

April 28, 2020

Town of Goshen Planning Board
Mr. Lee Bergus, Chairman
276 Main Street
Goshen, NY 10924

Ref: Southside Commerce Center
Village of Goshen: 121-1-1.32
Town of Goshen: 13-1-5.11

Dear Planning Board Members,

Attached please find a revised site plan set and supporting documents in accordance with Site Plan comments outlined in Sean Hoffman's review dated June 23, 2019. Specifically the comments are:

- 1. The plan shows two (2) retaining walls along the westerly side of the access driveway. The northerly retaining wall (nearest to Police Drive) encroaches into the front yard setback. The Code allows retaining walls within the front yard if they are less than four (4) feet high [§97-40E(2)]. The applicant should provide the height of the wall within the front yard. The southerly retaining wall (nearest the proposed warehouse) spans both the Town and Village parcels and appears to encroach within the side and rear yards of the Town parcel. This configuration complies with the Code which allows retaining walls of any height in any side or rear yard [§97-40E(1)]. The plan has been revised so that the retaining walls does not encroach into the front yard.*
- 2. The plan should be revised to indicate the maximum impervious surface coverage (70%) and include a calculation demonstrating compliance. A calculation has been provided on the Cover Sheet.*
- 3. The Code requires 30% of the site to be maintained as open or undeveloped green space. This green space shall be arranged to buffer buildings and parking areas from public roads and neighboring properties while protecting wetlands, water courses and scenic views [§97-14B]. The plan should be revised to identify the 30% open or undeveloped green space and identify any wetlands or watercourses on the parcel within the Town. We have identified this area on the Site Plan.*
- 4. The Code [§97-17D(3)] requires construction of a bike path and/or sidewalk within the required landscape buffer along the road. We understand a bike path and/or sidewalk is required along Police Drive and should be considered in conjunction with the design of the driveway and other site improvements. Additionally, the landscape buffer should also be identified on the plan. The Code requires the landscape buffer to consist of trees, shrubs, fields meadows, natural area and/or lawns. We presently are not showing a bike path or sidewalk since there are no existing conditions to tie into. Area can be left along the frontage if required. We can discuss this further with he Board. Landscaping along the frontage has been provided.*

5. *The Code requires a minimum distance of 600-feet between curb cuts [§97-14D(6)]. The applicant has shown the proposed driveway as well as the adjacent driveways (see Existing Conditions Plan). The proposed curb cut appears less than 600-feet from existing driveways along both sides of Police Drive. It appears the proposed driveway location will require a variance in addition to approval from Town of Goshen Superintendent of Highways in accordance with the Code [§97-52A]. if required, a waiver from this will need to be sought by the applicant.*
6. *Site Access – The site is located along Police Drive. Ingress and egress to the warehouse facility within the Village will be provided by a proposed driveway through the adjacent parcel within the Town. The driveway location may require a variance (see comment above) in addition to a permit from the Town Superintendent of Highways. In connection with the proposed driveway access, the plan should be revised to include information regarding the proposed driveway grade, width, drainage and sight distances. In accordance with the Code, the curb cut shall minimize any possible damage to the Town road and shall provide the maximum safety for all traffic in the area of the driveway entrance [§82-3B]. Additional information regarding the entrance has been provided on the plans. The applicant is aware that a permit will be required from the Town Superintendent of Highways.*
7. *Water – The site is within the AQ-6 Overlay Zone. The applicant proposes a connection to the existing watermain within Police Drive. This watermain was constructed by the County and dedicated to the Village for operation and maintenance in accordance with an intermunicipal agreement (IMA). We understand the IMA required any additional connections to the watermain to be specifically approved by both the County and Village. In addition, since Police Drive is a Town road, the applicant will need to obtain approval of the Town Superintendent of Highways. We recommend the plans be revised to include a road restoration detail showing how the watermain trench will be installed and paved. Approval will be sought from the Village and County relating to tying into the water main. Additional details have been added regarding the connection.*
8. *The applicant should provide information regarding their ability to connect to the existing forcemain and utilize the easement. Additionally, the applicant should provide information indicating the existing combined forcemain parallel to Police Drive has the capacity for the additional flow. With regard to the sewer easement we have attached file map #9337 that contains the easement. We are trying to get confirmation on the main size to evaluate the capacity, seems no one knows anything.*
9. *The applicant is proposing installation of a private forcemain within the Town’s Police Drive right-of-way. We recommend you confirm with Attorney Naughton this will require Town Board approval and likely an indemnification and maintenance agreement. Comment needing planning board consideration.*


