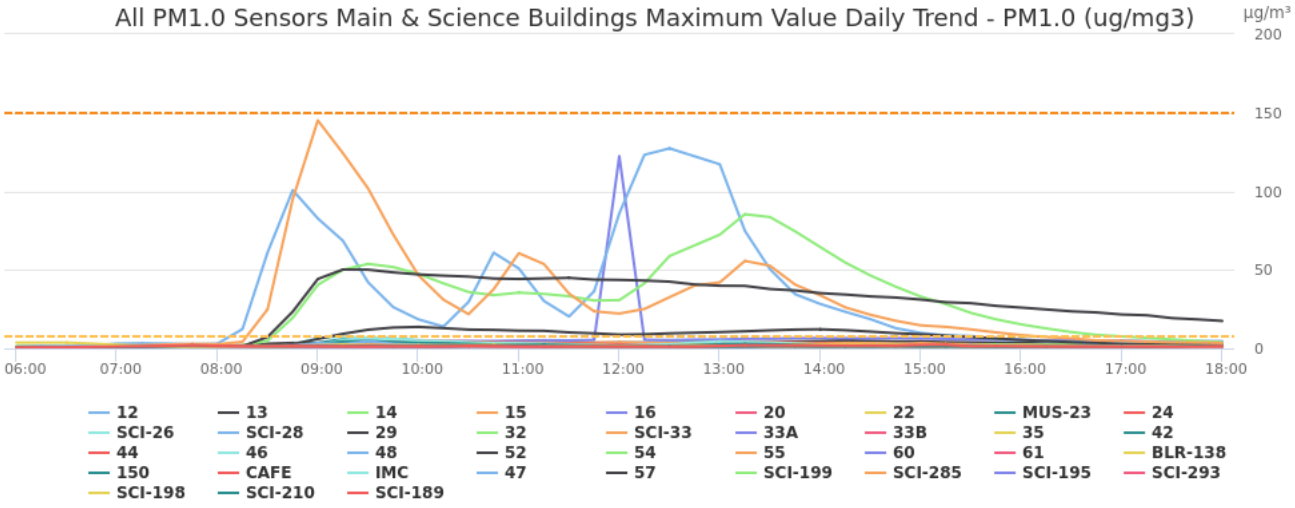




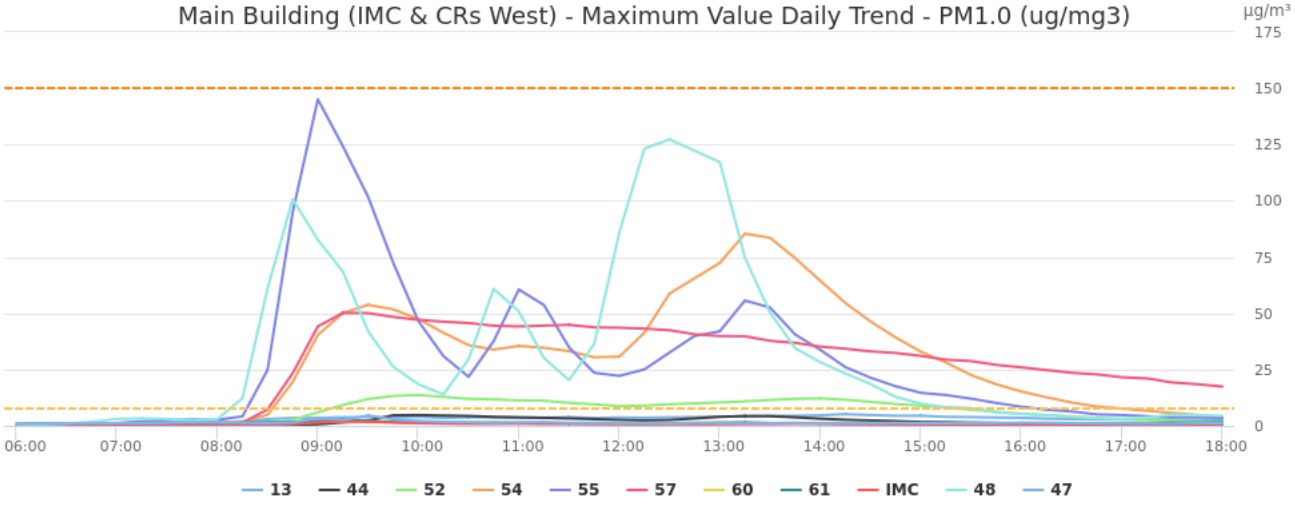
PM1.0 Monitoring

PM1.0 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 8 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 150 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 250 ug/m3; MCPS notified at 8-hours

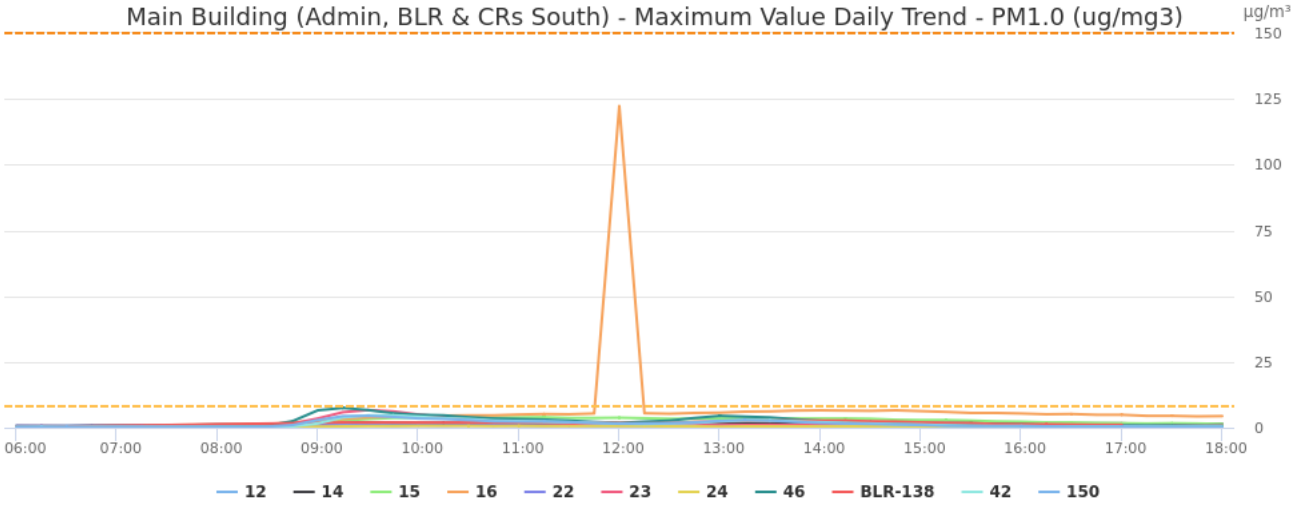
All PM1.0 Sensors Main & Science Buildings Maximum Value Daily Trend - PM1.0 (ug/mg3)

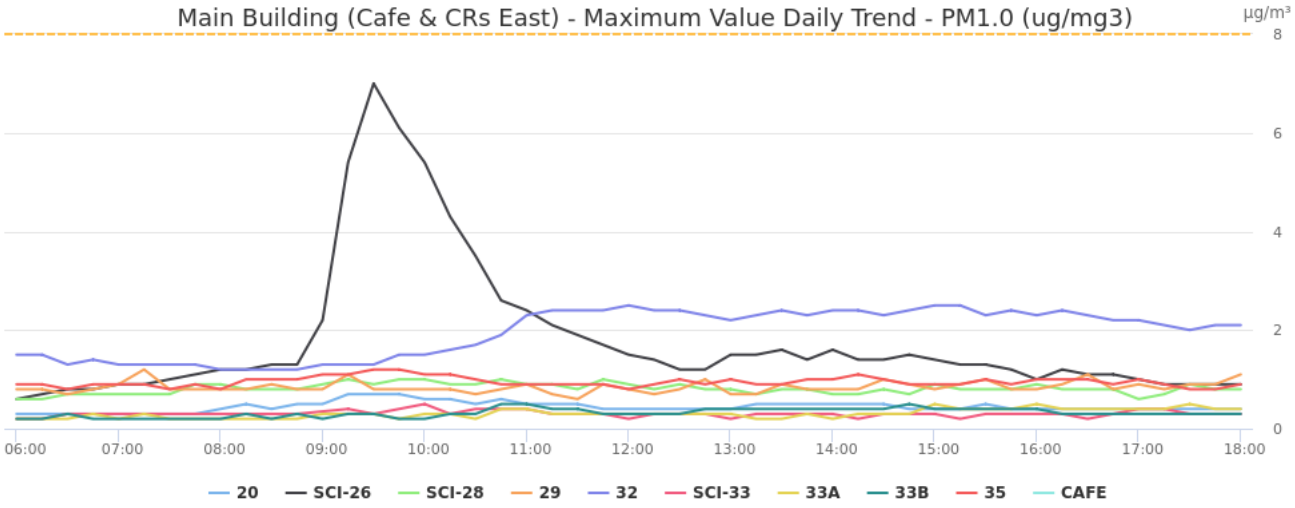


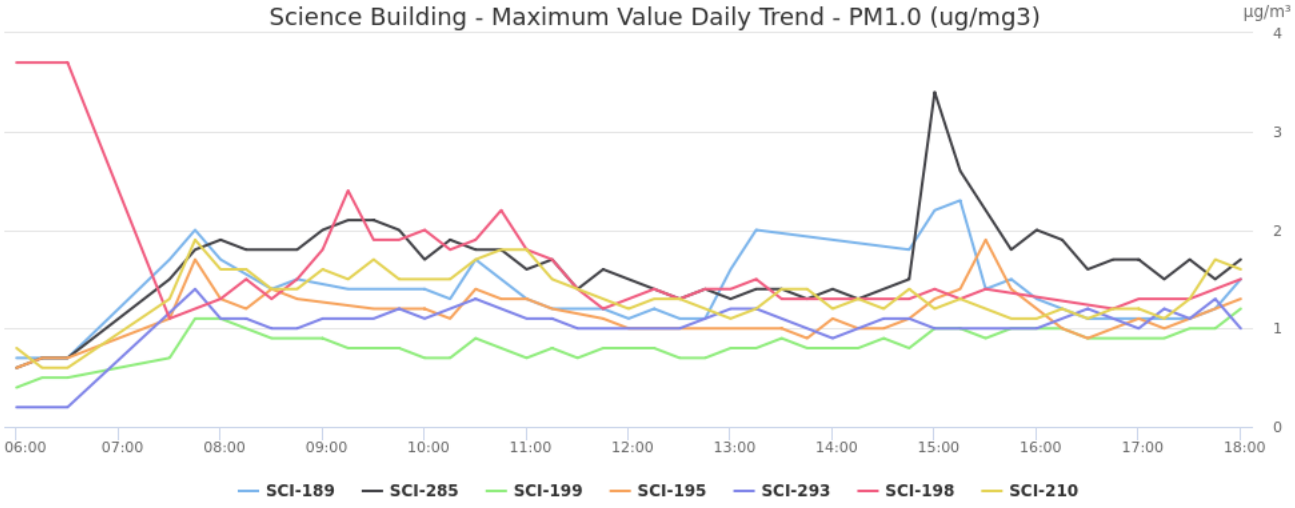
Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM1.0 (ug/mg3)



Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM1.0 (ug/mg3)

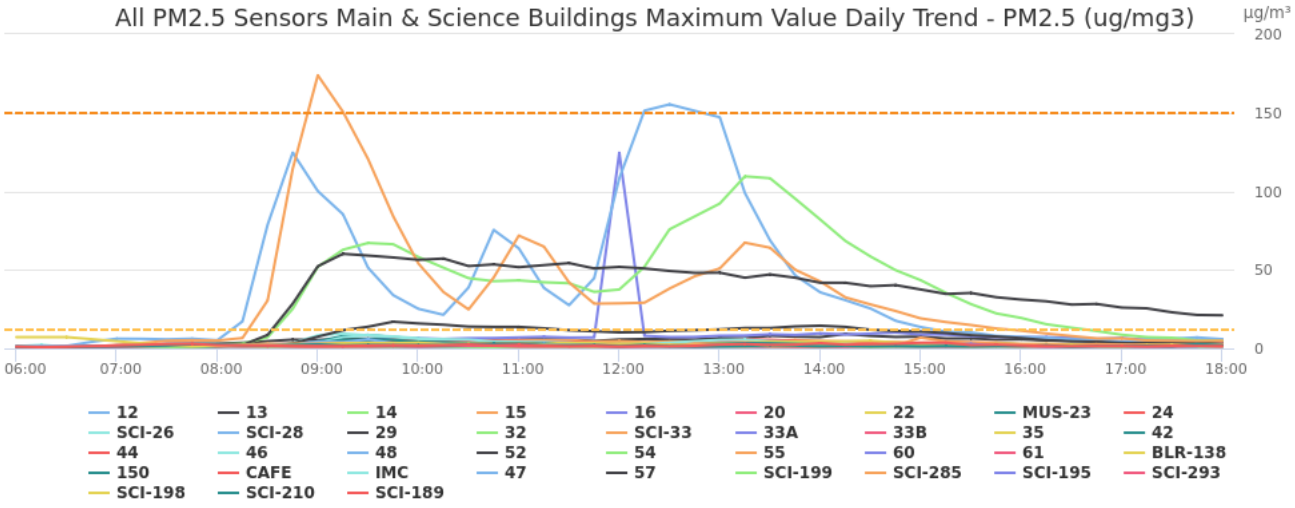


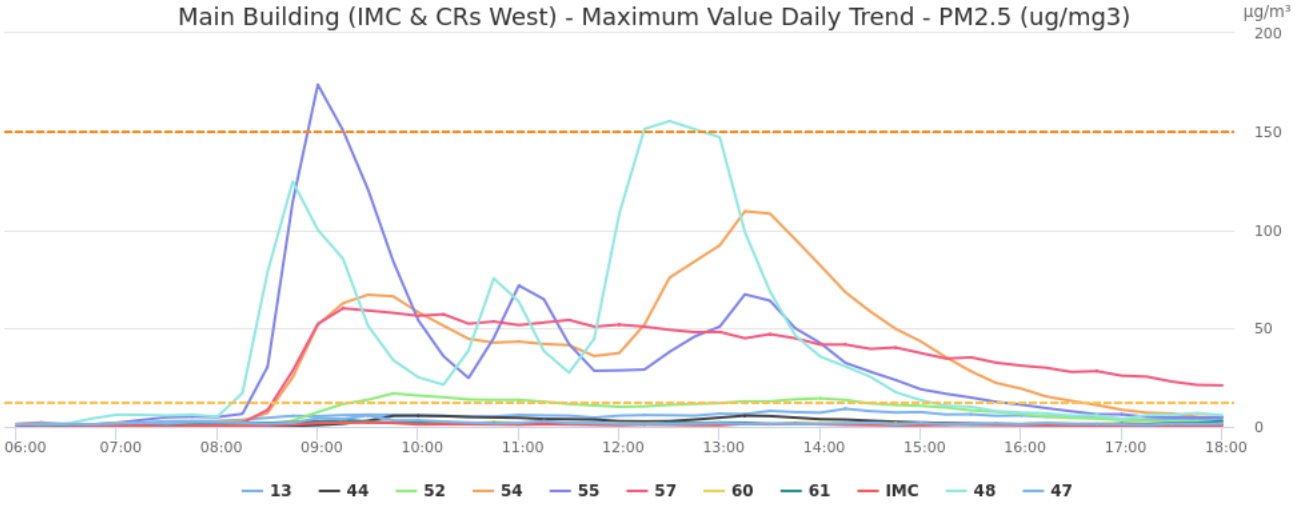


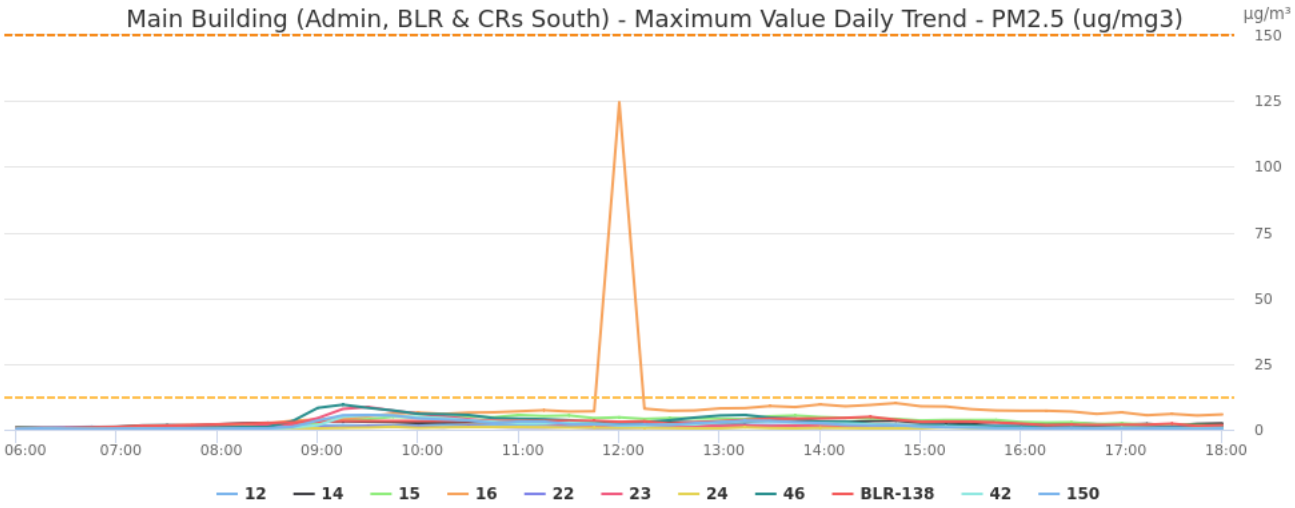


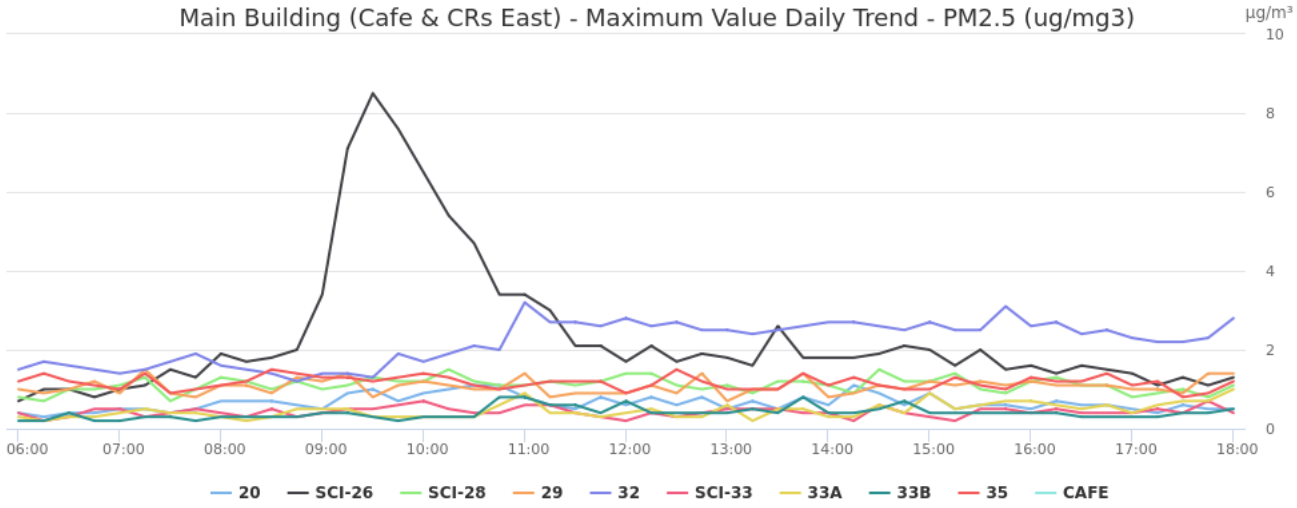
PM2.5 Monitoring

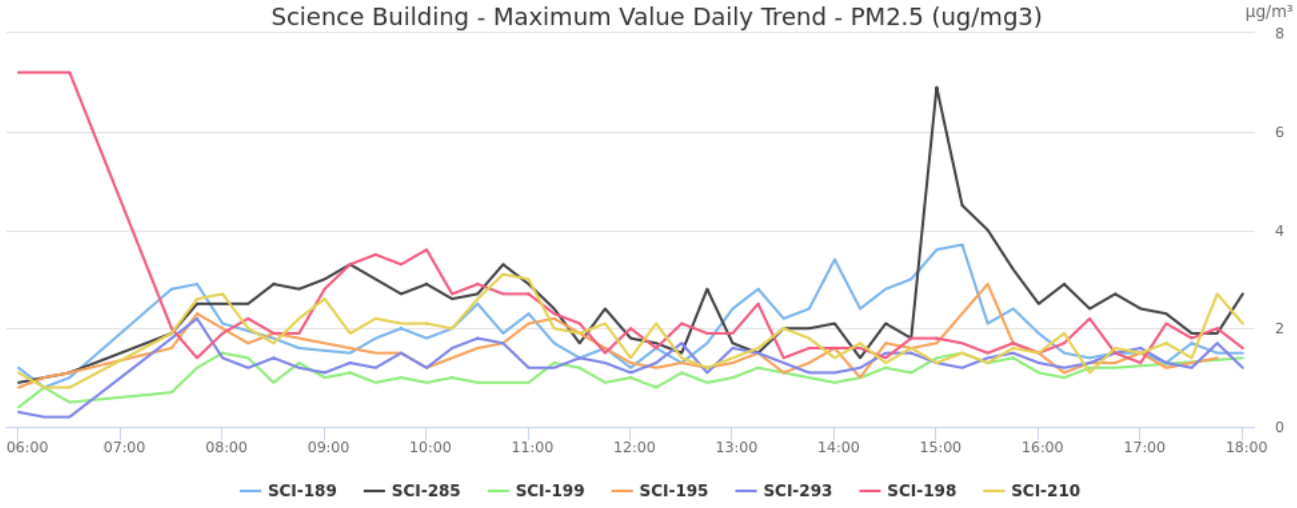
PM2.5 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 12 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 150 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 250 ug/m3; MCPS notified at 8-hours


All PM2.5 Sensors Main & Science Buildings Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
MUS-23
24
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
42
44
46
48
52
54
55
60
61
BLR-138
150
CAFE
IMC
47
57
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-210
SCI-189


Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47

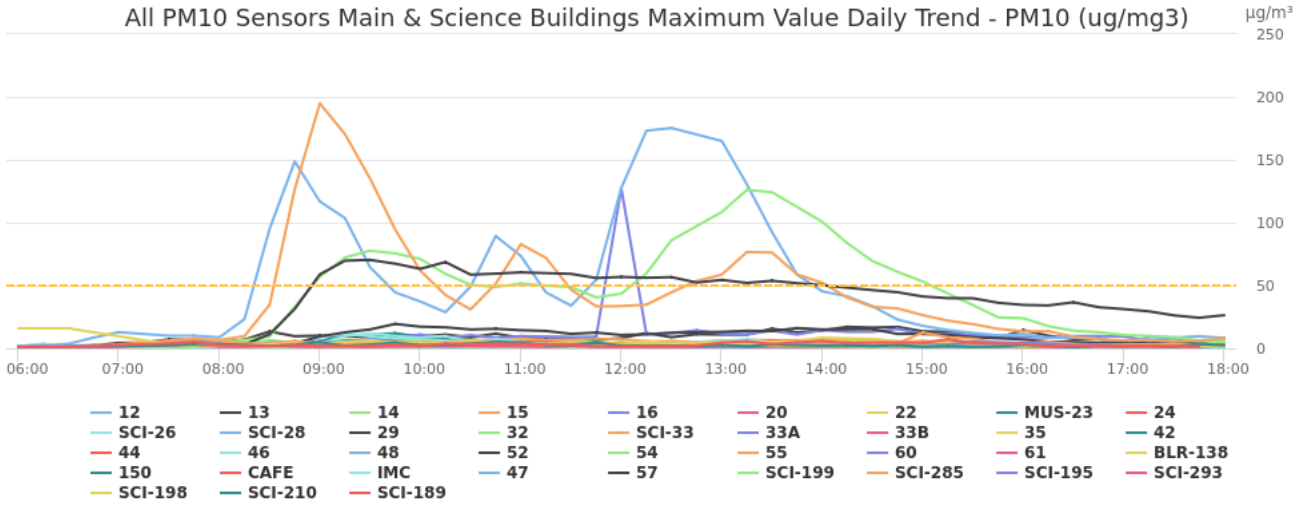

Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
150
125
100
75
50
25
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
14
15
16
22
23
24
46
BLR-138
42
150

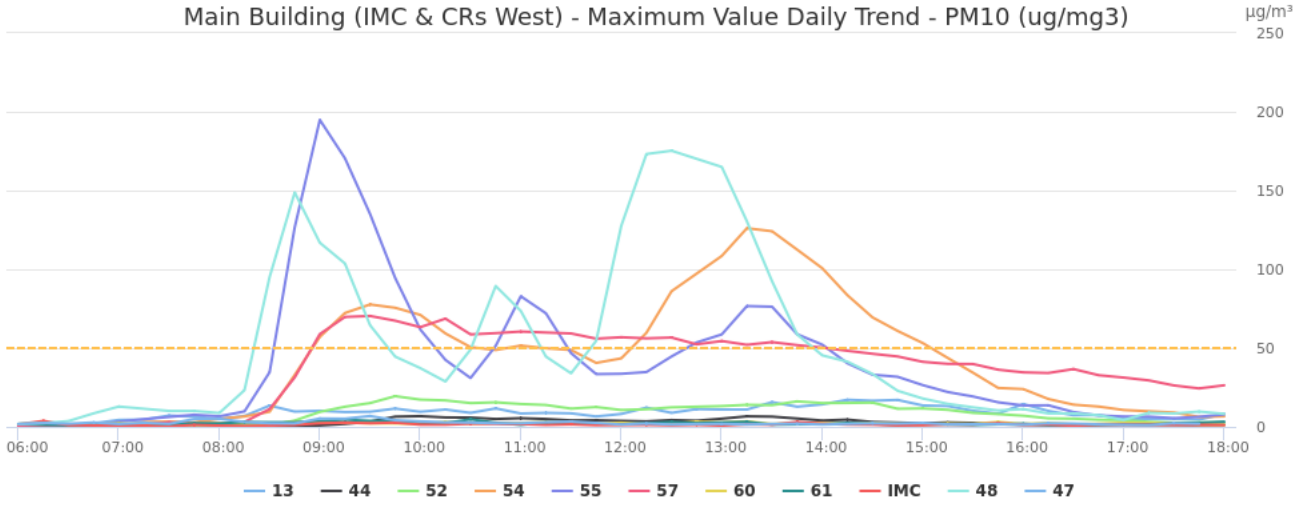


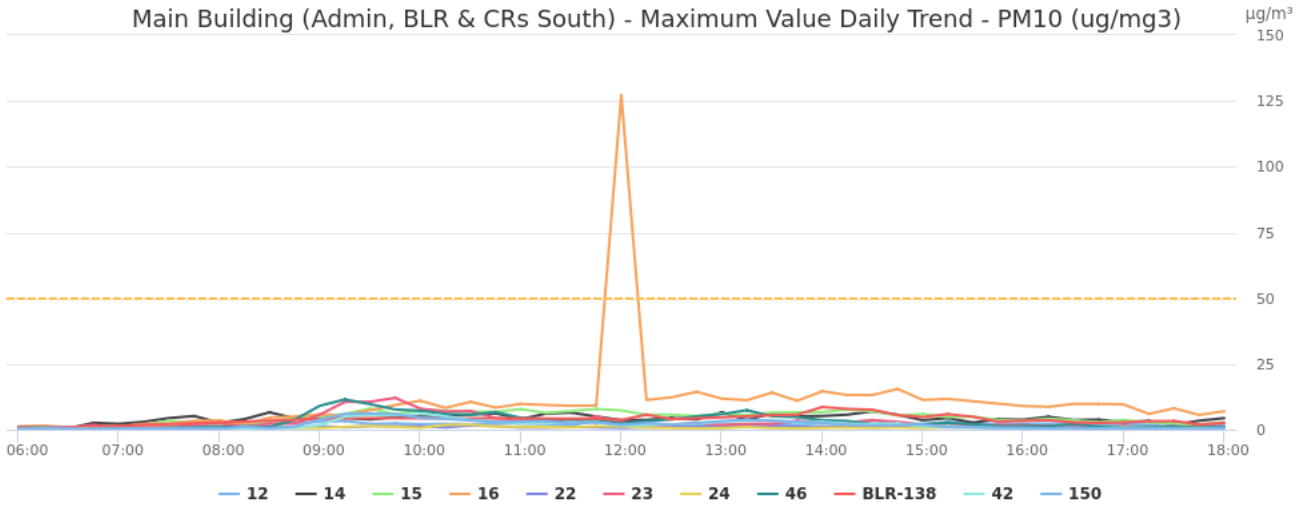


PM10 Monitoring

PM10 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 50 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 355 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 425 ug/m3; MCPS notified at 8-hours


All PM10 Sensors Main & Science Buildings Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
250
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
MUS-23
24
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
42
44
46
48
52
54
55
60
61
BLR-138
150
CAFE
IMC
47
57
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-210
SCI-189


Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
250
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47


Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
150
125
100
75
50
25
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
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17:00
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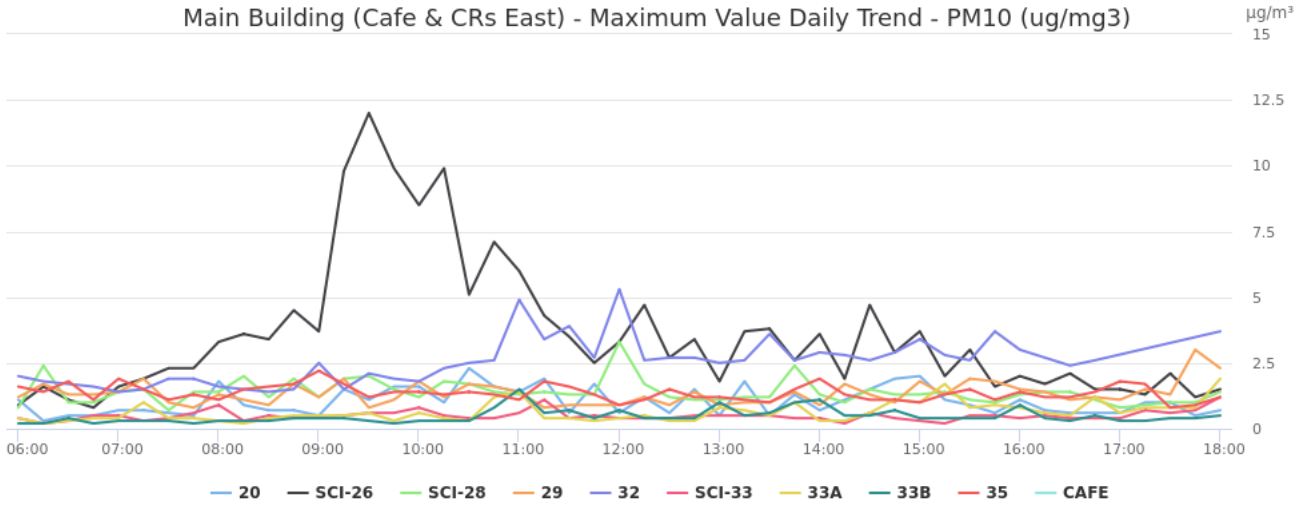
12
14
15
16
22
23
24
46
BLR-138
42
150


Main Building (Cafe & CRs East) - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
15
12.5
10
7.5
5
2.5
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
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18:00
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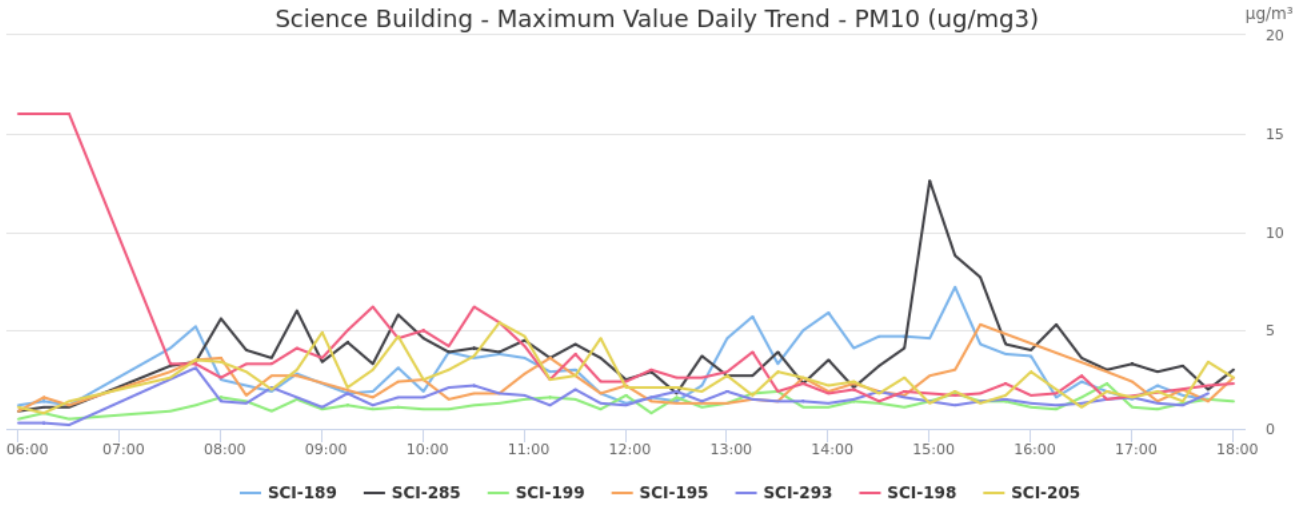
SCI-28
29
32
SCI-33
33A
33B
35
CAFE


Science Building - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
20
15
10
5
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
SCI-189
SCI-285
SCI-199
SCI-195
SCI-293
SCI-198
SCI-205

POOLESVILLE HS ON-SITE CONSTRUCTION IAQ REPORT

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CO Graphs Legend:
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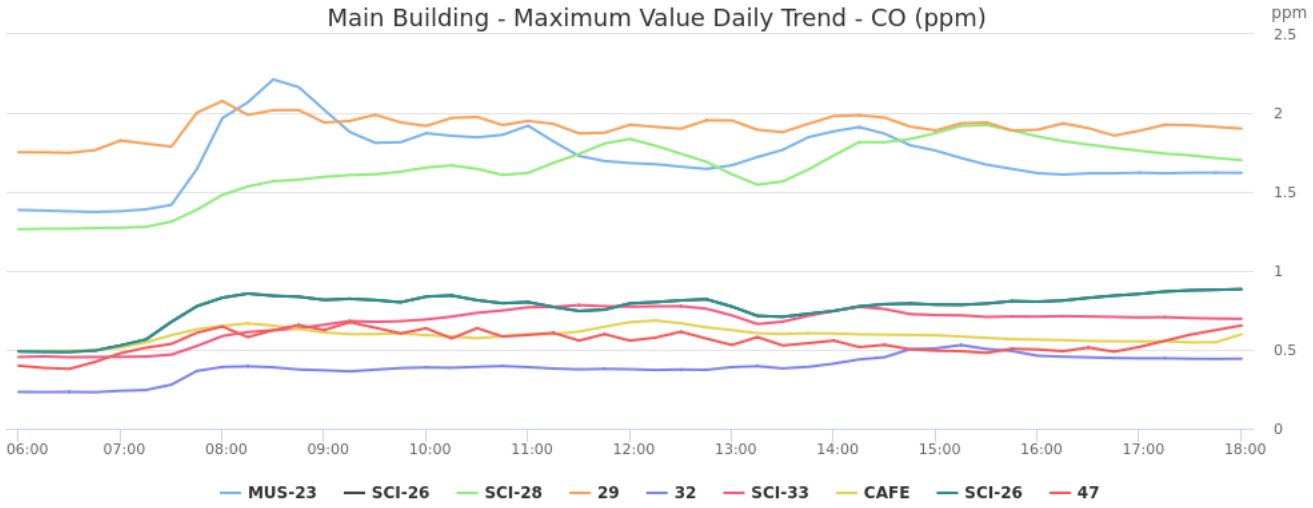
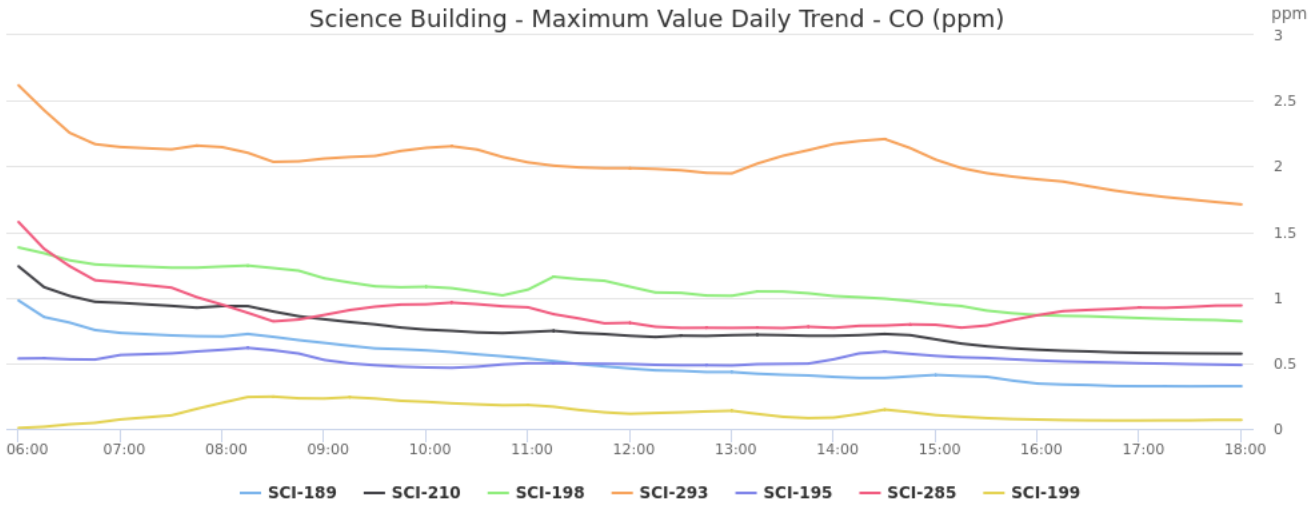
Health & Safety - red = 25 ppm; MCPS notified at 8-hours, immediate text, community notification if during school hours





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TVOC Monitoring

TVOC Graphs Legend:
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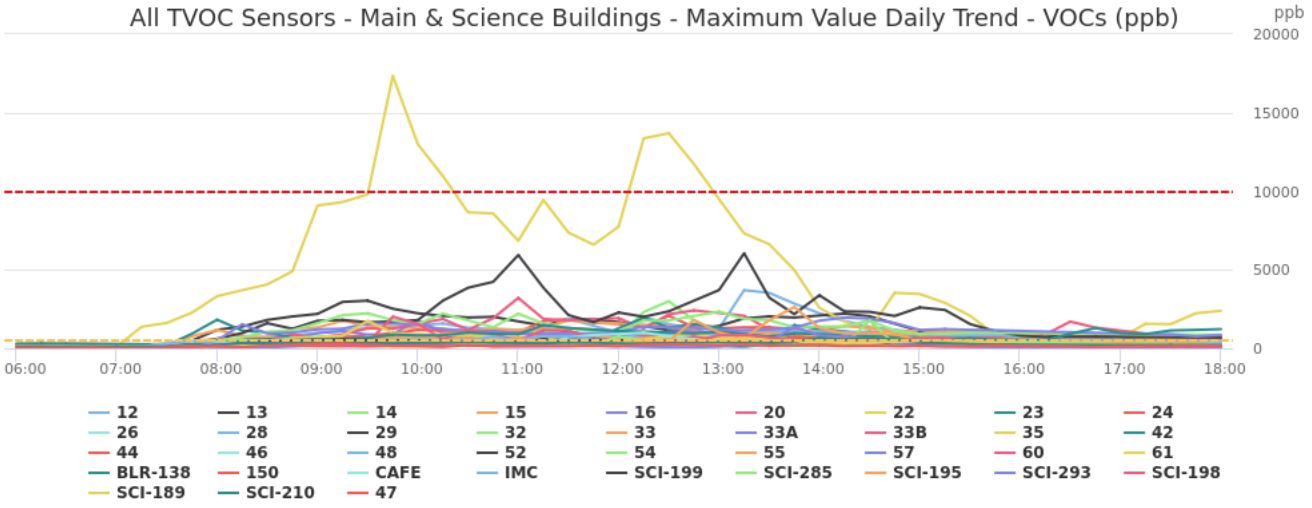
Ventilation - red = 10,000 ppb (10 ppm); MCPS notified at 4-hours


All TVOC Sensors - Main & Science Buildings - Maximum Value Daily Trend - VOCs (ppb)
ppb
20000
15000
10000
5000
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
23
24
26
28
29
32
33
33A
33B
35
42
44
46
48
52
54
55
57
60
61
BLR-138
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CAFE
IMC
SCI-199
SCI-285
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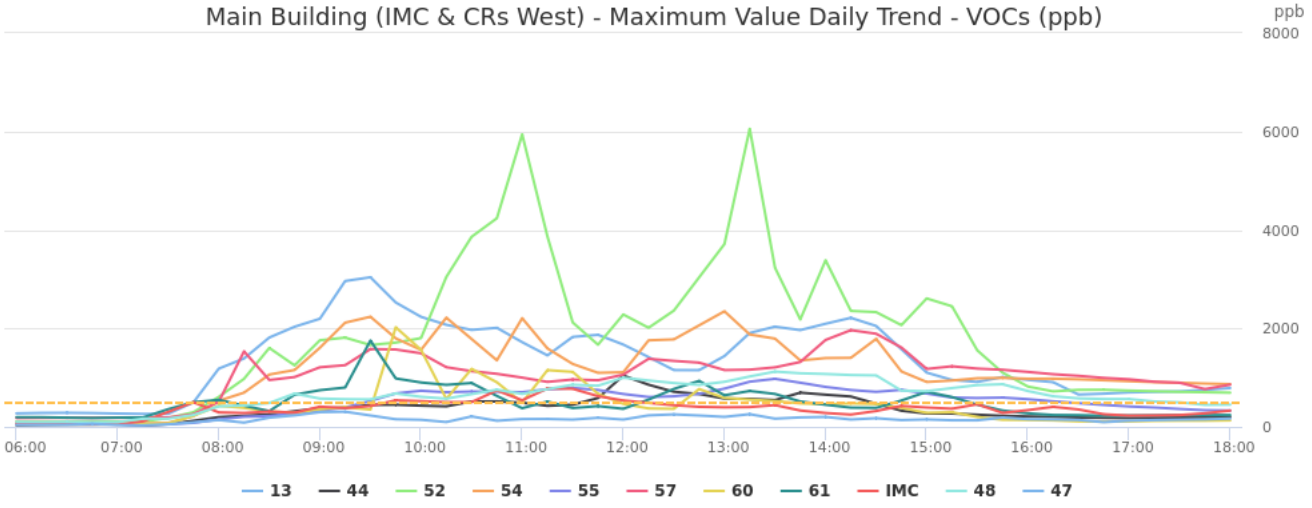
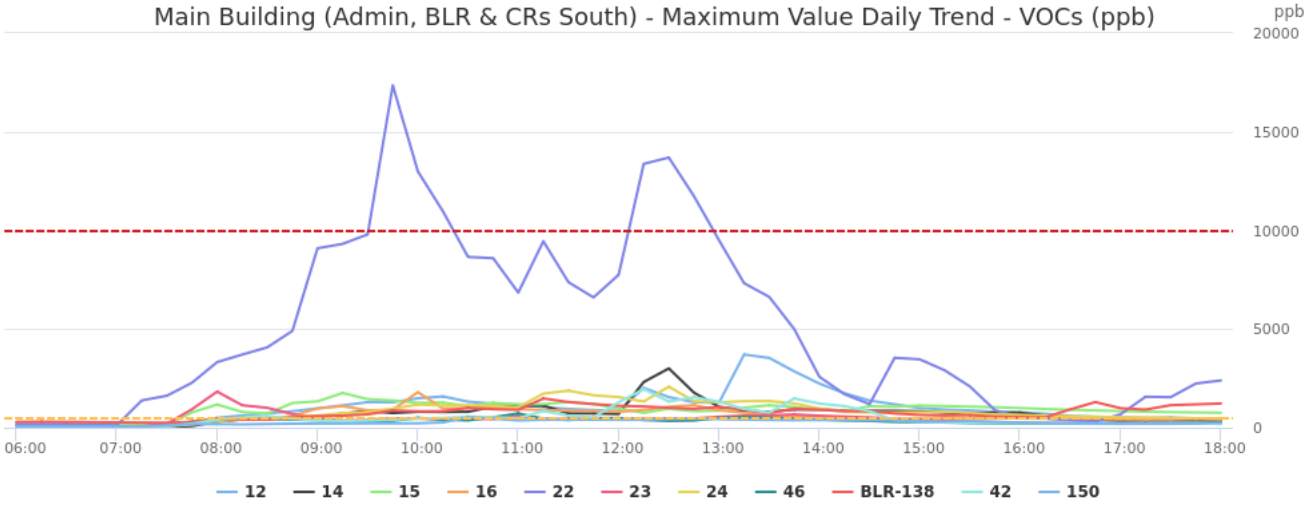
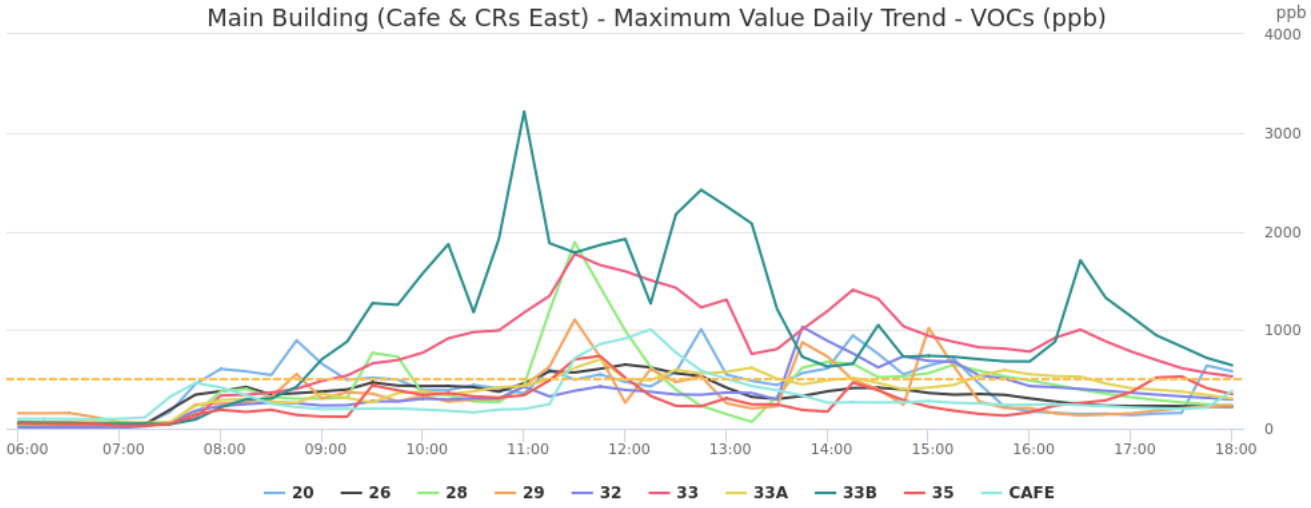
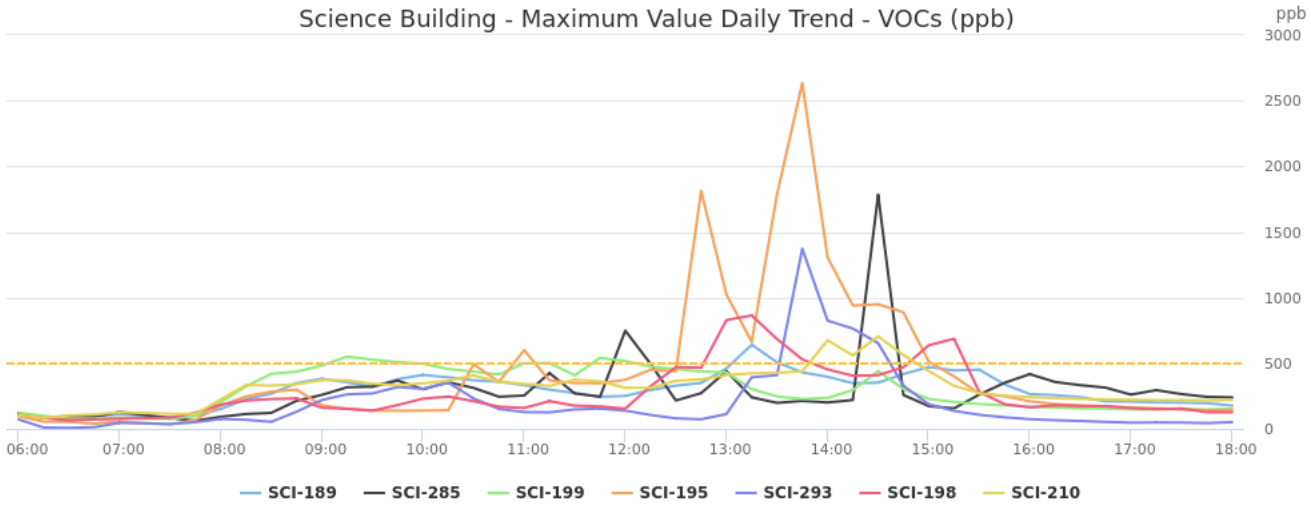
SCI-293
SCI-198
SCI-189
SCI-210
47


Main Building (IMC & CRs West) - Maximum Value Daily Trend - VOCs (ppb)
ppb
8000
6000
4000
2000
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47

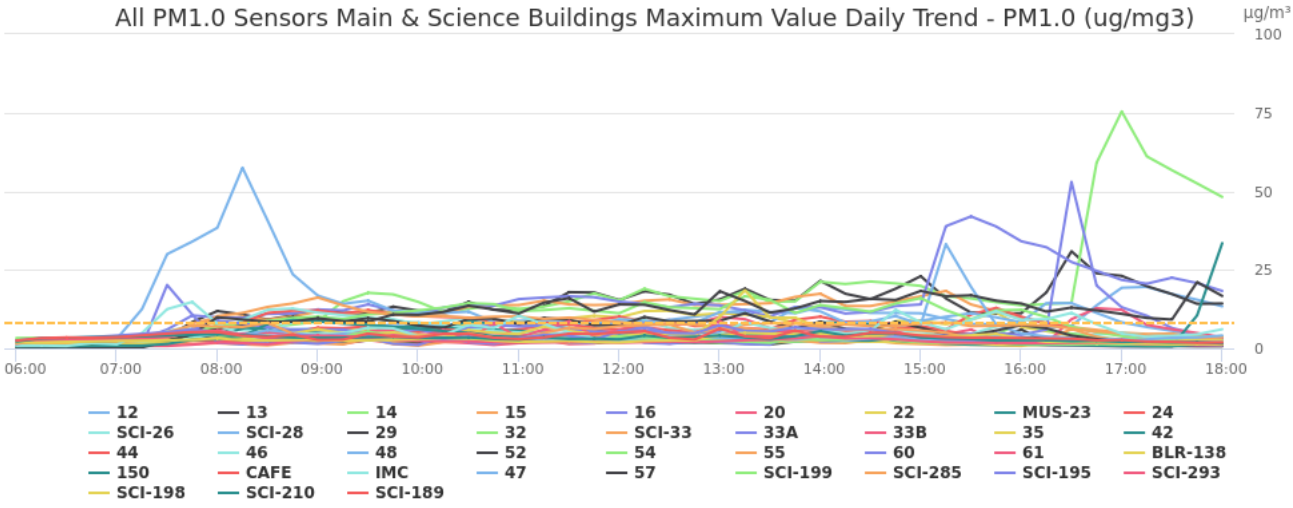

Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - VOCs (ppb)
ppb
20000
15000
10000
5000
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
14
15
16
22
23
24
46
BLR-138
42
150

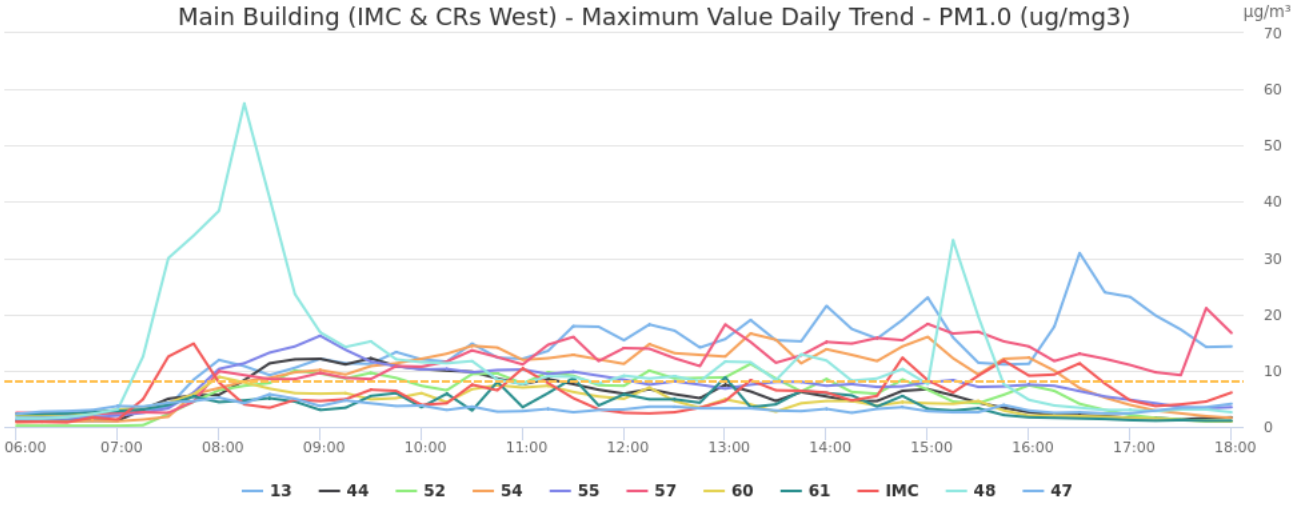


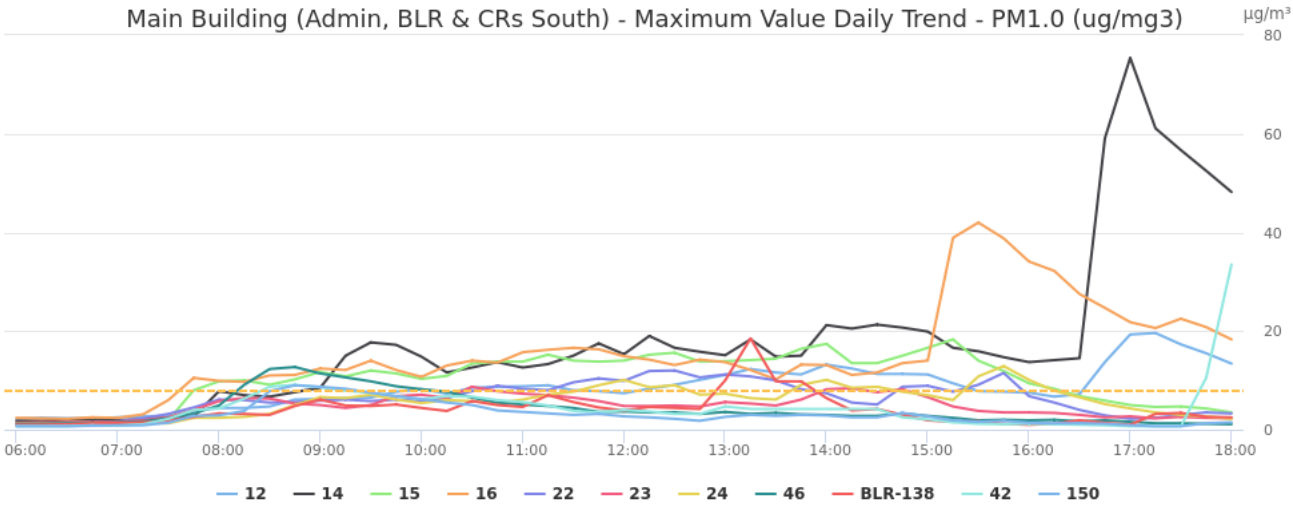


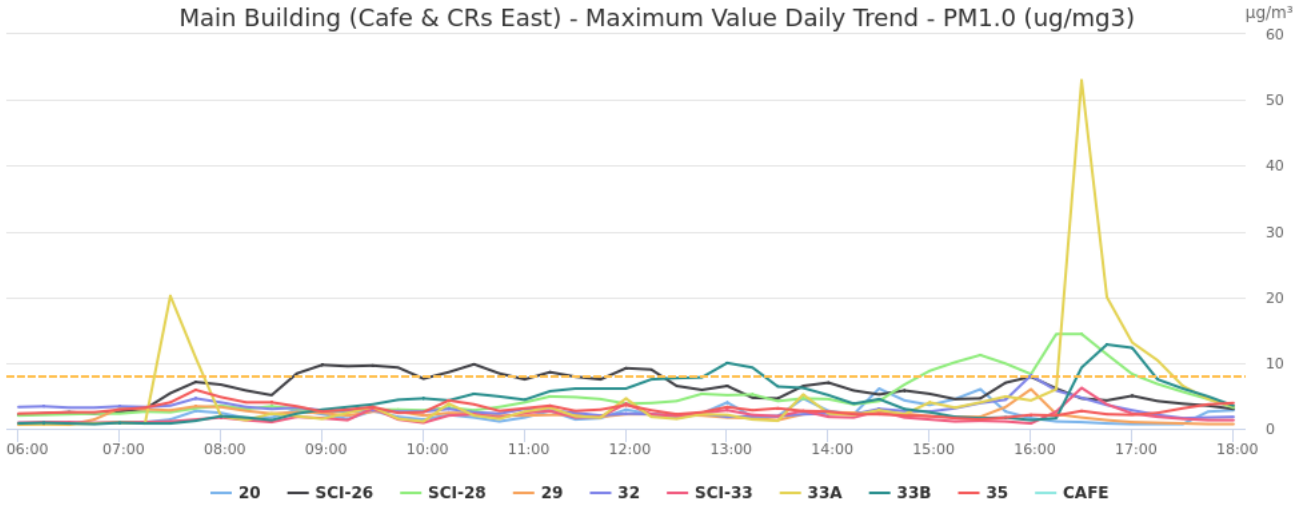
PM1.0 Monitoring

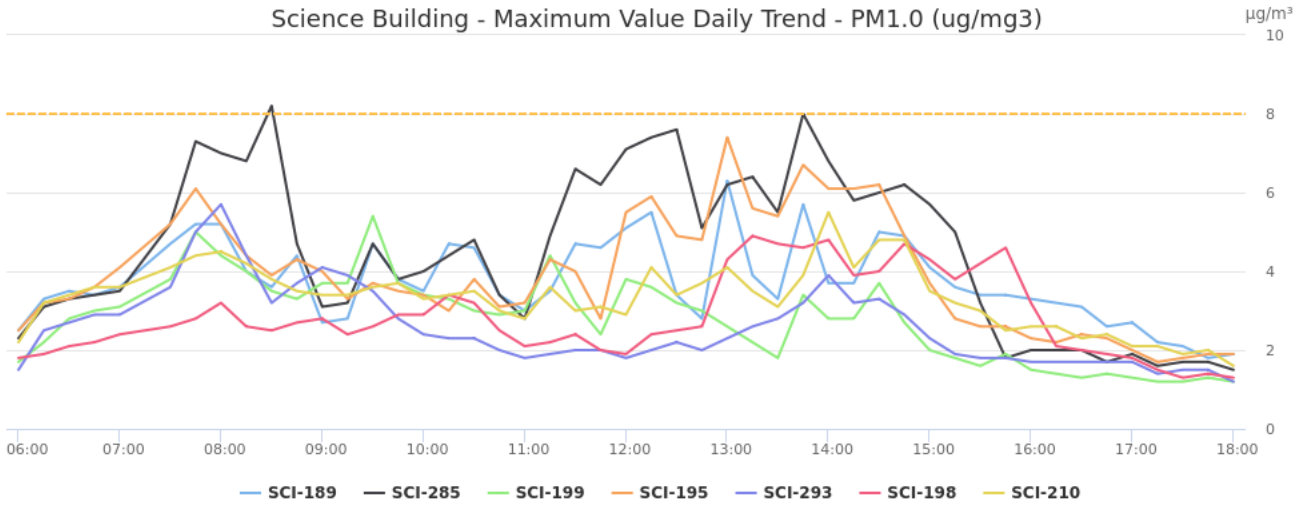
PM1.0 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 8 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 150 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 250 ug/m3; MCPS notified at 8-hours


