



Hampton Architecture

City of Louisville, CO
Planning Department
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We respectfully submit these application materials in compliance with the submittal requirements for a PUD amendment within the City of Louisville. The following describes Boulder Imaging's unique business model and proprietary technology, the specifics of the proposed work, and an analysis of the City's code provisions and design standards as they apply to this project.

Company:

Boulder Imaging was founded in 1995 with the launch of Quazar, our proprietary HPDVR technology. The industry success achieved with Quazar formed the foundation from which Boulder Imaging launched the Vision Inspector suite of machine vision software. Vision Inspector is now utilized 24/7 in a multitude of industries and environments to provide machine vision inspection solutions for precision applications.

Boulder Imaging offers a growing suite of integrated systems and software that leverage machine vision technologies perfected for the defense, industrial products, and renewable energy industries. Our inspection technology provides revealing visual data for our clients, including U.S. Federal Reserve, NASA, NextEra Energy Resources, Deriva Energy, Crane Currency, Armstrong, USG, Rockwool, and more. Within these industries, Boulder Imaging is certified to Intergraf, NERC CIS, CE, and UL.

Over 100 employees make up the Boulder Imaging team and its headquarters has been in Louisville, Colorado for 30 years. The team continues to grow rapidly to support engineering, assembly, installation, support, and administration of AI technology around the world.

Boulder Imaging began development of the IdentiFlight product in 2012. Boulder Imaging's expertise in artificial intelligence, high-precision optical technology, and machine vision led to the completion and commercial launch of IdentiFlight in 2018. IdentiFlight detects, classifies, and quantifies risk to sensitive bird species so that turbines are efficiently curtailed. Energy production is maximized while risk is minimized. It is recognized as the international best practice for bird detection and collision avoidance on wind farms.

Today, IdentiFlight is installed worldwide with over 520 IdentiFlight stations installed in more than 55 windfarms, in 13 countries and on 5 continents. IdentiFlight has over 20 patents globally and has been featured in peer-reviewed, independent studies that validate the technology's efficacy.

Project Description:

Proposed installation of imaging heads and towers and appropriate landscape screening on the adjacent lot to Boulder Imaging's relocated office at 400 Centennial Parkway.

1. Install BI's standard concrete tower base structures; note that these do not have a permanent foundation.
2. Install continuous black decorative metal fencing around tower work area for safety and visual screening.
3. Install towers within this area such that they can be lowered fully for access to the imaging heads for research & development work and client education purposes.
3. Install appropriate landscaping as additional screening around the tower area.

Code & Design Guidelines Analysis:

The following provides an analysis of specific Louisville Municipal Code sections as applies to this project.

LMC Sec 17.28.120 - Criteria for development plan

The city council must be satisfied that the final development plan has met with each of the following criteria or can demonstrate that one or more of them is not applicable and that a practicable solution consistent with public interest has been achieved for each of these elements:

1. *An appropriate relationship to the surrounding area.* **By installing fencing and landscaped screened area, the imaging towers will have a cohesive relationship with the surrounding area, with its mature trees and landscaping. The current site is an empty lot, and this project will improve this portion of the development and bring it up to the level of the surrounding mature landscaping. These towers are similar in scale to the parking lot lighting on the subject property as well as surrounding properties, including the former Home Depot and other adjacent retail uses on McCaslin. The functionality of these towers is a necessity for Boulder Imaging's research & development professional use, which is a by-right use in the zone district.**
2. *Circulation in terms of the internal street circulation system, designed for the type of traffic generated, safety, separation from living areas, convenience, access, and noise and exhaust control. Proper circulation in parking areas in terms of safety, convenience, separation and screening:* **The proposed solution maintains the existing circulation patterns of the private parking lots. The team explored other locations for the tower area within and around the existing parking lot, but those options would have decreased parking amounts or created potential safety hazards for pedestrians and vehicle circulation.**
3. *Consideration and provision for low and moderate-income housing:* **Not applicable**
4. *Functional open space in terms of optimum preservation of natural features, including trees and drainage areas, recreation, views, density relief and convenience of function:* **Not applicable.**
5. *Variety in terms of housing types, densities, facilities and open space:* **Not applicable; commercial project.**
6. *Privacy in terms of the needs of individuals, families and neighbors:* **The purpose of the proposed imaging heads is to survey the skies for endangered bird activity. The equipment utilizes a proprietary technology that allows digital masking of any commercial or residential properties that may be in view to ensure the privacy of all of Boulder Imaging's neighbors.**
7. *Pedestrian and bicycle traffic in terms of safety, separation, convenience, access points of destination and attractiveness:* **No modifications are proposed to existing pedestrian and bicycle traffic patterns.**
8. *Building types in terms of appropriateness to density, site relationship and bulk:* **Not applicable**
9. *Building design in terms of orientation, spacing, materials, color, texture, storage, signs and lighting:* **Not applicable**
10. *Landscaping of total site in terms of purpose, such as screening, ornamental types used, and materials used, if any; and maintenance, suitability and effect on the neighborhood:* **The current condition of the landscaping on this lot is fair, with older shrubs and mature trees. The portion of the site on which this work is proposed is empty, and the proposed landscaping will provide a more harmonious transition at the entry to the Boulder Imaging property. The proposed work will improve the property and the views from the Centennial Parkway and Century Place.**
11. *Compliance with all applicable development design standards and guidelines and all applicable regulations pertaining to matters of state interest, as specified in chapter 17.32:* **Not applicable/no violation**
12. *None of the standards for annexation specified in chapter 16.32 have been violated:* **Not applicable/no violation**

13. *Services including utilities, fire and police protection, and other such services are available or can be made available to adequately serve the development specified in the final development plan:* **Not applicable; no change to or access to services is proposed.**

B. The following list of criteria and guidelines will be reviewed by the city in determining whether a project shall be approved as a planned unit development. The criteria and guidelines listed below must be addressed by the applicant in plans and/or reports submitted to the city. An applicant merely addressing the guidelines and criteria shall not automatically merit approval of the planned unit development plan submitted. Satisfaction of the described criteria and guidelines shall be determined by the city council and the city council may also require additional criteria and guidelines be met with respect to a particular plan.

1. *Development shall be in accordance with the adopted elements of the comprehensive development plan of the city, and in accordance with any adopted development design standards and guidelines.* **The proposed project complies with the Louisville Commercial Development Design Standards and Guidelines, and the comprehensive development plan of the city.**
2. *No structures in a planned unit development shall encroach upon the floodplain. Existing bodies of water and existing stream courses shall not be channelized or altered in a planned unit development plan.* **Not applicable, not located in a floodplain.**
3. *No occupied structure shall be located on ground showing severe subsidence potential without adequate design and study approved specifically by the city.* **Not applicable, not located in an area with subsidence potential.**
4. *The proposal should utilize and preserve existing vegetation, land forms, waterways, and historical or archeological sites in the best manner possible. Steep slopes and important natural drainage systems shall not be disrupted. How the proposal meets this provision, including an inventory of how existing vegetation is included in the proposal, shall be set forth on the landscape plan submitted to the city.* **All existing vegetation will be maintained in the area surrounding the project and throughout the site. Substantial new landscape screening and planting improvements around the project area are proposed as part of the project. See item 11 for further explanation of landscape improvements that comply with the LMC and design guidelines.**
5. *Visual relief and variety of visual sitings shall be located within a development in the overall site plan. Such relief shall be accomplished by building placements, shortened or interrupted street vistas, visual access to open space and other methods of design.* **Substantial new landscape screening and planting improvements around the tower area are proposed as part of the project. The new screening fence has been designed with offsets to allow for interest and dimension in the planting areas.**
6. *Open space within the project shall be located in such a manner as to facilitate pedestrian use and to create an area that is usable and accessible to residents of surrounding developments.* **Not applicable, no new proposed open space.**
7. *Street design should minimize through traffic passing residential units. Suggested standards with respect to paving widths, housing setbacks and landscaping are set forth in public works standards of the city and applicable development design standards and guidelines. The system of streets, including parking lots, shall aid the order and aesthetic quality of the development.* **Not applicable, no new proposed streets**
8. *There shall exist an internal pedestrian circulation system separate from the vehicular system such that allows access to adjacent parcels as well as to parks, open space or recreation facilities within the development. Pedestrian links to trail systems of the city shall be provided.* **Internal pedestrian circulation exists, and no new pedestrian circulation is proposed. Access to work area will be periodic and by employees only.**
9. *The project and development should attempt to incorporate features which reduce the demand for water usage.* **Selected plants are native and/or low water plants.**
10. *Landscape plans shall attempt to reduce heating and cooling demands of buildings through the selection and placement of landscape materials, paving, vegetation, earth forms, walls, fences, or other materials.* **Not applicable; project is not located near enough to a building. There is no heating or cooling load associated with the tower structures.**