10. *In addition to the Town Board's approval, the applicant will be required to obtain approval of the Town Superintendent of Highways. We recommend the plans be revised to include a road restoration detail as well as a connection detail to the existing forcemain. The applicant should advise if any structures are anticipated between the proposed access driveway and receiving point of connection (e.g., air release valve chambers, etc.). additional information related to the pump station has been provided. The required approvals will be obtained by the applicant.*
11. *The plan shows the proposed forcemain passing Entemann's Bakery and King Zac Industries. Entemann's appears to be served by an onsite sewage disposal system while King Zak appears to already have a forcemain connection to the Village. The applicant should advise if they have discussed sewer service with the neighboring properties and whether an easement could be established to avoid installing the proposed forcemain within the Town's right-of-way. No the applicant has not approached the adjoining property owner. We were anticipating putting it in the road shoulder.*
12. *The applicant should quantify the limit of soil disturbance within the Town associated with the proposed access driveway. If the proposed disturbance exceeds one (1) acre a separate SPDES General Permit for Stormwater Discharges from Construction Activity for the driveway will likely be required since the Village and Town are both MS4's. The disturbance within the Town parcel is more than an acre. In our past experiences, when 2 municipalities are involved, each reviews the SWPPP and each provides a MS4 Acceptance form for submission to the NYSDEC.*
13. *The applicant should review the driveway to determine if the proposed catch basins may be installed further north to reduce potential runoff entering Police Drive right-of-way. Additionally, it appears the discharge from these catch basins should be toward the west. The 2 catch basins and their location and discharge have been revised.*
14. *The plan shows an existing watercourse crossing the driveway at approximately Station 1+25. The applicant should advise whether any culverts are anticipated at this location and revise the plans including details and profile. The plans and profile have been modified.*
15. *The applicant should advise if signage is proposed and provide information sufficient to confirm compliance with the Code requirements. We refer the applicant to §97-49 regarding sign requirements. Site signage is not being proposed at this time.*
16. *Traffic Management Plan – The plans should include a traffic management plan associated with the proposal to install the sanitary forcemain within the Town's right-of-way. We would request that the traffic management plan be provided once we have obtained approval for the main installation and prior to construction.*
17. *Municipal Boundary – We recommend the plans be revised to delineate the municipal boundary between the Town and Village. The Aerial Map on the Cover Sheet appears to show all parcels within the Village. The municipal boundary line on the aerial map has been clarified.*

18. *Trench Details* – The plans appear to show two (2) storm sewer trench details. The plan should indicate where each will be utilized. Additionally, the plans should include trench details for the proposed water and sewer utilities. The Utility Trench detail has been provided.
19. *Retaining Walls* – The plans should include details showing how the proposed walls will be constructed. The applicant is working with a Structural Engineer for the design and once it is available it will be forwarded on and made part of the plan set.
20. *Lighting & Landscaping* – The plan has been revised to light fixtures along the access driveway as well as anticipated light levels. We recommend light levels be limited at the property line to 0.1-foot candles. The Code limits the height of light poles to 15 feet [§97-48(A)(4)(d)]. The plan shows four (4) fixtures along the driveway and indicates a mounting height of 15-feet. We recommend a detail showing how the lights will be mounted. We recommend any action of the Board provide there be no offsite glare. Based on previous action by the Board, the lighting design should be a “dark sky friendly” or “nighttime friendly” certified fixture (IDA, LEED or Green Globes). The Lighting Plan has been updated and we have attached information related to the lights specified are “nighttime friendly”.

If you require anything additional related to the proposal prior to the project being placed on the next meeting agenda, please contact our office at your convenience.

Thank you.

Sincerely,



Lawrence Torro, PE
Project Engineer

Cc: Malcolm Myers, via email
Jay Myrow, Esq. via email

NIGHTTIME™ FRIENDLY LIGHTING



Nighttime Friendly designates products with superior optical control that are consistent with the goals of USGBC LEED® and meet Green Globes™ product criteria for light pollution reduction. These products are full cutoff and no more than 10% of the lumens from the luminaire are emitted above 80 degrees from nadir.

Acuity Brands – Nighttime Friendly™ Designation

For years, Acuity Brands has been actively involved in developing products and standards focusing on minimizing the impact of electric lighting systems of the nighttime environment. Our brands are members and contribute to the International Dark-Sky Association (IDA) and we are active in various outdoor lighting committees of the Illuminating Engineering Society (IESNA). We are a member of the IDA / IESNA Model Lighting Ordinance task group. We are a member of the US Green Building Council and provide a variety of lighting solutions focused on achieving the LEED credit S58 for light pollution reduction. Acuity Brands has some of the most experienced and knowledgeable optical designers working with our product development teams to continue to develop responsible lighting solutions.