All PM1.0 Sensors Main & Science Buildings Maximum Value Daily Trend - PM1.0 (ug/mg3)
µg/m³
100
75
50
25
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
MUS-23
24
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
42
44
46
48
52
54
55
60
61
BLR-138
150
CAFE
IMC
47
57
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-210
SCI-189


Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM1.0 (ug/mg3)
µg/m³
70
60
50
40
30
20
10
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47

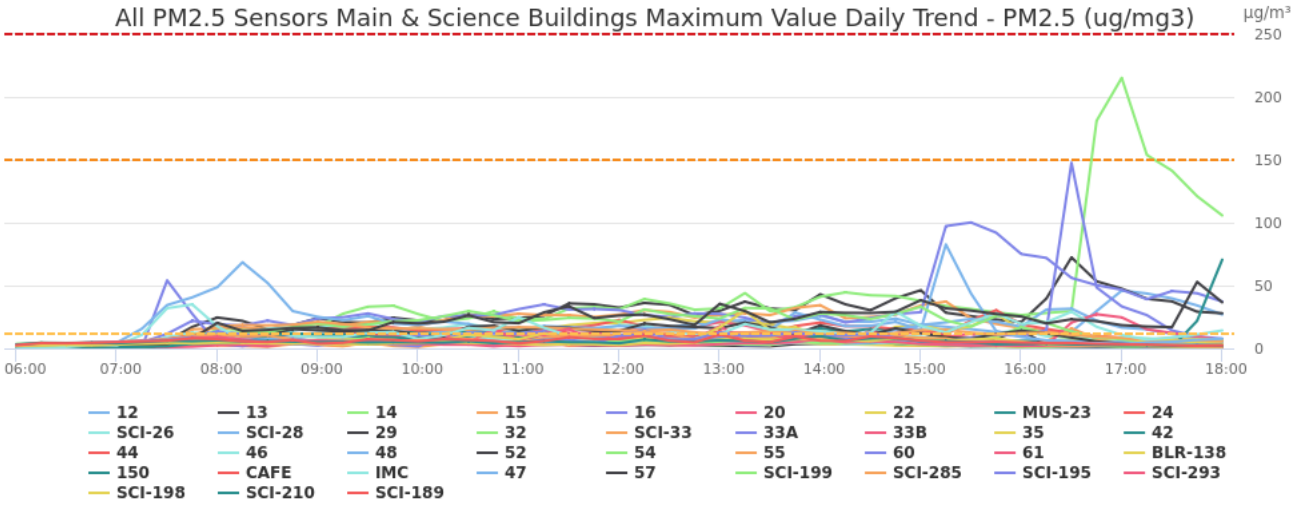

Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM1.0 (ug/mg3)
µg/m³
80
60
40
20
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
14
15
16
22
23
24
46
BLR-138
42
150

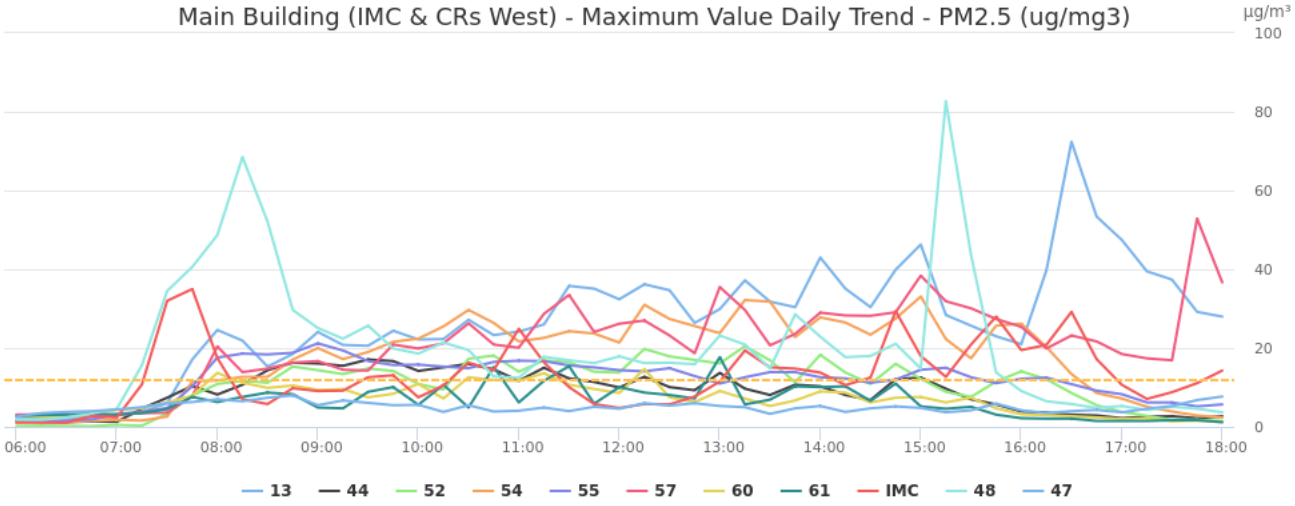


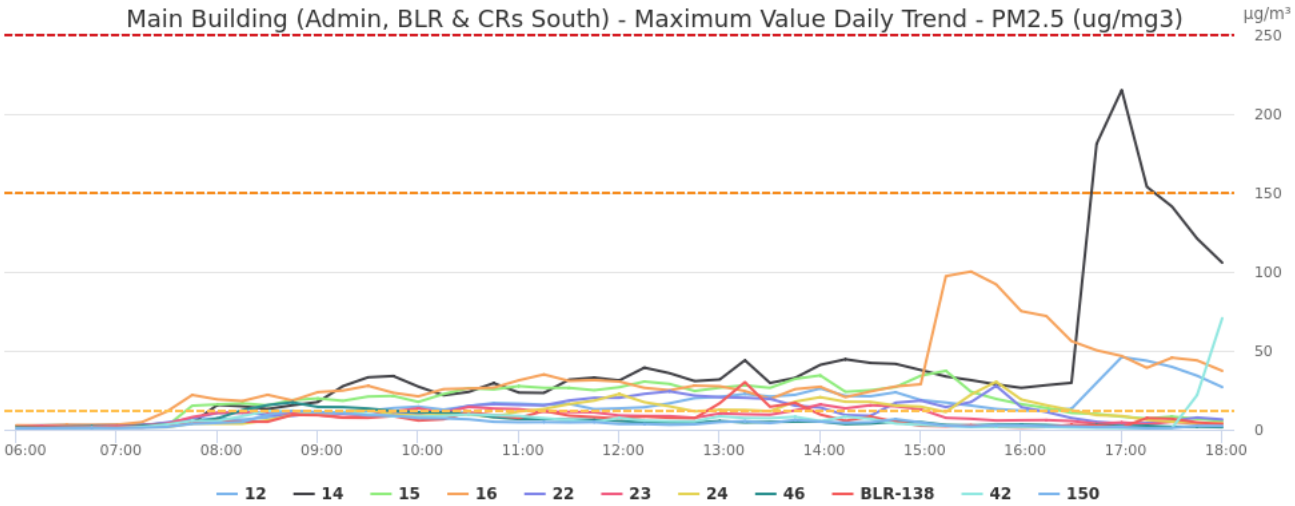


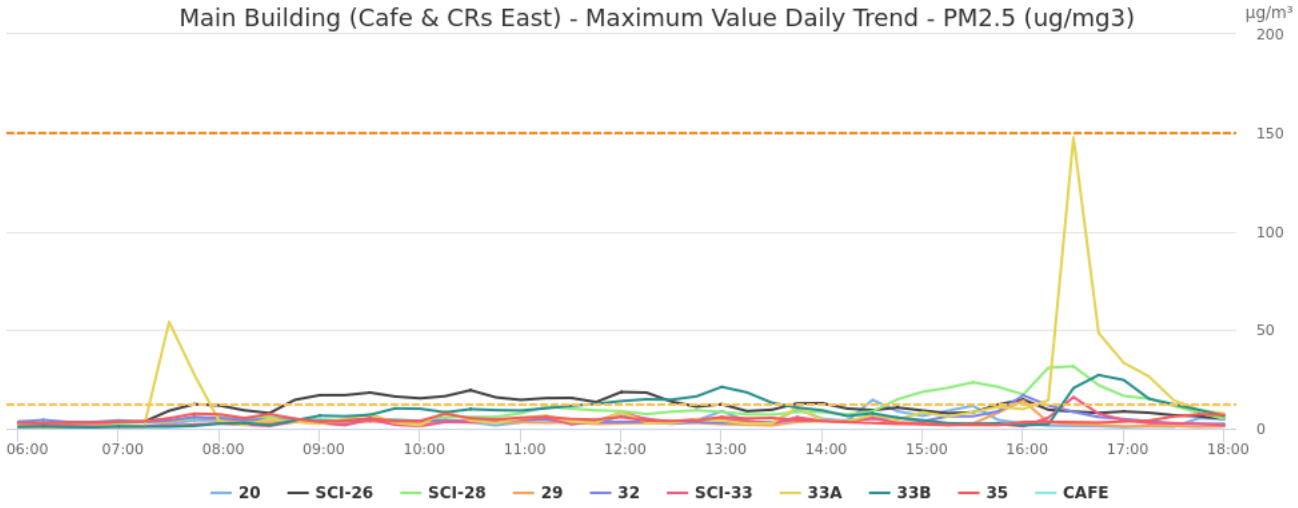
PM2.5 Monitoring

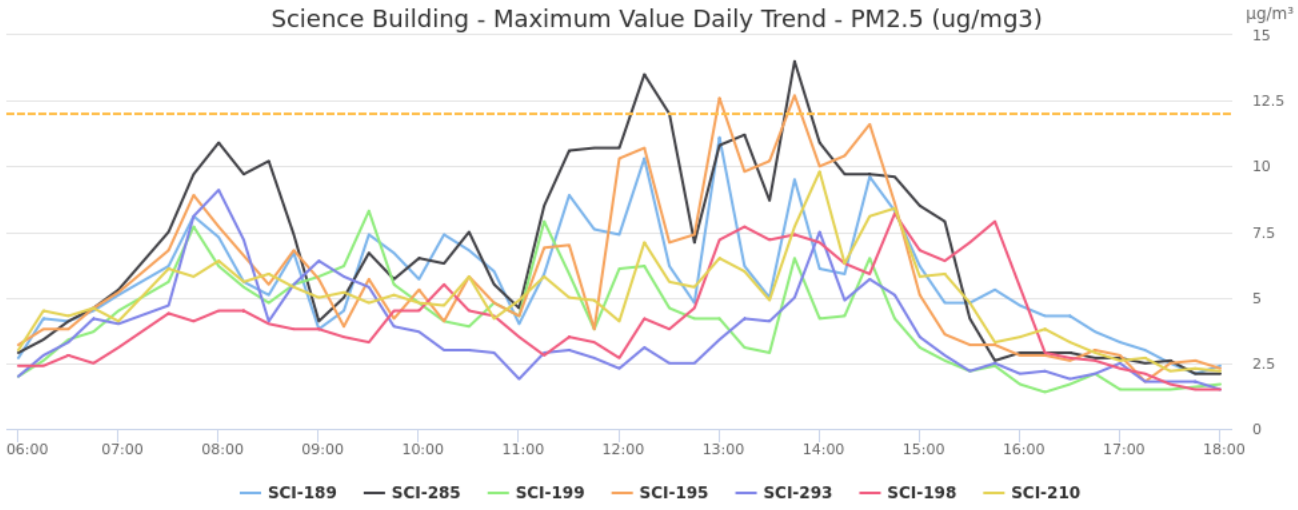
PM2.5 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 12 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 150 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 250 ug/m3; MCPS notified at 8-hours


All PM2.5 Sensors Main & Science Buildings Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
250
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
MUS-23
24
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
42
44
46
48
52
54
55
60
61
BLR-138
150
CAFE
IMC
47
57
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-210
SCI-189


Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
100
80
60
40
20
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47

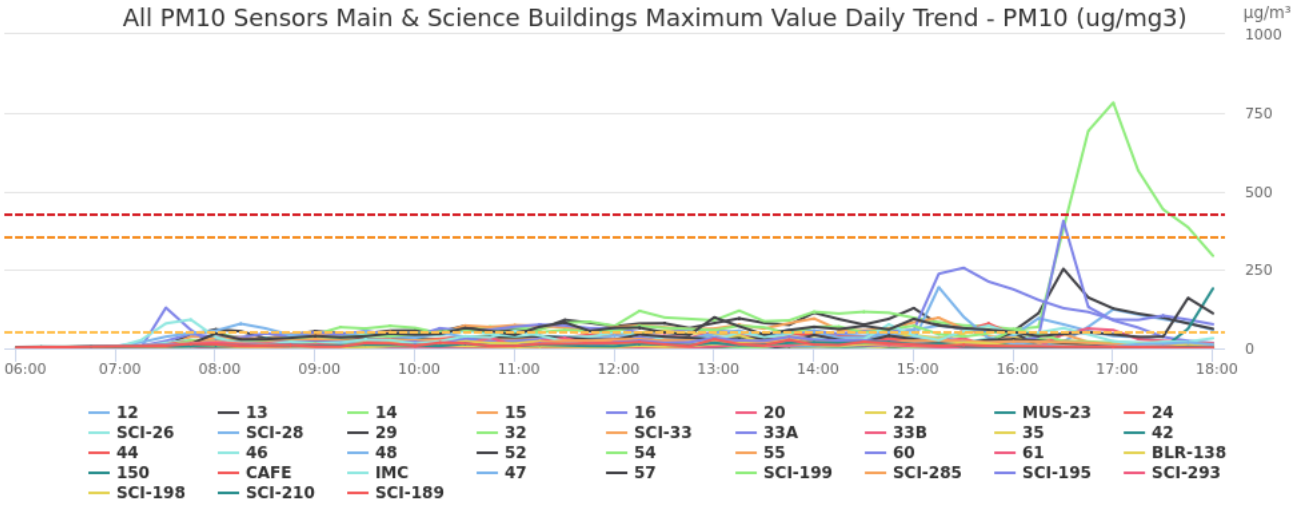

Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
250
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
14
15
16
22
23
24
46
BLR-138
42
150

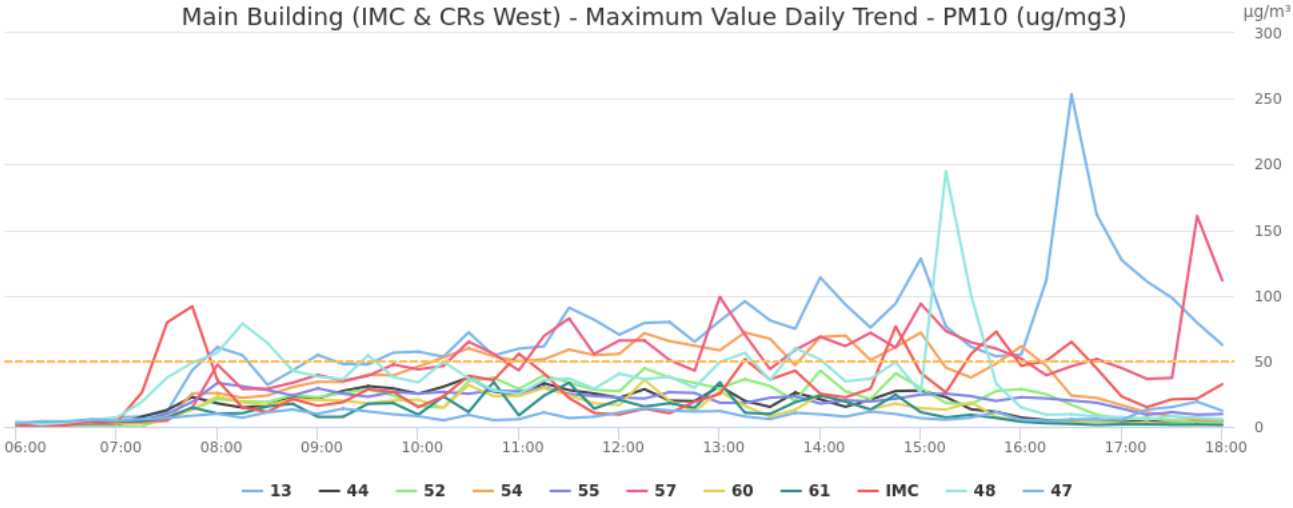


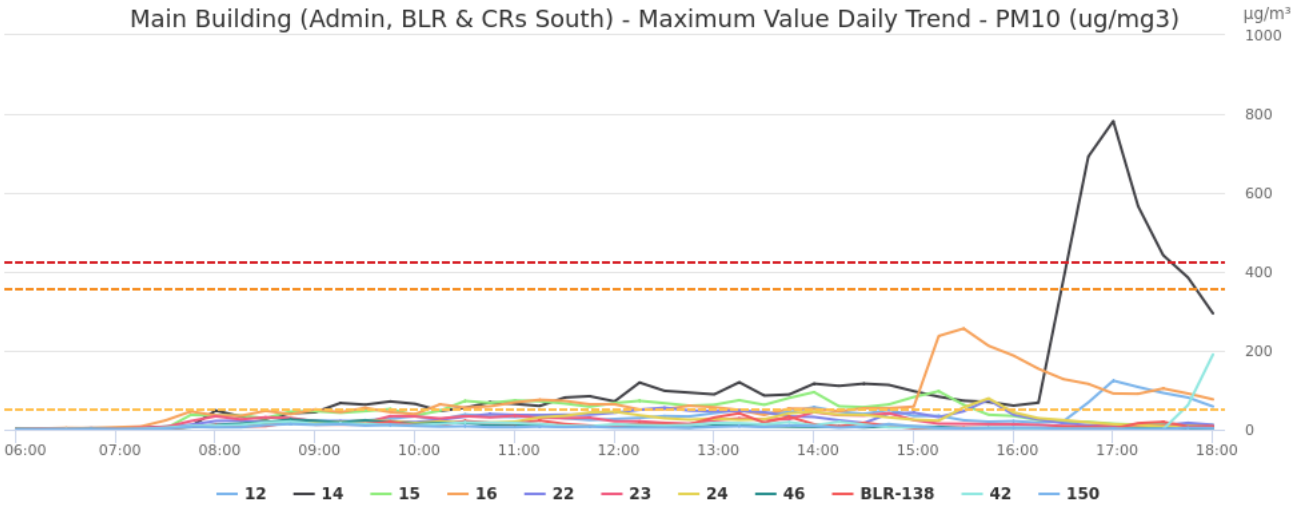


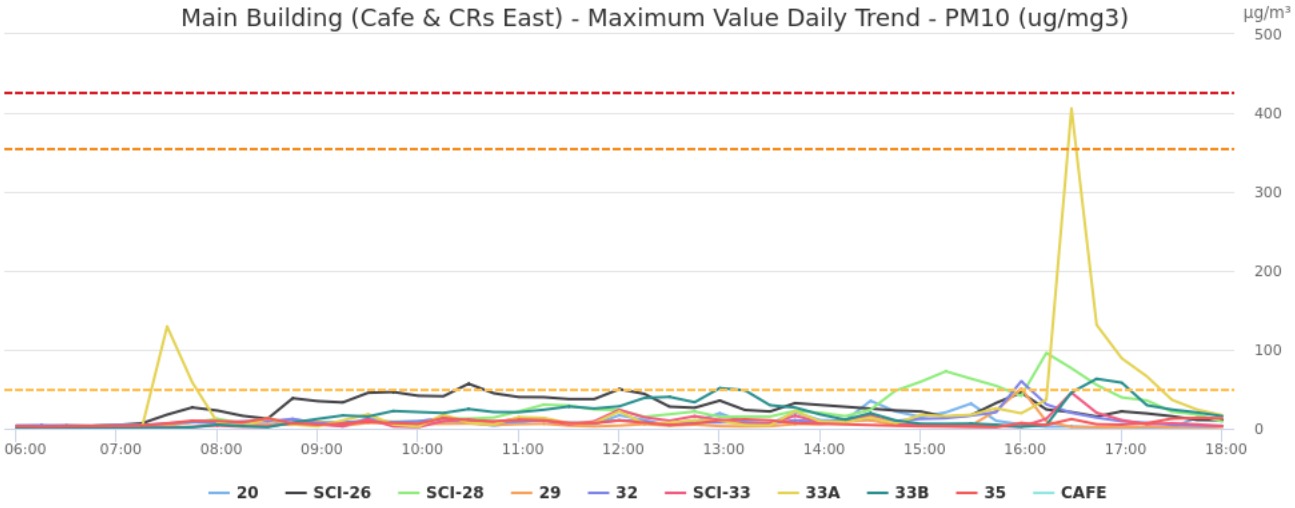
PM10 Monitoring

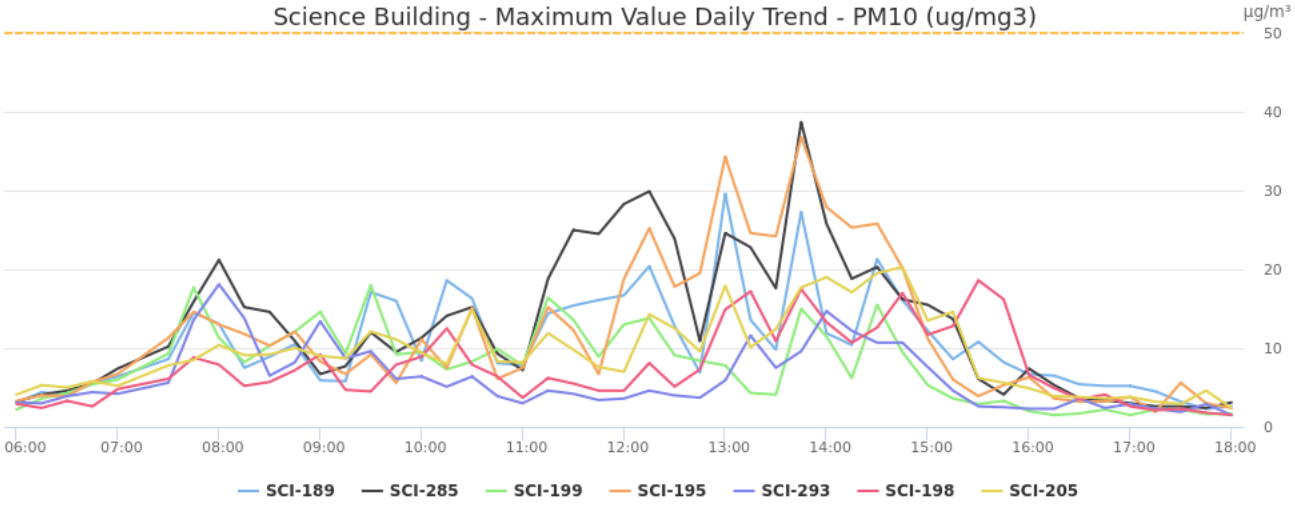
PM10 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 50 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 355 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 425 ug/m3; MCPS notified at 8-hours


All PM10 Sensors Main & Science Buildings Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
1000
750
500
250
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
MUS-23
24
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
42
44
46
48
52
54
55
60
61
BLR-138
150
CAFE
IMC
47
57
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-210
SCI-189


Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
300
250
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47


Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
1000
800
600
400
200
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
14
15
16
22
23
24
46
BLR-138
42
150


Main Building (Cafe & CRs East) - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
500
400
300
200
100
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
20
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
CAFE


Science Building - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
50
40
30
20
10
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
SCI-189
SCI-285
SCI-199
SCI-195
SCI-293
SCI-198
SCI-205

POOLESVILLE HS ON-SITE CONSTRUCTION IAQ REPORT

This report was generated on 02/22/2024 at 03:00 AM (America/New_York)

This daily report is for IAQ data collected between 6:00 AM and 6:00 PM for the day previous to the report generated date above.

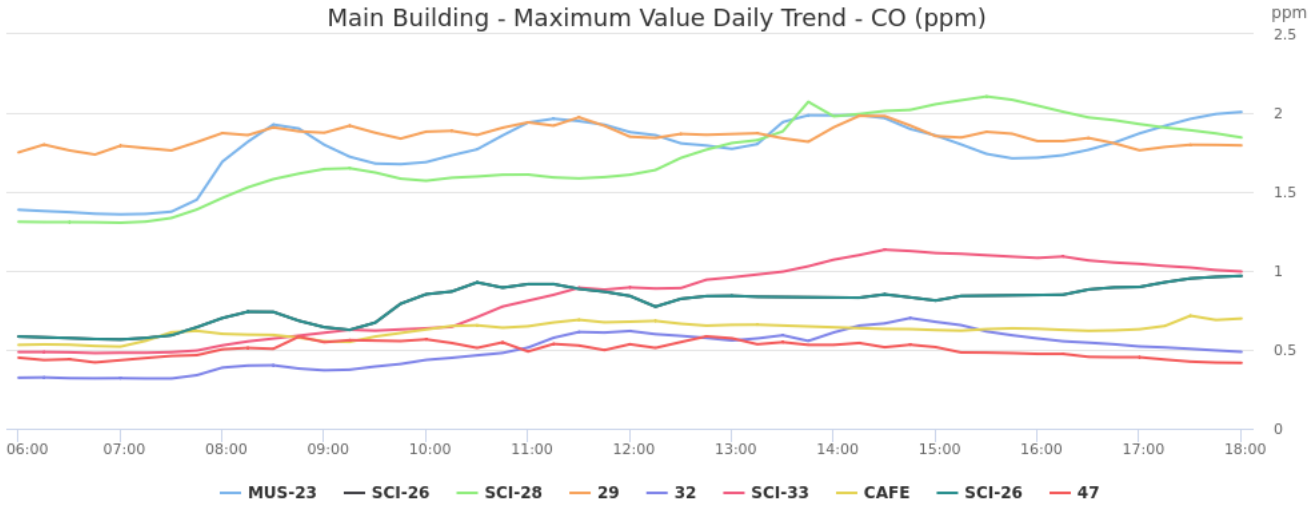
This report includes the parameters that are most affected by construction activities in close proximity to an occupied buildings:
CO - carbon monoxide
TVOC - total volatile organic compounds
PM10 - particulate matter <=10 micron(ug)
PM2.5 - particulate matter <=2.5 ug
PM1.0 - particulate matter <=1.0 ug
ppm - parts per million
ppb - parts per billion
ug/m3 - micrograms per cubic meter of air

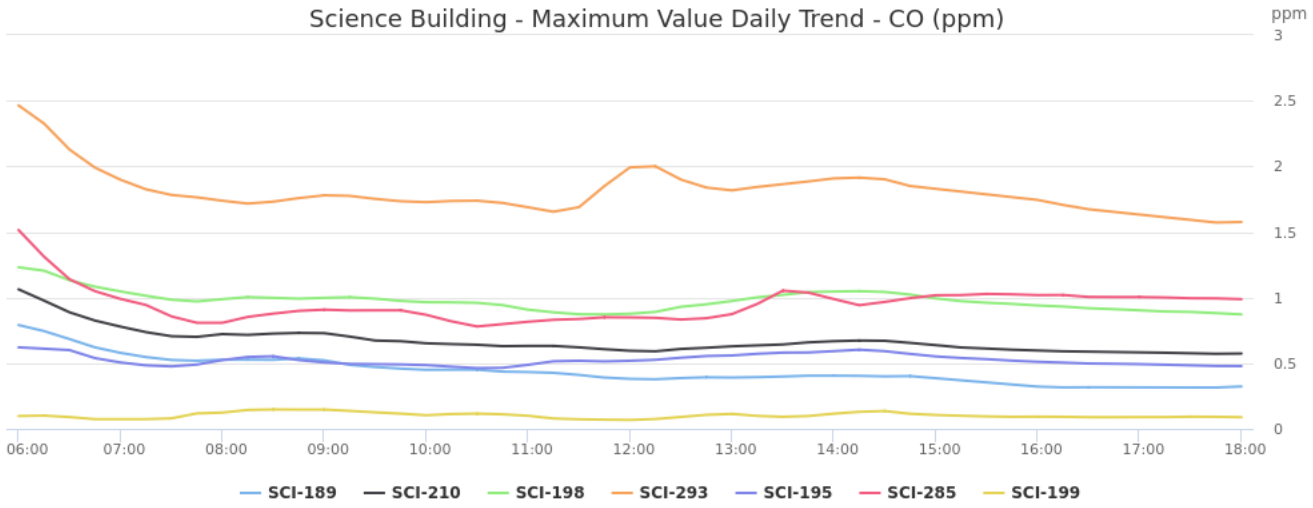
All data is monitored as an indicator of ventilation performance. Where suspect ventilation concerns are identified IAQ team members investigate to determine best next steps, including but not limited to - submit work orders to mechanical teams for repairs, review occupancy and use, review occupant activities and or continue to monitor data collected for patterns and trends.

CO Monitoring

Carbon Monoxide (CO): Carbon monoxide is a colorless, odorless gas. It results from incomplete combustion processes. Common sources of CO in schools are improperly vented furnaces, malfunctioning gas ranges, canned heat (e.g. a Sterno), or exhaust fumes that have been drawn back into the building. Worn or poorly adjusted and maintained combustion devices (e.g., boilers, furnaces), or a flue that is improperly sized, blocked, disconnected, or leaking, can be significant sources. Auto, truck, or bus exhaust from attached garages, nearby roads, or idling vehicles in parking areas can also be sources. Carbon monoxide at high concentrations is considered to be a serious health hazard.

