

MEMORANDUM

DATE: November 9, 2015
TO: Mayor and Town Council, Board of Architectural Review
FROM: Hyojung Garland, Deputy Director of Planning and Zoning and Michael D'Orazio, Planner
RE: Roofline Lighting Work Session

Background:

In May of this year the Owner of the Village Green Shopping Center (VGSC), located at 501-531 Maple Avenue West, requested approval of exterior lighting improvements to their existing shopping center. The applicant proposed LED strip lighting along the rooflines of the buildings, which were to be displayed during various holidays throughout the year. The Board of Architecture Review (BAR) first considered this item at their May 21, 2015 hearing. The Board voted to continue the application on two separate occasions due to varying circumstances.

During the summer the Board also noticed that other buildings had installed year-round LED roofline lighting without BAR approval. In August the Board held a work session to discuss roofline lighting and met with the Town Attorney and Staff. Based on the direction of the Board, Staff contacted several properties that had not received approval from the Board for year-round roofline lighting and requested that they submit formal BAR applications for exterior modifications to their lighting. The owner of Vienna Crossing and Vienna Marketplace submitted applications for the September 2015 meeting.

Before making any formal decisions on the properties, the Board felt it would be appropriate to hold a work session with Council to gauge where the Town Council was related to the acceptable levels of lighting the Town wishes to permit in the town.

Overview:

The Town has received three (3) applications for roofline lighting, located at the Village Green Shopping Center, Vienna Marketplace and Vienna Crossing.

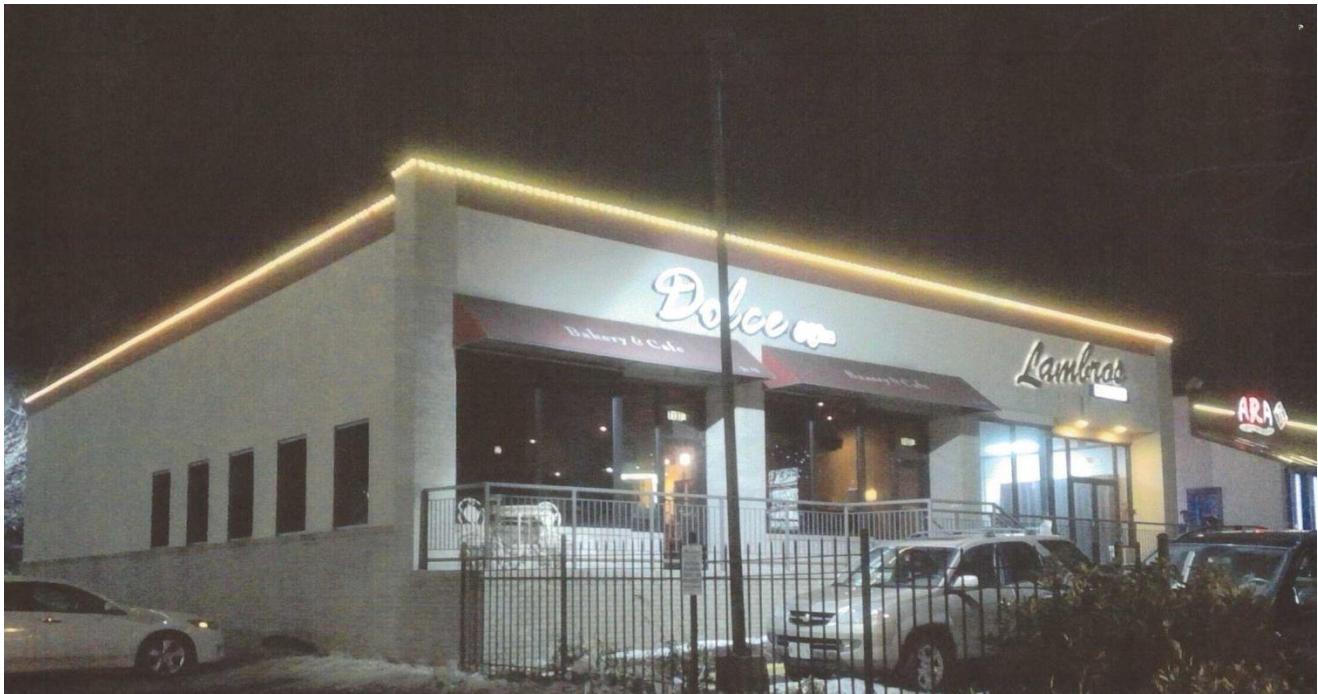
Village Green Shopping Center proposed the LFU3S series LED fixture (5050 Warm White – 2700K), comprised of a series of individual bulbs which more closely matches traditional holiday lighting.

The proposed aluminum-framed fixtures would be placed along various ridges and eaves as indicated in the pictures on the next page. According to the application, the lights will be used for seasonal purposes only, such as Christmas and Valentine's Day, among others.

In addition to the Village Green Shopping Center, the owner for the Vienna Marketplace and Vienna Crossing has also submitted applications for roofline lighting. Pictures are included on the next couple of pages showing the lighting at night.