11. *Proposed developments shall be buffered from collector and arterial streets. Such buffering may be accomplished by earthen berms, landscaping, leafing patterns, and other materials. Entrance islands defining traffic patterns along with landscaping shall be incorporated into entrances to developments. This project is an improvement to the existing landscaping and buffering between the property and the adjacent streets. The addition of layered landscaping, in compliance with the Commercial Development Design Standards, chapter 5, meets several of the stated goals at the beginning of chapter 5:*
- Enhances the aesthetics of the development
 - Provides screening of service structures
 - Enhances the streetscape/parkway environment
 - Provides shade & climate control
 - Provides buffers between...site areas.
12. *There shall be encouraged the siting of lot arrangement, building orientation and roof orientation in developments so as to obtain the maximum use of solar energy for heating. Not applicable*
13. *The overall PUD shall provide a variety of housing types. Not applicable*
14. *Neighborhoods within a PUD shall provide a range of housing size. Not applicable*
15. *Architectural design of buildings shall be compatible in design with the contours of the site, compatible with surrounding designs and neighborhoods, shall promote harmonious transitions and scale in character in areas of different planned uses, and shall contribute to a mix of styles within the city. Not applicable*

Sec 17.42.070 - Review procedures and requirements

Item C.3.iv - Waiver criteria

Applications that do not meet the standards in this chapter shall require a waiver, subject to the following criteria:

- a. The waiver, if granted, will not alter the essential character of the neighborhood or district in which the property is located, nor substantially or permanently impair the appropriate use of development of adjacent property. **Allowing the waiver required for the tower structures would not alter the essential character of the neighborhood. The proposed landscaping and screening will improve the character of the area, especially on the existing vacant lot. The ability to permanently develop the adjacent property would not be impaired, and the property owner has provided approval for the construction of the towers & screening.***
- b. There are no reasonable design alternatives that would remove the need for the requested waiver or would reduce the amount of the waiver required. **Two other alternatives were explored to locate the towers on Lot 2 along with the building. We explored siting the towers in one of the parking areas within the center of the existing parking lot, or near the northeast corner of the site in the existing curved parking area. Each alternative presented additional challenges, including creating safety and circulation issues on the site, removing required parking, or removing required storm water retention areas.***
- c. The waiver is warranted by the design incorporated in the proposal and the benefit to the city provided through approval of the waiver. **Boulder Imaging has been a part of the Louisville community for 30 years, and chose to stay in the city when they had to expand their operation in 2024. They employ over 100 residents and are growing, developing cutting-edge technology in the AI and sustainability fields. The proposed design benefits the city not only by improving a vacant lot, but also by allowing Boulder Imaging to keep their operations and development in Louisville for the long term.***

Thank you for your consideration of this proposal.

Respectfully,

Darcia Thomas, RA, NCARB