CO Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 4 ppm; MCPS notified at 4-hours
Ventilation - orange = 9 ppm; MCPS notified at 1-hour; immediate text, investigation
Health & Safety - red = 25 ppm; MCPS notified at 8-hours, immediate text, community notification if during school hours

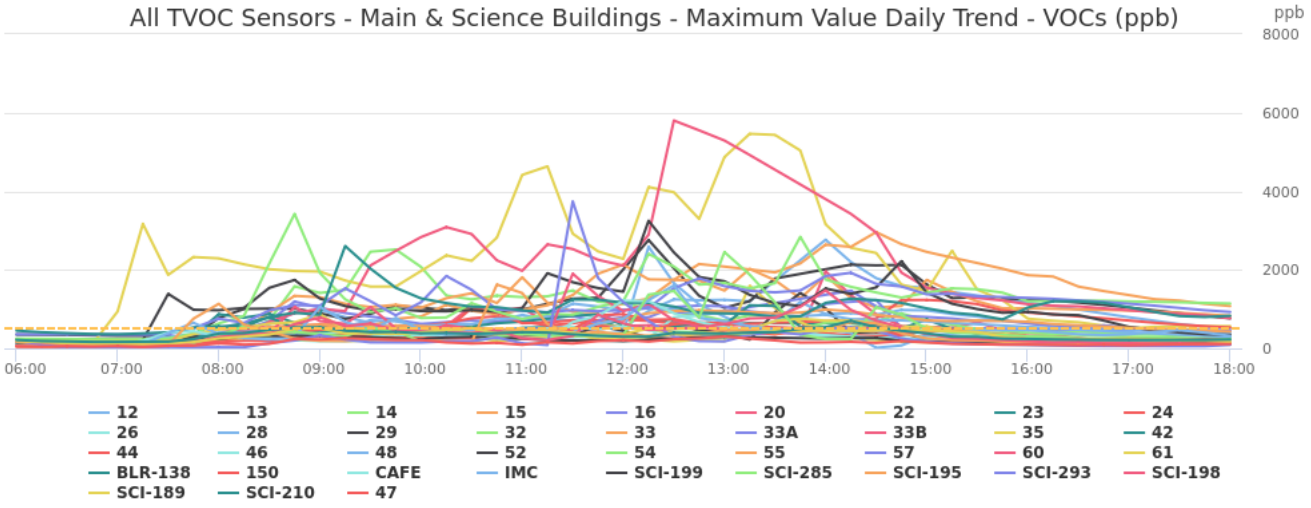


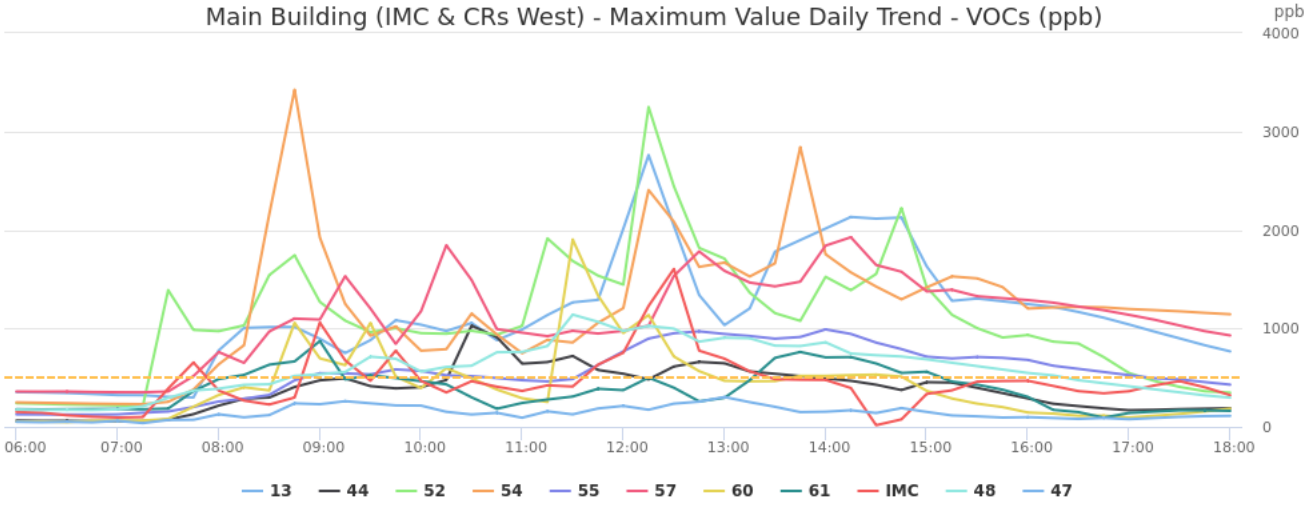


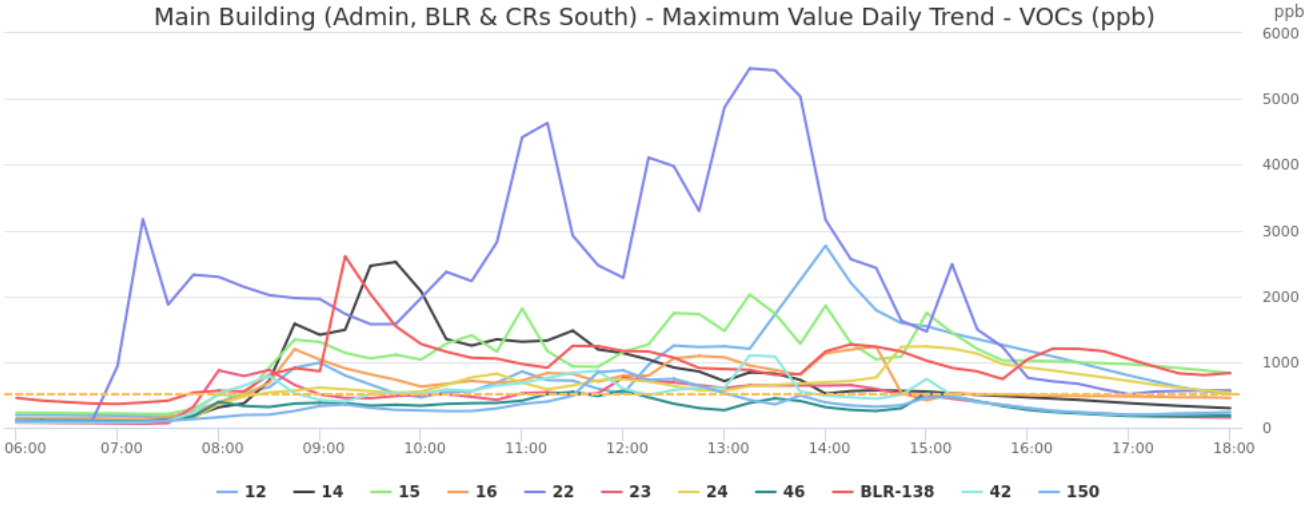
The carbon monoxide standards for indoor air quality are the U.S. Environmental Protection Agency (US EPA) National Ambient Air Quality Standard (NAAQS) of 9 ppm CO on a 8-hour time-weighted average (TWA), and the World Health organization Guidelines for Indoor Air Quality – Selected Pollutants of 6 ppm. However, MCPS will be notified at a sustained measurement of 4 ppm or greater for 4-hours as a more conservative and precautionary approach to this health-based standard.

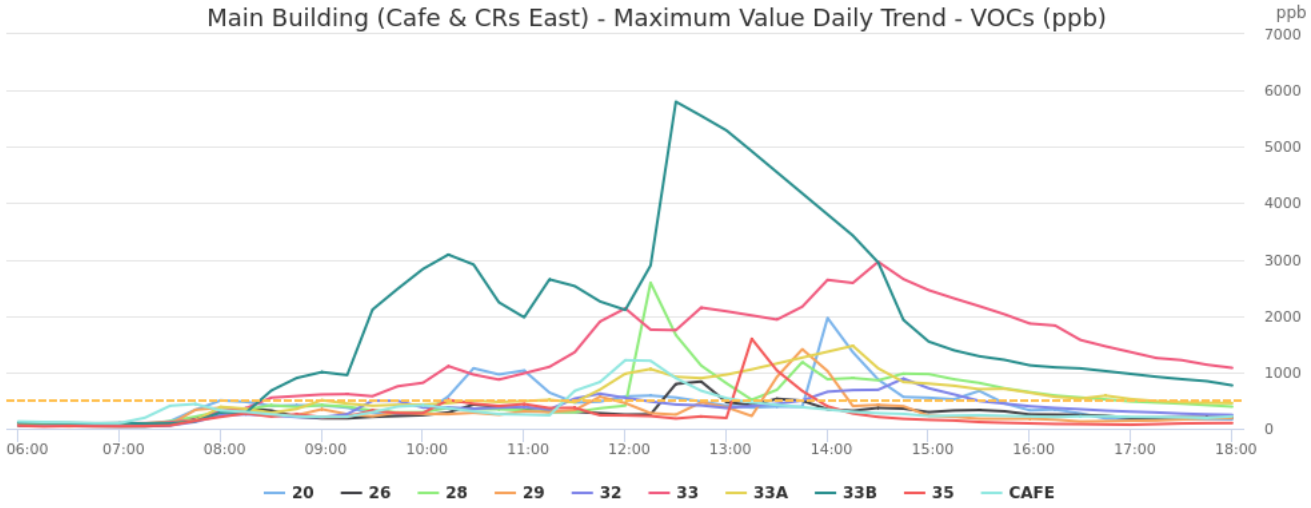
TVOC Monitoring

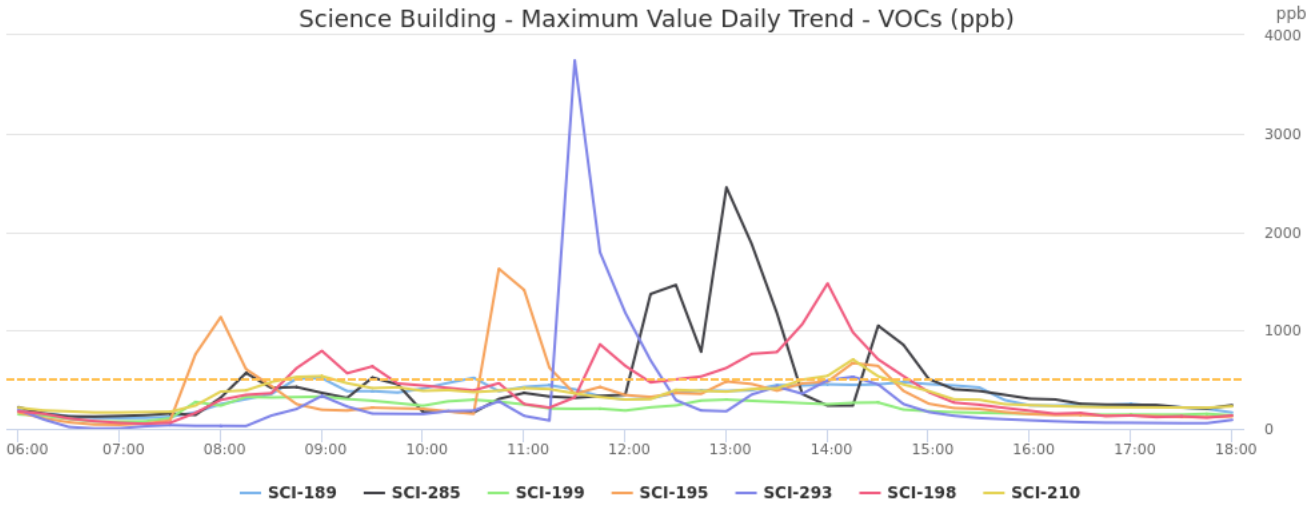
TVOC Graphs Legend:
solid lines indicate data from each room
dashed lines appear when exceeds value for any period of time
IAQ - yellow = 500 ppb (0.5 ppm); MCPS notified at 4-hours
Ventilation - red = 10,000 ppb (10 ppm); MCPS notified at 4-hours


All TVOC Sensors - Main & Science Buildings - Maximum Value Daily Trend - VOCs (ppb)
ppb
8000
6000
4000
2000
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
23
24
26
28
29
32
33
33A
33B
35
42
44
46
48
52
54
55
57
60
61
BLR-138
150
CAFE
IMC
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-189
SCI-210
47


Main Building (IMC & CRs West) - Maximum Value Daily Trend - VOCs (ppb)
ppb
4000
3000
2000
1000
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47

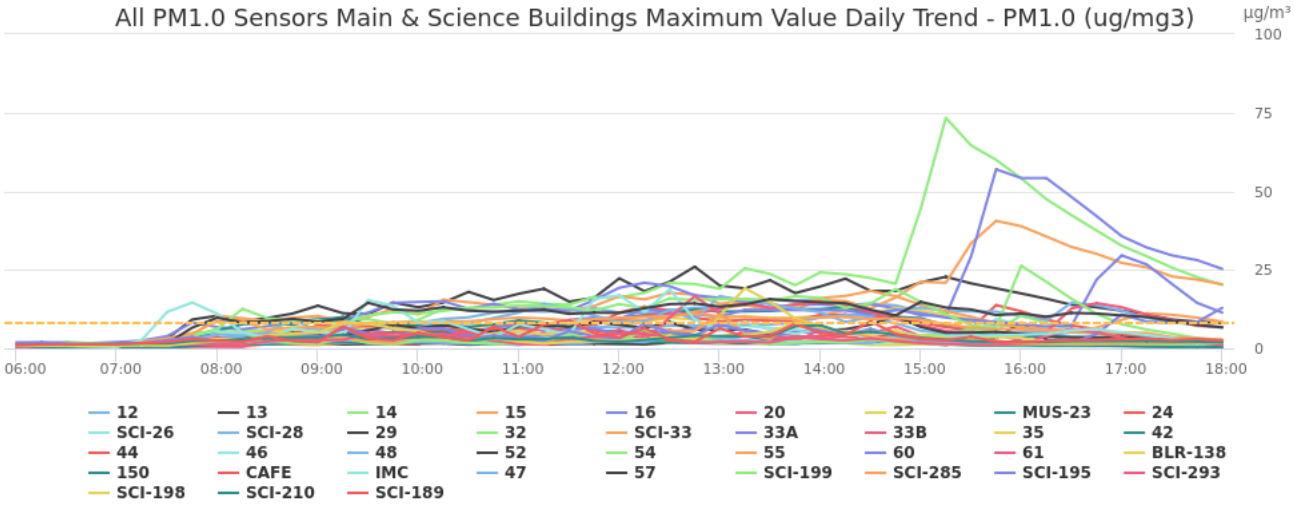

Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - VOCs (ppb)
ppb
6000
5000
4000
3000
2000
1000
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
14
15
16
22
23
24
46
BLR-138
42
150

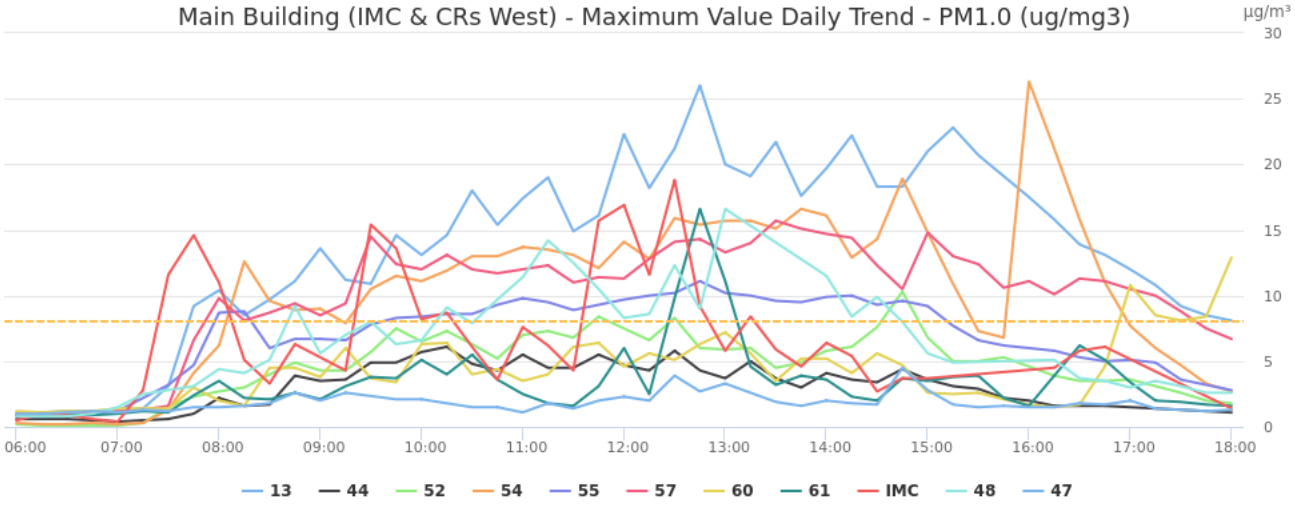


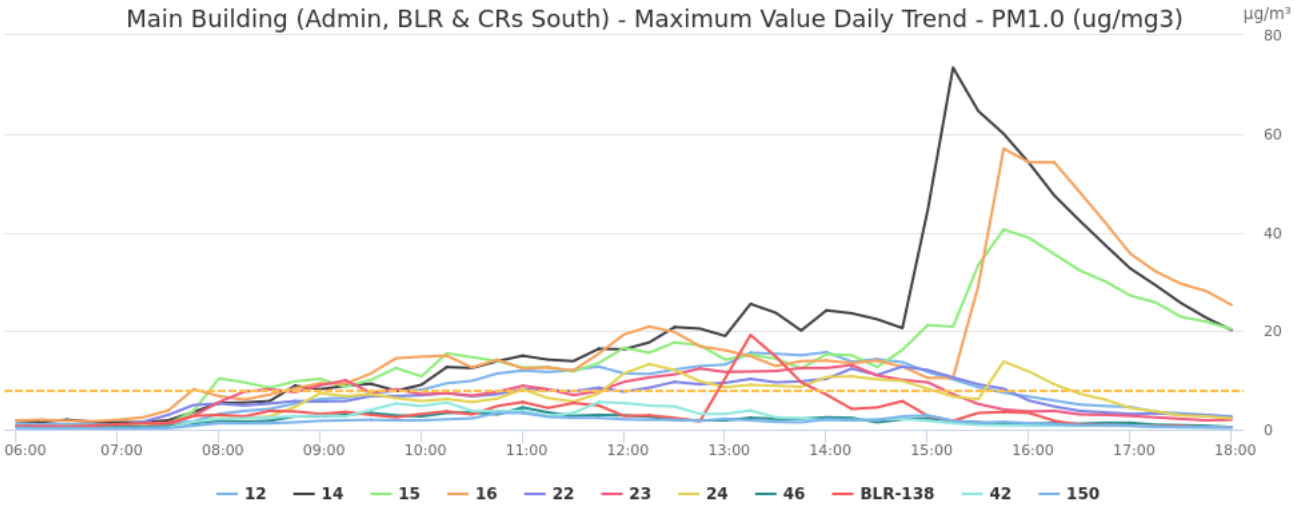


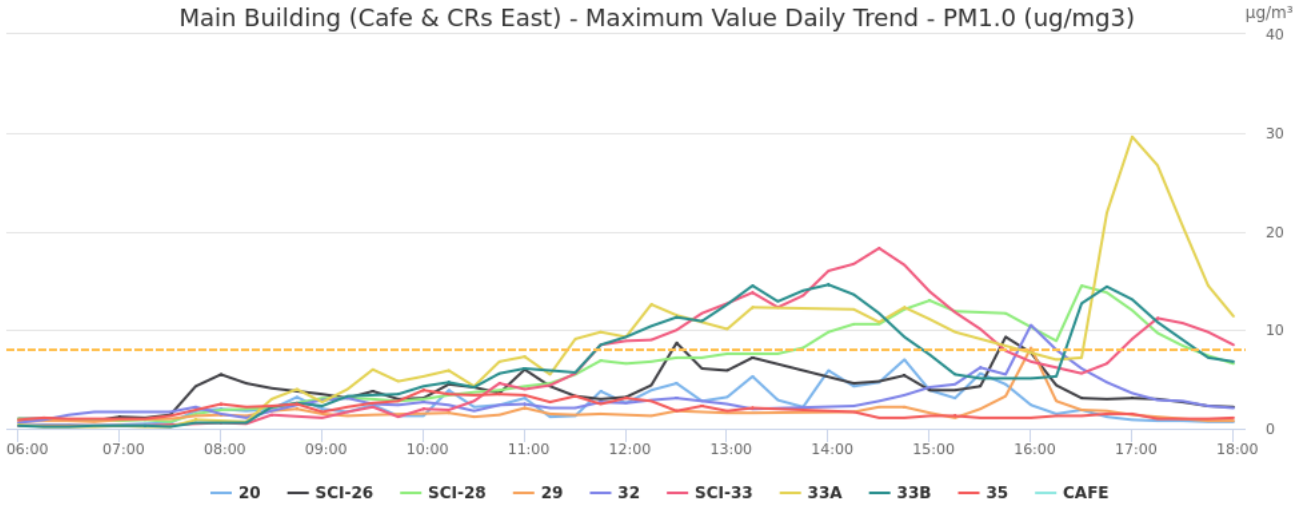
PM1.0 Monitoring

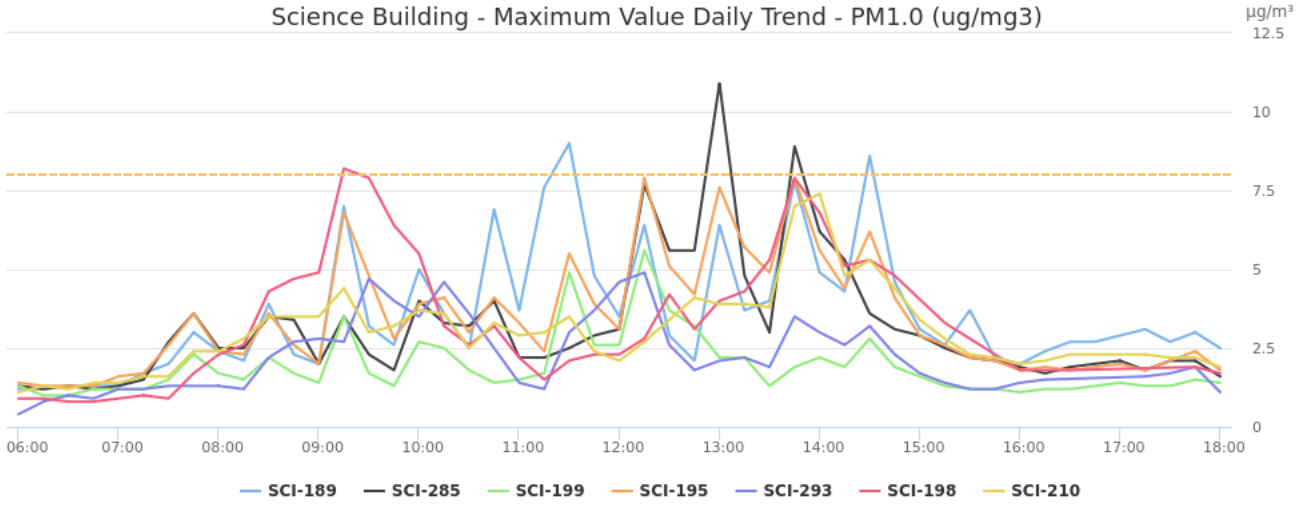
PM1.0 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 8 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 150 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 250 ug/m3; MCPS notified at 8-hours


All PM1.0 Sensors Main & Science Buildings Maximum Value Daily Trend - PM1.0 (ug/mg3)
µg/m³
100
75
50
25
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
MUS-23
24
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
42
44
46
48
52
54
55
60
61
BLR-138
150
CAFE
IMC
47
57
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-210
SCI-189


Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM1.0 (ug/mg3)
µg/m³
30
25
20
15
10
5
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47

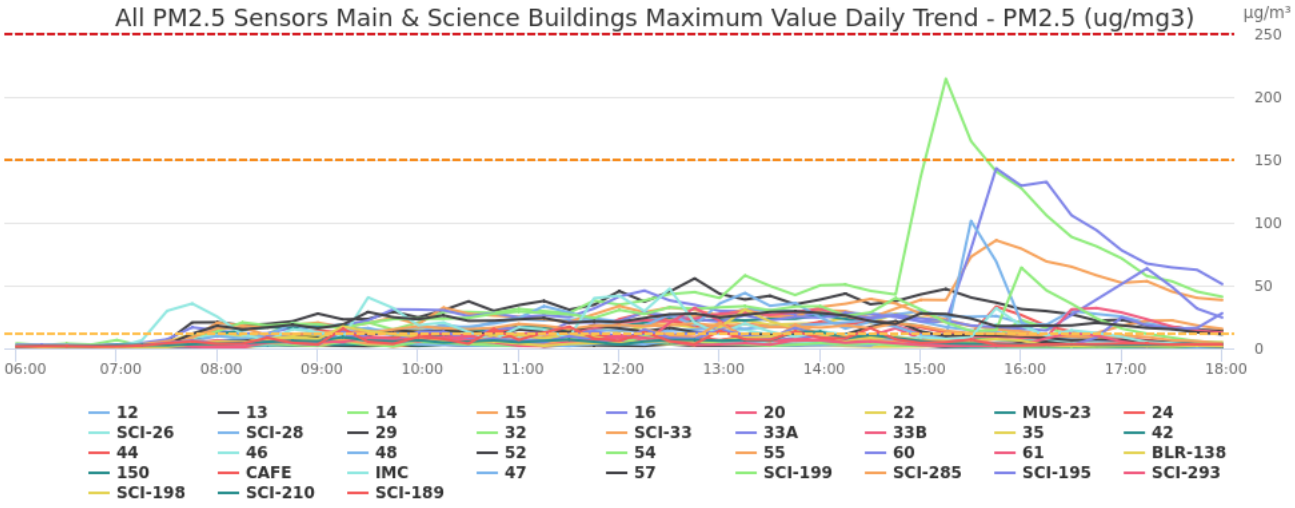

Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM1.0 (ug/mg3)
µg/m³
80
60
40
20
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
14
15
16
22
23
24
46
BLR-138
42
150

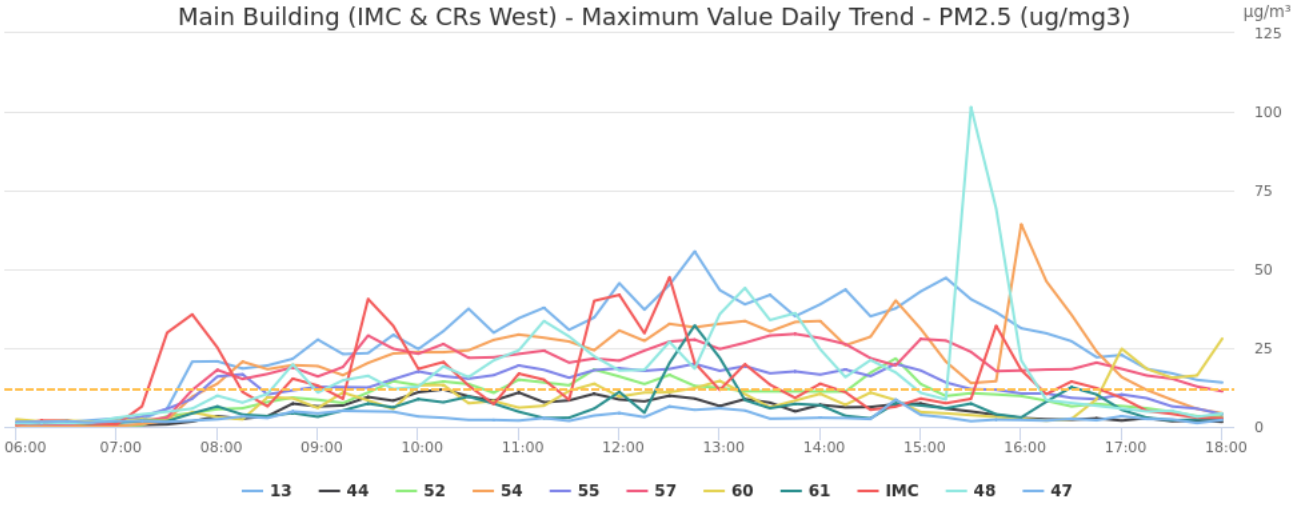


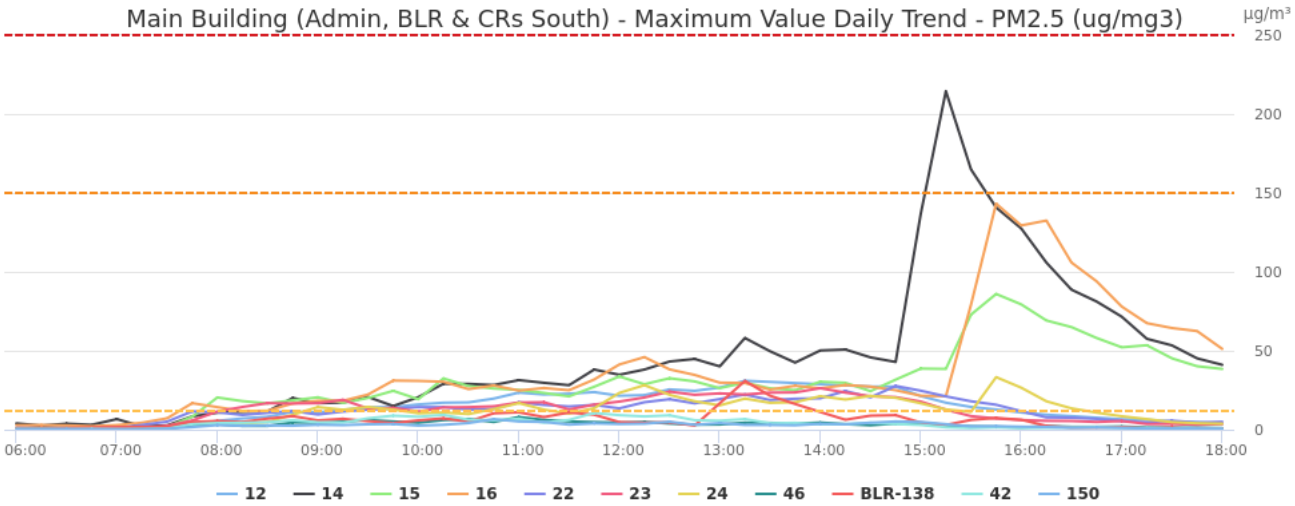


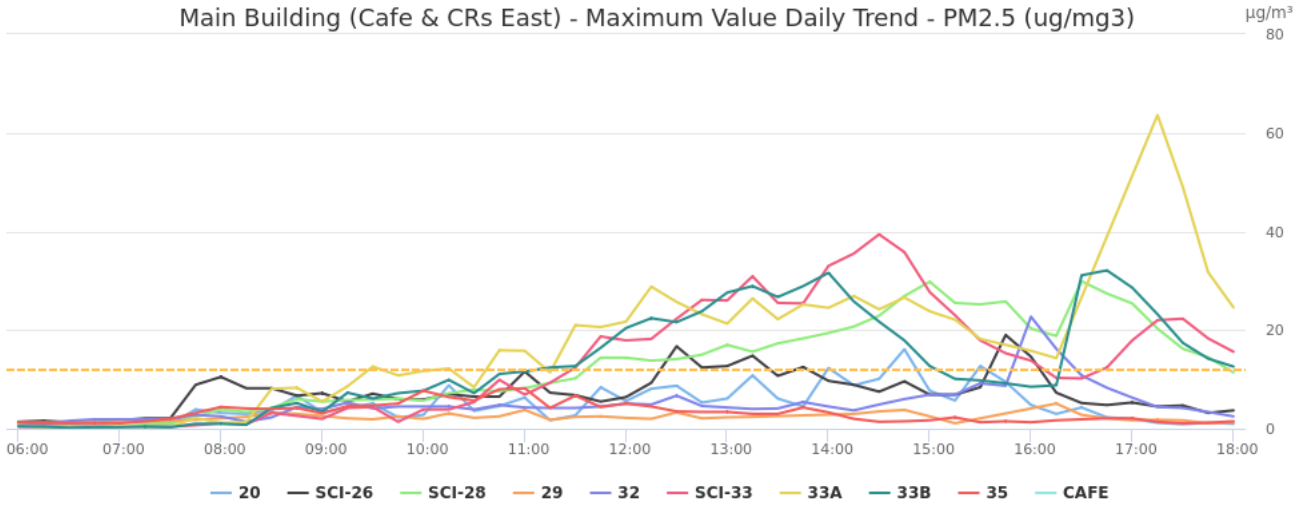
PM2.5 Monitoring

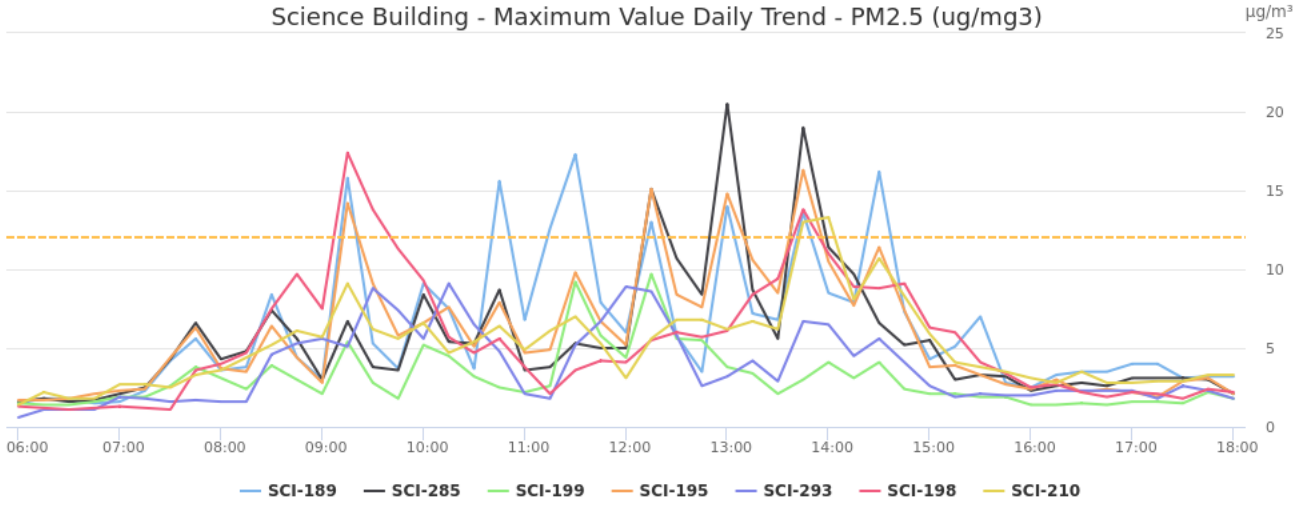
PM2.5 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 12 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 150 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 250 ug/m3; MCPS notified at 8-hours