What does Nighttime Friendly Mean?

Because there are no lighting industry standards recognizing products that minimize obtrusive nighttime lighting, Acuity Brands has established a designation with very strict requirements, based on photometric test data. Our Nighttime Friendly designation requires that the lighting product has no uplight and no more than 10% of the total lumens between 80-90 degrees. This criterion is consistent with LEED and Green Globes guidelines for environmental sustainability. Our Nighttime Friendly designation focuses on no uplight as well as high angle brightness and requires laboratory test data based on IESNA standards. The Acuity Brands Conyers lab is NVLAP accredited, an accreditation that requires a strict quality process and 3rd party audit by the National Institute of Standards & Technology (NIST). Independent labs have not gained this accreditation.

How does Nighttime Friendly compare with other designations?

IDA Fixture Seal of Approval

The IDA Fixture Seal of Approval does not have specific, quantifiable criteria. In general, the IDA Fixture Seal of Approval focuses on products that have no uplight. Since Acuity Brands Nighttime Friendly designation is more stringent and can be verified with any commercial software, we typically do not list products with IDA.

Star View™ Compliant

Hubbell Outdoor and Spaulding brands of lighting products promote the Star View Compliant designation, used to identify full cutoff optics. This designation is not as stringent as the Acuity Brands Nighttime Friendly designation because it does not stipulate a limit on the high angle lumens that impact glare.

Are there other considerations for minimizing obtrusive outdoor lighting?

Daytime and nighttime aesthetics

Beyond considerations of uplight, there are other optical considerations to help you select a quality lighting system. Many times, the lighting system must offer both daytime and nighttime aesthetics. Traditionally, this required lighting systems that emitted a significant portion of light into the sky and emit light at high angles resulting in glare. We offer many options to address the need for daytime and nighttime aesthetics.

Light trespass

Another key aspect to consider is limiting the amount of light emitted off of the property that trespasses onto adjacent properties. This is especially important in areas where commercial and residential properties are adjacent to each other. To address this concern, lighting products should be selected to minimize high angle brightness and poles located at or near the perimeter of the site should utilize sharp cutoff optics that limit light behind the pole.

Reducing light levels late at night

Many communities encourage businesses to reduce light levels late at night when activity in those areas is minimal. In addition, some areas are encouraged to turn off the lighting, such as sporting facilities. This can be accomplished by turning off some luminaires or zones. Advanced lighting systems can even detect motion and reduce the lighting in each fixture when there is not activity.

Why should I select Acuity Brands products for applications with environmental considerations?

Acuity Brands provides many options for responsible outdoor environments. We demonstrate our commitment to the nighttime environment through our development of superior optics, our involvement in industry activities to reduce the impact of obtrusive nighttime lighting and through our corporate commitment to environmental sustainability. We provide reliable test data and have made investments in the accreditation of our Conyers testing laboratory. Our sales personnel and technical support staff stand ready to help you identify the most effective outdoor lighting solutions and validate the performance of these systems.

IESNA CUTOFF CLASSIFICATIONS

CLASSIFICATION	DEFINITION	BENEFITS	LIMITATIONS
Full Cutoff	Zero intensity at or above horizontal (90° above nadir) and limited to a value not exceeding 10% of lamp lumens at or above 80°.	Limits spill light onto adjacent property, reduces glare. No light is emitted directly from the luminaire into the sky.	May reduce pole spacing to maintain uniformity and increase pole and luminaire quantities.
Cutoff	Intensity at or above 90° (horizontal) no more than 2.5% of lamp lumens, and no more than 10% of lamp lumens at or above 80°.	Small increase in high-angle light allows increased pole spacing.	May allow some uplight from luminaire. Typically a small overall impact on sky glow.
Semi-cutoff	Intensity at or above 90° (horizontal) no more than 5% of lamp lumens and no more than 20% at or above 80°.	High-angle light accents taller vertical surfaces such as buildings. Most light is still directed downward.	Little control of light at property line. Potential for increased glare when using high wattage luminaires. Typically directs more light into the sky than cutoff.
Non-cutoff	No limitations on light distribution at any angle.	Uniform luminous surfaces such as internally illuminated signs or globes. Wattage should be limited. Suitable for sports lighting, facade, landscape or other applications where luminaires are tilted due to limitations in pole or fixture locations.	Location and aiming are critical. Most likely of all categories to produce offensive brightness and sky glow.

Notes

See www.lithonia.com/nighttimefriendly for full details.

