

City of Lee's Summit

Development Services Department

December 13, 2019

TO: Board of Zoning Adjustments

FROM: Hector Soto, Jr., AICP, Planning Manager

RE: **PUBLIC HEARING – Application #PL2019-368 – Variance to Unified Development Ordinance Article 6, Section 6.1450, Solar Collectors Setback and Height – 1201 NE Todd George Pkwy; Arrowpoint Solar, LLC, applicant**

Recommendation

The Development Services Department recommends **APPROVAL** of the variance to allow a 2'-11" setback from the north property line and a 3'-1" setback from the east property line for solar collectors, as requested.

The Development Services Department recommends **APPROVAL** of the variance to allow a 12' height for solar collectors, as requested.

Request

Variance Requested: a non-use variance to the setback and height requirements for solar collectors

Site Characteristics

Location: 1201 NE Todd George Pkwy

Zoning: AG (Agricultural)

Property Owner: Vincent and Maria Scire

Surrounding Zoning and Uses:

North: AG – commercial plant nursery (under ownership of applicant)

South: AG – undeveloped open area (under ownership of applicant)

West (across NE Todd George Pkwy): R-1 (Single-family Residential) – single-family residential subdivision

East: AG – City-owned sanitary sewer pumping station

Background

- March 31, 1998 – A building permit (Permit #B9800415) was issued for construction of the single-family home on the subject property.
- May 28, 2019 – A building permit (Permit #PRRES20191108) was issued for a ground mounted solar array.

Ordinance Requirement

Setback Requirements. Solar collectors shall be located in the rear yard and be set back a minimum 12 feet from the property lines (UDO Article 6, Section 6.1450.D).

Height Requirements. Solar collectors shall not exceed a height of 8 feet (UDO Article 6, Section 6.1450.D).

Existing Conditions. The applicant owns a total of 10.3 acres of property at the southeast corner of NE Blackwell Pkwy and NE Tudor Rd. The applicant's property is composed of two parcels. The first parcel is the subject 0.6-acre site of the existing single-family home. The second parcel is the 9.7-acre site of the applicant's commercial plant nursery that surrounds the home site to the north, east and south.

A building permit for a ground-mounted solar array was issued on May 28, 2019. The array was constructed on the 0.6-acre home site. Once constructed, it was discovered that the array was located 2'-11" from the north property line and 3'-1" from the east property versus the required 12' setback from all property lines. The array was constructed in compliance with the maximum allowable 8' height standard.

Request. The applicant requests a variance to the minimum 12' setback requirement, to allow the solar array to stay in its current location and maintain the existing approximately 3' setbacks from the north and east property lines.

The applicant also requests a variance to the 8' height allowance, to allow a maximum height of 12'. The additional 4' of height is intended to maximize the array's energy production by allowing for an increase in the tilt angle of the panels from 20 degrees to 30 degrees.

Analysis of Variance

With respect to all variances, the following is an evaluation of the criteria set forth in the Unified Development Ordinance Article 2, Sec. 2.530.B.3.:

Criteria #1 – The granting of the variance will not adversely affect the rights of adjacent landowners or residents.

A setback variance will not adversely affect the rights of the adjacent property owner. The solar array is located in the rear yard of the applicant's 0.6-acre home site approximately 3' from the property lines. As previously mentioned, the home site is surrounded on three sides by the applicant's own 9.7-acre commercial plant nursery site. In this case, the encroachment is toward the applicant's own property. The nearest property in the direction of the encroachment that is not under the applicant's ownership sits approximately 155' to the east. That property is the 15-acre site of the City's Eastern Watershed (Sanitary Sewer) Pumping Facility.

A height variance will not adversely affect the rights of the adjacent property owner for the same reasons stated above. The owner of the adjacent property is the applicant himself.

Criteria #2 – The granting the variance will not be opposed to the general spirit and intent of this Ordinance.

The intent of setbacks is to keep privacy and separation between uses and structures. The requested reduced setback is toward the applicant's own property, thus a reduction in privacy is not a concern.

The intent of height limitations is to mitigate the visual impacts of structures on surrounding properties. The requested allowable increase in height is not opposed to the spirit and intent of the Ordinance. The applicant's own property surrounds the location of the solar array to the north, south and immediate east. Further east is a sanitary sewer pumping station. The requested increased height is not expected to have a negative impact on the surrounding property.