All PM2.5 Sensors Main & Science Buildings Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
250
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
MUS-23
24
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
42
44
46
48
52
54
55
60
61
BLR-138
150
CAFE
IMC
47
57
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-210
SCI-189


Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
125
100
75
50
25
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47

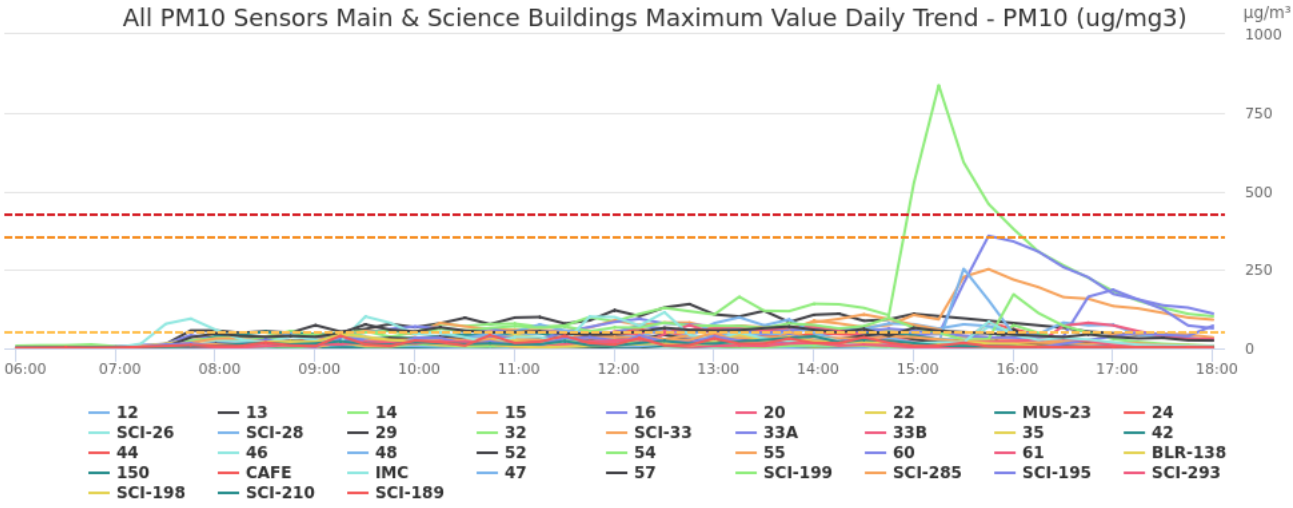

Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
250
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
14
15
16
22
23
24
46
BLR-138
42
150

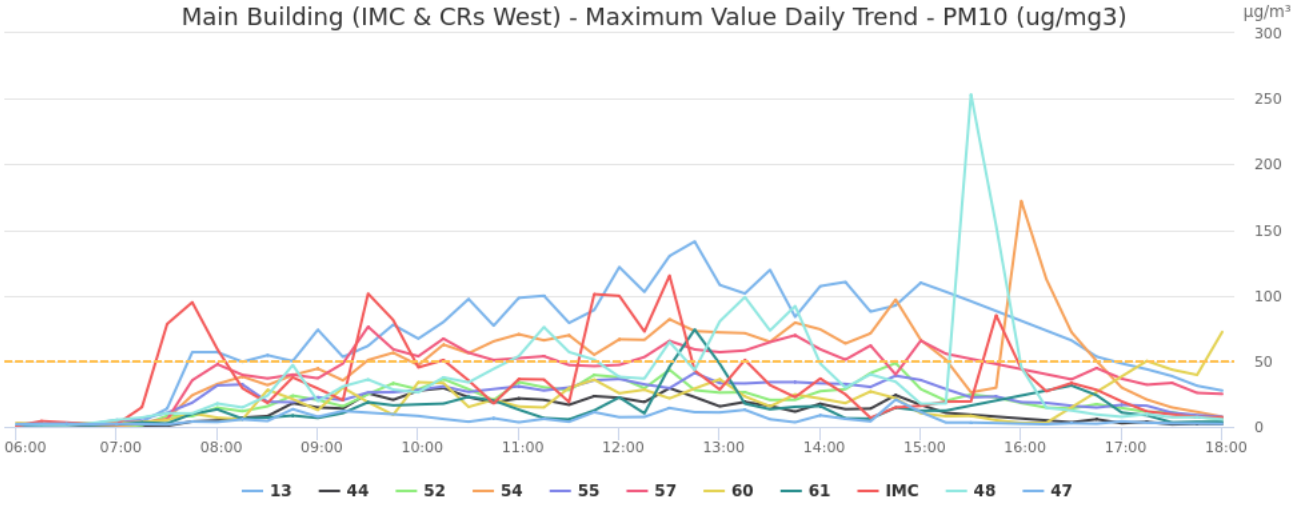


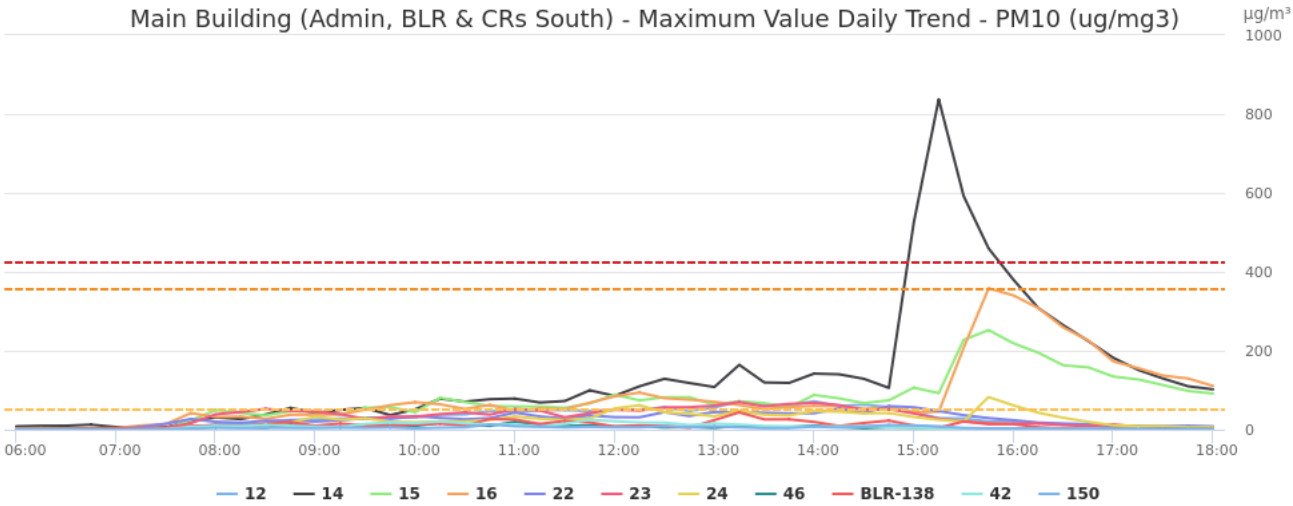


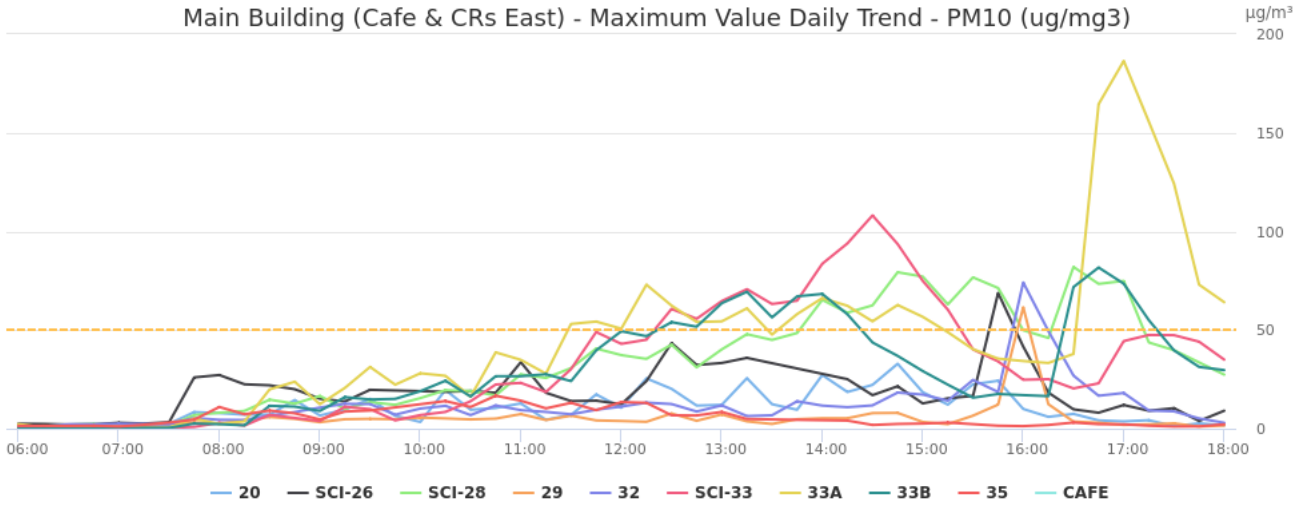
PM10 Monitoring

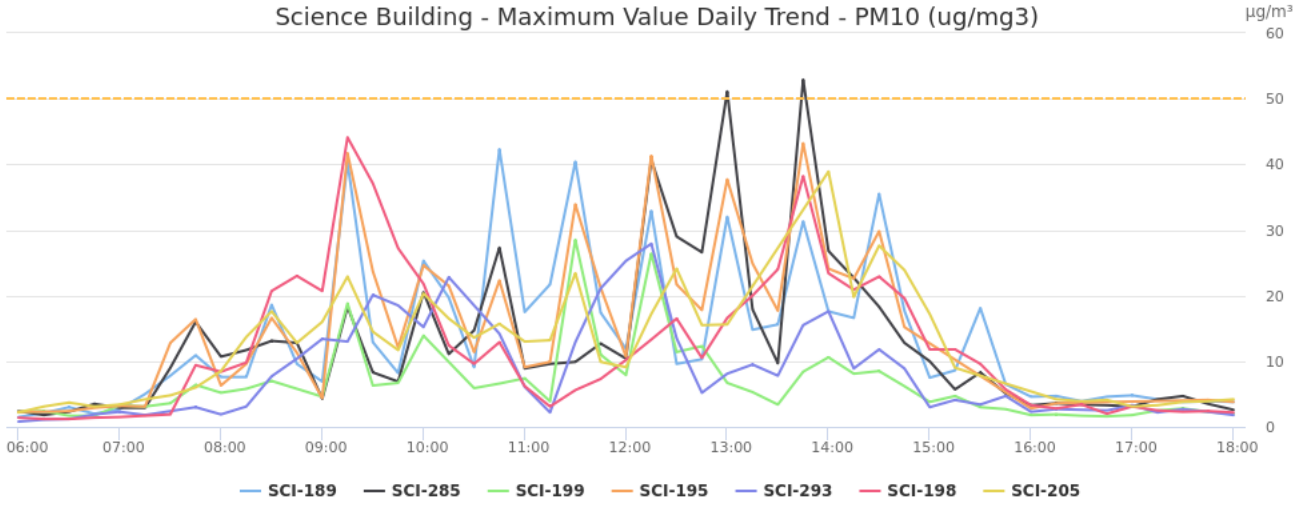
PM10 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 50 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 355 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 425 ug/m3; MCPS notified at 8-hours


All PM10 Sensors Main & Science Buildings Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
1000
750
500
250
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
MUS-23
24
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
42
44
46
48
52
54
55
60
61
BLR-138
150
CAFE
IMC
47
57
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-210
SCI-189


Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
300
250
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47


Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
1000
800
600
400
200
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
14
15
16
22
23
24
46
BLR-138
42
150


Main Building (Cafe & CRs East) - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
20
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
CAFE


Science Building - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
60
50
40
30
20
10
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
SCI-189
SCI-285
SCI-199
SCI-195
SCI-293
SCI-198
SCI-205

POOLESVILLE HS ON-SITE CONSTRUCTION IAQ REPORT

This report was generated on 02/23/2024 at 03:00 AM (America/New_York)

This daily report is for IAQ data collected between 6:00 AM and 6:00 PM for the day previous to the report generated date above.

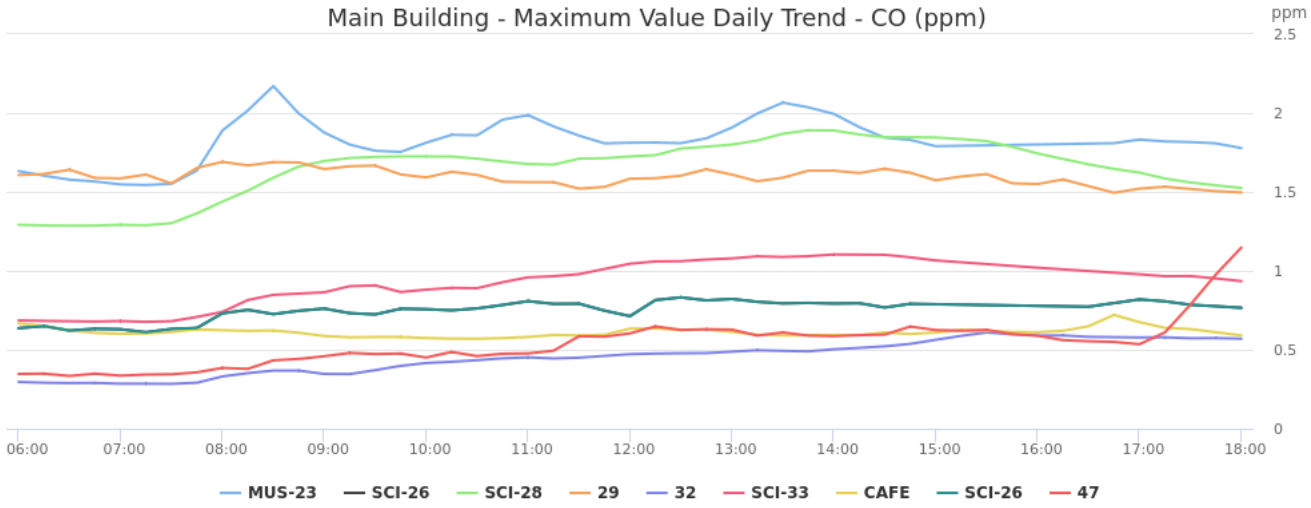
This report includes the parameters that are most affected by construction activities in close proximity to an occupied buildings:
CO - carbon monoxide
TVOC - total volatile organic compounds
PM10 - particulate matter <=10 micron(ug)
PM2.5 - particulate matter <=2.5 ug
PM1.0 - particulate matter <=1.0 ug
ppm - parts per million
ppb - parts per billion
ug/m3 - micrograms per cubic meter of air

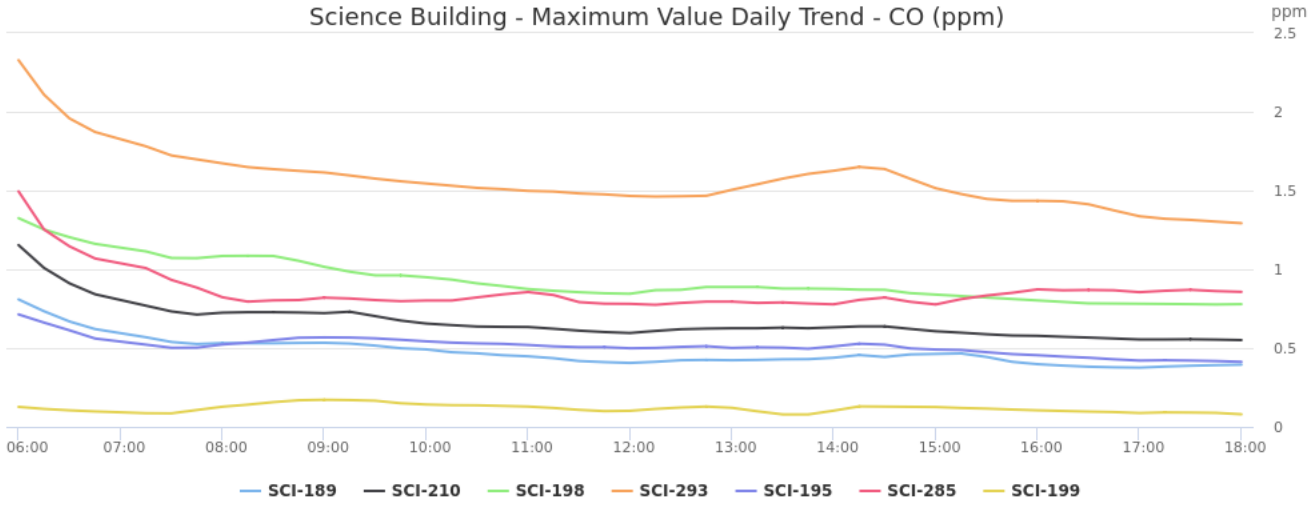
All data is monitored as an indicator of ventilation performance. Where suspect ventilation concerns are identified IAQ team members investigate to determine best next steps, including but not limited to - submit work orders to mechanical teams for repairs, review occupancy and use, review occupant activities and or continue to monitor data collected for patterns and trends.

CO Monitoring

Carbon Monoxide (CO): Carbon monoxide is a colorless, odorless gas. It results from incomplete combustion processes. Common sources of CO in schools are improperly vented furnaces, malfunctioning gas ranges, canned heat (e.g. a Sterno), or exhaust fumes that have been drawn back into the building. Worn or poorly adjusted and maintained combustion devices (e.g., boilers, furnaces), or a flue that is improperly sized, blocked, disconnected, or leaking, can be significant sources. Auto, truck, or bus exhaust from attached garages, nearby roads, or idling vehicles in parking areas can also be sources. Carbon monoxide at high concentrations is considered to be a serious health hazard.

CO Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 4 ppm; MCPS notified at 4-hours
Ventilation - orange = 9 ppm; MCPS notified at 1-hour; immediate text, investigation
Health & Safety - red = 25 ppm; MCPS notified at 8-hours, immediate text, community notification if during school hours

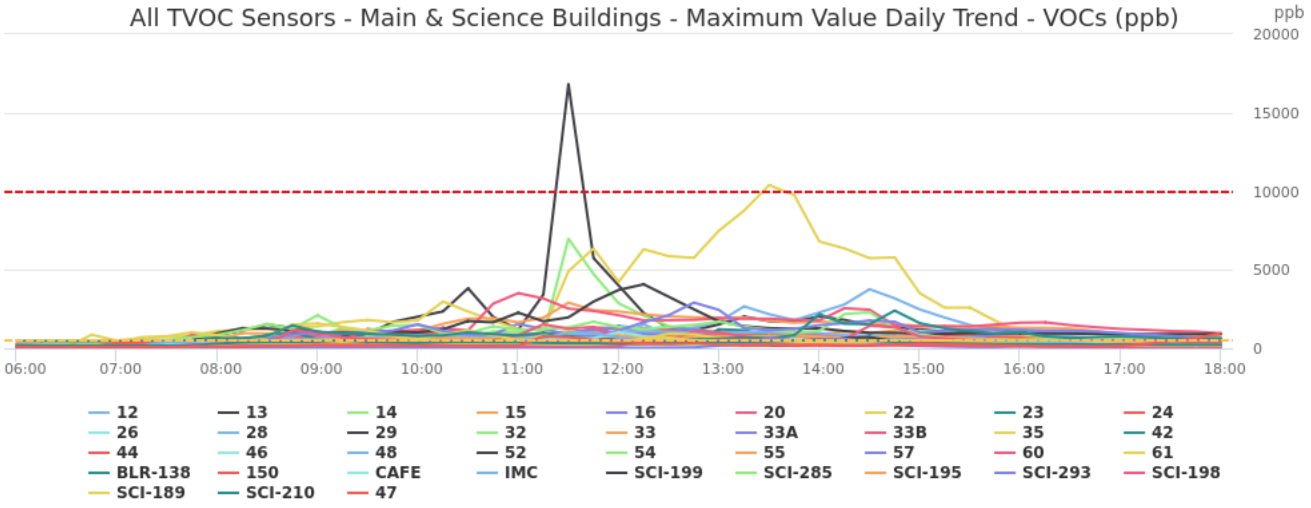


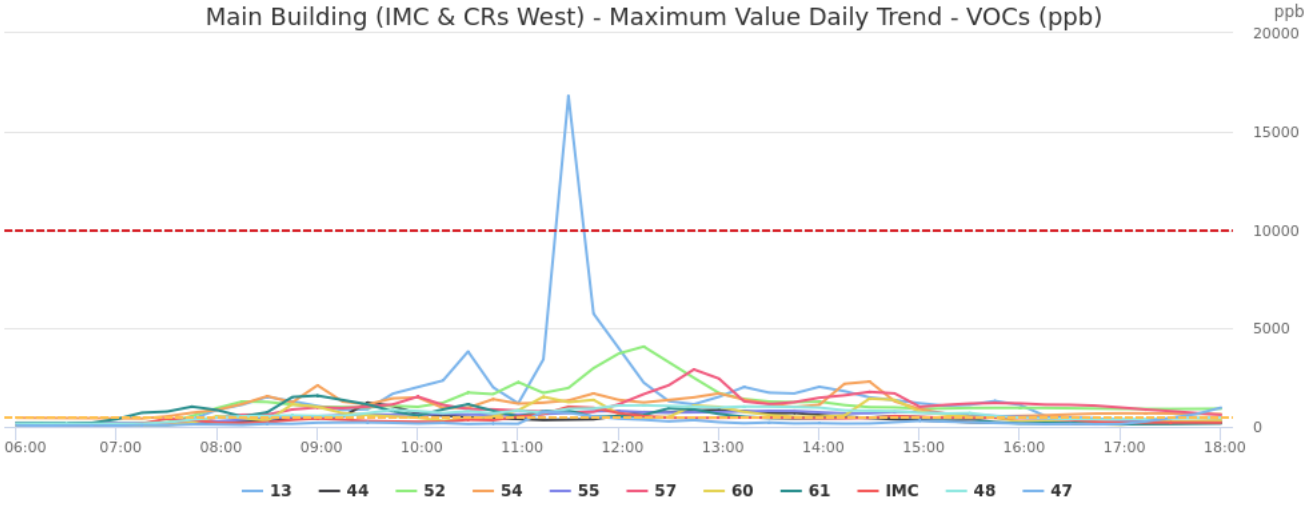


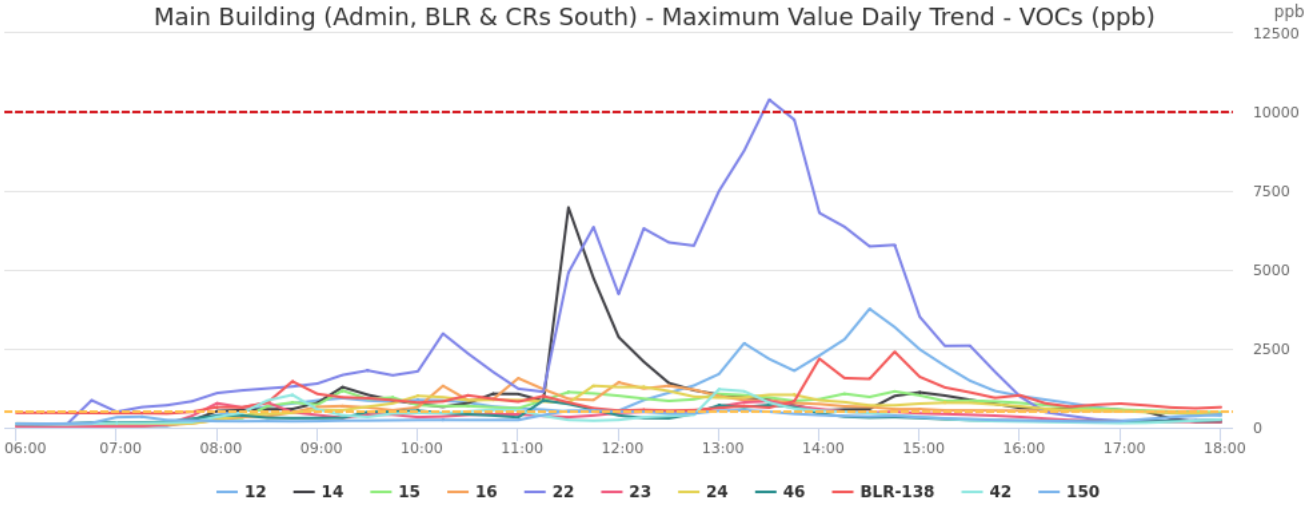
The carbon monoxide standards for indoor air quality are the U.S. Environmental Protection Agency (US EPA) National Ambient Air Quality Standard (NAAQS) of 9 ppm CO on a 8-hour time-weighted average (TWA), and the World Health organization Guidelines for Indoor Air Quality – Selected Pollutants of 6 ppm. However, MCPS will be notified at a sustained measurement of 4 ppm or greater for 4-hours as a more conservative and precautionary approach to this health-based standard.

