



THOMAS COMITTA ASSOCIATES, INC.
Town Planners & Landscape Architects

M E M O R A N D U M

TO: Kennett Township Officials & Staff
Longwood Gardens Team

FROM: Daniel B. Mallach, RLA, AICP, ASLA
Thomas J. Comitta, AICP, CNU-A, RLA

DATE: November 26, 2018

SUBJECT: **LONGWOOD GARDENS - NURSERY GREENHOUSE**
PRELIMINARY LAND DEVELOPMENT PLAN DATED REVISED OCTOBER 22, 2018
ADDITIONAL CONSIDERATIONS PERTAINING TO HEADLIGHTS

At the Kennett Township Planning Commission Meeting on November 13, 2018, the Planning Commission requested that Thomas Comitta Associates, Inc. further explore how, or if, headlights from cars and trucks at the new Greenhouse building proposed by Longwood Gardens on the south side of Baltimore Pike may affect the neighbors to the east (Ms. Carissa and Mr. Mario Cifolelli at 1046 Baltimore Pike).

The comments herein discuss the various aspects of this concern, and our recommendations.

Please let us know if there are any questions.



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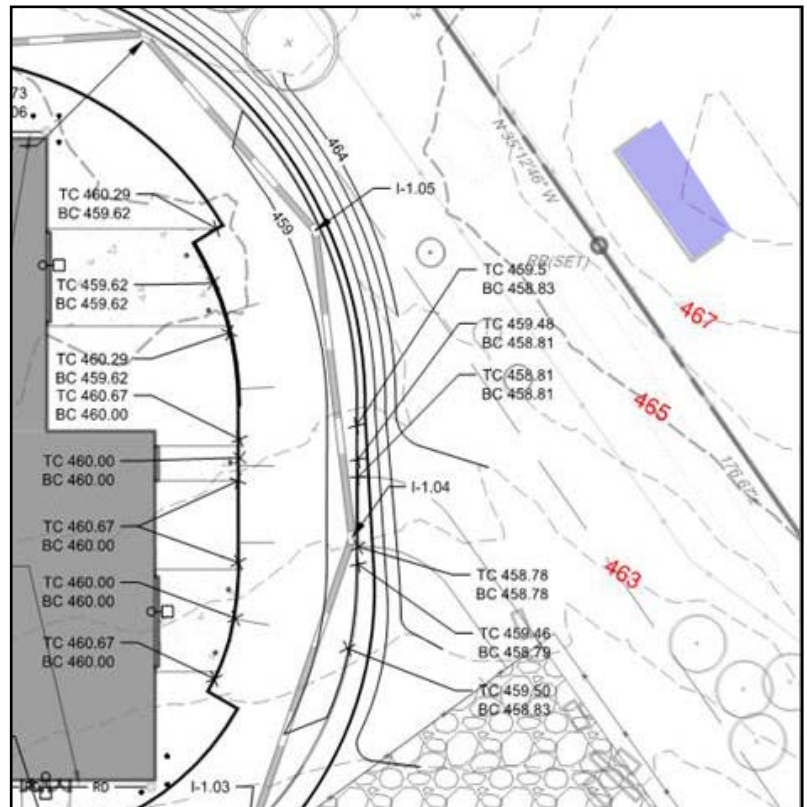
November 26, 2018

1. Direct Headlight Glare & Elevation Difference

In addition to the contour elevations indicated along the proposed pavement, the excerpt to the right of the 10-22-2018 Plan is marked with additional contour elevations in red near the shared property line. (BC = "Bottom of Curb", referring to the elevations of the pavement.)

As can be seen in this Plan excerpt, there would be at least a seven foot (7') grade difference between the pavement around the proposed Greenhouse and the foundation of the Cifoletti dwelling (highlighted in blue), with the Greenhouse pavement being lower (around the 460' contour) than the "floor" elevation of the Cifoletti dwelling (around the 467' contour).

This elevation difference is greater than the height of any vehicle headlights that would likely be at the site, including high-clearance pickup trucks, tractor-trailers (the "cab"), agricultural tractors, and snow plow truck with high-mounted auxiliary headlights. *Therefore, this difference in elevation is, by itself and regardless of buffer plantings, sufficient to block direct glare from vehicle headlights.*



2. Reflected Light and "Glow"

As noted above, the elevation difference between the proposed Greenhouse pavement and the Cifoletti Property is sufficient to block direct headlight glare. However, it is possible that under certain weather or atmospheric conditions some diffuse "glow" from headlights could be visible from the Cifoletti property. In particular, such glow may be visible under misty conditions where the headlight illumination is scattered upward through suspended water droplets. A similar "halo" effect is sometimes seen extending outward and upward from street lights under such conditions, even if the street lights are pointing downward. In this case, the glow from headlights could be more noticeable if there is snow on the ground between the driveway and the property line, which would potentially contribute to the amount of upward-reflected light along the sloped ground between the properties.



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Given the distance between the pavement and the shared property line (approximately 90 feet), and because direct glare itself would be eliminated by the elevation difference, this potential for glow can be successfully addressed by the screen buffer plantings, in a manner similar to the way in which concerns over daytime visibility of the Greenhouse building itself and related activity are intended to be addressed.

In other words, the screening needs relative to potential indirect headlight "glow" should be considered to be similar to the screening needs for the Greenhouse building.

We understand that the Applicant Team is preparing a perspective illustration view from the Cifoelli dwelling of the proposed Greenhouse, incorporating the currently proposed buffer planting. This illustration may reveal additional opportunities to further screen the proposed Greenhouse operation, in order to establish the "year-round visual screen" required by the Zoning Ordinance.

In our opinion, the year-round visual screen should also buffer potential indirect glow from headlights that might occur under certain weather conditions.

For example, the perspective illustration may reveal potential gaps in the year-round (i.e., evergreen) screen. Any such gaps could be filled in the following ways:

1. By planting additional evergreen trees;
2. By replacing proposed deciduous trees with evergreen trees; and/or
3. By planting larger trees (the evergreen trees are currently proposed at six feet (6') in height).

If potential visual gaps toward the Greenhouse were filled in any or all of the above ways, this would also provide the screening necessary to address headlight glow that may occur under misty conditions.

Based on the above, we recommend waiting until the completion of the perspective illustration in order to further evaluate the opportunities for enhanced screening.

Note: some minor visual gaps at the time of planting and for the first few years of tree growth should be expected, as such gaps are a result of the plant spacing required to establish a healthy buffer in the long term. Therefore, we recommend against a strategy for enhanced screening that includes closer spacing of the trees than is currently proposed.

3. Post-Construction Buffer Enhancement

As a Condition of Plan Approval, Longwood Gardens could agree to plant additional buffering trees to address any screening needs identified by the affected neighbors, after fair consideration by the Township of the post-construction site conditions. Such consideration would take into account the expected growth of the trees over a reasonable time frame, such as three (3) years.



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4. Conclusions

- 4.A The elevation change of approximately seven feet (7') between the driveway pavement and the Cifoletti property line above means that there will be no direct headlight glare reaching the Cifoletti property.
- 4.B Potential for indirect light "glow" emanating from vehicle headlights under certain weather conditions should be addressed as a component of overall Greenhouse screening needs that may be identified upon the completion of the perspective illustration.
- 4.C As a Condition of Plan Approval, the Township could reserve the right to require the installation of additional screen planting, based on further post-construction consideration.

Please call or email if there are any questions