Village Green Shopping Center – Proposed Locations of LED Lighting



Example of Roofline Lighting Provided by Applicant for Village Green Shopping Center Lighting



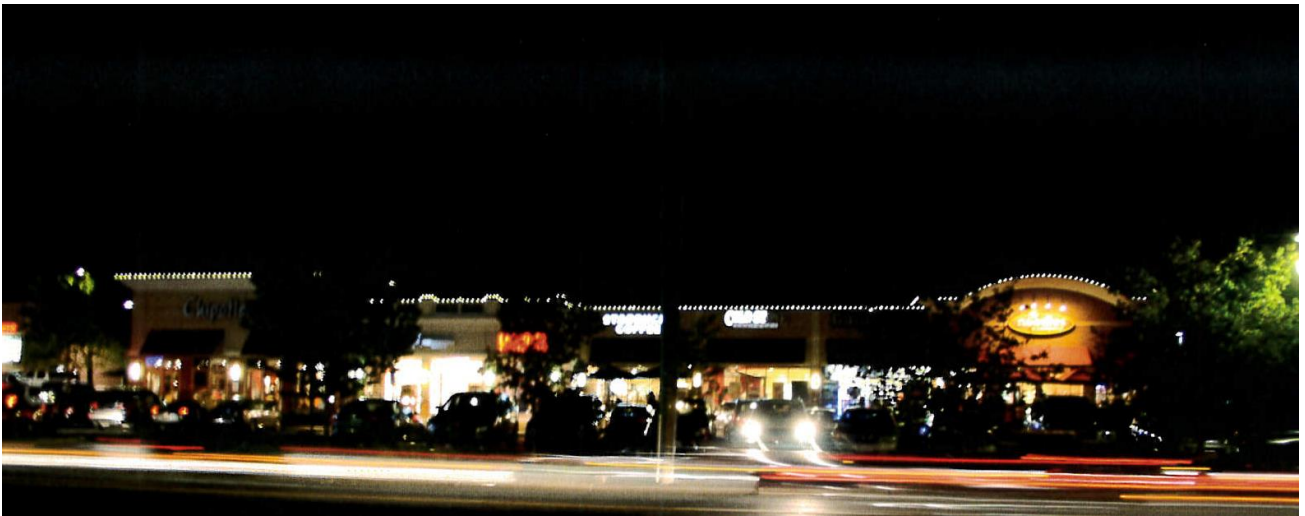
Vienna Crossing – Installed LED lighting along the roofline



Another view of Vienna Crossing with installed LED roofline lighting



Vienna Marketplace – Installed LED lighting along the roofline



Another view of Vienna Marketplace with installed LED roofline lighting

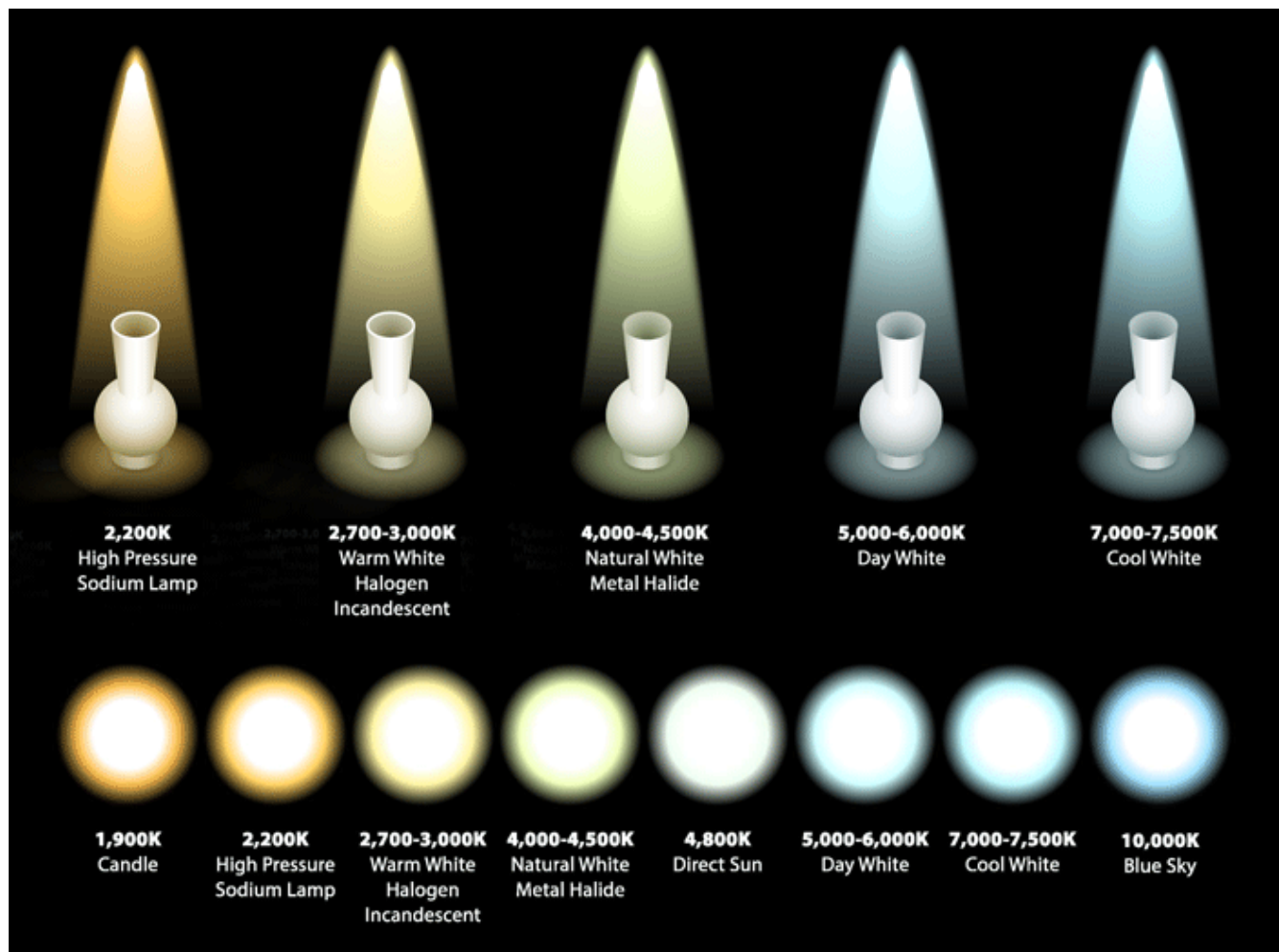
There are several other properties that have installed permanent roofline lighting but have not yet submitted applications for review. Staff is planning to bring examples of some of the other roofline lighting located on Maple Avenue and other examples to help facilitate the discussion on the range of roofline lighting options available.

