

M E M O

DATE: 2/6/19 rev 2/8/19

TO: Westover Magnet Elementary School
412 Stillwater Avenue
Stamford, CT 06902

ATT: Lois Casolo, PE – City Engineer

FROM: Joe Reilly
KG+D Architects, PC

PROJECT: Westover Magnet Elementary School

RE: Status Update



We have completed our preliminary walk-through and further review of the documents provided and are gaining a fuller understanding of the building construction. The following is a list of next steps which includes actions we are planning and resources that we need as we move forward.

- We have engaged **Innovative Engineering Services, LLC** of Wallingford, CT to assist with a structural evaluation based on concerns raised in the EMG Facilities Needs Assessment dated August 29, 2009.
- The exterior walls and roof appear to be constructed in accordance with the design drawings and are generally sound. There are limited, localized issues with the masonry and the caulking at the windows, doors and louvers is at the end of its useful life. There are minor, localized issues with roof flashings, transitions, and gutters that can be adequately addressed as maintenance and repair items. These are sources of minor water infiltration and should be addressed in the short term, but they are not the major source of the moisture that is compromising the building.
- There is information not included on the drawings, such as product specifications and submittal of products used in construction, that will aid us in further understanding the construction and performance of the building. The project manual and any project submittals will be of value if they are available.
- We plan to open a limited number of probe locations to confirm that the building has been constructed in accordance with the documents we have reviewed. Based on our observations, we expect that it has been. But it is necessary to open wall and roof assemblies to confirm the presence of elements that cannot otherwise be seen. Attached are drawing annotated to locate four roof locations and two wall locations to be opened for observation. We would like to coordinate this work with your contractor as soon as this Friday, if possible.
- OLA is preparing a report on the evaluation of the existing HVAC systems. Preliminary observations indicate that the system, as designed and installed, is adequate for the

purpose for which it was intended, but inadequate for the added moisture load due to the infiltration issues we are studying. Components of the system require repair and general maintenance to operate within the design parameters. The preliminary draft report will be issued next week.

- The water infiltration we have observed is overwhelmingly via the subgrade/slab interface. Water is entering the building from the ground. It has caused extensive failure of flooring adhesion. And it has been trapped in wall cavities and assemblies, exacerbated by widespread use of impermeable vinyl wallcoverings, leading to mold growth within those assemblies.
- The apparent infiltration of groundwater and review of the civil drawings in the construction set has raised serious concerns about site and storm drainage. The drawing scans that we have received to date do not include the civil drawings. We need copies or scans of those sheets for further study. In addition, we need the recently completed Hydrologist report and any geotechnical reports used in the design of the building and site work.
- The design drawings call for the removal and replacement of soils to a depth of eight feet under the entire building site. Any records of the extent of that work and the composition of the imported soils is very important to understanding and resolving the site water issues.
- The design drawings indicate a 3'x7' concrete culvert that transects the building to remain with modifications. Any construction observation reports or photographic records of that work will be helpful in understanding and resolving the site water issues. We have requested that bolted manhole covers be prepared for removal to let us observe what we can. A comprehensive strategy to evaluate the condition and configuration of the major drainage elements under the building should be conducted as part of this study,
- As the scope of our work is currently limited to the evaluation of the building, we have solicited a proposal from Tighe & Bond for Civil Engineering services to assist in evaluation of the design and the system in place, and to provide relevant design services in the development of any intervention to be executed. Upon receipt, we will forward it to your attention for review and discussion.

cc: Erik Kaeyer – KG+D
 Jill Walsh – OLA
 Trevor Hill - TDEG
 Tom Olam – Watsky Associates