Criteria #3 – The variance desired will not adversely affect the public health, safety or general welfare.

It is not anticipated that the proposed setback reduction or height increase will create any increased risk in the health, safety, morals and general welfare.

Criteria #4 – The variance requested arises from a condition that is unique to the property in question, is not ordinarily found in the same zoning district, and is not created by an action or actions of the landowner or the applicant.

The setback variance request stems from the unique condition that the applicant's 10.3-acre property is divided into two separate parcels for taxing purposes that separate the residential use from the commercial use. Were it not for the fact that the applicant's property is separated into two parcels, the solar array would comply with the setback requirements.

The height variance request has two purposes. One purpose is the applicant's desire to create more ground clearance under the array in order to facilitate access under the structure for ongoing maintenance under and around the area (e.g. mowing, trimming, etc). The second purpose is to create more ground clearance to allow the mounting angle of the solar panels to be increased to be 10 degrees more upright so as to more effectively capture the sun's runs and therefore increase energy production.

Criteria #5 – Substantial justice will be done.

Substantial justice will be done by granting variances to allow the reduced setbacks and increased height. The solar array is fairly well centered within the applicant's 10.3- acre property. The size of the applicant's property and the array's location within the property mitigate any potential impacts .

Analysis of Non-Use Variance

With respect to a non-use variance, the following is an evaluation of the criteria set forth in the Unified Development Ordinance Article 2, Sec. 2.530.B.2.:

Criteria #1 – Whether practical difficulties exist that would make it impossible to carry out the strict letter of the Ordinance.

There is a practical difficulty in carrying out the strict letter of the Ordinance to meet the 12' setbacks in that the structure has already been constructed, but it would not be impossible to relocate the structure.

There is no practical difficulty in carrying out the strict letter of the Ordinance to comply with the maximum allowable 8' height for the solar array. The structure as currently configured complies with the Ordinance.

In making such recommendation, the Staff has analyzed the following considerations set forth in the Unified Development Ordinance Article 2, Sec. 2.530.B.2.:

Consideration #1 – How substantial the variation is, in relation to the requirement.

The applicant requests a 9'-1" variance to the 12' setback requirement, and a 4' variance to the 8' maximum allowable height.

Consideration #2 – If the variance is allowed, the effect of increased population density, if any, on available public facilities and services.

Approval of the setback encroachment and greater structure height will not increase population and thus would have minimal, if any, effect on the available public facilities.

Consideration #3 – Whether a substantial change will be produced in the character of the neighborhood or a substantial detriment to adjoining properties is created.

Granting the requested variances is not anticipated to produce a substantial change in the character of the neighborhood. The solar array is located in the middle of a total of 10.3 acres under the ownership of the applicant. The nearest properties under separate ownership are located approximately 530' to the north, 850' to the south, 175' to the east and 300' to the west.

Consideration #4 – Whether the difficulty can be obviated by some method, feasible for the applicant to pursue, other than a variance.

The need for a setback variance can be obviated by reconfiguring or relocating the existing solar array, but is not practical to do so.

The array currently complies with the 8' height maximum.

Consideration #5 – Whether, in view of the manner in which the difficulty arose and considering all of the above factors, the interests of justice will be served by allowing the variance.

The request for a setback variance arose from the discovery that the solar array was not constructed in the intended location that would comply with the 12' minimum setback requirement.

The request for a height variance arose from the applicant's desire to facilitate access under and around the array for maintenance purposes, as well as to improve the solar array's efficacy by allowing for a greater panel angle tilt.

Consideration #6 – Conditions of the land in question, and not conditions personal to the landowner. Evidence of the applicant's personal financial hardship unrelated to any economic impact upon the land shall not be considered.

The solar array is located in the middle of 10.3 acres (composed of two separate parcels) under the applicant's ownership. The location of the array within the large acreage site mitigates any impacts the reduced setback and increase height may have on adjacent properties.

Attachments:

1. Board of Zoning Adjustment Application and Variance Criteria – 7 pages
2. Variance Request Narrative from ArrowPoint Solar, dated October 16, 2019
3. Site Plan and Solar Array Specifications – 7 pages
4. Photos of Existing Solar Array – 2 pages
5. Location Map