Conclusion:

There are several items that can be discussed in regards to roofline lighting. Some are included below.

Forms of LED Lighting

One item is the type of lighting being used. LED lighting is the most popular form of lighting and can range in the color spectrum from a candle light to a cool white. All of the applications submitted propose or have used LED lights that are considered a warm white. However some LED lights also can be programmed to change the color temperature. Please see the chart below for reference.



Source: <http://solutions.borderstates.com/color-temperature-and-led-understanding-how-to-choose-led-lamps-for-warm-and-cool-applications>

Style of LED Lighting

LED lighting along rooflines can vary in style, with some being in flexible strip-type lighting or separate LED bulbs. Some pictures are included below showing the different types.

LED LAMPS

We are a direct importer and an approved Minileon distributor for C-7 and C-9 LED Lamps.

- Works with standard 120V power supply
- No transformer needed
- LED Lamps use less than 2 watts per lamp (1.4)
- C-7 lamps have 3 colored diodes and C-9 lamps have 5 colored diodes
- Acrylic plastic lens eliminates breakage

Quantity Discounts Available

| Color | C-7 Lamps 25 per bag | | | C-9 Lamps 25 per bag | | |
|-------------|-------------------------|---------------------------|-------|-------------------------|----------------------------|-------|
| | less than 1000 | full case 1000 same color | 1000+ | less than 1000 | full case 1000+ same color | 1000+ |
| Warm White* | 1.05 | 1.05 | Quote | 1.29 | 1.29 | Quote |
| Cool White* | 1.05 | 1.05 | Quote | 1.29 | 1.29 | Quote |
| Purple* | 1.05 | 1.05 | Quote | 1.29 | 1.29 | Quote |
| Green* | .96 | .96 | Quote | 1.19 | 1.19 | Quote |
| Blue* | .96 | .96 | Quote | 1.19 | 1.19 | Quote |
| Red* | .89 | .89 | Quote | 1.09 | 1.09 | Quote |
| Yellow* | .89 | .89 | Quote | 1.09 | 1.09 | Quote |
| Orange* | .89 | .89 | Quote | 1.09 | 1.09 | Quote |
| Pink | 1.05 | 1.05 | Quote | 1.29 | 1.29 | Quote |

*Available in Twinkle

T-56 LED LIGHTS

Medium Base E-26, Standard Base, Steady, 10 Diodes, 120-Volt, 5/8" Bulb Diameter, Averages 60,000 Hours, Indoor/Outdoor Usage

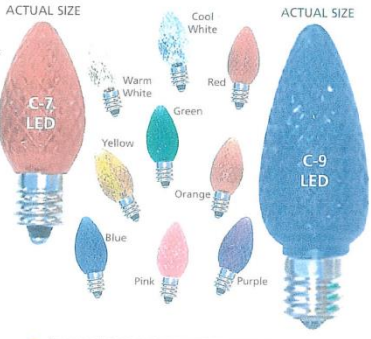
Available in Twinkle \$3.40 per box \$85

LED AMBER or WARM WHITE FLAME

Heavy-Duty Plastic Lens, Medium Base
14 LED diodes per bulb

\$85 per case (25 per case)

\$3.40 each



LED Bulbs (Used at Vienna Marketplace and Vienna Crossing)



LED Strip Lighting, Source: <http://image.made-in-china.com/2f0j00ovcQDMhRbskP/3020-SMD-Flexible-LED-Strip-Light-ZJ-FS-3020-.jpg>



LED Strip Lighting (Proposed at Village Green Shopping Center)