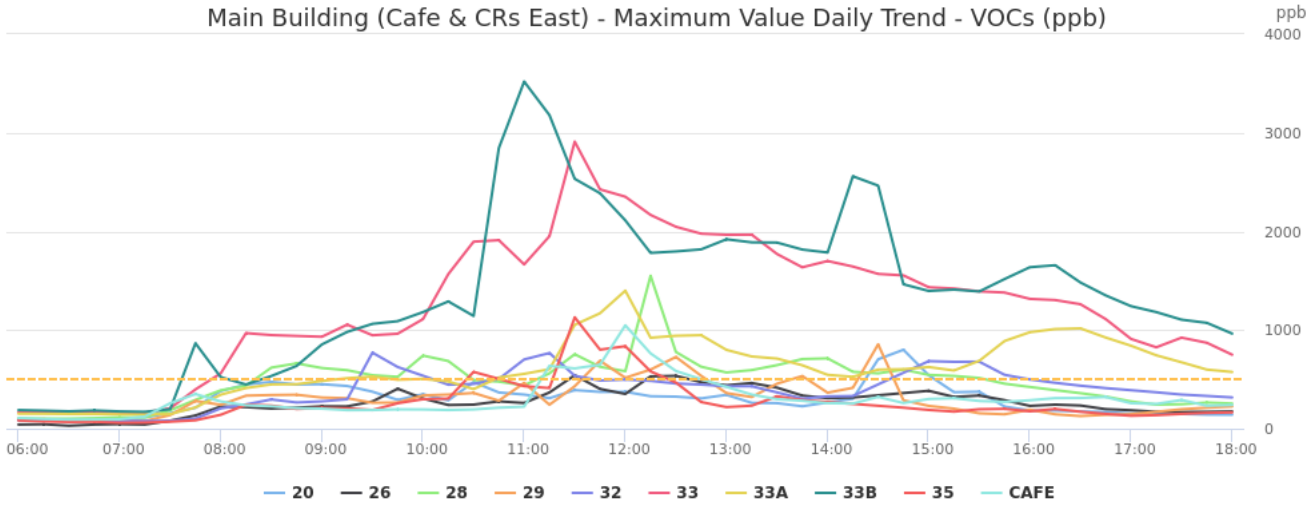
TVOC Monitoring

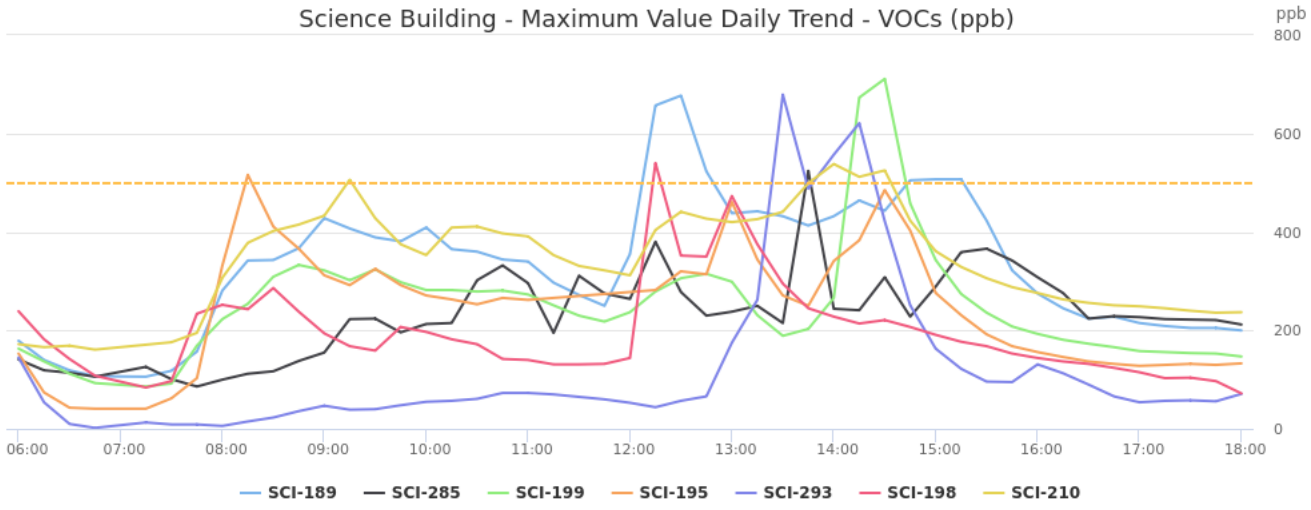
TVOC Graphs Legend:
solid lines indicate data from each room
dashed lines appear when exceeds value for any period of time
IAQ - yellow = 500 ppb (0.5 ppm); MCPS notified at 4-hours
Ventilation - red = 10,000 ppb (10 ppm); MCPS notified at 4-hours


All TVOC Sensors - Main & Science Buildings - Maximum Value Daily Trend - VOCs (ppb)
ppb
20000
15000
10000
5000
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
23
24
26
28
29
32
33
33A
33B
35
42
44
46
48
52
54
55
57
60
61
BLR-138
150
CAFE
IMC
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-189
SCI-210
47


Main Building (IMC & CRs West) - Maximum Value Daily Trend - VOCs (ppb)
ppb
20000
15000
10000
5000
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47


Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - VOCs (ppb)
ppb
12500
10000
7500
5000
2500
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
14
15
16
22
23
24
46
BLR-138
42
150

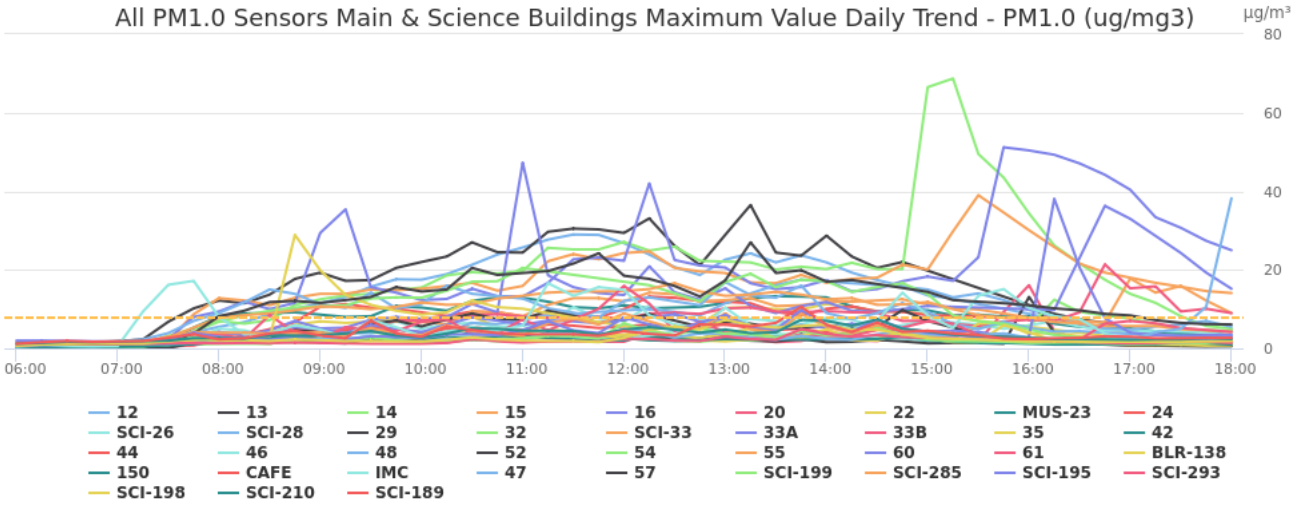




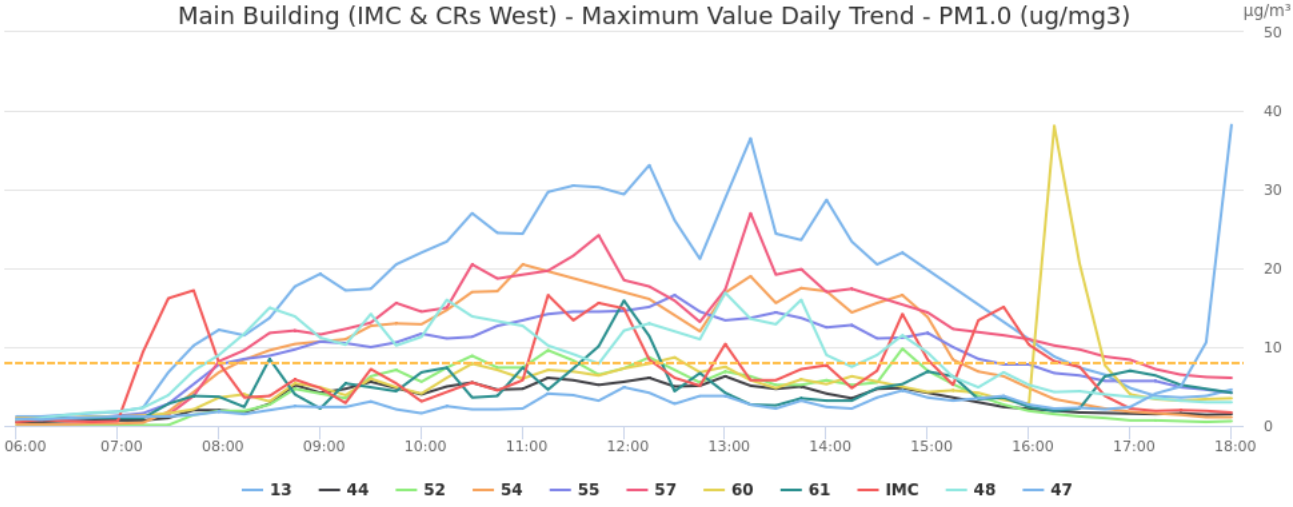
PM1.0 Monitoring

PM1.0 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 8 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 150 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 250 ug/m3; MCPS notified at 8-hours

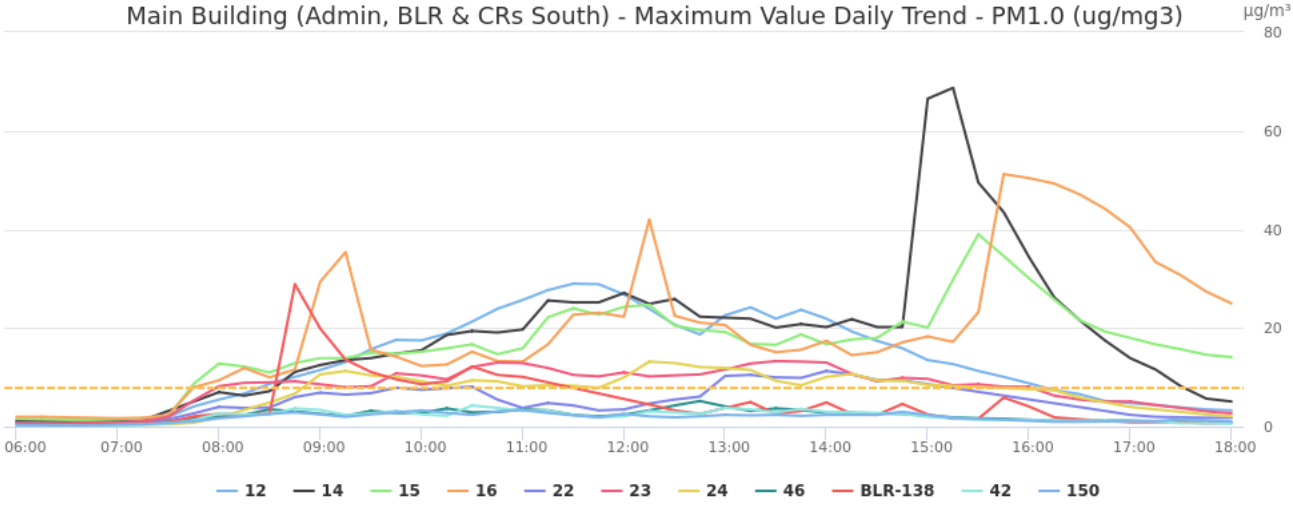
All PM1.0 Sensors Main & Science Buildings Maximum Value Daily Trend - PM1.0 (ug/mg3)

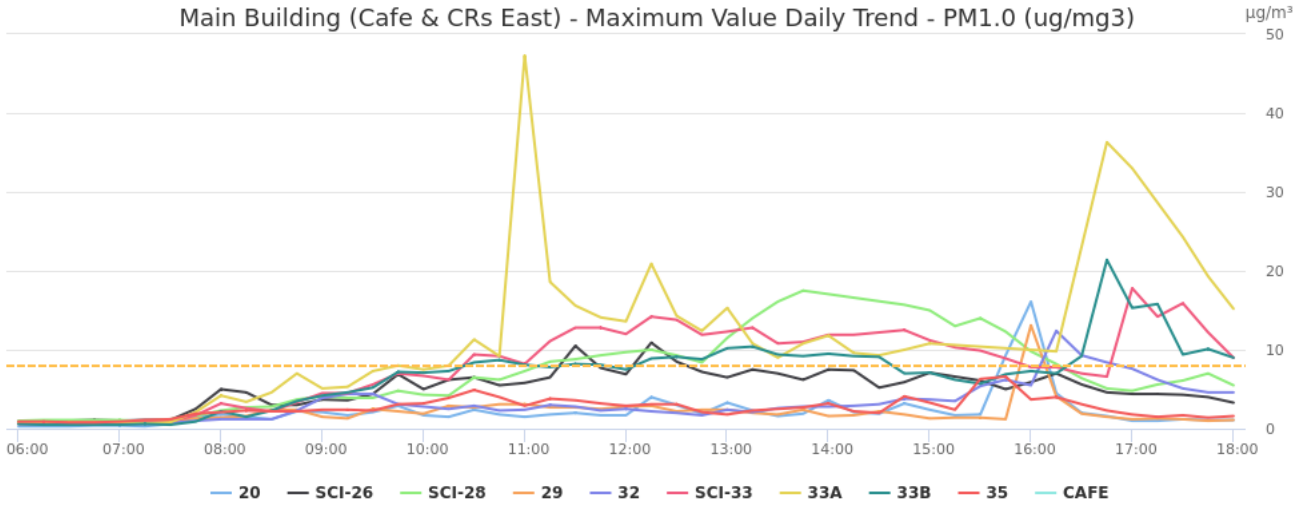


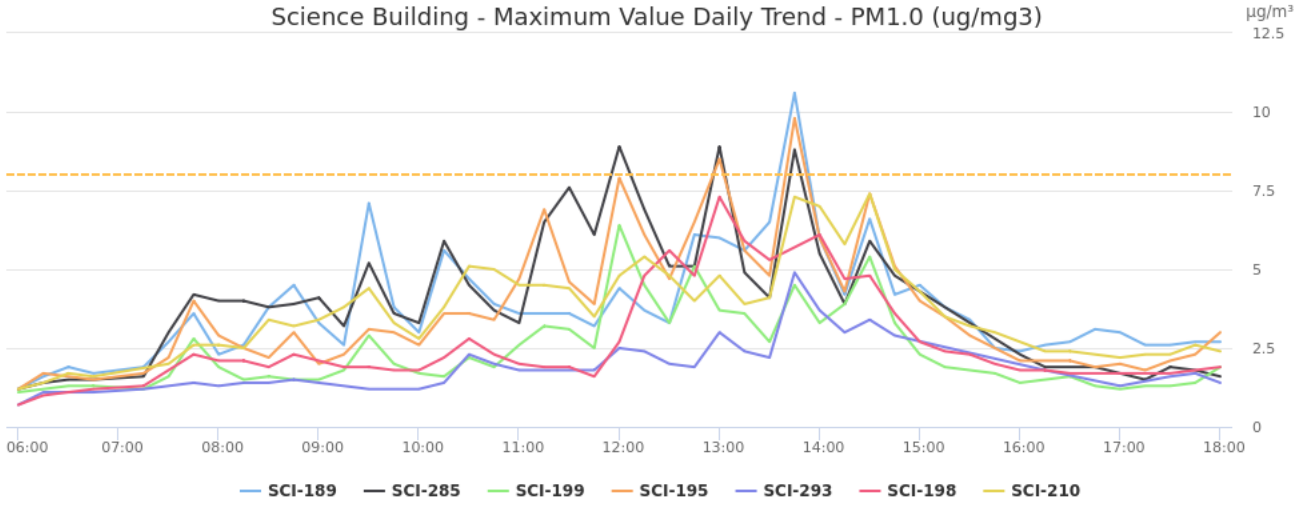
Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM1.0 (ug/mg3)



Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM1.0 (ug/mg3)

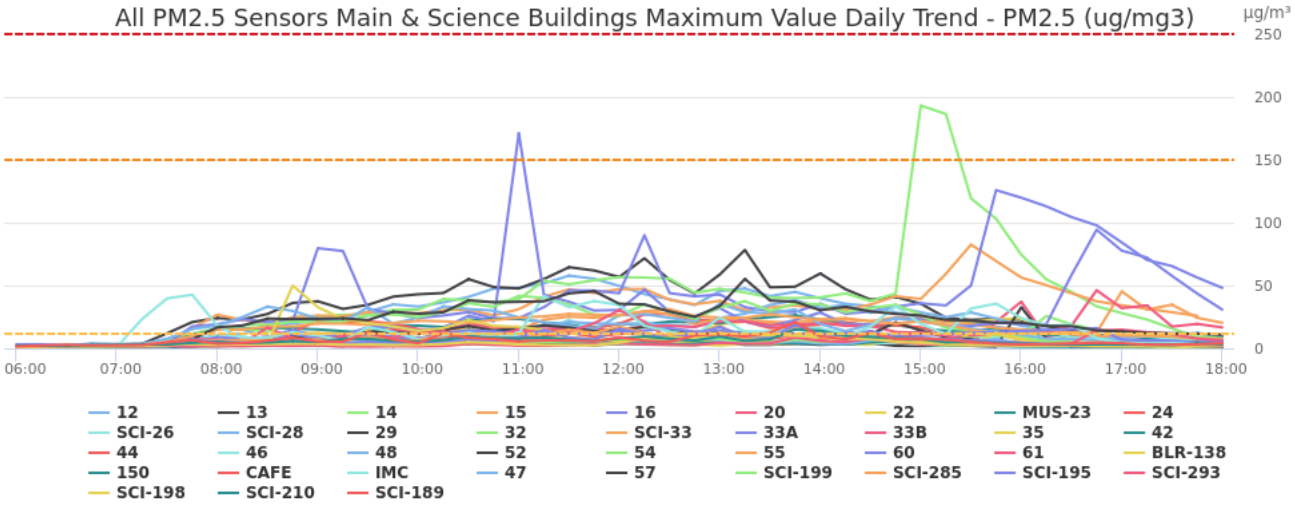


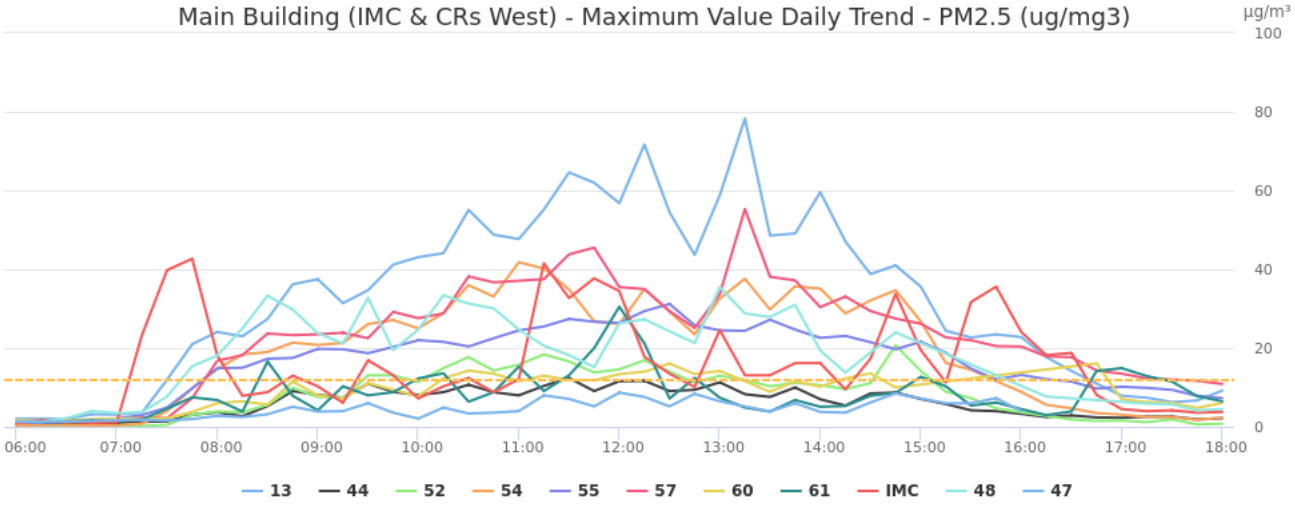


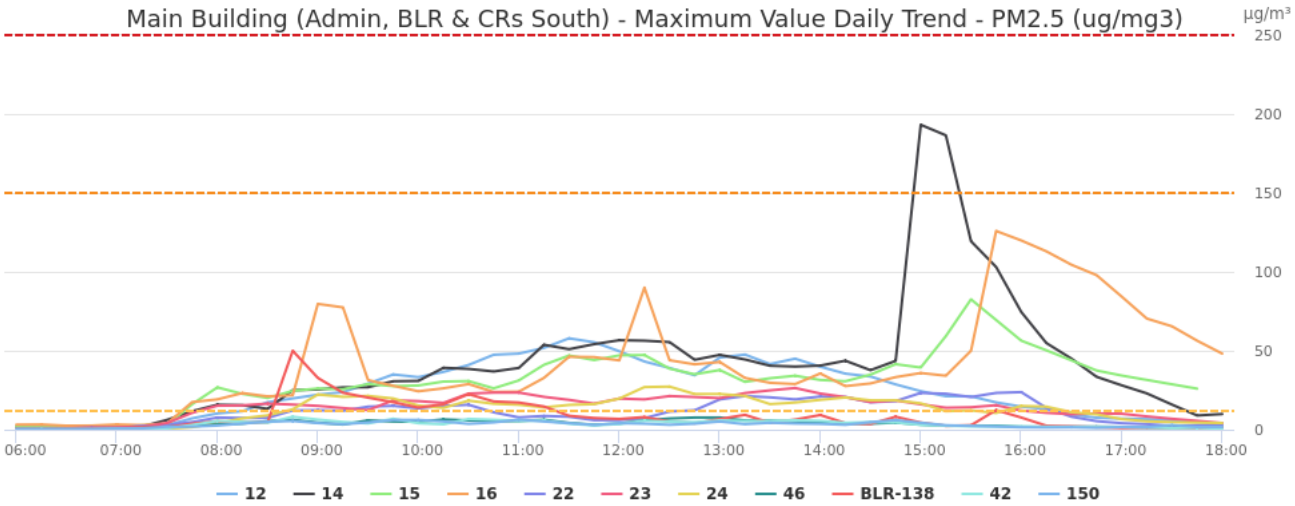


PM2.5 Monitoring

PM2.5 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 12 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 150 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 250 ug/m3; MCPS notified at 8-hours


All PM2.5 Sensors Main & Science Buildings Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
250
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
MUS-23
24
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
42
44
46
48
52
54
55
60
61
BLR-138
150
CAFE
IMC
47
57
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-210
SCI-189


Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
100
80
60
40
20
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47


Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
250
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
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17:00
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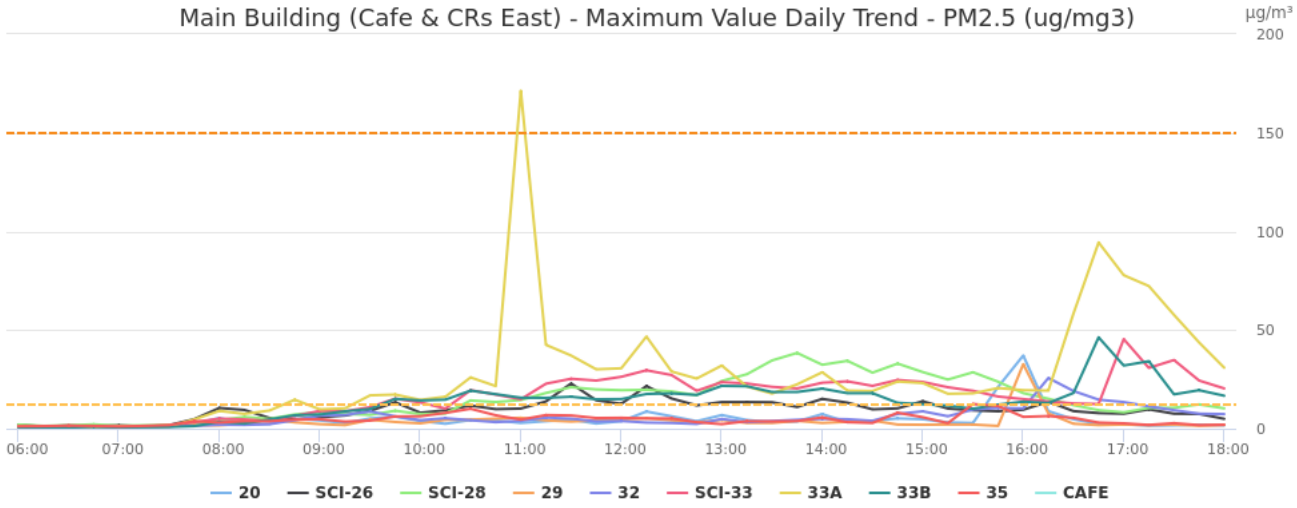
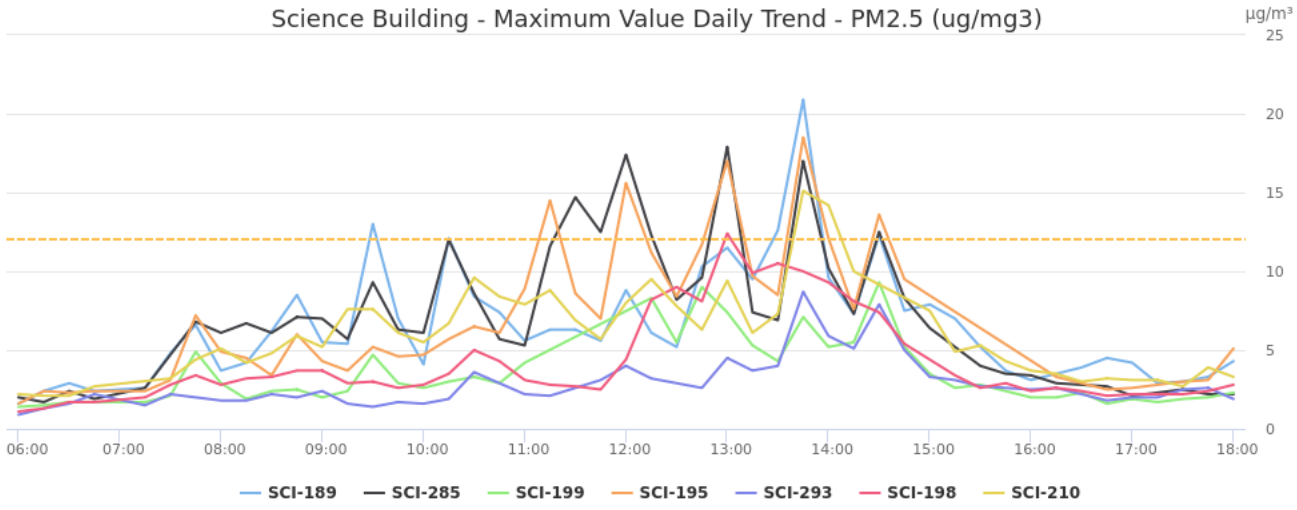
14
15
16
22
23
24
46
BLR-138
42
150

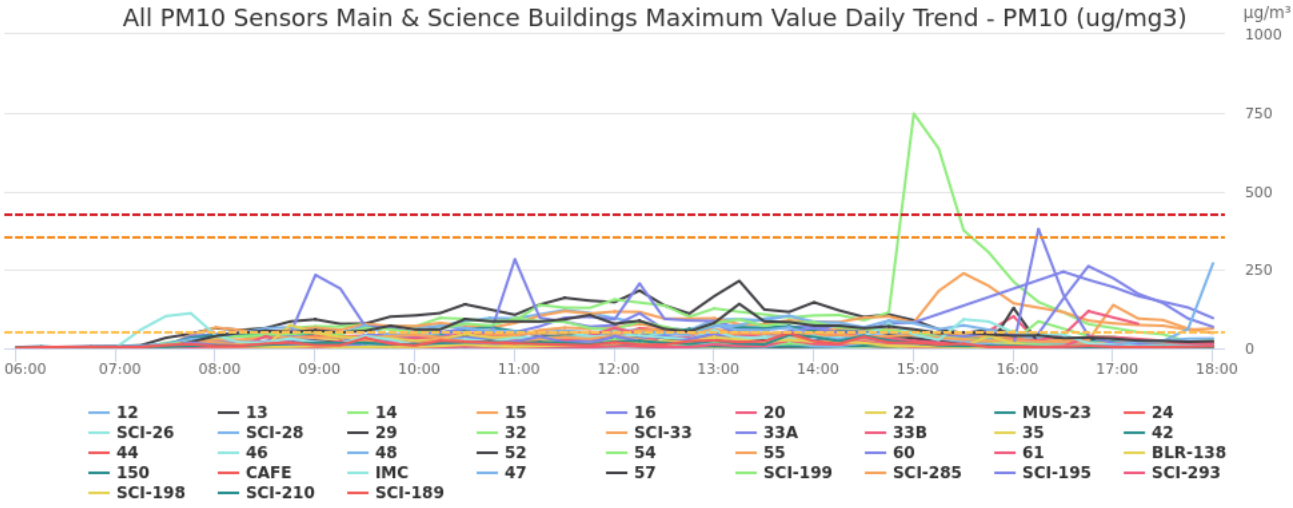




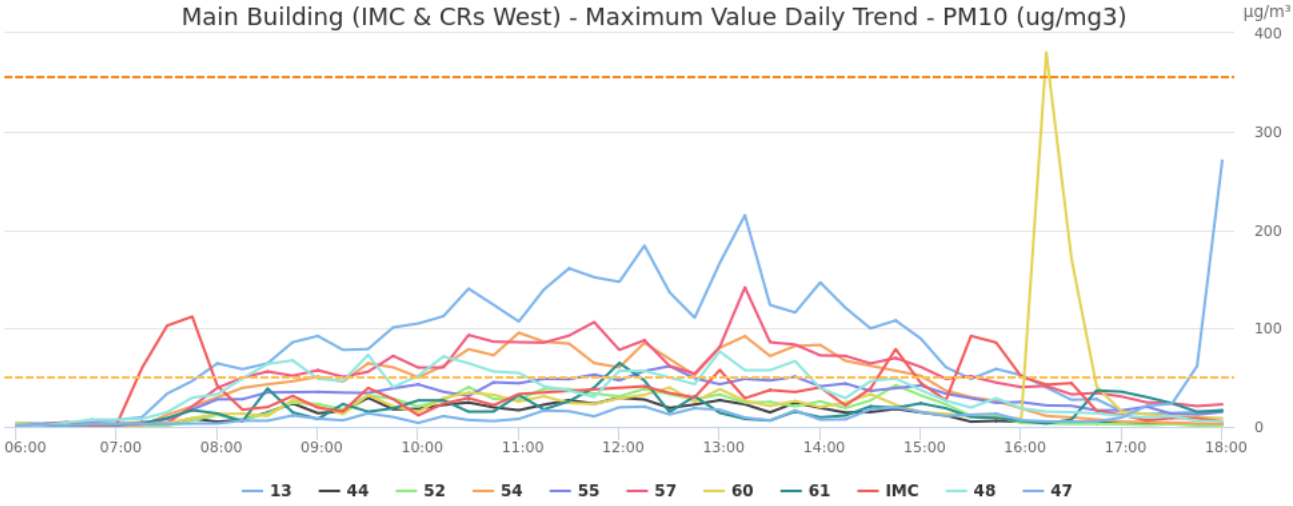
PM10 Monitoring

PM10 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 50 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 355 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 425 ug/m3; MCPS notified at 8-hours

