

December 04, 2023

ATTN: Joe Frogge
City of Lee's Summit
Development Services Department
220 SE Green Street
Lee's Summit, Missouri 64063
(816).969.1200

RE: Lee's Summit Airport Eastside Development and Hangar 2
Permit Number PCCOM20235113

This letter is in response to your review comments, received in your letter dated November 27, 2023.
You will find your comments in **bold** and our response in *italics*.

Fire Plan Review

1. **2018 IFC 907.1.1- Construction documents.** Construction documents for fire alarm systems shall be submitted for review and approval prior to system installation. Construction documents shall include, but not be limited to, all of the following: 1..A floor plan which indicates the use of all rooms. 2. Locations of alarm-initiating and notification appliances. 3. Alarm control and trouble signaling equipment. 4. Annunciation. 5. Power connection. 6. Battery calculations. 7. Conductor type and sizes. 8. Voltage drop calculations. 9. Manufacturers, model numbers and listing information for equipment, devices and materials. 10. Details of ceiling height and construction. 11. The interface of fire safety control functions. Provide alarm system plans as a deferred submittal.

-Acknowledged

2. **2018 IFC 505.1- Address numbers.** New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. In Multi-tenant commercial building where tenants have multiple entrances located on different sides of the building , each door shall be addressed. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be a minimum of 4 inches (102 mm) high with a minimum stroke width of 0.5 inch (12.7 mm).
Verified at inspection.

-Acknowledged

3. **2018 IFC 506.1- Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type and shall contain keys to gain necessary access as required by the fire code official. Provide a Knox Box 6' AFF over the FDC and Knox key switches on both gates to the flight line.**

-Notes calling out Knox Boxes at gates have been modified to say Knox switches at gates on A101. Note states to verify size and location with AHJ.

4. **IFC 901.2- Construction documents. The fire code official shall have the authority to require construction documents and calculations for all fire protection systems and to require permits be issued for the installation, rehabilitation, or modification of any fire protection system. Construction documents for fire protection systems shall be submitted for review and approval prior to system installation. Provide deferred shop drawings for the sprinkler system. Reference Poole report for a wet fire protection system.**

-Acknowledged

6. **The FDC shall be marked with a FDC sign (higher than the dumpster) due to view being obstructed by dumpster. The new location of the hydrant is more than 100 feet from a hydrant and the FDC is obstructed by the dumpster. Relocate on the south side of the lane and move the FDC on the wall closer to the riser.**

On the elevation sheet the FDC signage is shown above the trash enclosure and noted to be visible from the street per city requirements / AHJ.

Per civil drawing C107 the fire hydrant closest to the FDC has been moved to the south side of the drive lane. Graphics for Fire hydrants have been removed from MEP site plans and other site plans to avoid confusion.

12. Correct items called out in the Final Development Plan.

-Acknowledged

Building Plan Review

1. **A one-time impact fee in the form of a license tax must be collected before occupancy can be granted. Please be advised that additional application, review, and inspection fees do apply and additional information pertaining to this will be provided during that stage of your approval process. Action required: Comment is for informational purposes. Fee not yet available.**

-Acknowledged



2. The building permit for this project cannot be issued until the Development Services Department has received, approved, and processed the Final Development Plan. Action required: Comment is informational.

-Acknowledged

3. 2018 IBC 1704.2 Special inspections. Where application is made for construction as described in this section, the owner or the registered design professional in responsible charge acting as the owner's agent shall employ one or more approved agencies to perform inspections during construction on the types of work listed under Section 1705. These inspections are in addition to the inspections identified in Lee's Summit Code of Ordinances Chapter 7. (see code section for exceptions) Action required: Provide statement of special inspections / letter of responsibility from company contracted to perform special inspections.

-Acknowledged

4. Prior to the installation or construction of any elevator equipment, an elevator equipment permit shall be obtained from the Missouri Department of Public Safety or its authorized representative. Action required: Comment is informational.

-Acknowledged

5. Prior to the operation of any new elevator equipment or the issuance of the operating certificate, such elevator equipment shall be inspected by a licensed inspector. Testing must be performed in accordance with these rules and regulations. The testing must be witnessed by a licensed inspector. Action required: Comment is information.

