School/Facility:	Glenwood Middle
Location:	Portable 21
Date of IEQ Report Form:	May 15, 2017
Date(s) Investigated:	May 15 and 19, 2017
	February 15, 2017 (separate report dated March 31, 2017)
	March 9, 2017 (separate report dated May 11, 2017)
Date of Report:	August 3, 2017

IEQ Concern:

An individual received several messages regarding student health concerns within portable 21.

IEQ Investigation Process:

Identify deficiencies that may impact IEQ and/or sources of odor concerns. Typically includes the following depending on the nature of concern, but not limited to:

- interview/questionnaire of concern individual(s)
- inspection above drop ceiling (condition of roof deck, pipe insulation, return air plenum)
- inspection of ventilation system (operation of variable air volume box and outdoor air dampers, check controls, measurements of carbon dioxide, temperature and relative humidity, sources near outdoor air intake, measure return and supply air volume, cleanliness of coils, liner and condensate pan)
- inspection of exterior
- inspection below drop ceiling (housekeeping, sink and floor drain traps, signs of past and present moisture concern via visual and/or moisture meter, mold growth, ensure connection of current and capping of abandoned sanitary vents, odorizers, excessive plants and fabric items, identify potential pathways, and measure volatile organic compounds, carbon monoxide, and lighting)

Findings:

- See recent IEQ report summaries dated March 31 and May 11, 2017 posted on the school's IEQ web page.
- Building Services was notified by the school regarding rain water coming through the joint formed between two ceiling panels. The leak occurred May 10th and reported May 12th.
- Facility personnel inspected the portable during a rain event that weekend with no signs of leaking.
- No signs of past water staining on the exposed side of the white ceiling panel.
- A slight bow in the ceiling panel existed, but difficult to identify based on lighting (interior, sunlight, paint's sheen) and dependent upon viewing angle.

- The approximate 4’ x 8’ ceiling panel was demolished (spray foamed adhered to wood framing) in order to further investigate above the ceiling.
- Mold growth totaling approximately less than 4 square feet was observed on portions of wood framing, paper backing of fiberglass insulation, and the back side of the drywall panel.
- The source appeared to be a roof / attic vent where certain directional, high wind driven rain may enter underneath the vent cap. In addition, a few roof staples near the vent were working their way through the metal roof.

Corrective Actions:

- The ceiling panel and fiberglass insulation was removed and replaced.
- The minor amount of impacted wood framing was disinfected, dried, and painted with antimicrobial paint / stain blocker. The wood framing was not cut out in sections due to concerns with splicing a weight bearing structure.
- The roof vent was altered to assist with preventing rain water from entering up underneath the roof vent and the roof staples covered. The application of a rubber roof membrane is being considered.