



## PLANNING AND ZONING COMMISSION MEMORANDUM

**FROM:** The Office of the City Manager      **DATE:** February 26, 2024

**SUBJECT:** ZC24-0094, Ordinance No. 3842, Public hearing and consideration of a request from Kimley-Horn & Associates for a special use permit for a heliport/landing field at 6401 NE Loop 820, being 25.09 acres described as Lot 1R, Block 6, Tapp Addition.

**PRESENTER:** Clayton Comstock, Director of Planning

### **SUMMARY:**

On behalf of Walmart and Wing Aviation, LLC, Kimley-Horn & Associates is requesting a special use permit for a drone "heliport/landing pad" in the Walmart Supercenter parking lot at 6401 NE Loop 820.

### **GENERAL DESCRIPTION:**

The Walmart Supercenter property is located on the north side of NE Loop 820 between Rufe Snow Drive and Iron Horse Boulevard, at the northwest corner of Boulder Drive. The applicant proposes to establish ground operations for drone delivery services in the front parking lot on the property.

Wing Aviation, LLC, a subsidiary of Alphabet, Inc., has received approval from the Federal Aviation Administration (FAA) to operate unmanned aerial vehicles (UAVs, or drones) in the Dallas-Fort Worth Metroplex for the purpose of delivering packaged goods to customers. These services have been available through a prior partnership with Walgreens in Frisco and Little Elm since 2022, and operations began at two Walmart locations in Frisco and Lewisville in 2023.

The YouTube videos listed below may help familiarize the Planning and Zoning Commission and the public with drone operations and the evolution of the industry thus far. The video links are provided only for background and context of the industry as well as Wing's operational partnership with Walmart. This is not an exhaustive list of video resources available to the general public and any opinions provided in the videos do not represent those of the City of North Richland Hills.

- [Walmart & Wing deliver by drone in less than 30 minutes](#) (1:14) – This video demonstrates the actual improvements required within a Walmart parking lot.
- [Inside look at Wing's aircraft: How do delivery drones work?](#) (7:29)
- [Bloomberg Technology: Alphabet's Wing CFO on Walmart Drone Partnership](#) (4:47)

- [CNBC Report: Who Will Win the Drone Delivery Race, Why Walmart and Alphabet are Beating Amazon in Drone Delivery](#) (21:13)

Wing Aviation's proposal is to allow a one-year pilot program at this location with operations identical to the "Walmart & Wing deliver by drone in less than 30 minutes" video provided in the previous section. Within that year, city staff plans to craft a permanent set of standards and policies for drone delivery surface operations, including landing pad locations and setbacks from residential properties, permanent versus temporary ground improvements, maximum number of drones/pads, and similar standards. These standards and policies would be limited to what a municipality can regulate, since FAA permits generally regulate airspace operations once a drone is airborne.

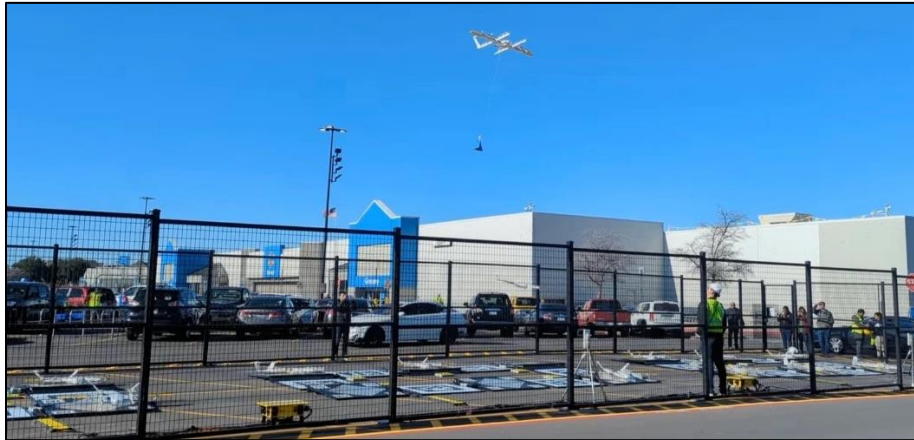
#### **REQUEST SPECIFIC TO 6401 NE LOOP 820:**

The Walmart property at 6401 NE Loop 820 is zoned C-2 (Commercial). Drone delivery service is not a specifically listed primary or accessory use in the North Richland Hills zoning code, but it is somewhat similar in nature to a "heliport/landing field" in terms of operational characteristics, service demands, occupancy loads, and similar characteristics. The "heliport/landing field" is a use listed on the Table of Permitted Uses (Section 118-61 of the zoning code) and requires approval of a special use permit in the C-2 (Commercial) district. This application is being processed in a similar manner to provide the opportunity to review the suitability of the use and ground operations and improvements at this location.