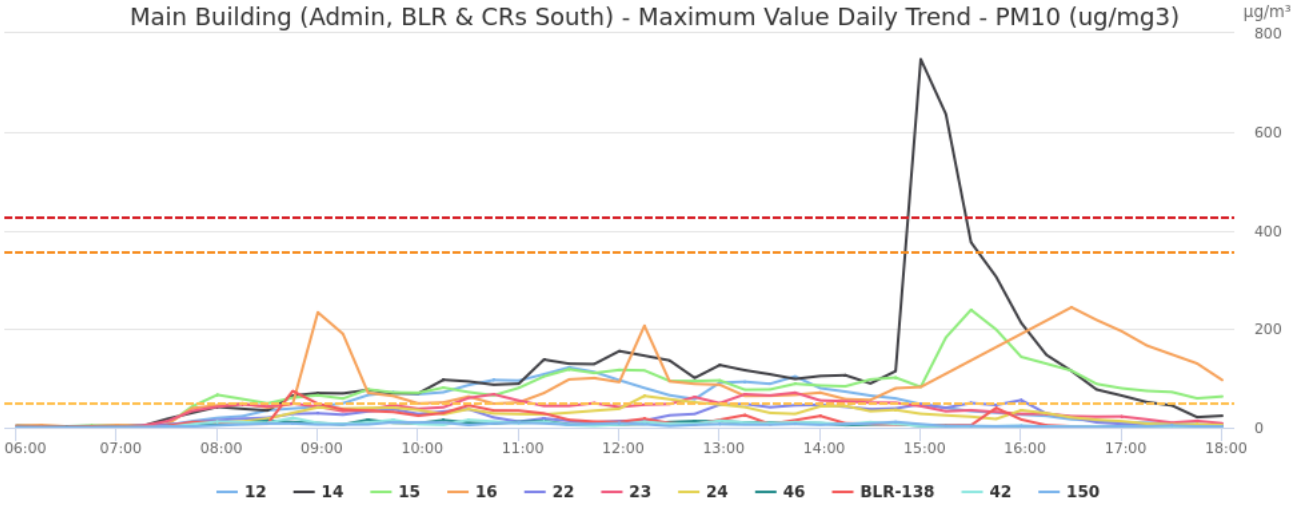
All PM10 Sensors Main & Science Buildings Maximum Value Daily Trend - PM10 (ug/mg3)

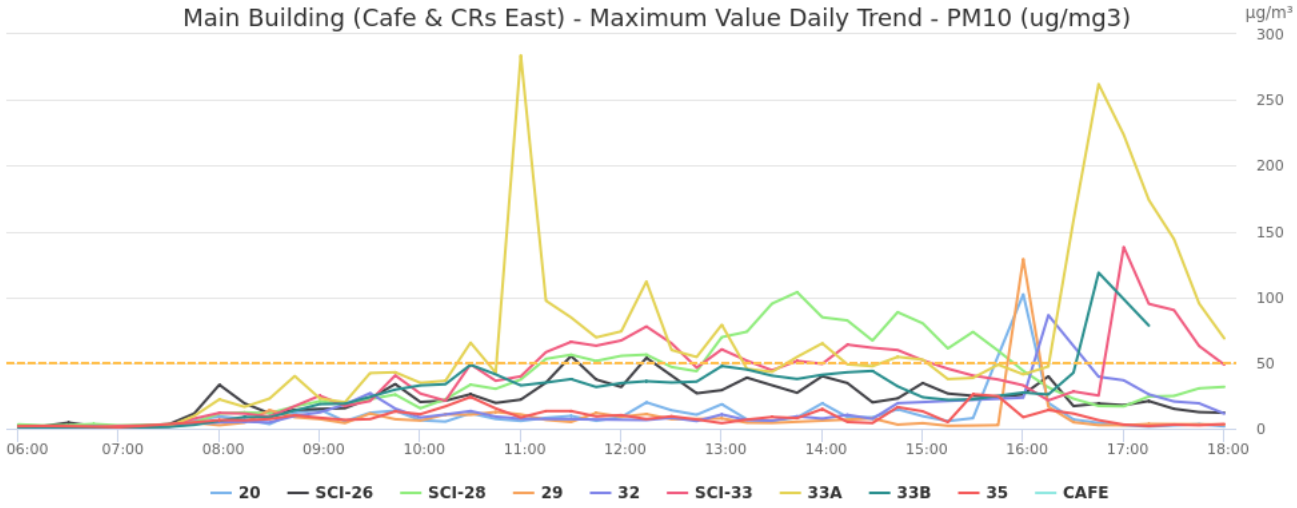


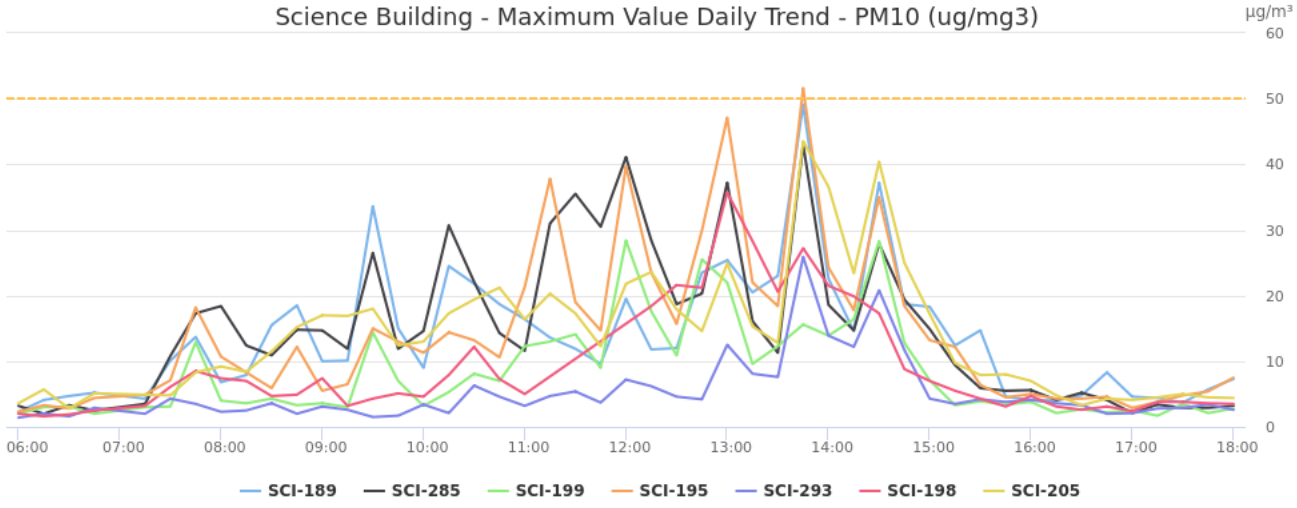
Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM10 (ug/mg3)



Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM10 (ug/mg3)




Main Building (Cafe & CRs East) - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
300
250
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
20
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
CAFE


Science Building - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
60
50
40
30
20
10
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
SCI-189
SCI-285
SCI-199
SCI-195
SCI-293
SCI-198
SCI-205

POOLESVILLE HS ON-SITE CONSTRUCTION IAQ REPORT

This report was generated on 02/24/2024 at 03:00 AM (America/New_York)

This daily report is for IAQ data collected between 6:00 AM and 6:00 PM for the day previous to the report generated date above.

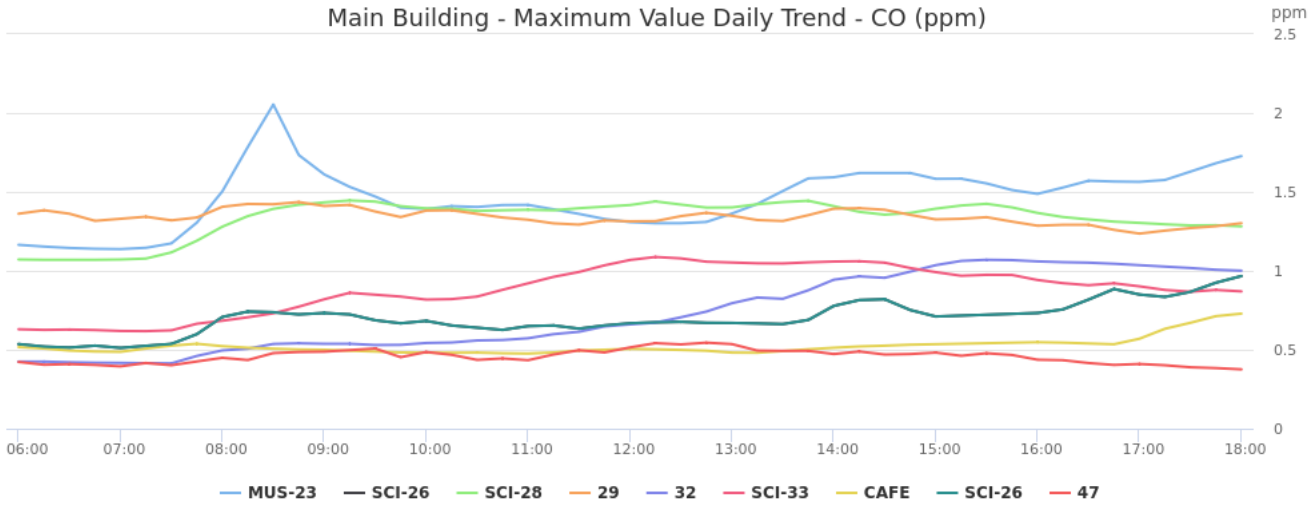
This report includes the parameters that are most affected by construction activities in close proximity to an occupied buildings:
CO - carbon monoxide
TVOC - total volatile organic compounds
PM10 - particulate matter <=10 micron(ug)
PM2.5 - particulate matter <=2.5 ug
PM1.0 - particulate matter <=1.0 ug
ppm - parts per million
ppb - parts per billion
ug/m3 - micrograms per cubic meter of air

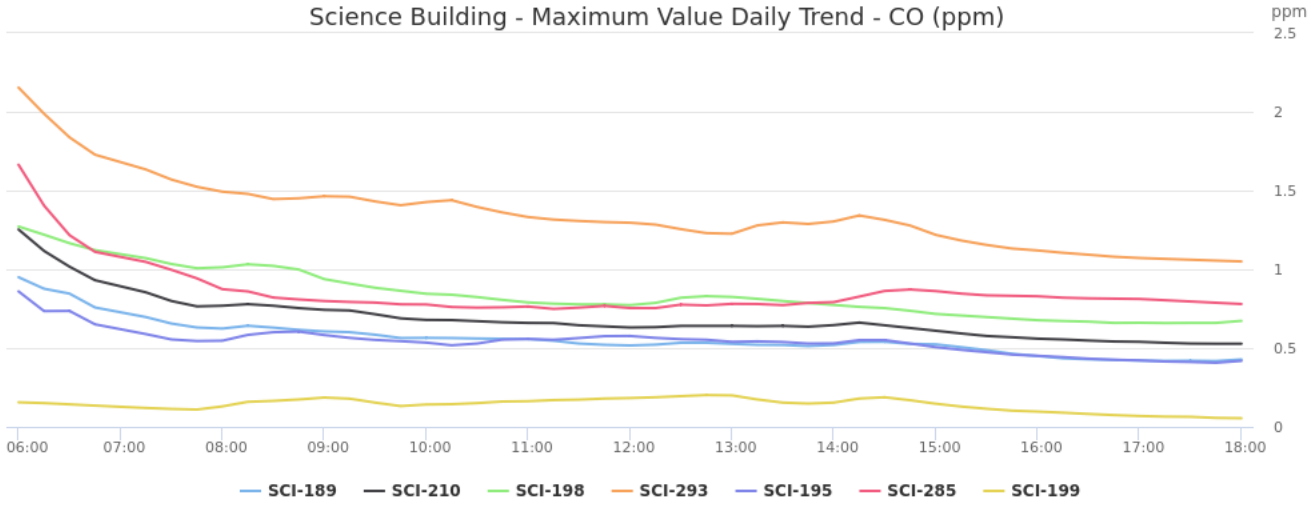
All data is monitored as an indicator of ventilation performance. Where suspect ventilation concerns are identified IAQ team members investigate to determine best next steps, including but not limited to - submit work orders to mechanical teams for repairs, review occupancy and use, review occupant activities and or continue to monitor data collected for patterns and trends.

CO Monitoring

Carbon Monoxide (CO): Carbon monoxide is a colorless, odorless gas. It results from incomplete combustion processes. Common sources of CO in schools are improperly vented furnaces, malfunctioning gas ranges, canned heat (e.g. a Sterno), or exhaust fumes that have been drawn back into the building. Worn or poorly adjusted and maintained combustion devices (e.g., boilers, furnaces), or a flue that is improperly sized, blocked, disconnected, or leaking, can be significant sources. Auto, truck, or bus exhaust from attached garages, nearby roads, or idling vehicles in parking areas can also be sources. Carbon monoxide at high concentrations is considered to be a serious health hazard.

CO Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 4 ppm; MCPS notified at 4-hours
Ventilation - orange = 9 ppm; MCPS notified at 1-hour; immediate text, investigation
Health & Safety - red = 25 ppm; MCPS notified at 8-hours, immediate text, community notification if during school hours

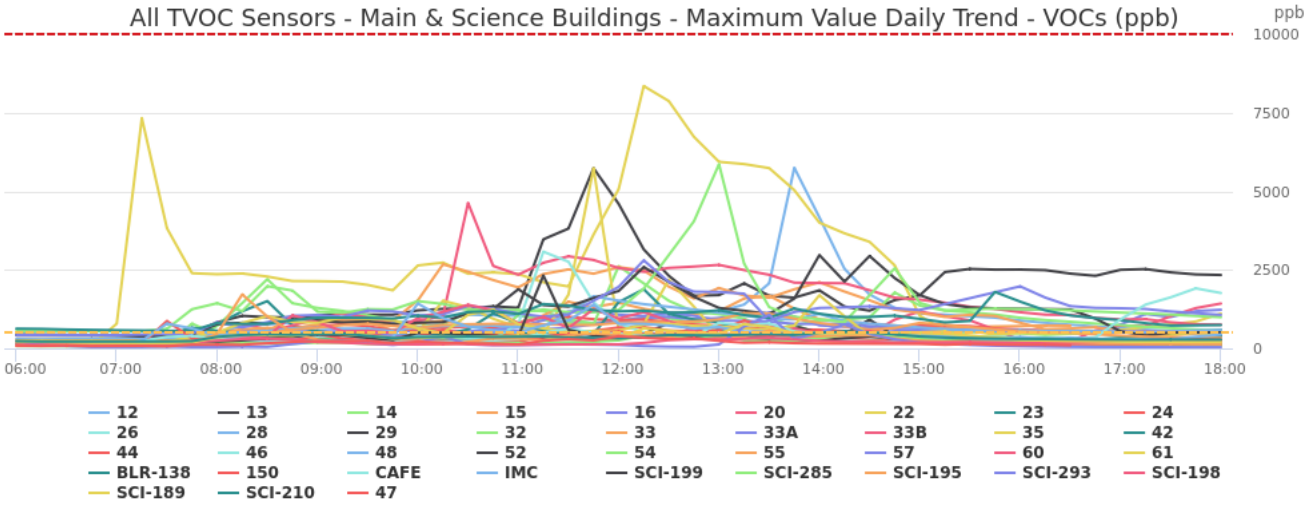


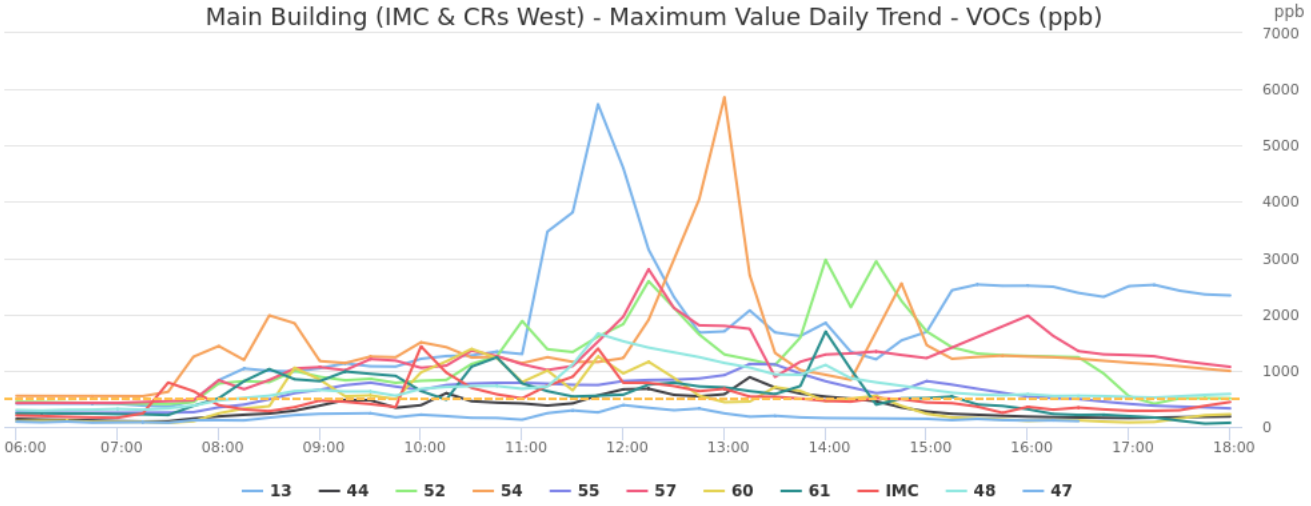


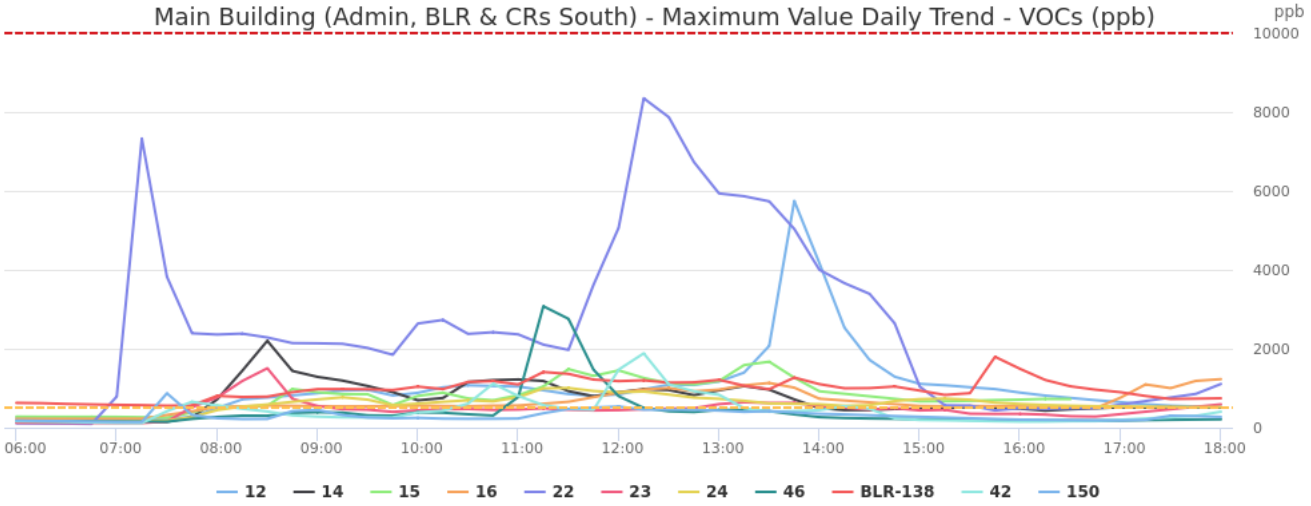
The carbon monoxide standards for indoor air quality are the U.S. Environmental Protection Agency (US EPA) National Ambient Air Quality Standard (NAAQS) of 9 ppm CO on a 8-hour time-weighted average (TWA), and the World Health organization Guidelines for Indoor Air Quality – Selected Pollutants of 6 ppm. However, MCPS will be notified at a sustained measurement of 4 ppm or greater for 4-hours as a more conservative and precautionary approach to this health-based standard.

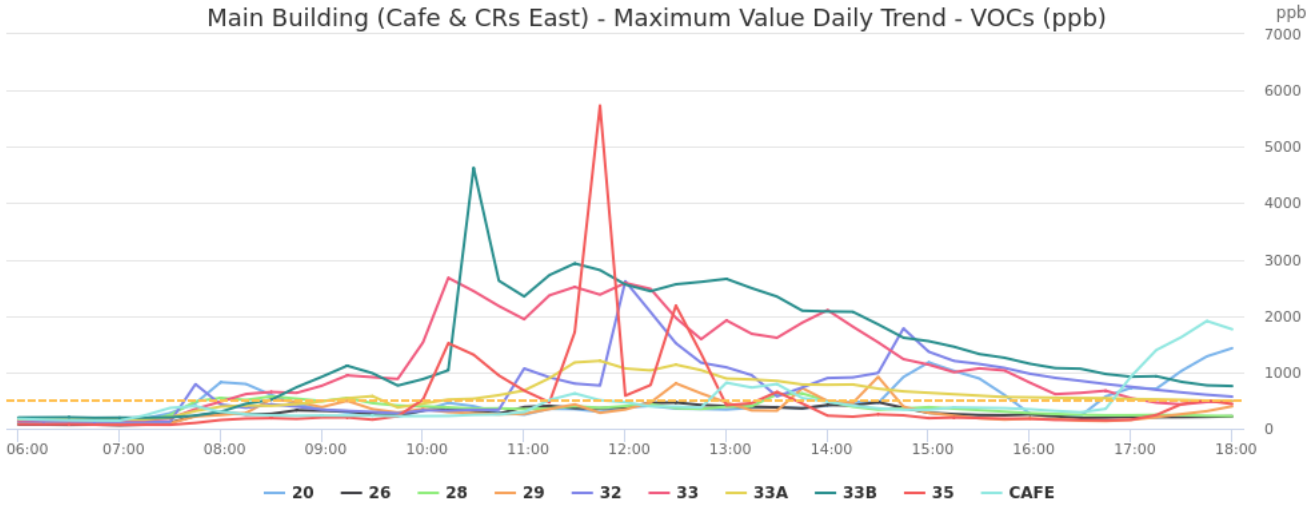
TVOC Monitoring

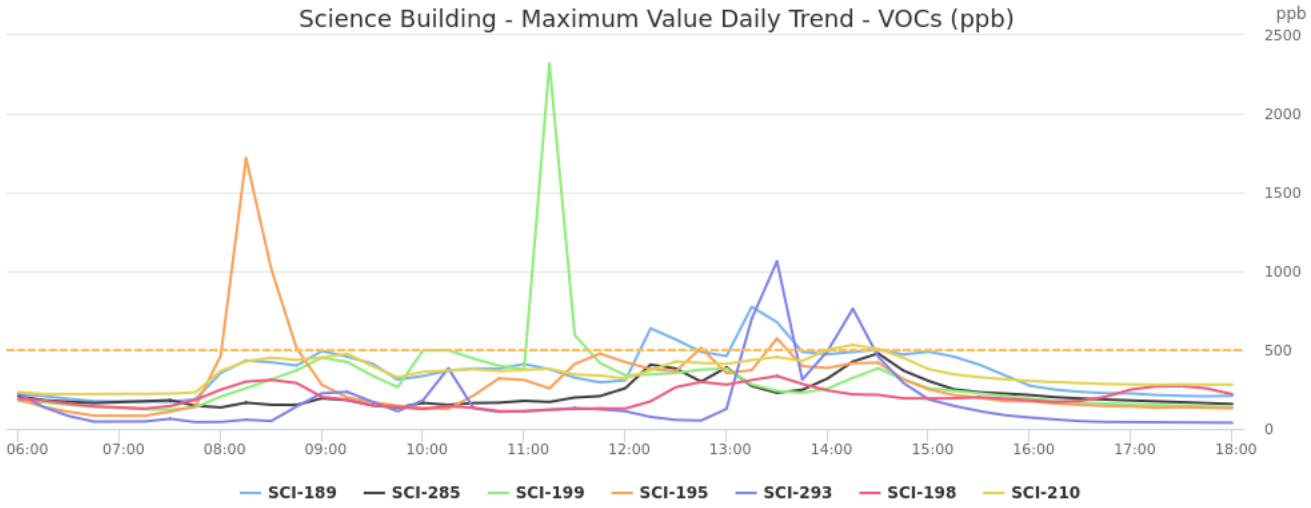
TVOC Graphs Legend:
solid lines indicate data from each room
dashed lines appear when exceeds value for any period of time
IAQ - yellow = 500 ppb (0.5 ppm); MCPS notified at 4-hours
Ventilation - red = 10,000 ppb (10 ppm); MCPS notified at 4-hours


All TVOC Sensors - Main & Science Buildings - Maximum Value Daily Trend - VOCs (ppb)
ppb
10000
7500
5000
2500
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
23
24
26
28
29
32
33
33A
33B
35
42
44
46
48
52
54
55
57
60
61
BLR-138
150
CAFE
IMC
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-189
SCI-210
47


Main Building (IMC & CRs West) - Maximum Value Daily Trend - VOCs (ppb)
ppb
7000
6000
5000
4000
3000
2000
1000
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47


Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - VOCs (ppb)
ppb
10000
8000
6000
4000
2000
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
14
15
16
22
23
24
46
BLR-138
42
150

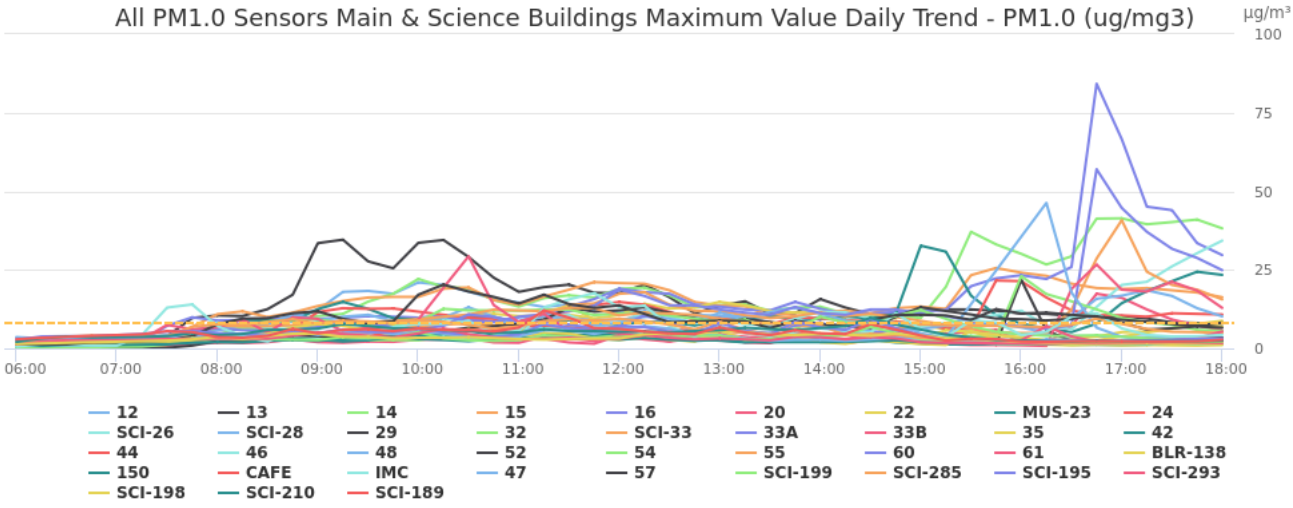




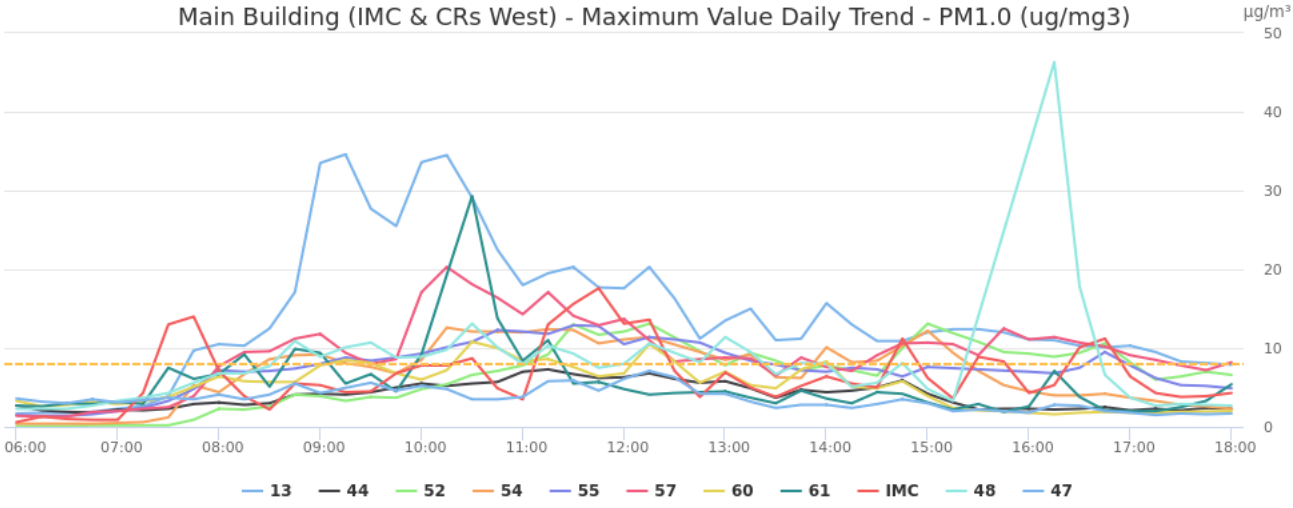
PM1.0 Monitoring

PM1.0 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 8 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 150 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 250 ug/m3; MCPS notified at 8-hours

