# Background

**INDOOR AIR QUALITY**

**Pre-Occupancy Assessment**

**Hampden County District Attorney’s Office**

**1500 Main Street**

**Springfield, Massachusetts**



Prepared by:

Massachusetts Department of Public Health

Bureau of Environmental Health

Indoor Air Quality Program

August 2018

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| --- | --- |
| Building: | Hampden County District Attorney’s (DA’s) Office |
| Address: | 1500 Main Street, Springfield, MA |
| DCAMM Project Manager: | Jamie Merrill Blood |
| Date of Pre-Occupancy Assessment: | June 29, 2018 |
| BEH IAQ Staff Conducting Assessment: | Mike Feeney, Director, Indoor Air Quality (IAQ) Program |
| Date of Building Construction: | 1970’s |
| Proposed use of Building:  The location is the 21st floor in a high-rise building in downtown Springfield. It will be used for offices for the Hampden County District Attorney.  Surrounding Businesses/Activities:  The building is located In downtown Springfield MA as part of a hotel/mall complex. Other office buildings and small businesses such as restaurants are nearby.  Prior use of Building:  This building was originally constructed and continues to be used as an office building.  Previous Relevant Environmental History:  DCAMM reports that there are no releases listed for this property under the Massachusetts Oil and Hazardous Material Release Prevention and Response Act (MGL 21E, the Mass Contingency Plan (MCP) program). No hazardous waste spills or activity use limitations were found in the Massachusetts Department of Environmental Protection database for this site or nearby. | |

# Methods

Air tests for carbon monoxide, carbon dioxide, temperature and relative humidity were taken with the TSI, Q-Trak, IAQ Monitor 7565. Air tests for airborne particle matter with a diameter less than 2.5 micrometers were taken with the TSI, DUSTTRAK™ Aerosol Monitor Model 8520. Screening for volatile organic compounds (VOCs) was conducted using a RAE Systems Mini-RAE 2000 Photo Ionization Detector (PID). BEH/IAQ staff also performed visual inspection of building materials for water damage and/or microbial growth and examined the space for the presence of odors or other environmental concerns.

# Air Testing Results

| **Media sampled** | | **MDPH Guideline/**  **Comparison Value** | | **Measured Range** | | | | **Comments** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Outdoors/**  **Background** | | | **Indoors** |
| Total Volatile Organic Compounds (TVOCs) | | Equal to or below background level measured on the day of the assessment | | ND | | | ND | No TVOCs detected |
| Carbon Monoxide (CO) | | Non-detectable (ND) or equal to or below background level measured on the day of the  assessment (Note: CO sampling not taken if no combustion source is operating e.g., furnace) | | ND | | | ND | HVAC operating in occupied spaces |
| Particulate Matter 2.5 (PM2.5) | | US EPA National Ambient Air Quality Standards (NAAQS) 35 μg/m3 or less | | 16 | | | 6-8 | Levels were all below 35 μg/m3 |
| Temperature | | 70-78ºF | | 77 | | | 69-72 | Within MDPH comfort range in most occupied spaces. |
| Relative Humidity (RH) | | 40% to 60% | | 67 | | | 51-57 | Within MDPH recommended comfort range |
| Carbon Dioxide (CO2) | | 800 ppm | | 410 | | | 437-490 | Within MDPH recommended guidelines |
| ppm = parts per million | µg/m3 = microgram per cubic meter | | ND = non-detectable | |  | HVAC = heating, ventilation and air-conditioning | | |

# Visual Observations

No evidence of active water leaks or other moisture concerns were observed.

# Discussion

Evaluation of the new HVAC system can be performed once renovations are complete.

# Recommendations

Based on observations and measurements at the time of the visit, the following recommendations are made:

1. Ensure that pleated filters with a minimum efficiency reporting value (MERV) of 8 are installed in HVAC system.
2. Consistent with previously established protocol, once the space has been occupied for a minimum of two weeks, contact the IAQ Program to conduct a post-occupancy assessment of the space.