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Wilton Zoning Board of Adjustment
42 Main Street
P.O. Box 83
Wilton, NH 03086

Dear Zoning Board Members,

I believe that the regulations regarding mandatory lighting of all working structures in quarries is important to consider in the Quinn Properties, LLC case. The United States Department of Labor's Mine Safety and Health Administration standards require "Illumination sufficient to provide safe working conditions ... in and on all surface structures, paths, walkways, stairways, switch panels, loading and dumping sites, and work areas" and The United States Department of Labor's Occupational Safety and Health Administration stipulates that batch plant ramps, runways, corridors, offices, shops, and storage areas shall be lighted to "not less than 10 minimum illumination intensities in foot-candles while any work is in progress".

A security flood light is clearly drawn next to the silo on the Quinn's site plans (Figure 1). This suggests that nighttime illumination of the 72 foot silo is anticipated by the applicant.

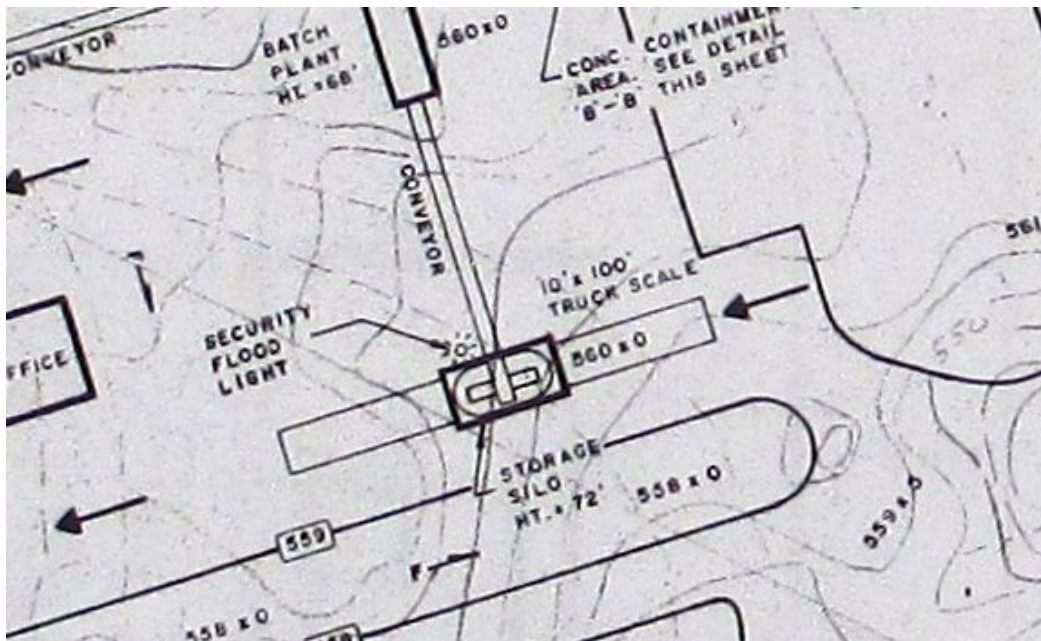


Figure 1 Security flood light noted on Quinn 's 1989 Sediment and Erosion Control Plan

As shown in these two photographs of the Amherst NH batch plant, the first, taken last fall at 10:40 PM and the second, taken this January it would seem that these lighting regulations are followed by the industry at all times. As you can clearly see in the first photo, some of the lights are positioned to illuminate all 68 feet of the batch plant. This “up” lighting has the potential of substantially increasing light pollution in our region. Overnight operation with even more mandatory lighting to reach the tops of the structures is also not out of the question since our town does not currently have any restrictions on 24 hour operations in our industrial district.



Amherst batch plant, October 24, 2019, 10:40 PM



Amherst, NH batch plant January 31, 2020 6:14 PM

Light pollution has many adverse effects. Light pollution can cause sleep disturbances, interfere with visibility and enjoyment of the night sky, disrupt animal behavior and be detrimental to the health of trees. All of these effects are contrary to the public interest and will detract from the rural character of our neighborhood.

According to the Quinns, the structures that they hope to erect on lot B-10 are similar in height to those of the batch plant in Amherst NH. There are shorter asphalt plant models available. However, we have been told that the applicants would rather have a taller plant and are therefore seeking a variance to exceed our 45 foot height restriction. The increased risk of light pollution with increased structure height violates the variance criterion that the variance will not be contrary to the public interest therefore the variance should not be granted.

Sincerely,

Marilyn Jonas

Sources:

Electronic Code of Federal Regulations, Title 30, Chapter I, Subchapter K, Part 5, Subpart P (§56.17001), Retrived from:
https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=f404eb0910doea9c205579f1bcc78047&mc=true&n=sp30.1.56.p&r=SUBPART&ty=HTML#se30.1.56_117001

United States Department of Labor's Occupation Safety and Health Administration, Standard Number 1926.56 - Illumination, Retrived from:
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.56>

Chepesiu, R. (2009). Missing the Dark: Health Effects of Light Pollution. *Environmental Health Perspectives*, 117(1) pp. A20–A27. Retrieved from:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2627884/>