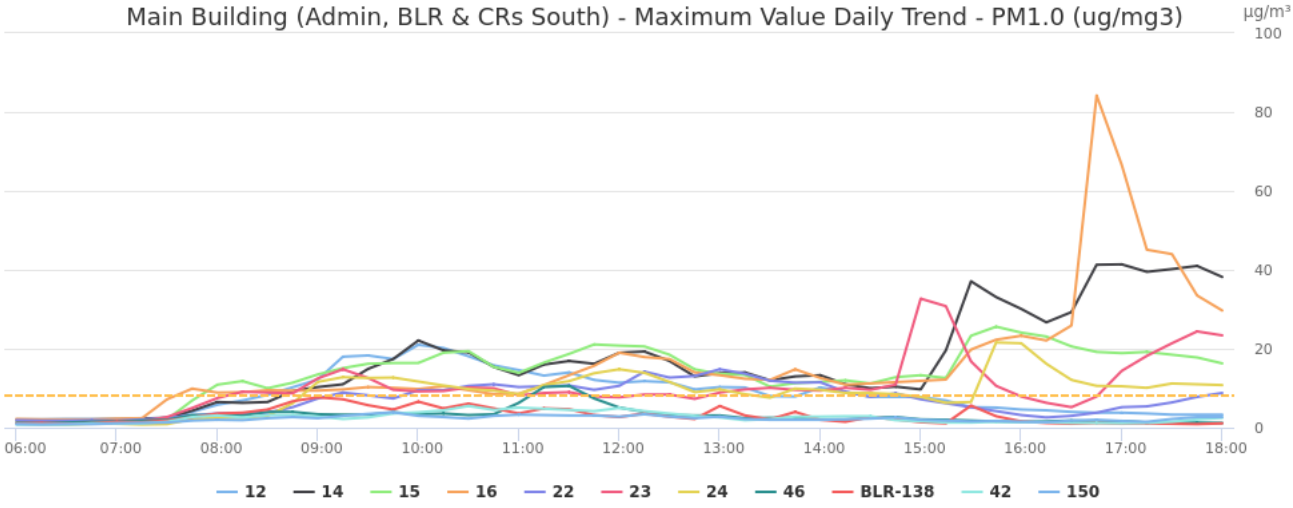
All PM1.0 Sensors Main & Science Buildings Maximum Value Daily Trend - PM1.0 (ug/mg3)

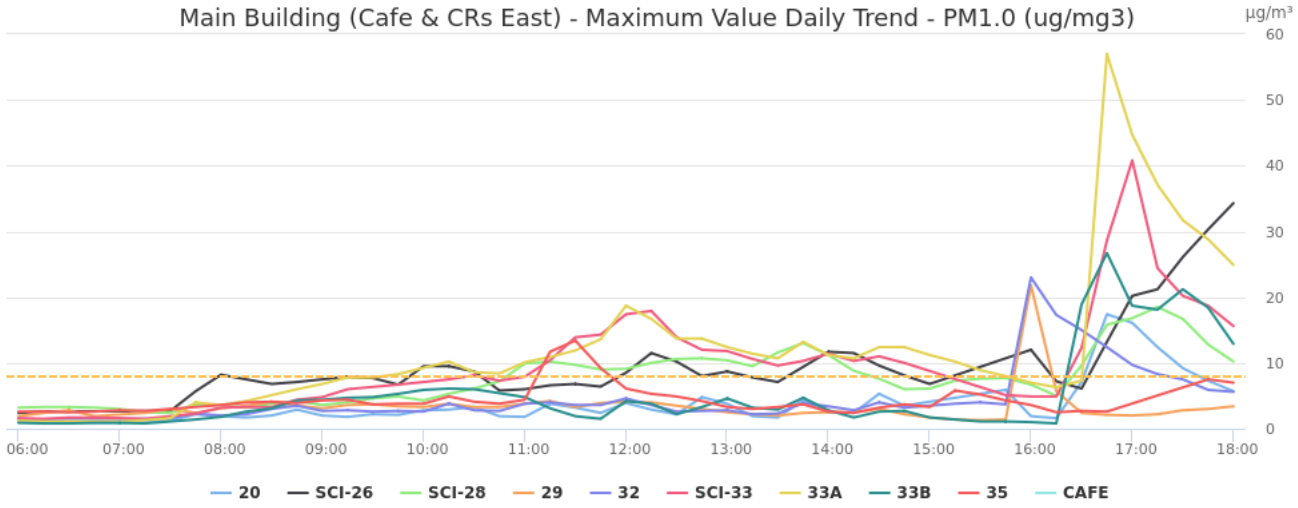


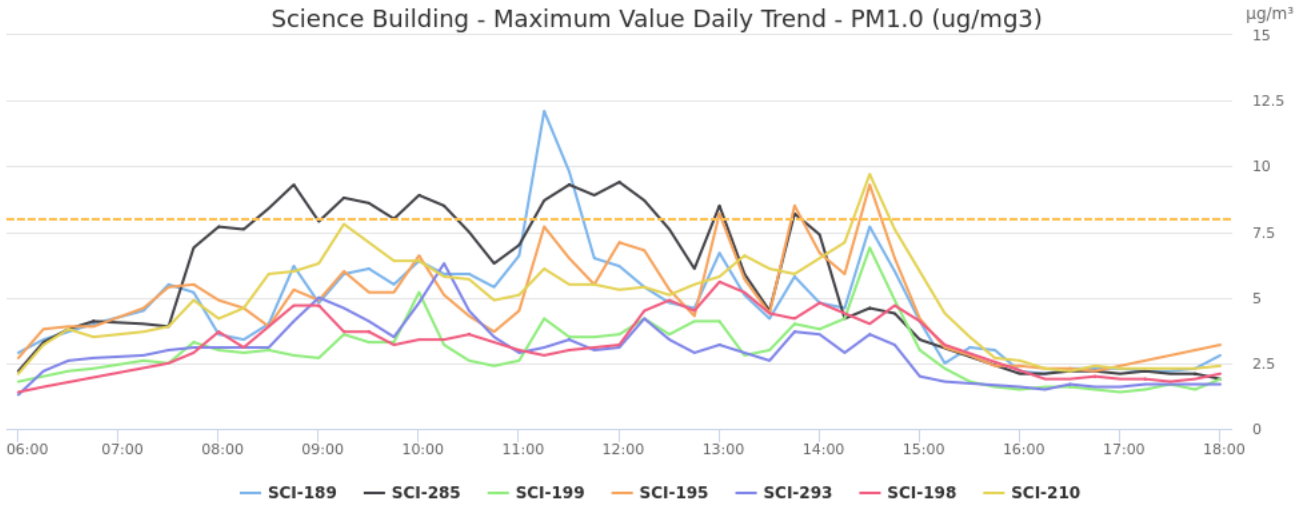
Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM1.0 (ug/mg3)



Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM1.0 (ug/mg3)

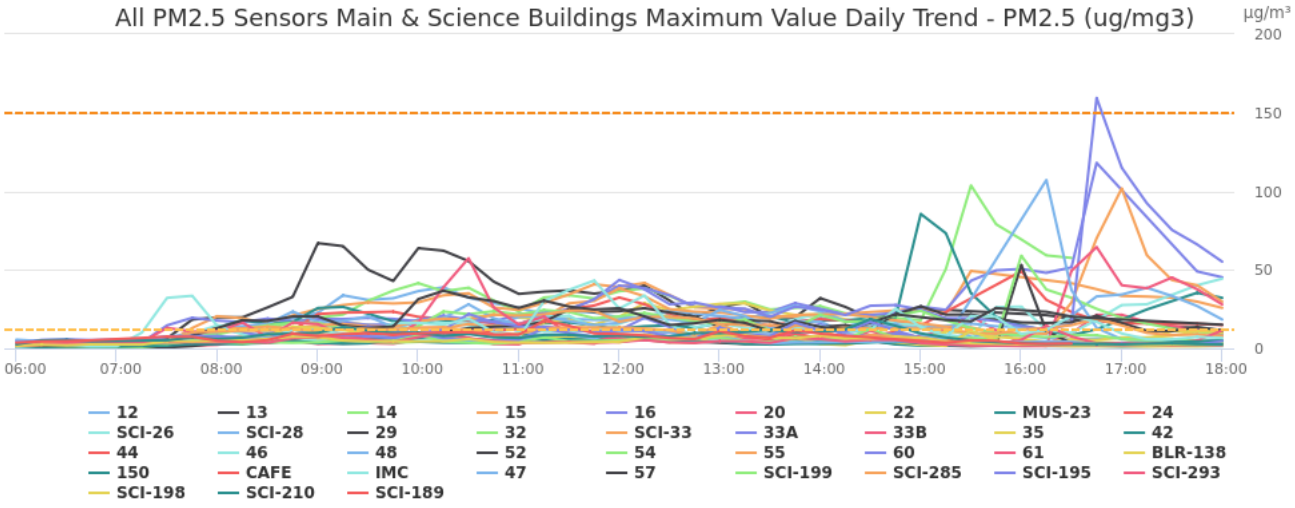


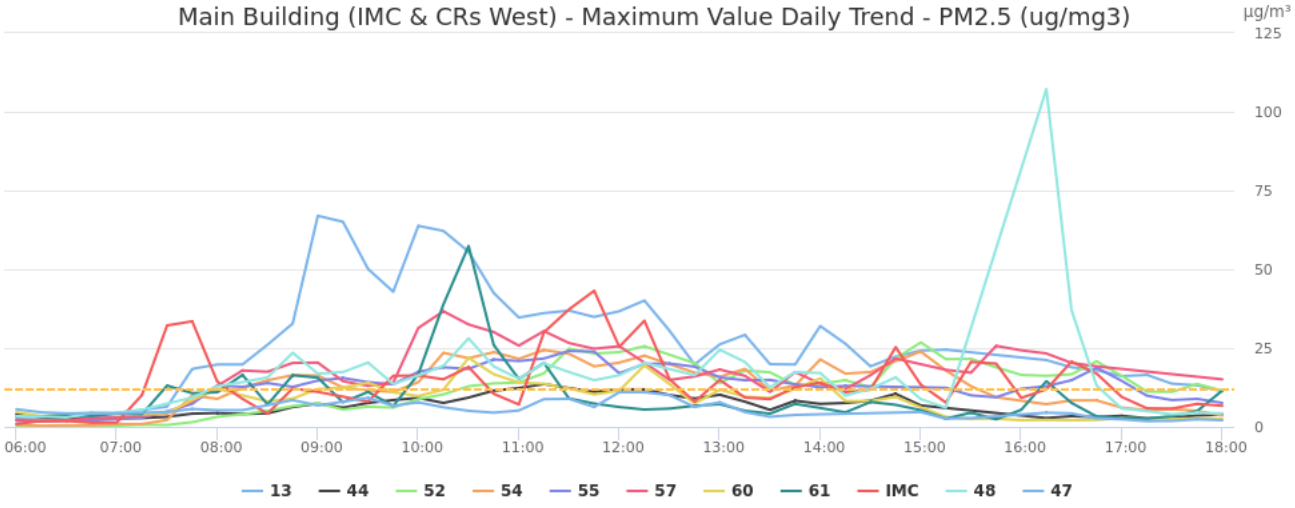


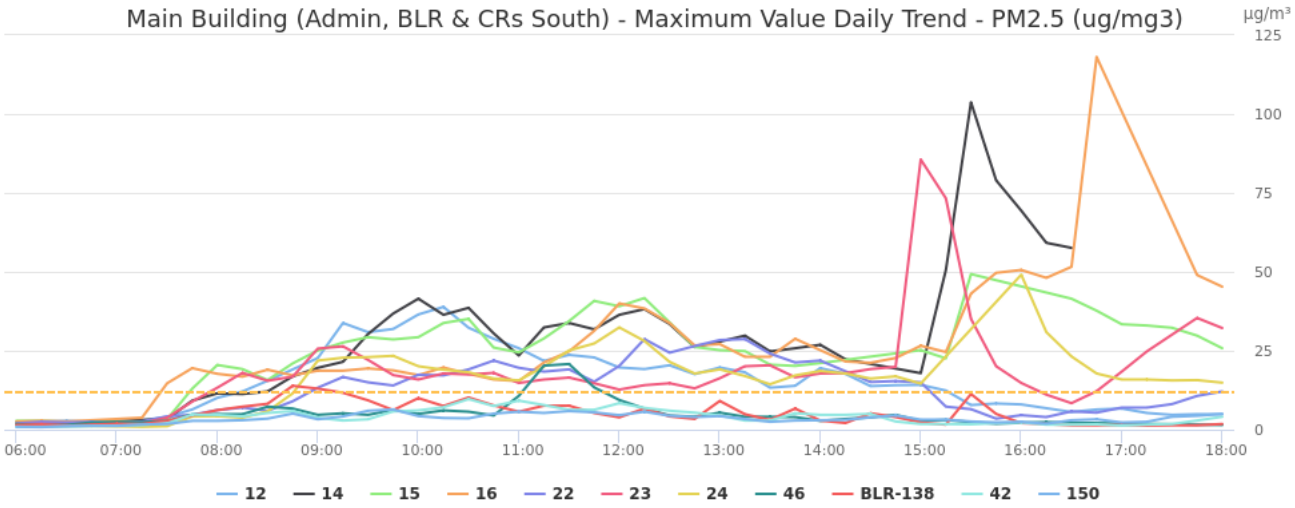


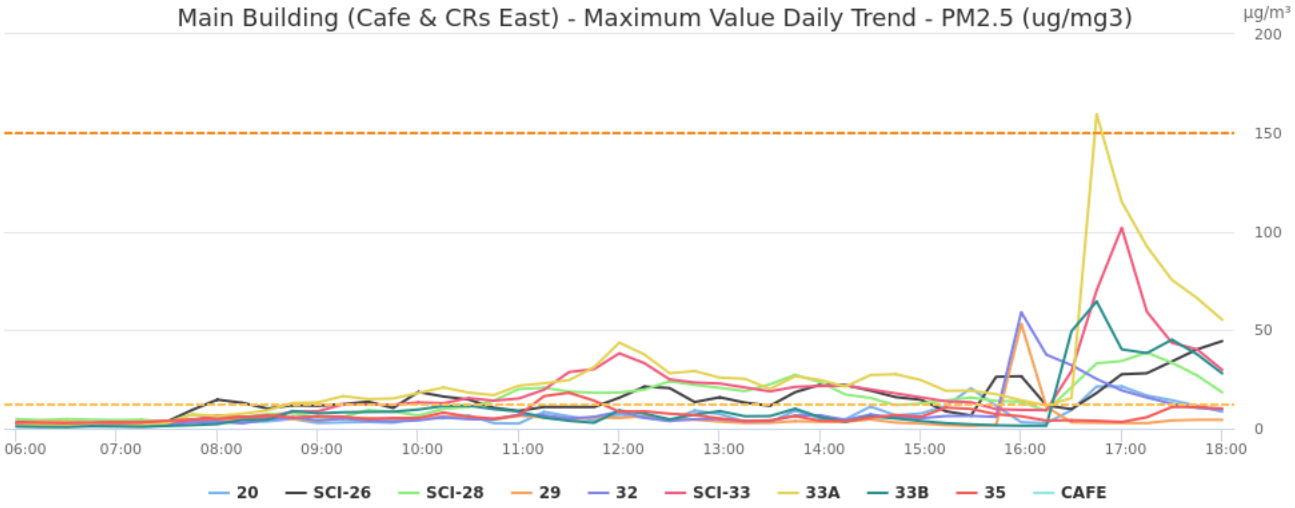
PM2.5 Monitoring

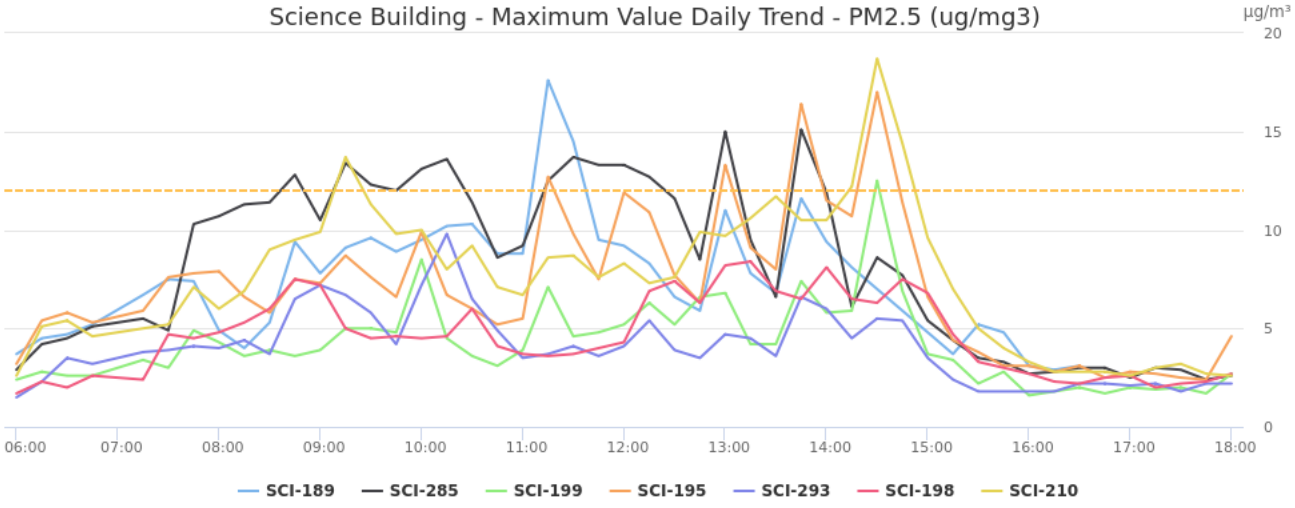
PM2.5 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 12 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 150 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 250 ug/m3; MCPS notified at 8-hours


All PM2.5 Sensors Main & Science Buildings Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
13
14
15
16
20
22
MUS-23
24
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
42
44
46
48
52
54
55
60
61
BLR-138
150
CAFE
IMC
47
57
SCI-199
SCI-285
SCI-195
SCI-293
SCI-198
SCI-210
SCI-189


Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
125
100
75
50
25
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
13
44
52
54
55
57
60
61
IMC
48
47


Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM2.5 (ug/mg3)
µg/m³
125
100
75
50
25
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
12
14
15
16
22
23
24
46
BLR-138
42
150

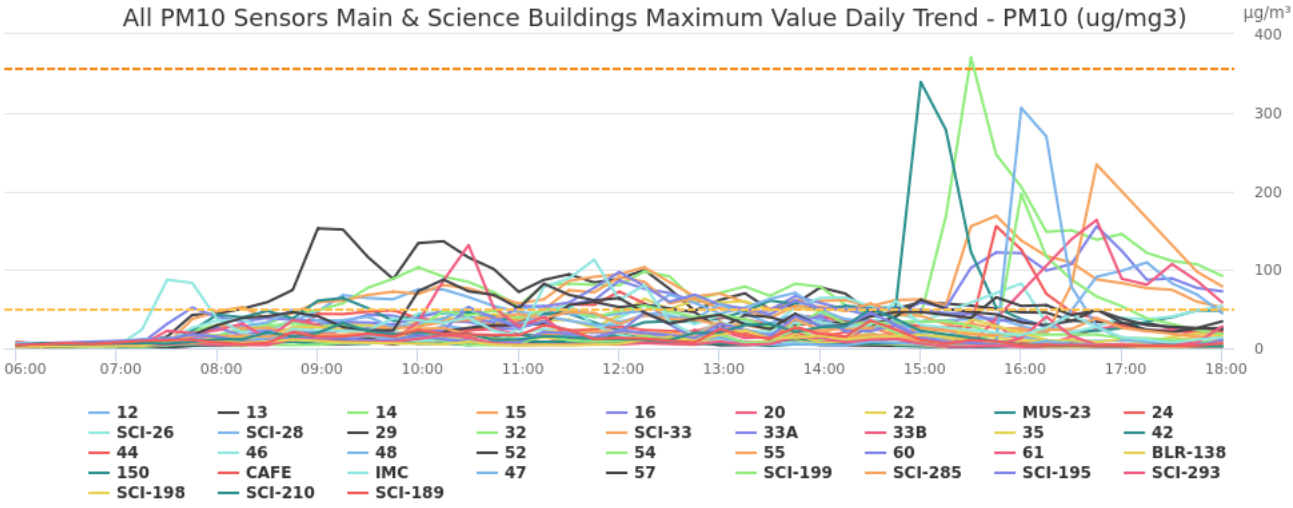




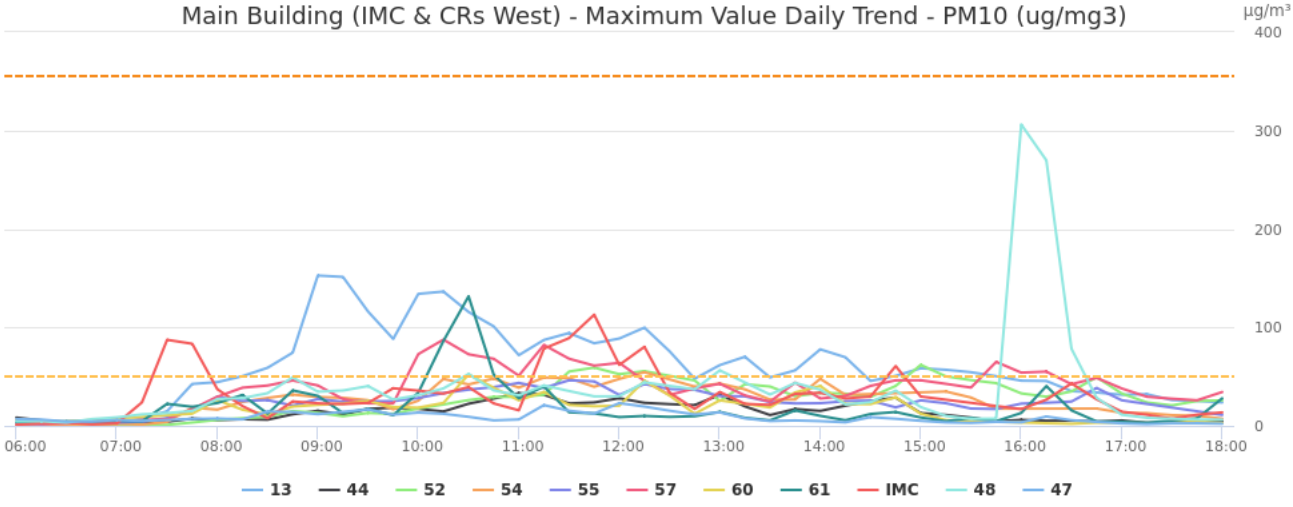
PM10 Monitoring

PM10 Graphs Legend:
solid lines- indicate data from each room
dashed lines appear when data exceeds value for any period of time
IAQ - yellow = 50 ug/m3; MCPS notified at 4-hours
Ventilation - orange = 355 ug/m3; MCPS notified at 2-hours
Health & Safety - red = 425 ug/m3; MCPS notified at 8-hours

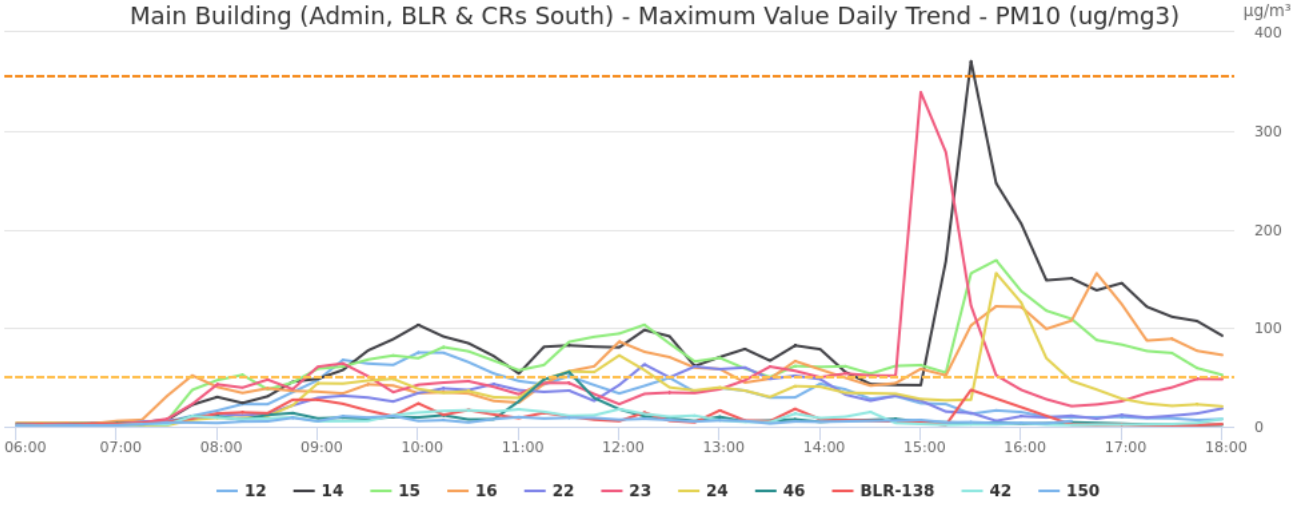
All PM10 Sensors Main & Science Buildings Maximum Value Daily Trend - PM10 (ug/mg3)

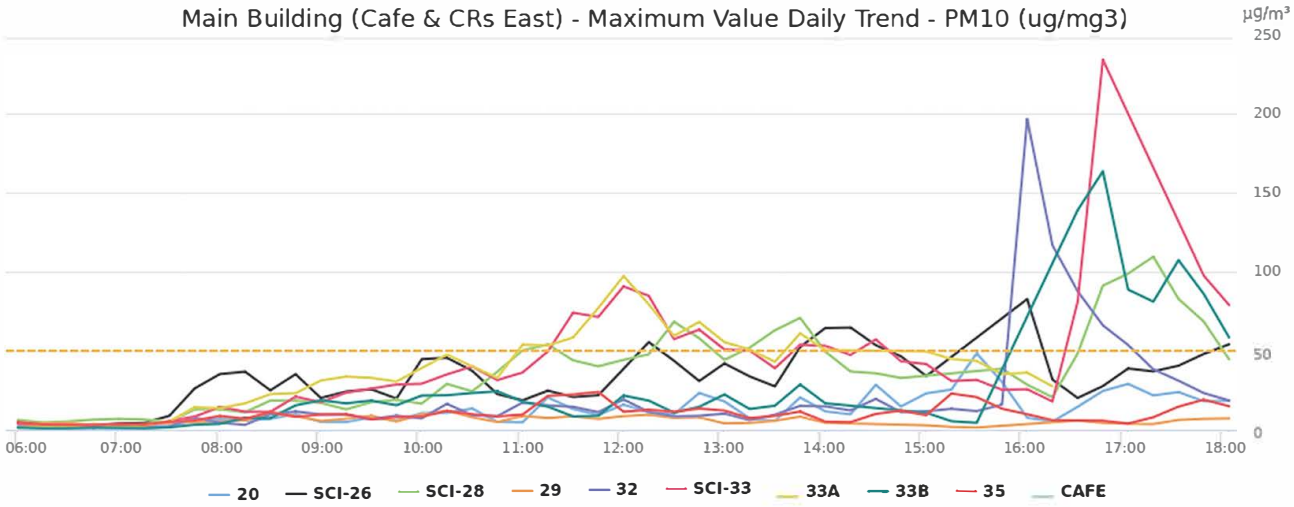


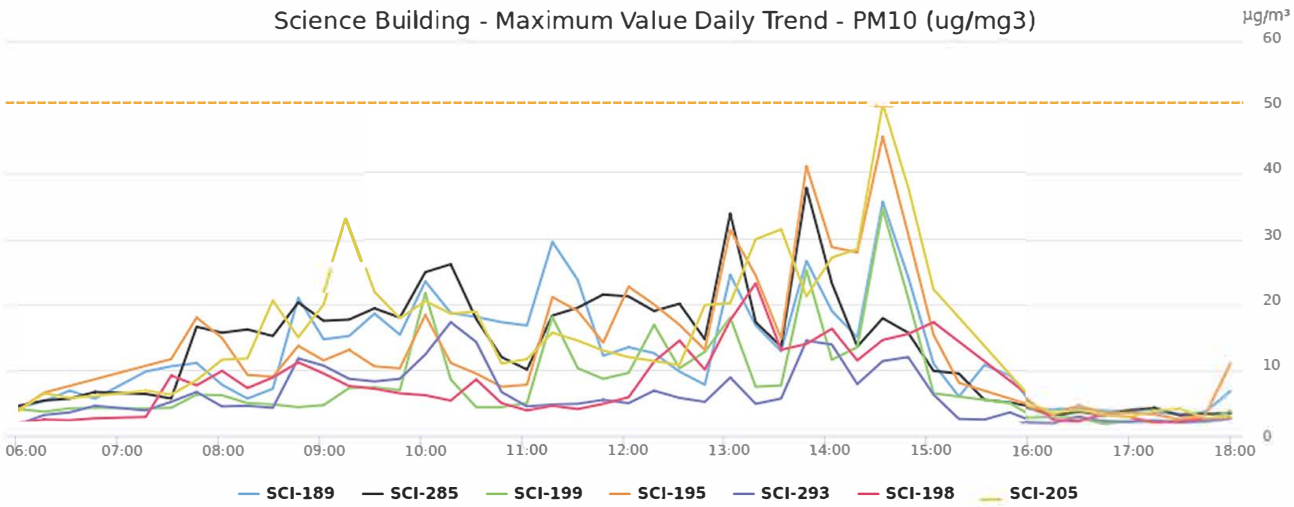
Main Building (IMC & CRs West) - Maximum Value Daily Trend - PM10 (ug/mg3)



Main Building (Admin, BLR & CRs South) - Maximum Value Daily Trend - PM10 (ug/mg3)




Main Building (Cafe & CRs East) - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
250
200
150
100
50
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
20
SCI-26
SCI-28
29
32
SCI-33
33A
33B
35
CAFE


Science Building - Maximum Value Daily Trend - PM10 (ug/mg3)
µg/m³
60
50
40
30
20
10
0
06:00
07:00
08:00
09:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
SCI-189
SCI-285
SCI-199
SCI-195
SCI-293
SCI-198
SCI-205