LUMINAIRE CLASSIFICATION SYSTEM

In 2007 the IES defined a new classification system for outdoor luminaires that evaluates the photometric performance of a luminaire based on light emitted into various solid angles that impact uplight, backlight and high angle glare zones. This IES standard is available in their publication, TM-15, "Luminaire Classification System for Outdoor Luminaires".

To the right is a 3-D representation of the LCS model including the sub angles for each zone. Below that is a graphical representation of how such data for a specific luminaire is represented in the Acuity online Photometric Viewer.

The forward and backlight zones near or slightly below horizontal provide a useful analysis of high angle brightness, often relating to objectionable glare. Keep in mind however, that glare relates to other factors including the size of the source and specific intensity at discrete angles. So additional research will continue to evaluate how to best quantify glare.

Evaluation of backlight must consider where the pole is located in relation to the property line.

And finally, in considering sky glow impact, the light at or near horizontal has a greater impact on the scattering of light in the atmosphere – resulting in a higher degree of sky glow over a community.

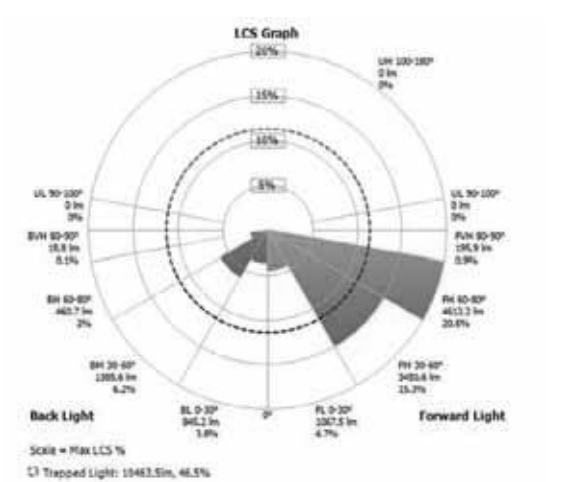
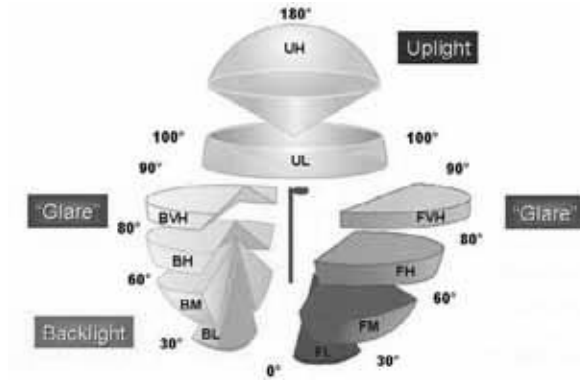
BUG Ratings

In February 2009, the TM-15 standard added zonal lumen limits defining Backlight (B), Uplight (U) and Glare (G) ratings. The zonal lumens in specific solid angles define a rating from 1 to 5 for each of three categories, with 1 being the most restrictive.

You will notice that the uplight category includes lumens that are in the very high zones below horizontal. The reason for this is because uplight – or sky glow, is impacted most by light emitted at or near horizontal because horizontal light causes the most scatter in the atmosphere as it picks up and reflects off of particulate in the air (such as dust particles, air pollution or even natural phenomena such as fog).

You will also notice there are two tables for the glare ratings. The zonal lumen thresholds are different for luminaires that have a symmetric distribution such as a Type V or Type V square from those that have a longitudinal or forward throw type of distribution such as Type I, II, III or IV.

BUG ratings for our products are available using the Acuity online Photometric Viewer.



BACKLIGHT/TRESPASS						
SECONDARY SOLID ANGLE	B0	B1	B2	B3	B4	B5
BH	110	500	1000	2500	5000	>5000
BM	220	1000	2500	5000	8500	>8500
BL	110	500	1000	2500	5000	>5000

UPLIGHT/SKYGLOW						
SECONDARY SOLID ANGLE	U0	U1	U2	U3	U4	U5
UH	0	10	100	500	1000	>1000
UL	0	10	100	500	1000	>1000
FVH	10	75	150	>150	—	—
BVH	10	75	150	>150	—	—

GLARE							
GLARE FOR TYPES I, II, III, IV, V and V SQUARE	SECONDARY SOLID ANGLE	G0	G1	G2	G3	G4	G5
	FVH	10	250	375	500	750	>750
BVH	10	250	375	500	750	>750	
FH	660	1800	5000	7500	12000	>12000	
GLARE FOR TYPES I, II, III AND IV	BH	110	500	1000	2500	5000	>5000
GLARE FOR TYPES V AND V SQUARE	BH	660	1800	5000	7500	12000	>12000