#### ***Ground Operations***

Wing calls their drone launch locations "nests." This nest is proposed in the parking lot area at the southeast corner of the Walmart store, near the existing curbside-delivery parking stalls. The nest would cover about 28 parking spaces (approximately 4,500 square feet) and would be surrounded by a black open-style fence. Even with the loss of 28 parking spaces, the property would still meet the minimum parking standards. Drive aisles in the parking lot will not be blocked by the nest.

A generator and temporary storage container would be placed inside the fenced area. The storage container stores the drone aircraft and some of the associated equipment during operational downtimes. An additional part of the public review is outside storage. A storage container would not normally be permitted in the front of a building and if located to the side or rear of the building it would be required to be screened with a masonry fence. Wing is proposing the storage container to be within the fenced nest, but not screened. This same arrangement has been installed at Walmart locations in Frisco and Lewisville.



*Existing Wing Nest at Lewisville Walmart Supercenter at 801 W. Main Street*

### **Noise & Residential Adjacency**

In the C-2 Commercial zoning district, [Section 118-395\(10\)](#) stipulates that normal business activities conducted may not create a sound pressure level on the bounding property line that exceeds 65 decibels (dB) from 7:00 a.m. to 10:00 p.m. Last year, the Federal Aviation Administration (FAA) posted the [Draft Environmental Assessment for Wing Aviation, LLC Proposed Package Delivery Operations in Dallas-Fort Worth, Texas](#). The full report, which can be viewed at the link provided, describes the noise impact of Wing's "Hummingbird" model aircraft. Table 3.6-1 in the report (page 3-20) provides the extent of noise exposure for nest operations for the 65 dB noise level, which is 50 feet. The nearest property line to the nest is approximately 50 feet to the east, which is the Boulder Drive right-of-way. Across Boulder Drive is the Home Depot property, also zoned C-2 (Commercial).

The Hills at Iron Horse, an apartment community, is the nearest residential property to the proposed nest and is located 920 feet north of the site. The next closest is the Meadow Lakes neighborhood across NE Loop 820, located 1,100 feet away. The Development Review Committee does not believe that the proposed ground operations will have any negative impact on residential property.

### **General Operational Characteristics of Wing Drone Delivery**

Below are topics of general interest from the attached summary provided by Wing Aviation.

- The Hummingbird model drone by Wing has a 4.9 foot wingspan and weighs 11.7 pounds. It can carry packages close to three (3) pounds in weight.
- Flight operations occur 9am-5pm, 7 days a week, weather permitting. There are no nighttime operations.
- The current model has a six-mile delivery radius. For this NRH Walmart Supercenter, that is generally





north almost to Keller Parkway (FM 1709), east to Forest Ridge Drive in Bedford, south to I-30, and west to I-35W and Blue Mound Road.

- The drone cruises at 150 feet at about 65 mph. During delivery, it drops to about 20-25 feet and drops the package smoothly down to the surface on a tether.

**LAND USE PLAN:** This area is designated on the Land Use Plan as Urban Village. This category promotes sustainable, pedestrian-oriented, mixed-use development that provides the opportunity for many uses to coexist within a more compact area. Urban Villages encourage an efficient, compact land use pattern; support vibrant public spaces; reduce the reliance on private automobiles; promote a more functional and attractive community using recognized principles of urban design; allow flexibility in land use; and prescribe a high level of detail in building design and form. Urban Villages can come in the form of vertical mixed use, where multiple uses share a single, multi-story building; or horizontal mixed use, where a diverse set of uses are placed within close, walkable proximity.

**CURRENT ZONING:** Most of the property is zoned C-2 (Commercial). The C-2 district is intended to provide for the development of retail and general business uses primarily to serve the community and region. Uses include a wide variety of business activities and may involve limited outside storage, service, or display. The C-2 district should be located away from low and medium density residential development and should be used as a buffer between retail and industrial uses. The district is also appropriate along business corridors as indicated on the land use plan.

#### **SURROUNDING ZONING | LAND USE:**

DIRECTION	ZONING	LAND USE PLAN	EXISTING LAND USE
NORTH	R-7-MF (Multifamily)	Urban Village	Apartment complex (The Hills at Iron Horse)
WEST	C-2 (Commercial)	Urban Village	Retail store (Sam's Club)
SOUTH	PD (Planned Development)	Retail Commercial	Vacant
EAST	C-2 (Commercial)	Retail Commercial	Retail store (Home Depot)

**PLAT STATUS:** The property is platted as Lot 1R1, Block 6, Tapp Addition.

**PLANNING & ZONING COMMISSION:** The Planning & Zoning Commission held a public hearing and considered this item at their February 15, 2023, meeting and voted 5-0 to recommend approval of the request.

#### **RECOMMENDATION:**

Approve Ordinance No. 3842.