July 23, 2019

CHA Architecture/PDT Architects Memo #2 to MSAD 75 School Board:

Re: **Mt. Ararat High School Ballfield Conditions Memo #2**
Subj: Repair and Maintenance Program for Baseball Field and New Practice Field

General Overview:

CHA Architecture/PDT Architects (CHA) has continued to solicit input from grass turf experts on your field's condition and has met with Crooker Construction to review their Regrowth and Maintenance Plan for the grass turf.

CHA contacted the University of Maine/Orono College of Natural Sciences, Forestry & Agriculture to request their help in evaluating the existing grass condition. Two professors at University of Maine/Orono's turf grass program recommended an adjunct instructor who has taught at UMO and SMCC as a local Southern Maine expert on turf grasses.

The consultant confirmed all the previous information CHA Architecture had collected from other grass turf experts but had some additional, interesting information concerning winter kill conditions and future actions to take to try to minimize future winter kill.

The consultant explained that many agronomists and botanists describe winter damage to be both "winter kill", and "winter damage". Winter damage can include grass that has been killed by either gray or pink snow mold. Gray snow mold kills the crown and blades of grass which can often recover and regenerate with new grass blades. Pink snow mold kills both the crown and the roots. It does not allow for regeneration of the plant. Chris Shaw had noted when he first walked the fields and turned over ice and snow to look at the turf, he would often see a pinkish-gray color that sounded like snow mold descriptions.

The consultant also explained that clear ice, which did cover much of Mt. Ararat's fields, is a major contributor to winter kill. It does not allow oxygen to get down to the roots of the grass. This was a problem throughout Southern Maine last winter because of hard, early snows on top of unfrozen ground followed by freeze/thaw cycles resulting in build ups of clear ice on top of grass and soil.

The consultant agreed with all the recommendations being provided by the general contractor for remediation throughout the Summer and Fall of 2019. The consultant recommended not applying nitrogen fertilizer in late fall. He also said there is no practical or affordable way to prevent winter kill. He noted golf courses sometimes try to protect small areas of greens and

49 Dartmouth Street, Portland, ME 04101
T 207.775.1059 • F 207.775.2694 • www.chaarchitecture.com

tees with a granular black sand product intended to absorb sunlight and melt through built up solid ice. Applying the black sand product or a fungicide to large, athletic grass fields is not practical and would be cost prohibitive.

Meeting with Construction Contractor to Review Repair and Remediation Plan:

Representatives from MSAD 75, Gorrill-Palmer Consulting Engineers and CHA Architecture met with Crooker Construction, the field's general contractor. The contractor reviewed remediation work they had done to date in 2019 which included aeration and top dressing with sand on two separate occasions. Lime was also placed on the field in both the Fall of 2018 and Spring of 2019. They have also provided their traditional fertilizer program twice in 2019.

The contractor has submitted a request to continue to apply professional turf fertilizer in addition to slice seed both fields which will both aerate and push new grass seed into the new topsoil.

The contractor has requested permission to use an enhanced calcitic fast-acting lime product to help improve the pH balance of the topsoil on both fields. Lastly, the contractor expects to continue their fertilizer program with continued water, irrigation and mowing.

Gorrill-Palmer Consulting Engineers and CHA Architecture agrees with and will be approving Crooker Construction's planned remediation program.

The general contractor has agreed the infield mix does not match Gorrill-Palmer's specification. The supplier of the infield mix has proposed removing half of the material, adding sand, and rototilling the remaining product together to produce an infield mix that will provide better drainage and more closely match the original specifications.

The contractor has agreed to address some minor grading issues on both fields and will work with Gorrill-Palmer to correct a few poorly drained low areas as noted in earlier observation reports.

Crooker Construction acknowledged the poor weather has set them back a full year on the project. They stated they are fully committed to providing MSAD 75 with fields that will meet the owner's needs and allow them to fulfill their contract requirements. To date, the contractor has been open, cooperative and committed to continuing to invest time and money in repairing the field growth.

In Conclusion:

The architects and engineers continue to meet with turf specialists and the general contractor to better understand the condition of the field and how best to prepare the fields for the upcoming Winter of 2019. The design team, as well as the general contractor, are committed to finishing our contractual obligations in spite of conditions beyond the control of any of the

parties. We share the frustration of the MSAD 75 athletic community concerning the major setback on the acceptance of the fields but remain committed to delivering acceptable fields.

As previously explained in our letter of July 11, 2019, MSAD 75 will not be able to play on the baseball field in the Spring of 2020. We will have to re-evaluate the multi-purpose field in July 2020 to see if it makes sense to use that field in the Fall of 2020.

END OF MEMO

CHA ARCHITECTURE