- Acknowledged

6. Elevator Safety Act and Rules 701.361 - Each privately owned or operated installation and each installation owned or operated by the state of Missouri or any political subdivision of the state shall have a certificate of inspection and meet the safety code promulgated pursuant to sections 701.350 to 701.380. Action required: Comment is informational.

-Acknowledged

7. 2018 IBC 423.4 Group E occupancies (as amended). In areas where the shelter design wind speed for tornadoes is 250mph in accordance with Figure 304.2(1) of ICC 500, all Group E occupancies with an occupant load of 50 or more shall have a storm shelter constructed in accordance with ICC 500.

Exceptions:

1. Group E day care facilities.
2. Group E occupancies accessory to places of religious worship.
3. Buildings meeting the requirements for shelter design in ICC 500.
4. Group E occupancies that undergo alterations or additions where the cost of compliance with ICC 500 Section 702 is greater than 20% of the total project cost may omit the requirements of ICC 500 Section 702 only.



ICC/NSSA 500 Standard for the Design and Construction of Storm Shelters - 106.1.1 Peer review. A peer review by an independent registered design professional for compliance with the requirements of Chapters 3, 5, 6, and 7 shall be conducted for the following shelter types.

1. Community shelters with occupant load greater than 50.
2. Storm shelters in elementary schools, secondary schools, and day care facilities with an occupant load greater than 16.
3. Storm shelters in Risk Category IV (essential facilities) as defined in Table 1604.5 in the International Building code.

Actions required: Modify designs to demonstrate compliance. Include 3rd party study.

11/21/23 - Provide letter to demonstrate that you comply with exception listed in Code of Ordinances.

Sec. 7-203. - International Building Code amended; Section 423.4. Storm Shelters.

Section 423.4 is hereby amended to add the following language: Exception 4. Group E occupancies that undergo alterations or additions where the cost of compliance with ICC 500 Section 702 is greater than 20% of the total project cost may omit the requirements of ICC 500 Section 702 only.

Per online meeting with Mike Weisenborn, Joe Frogge, Jim Eden, Wellner Architects, and CMT Engineers on 05.02.2023 it was agreed to have a "hardened" area within the building. Part of this agreement was based on limiting the Group E occupancy to under 50 occupants. On sheet AG003 a letter from the Reorganized School District No. 7 is included stating occupancy will be limited to 49 occupants. The Men's and Women's restrooms on the main floor are to be constructed with CMU walls and include a concrete and metal composite deck overhead.

8. **2018 IBC 1803.1 General. Geotechnical investigations shall be conducted in accordance with Section 1803.2 and reported in accordance with Section 1803.6. Where required by the building official or where geotechnical investigations involve in-situ testing, laboratory testing or engineering calculations, such investigations shall be conducted by a registered design professional.**

Action required: Provide soils report to justify design assumption of soil bearing capacity greater than 2,000psf. (4,000 shown on sheet S000)

11/16/23 - Geotech report does not recommend 4,000psf. Foundation recommendations are for 1,500 & 2,000psf.

The geotech report gives (3) options for foundation design on pages 6 & 7:

- *Option 1: Shallow foundations bearing on controlled fill (allowable bearing pressure: 1,500 / 2,000 psf).*
- *Option 2: Shallow foundations bearing on reinforced engineered fill (allowable bearing pressure: 2,000 psf).*
- *Option 3: Stone Columns / Rammed Aggregate Piers. This foundation type uses proprietary design and installation techniques. Local installers should be contacted to provide the design for these systems. Allowable bearing pressure: ~4,000 psf.*

The Geotech report clearly recommends Option 3 as the preferred due to settlement risks in options 1 & 2. The design team had consultations with the Geotechnical engineer and made the



determination that Option 3 would be selected for LXT Hangar 2. This is a delegated design / deferred submittal item in the structural set (sheet S000):

DEFERRED SUBMITTALS

THE FOLLOWING BUILDING COMPONENTS ARE TO BE DESIGNED BY THE COMPONENT SUPPLIER FOR THE LOADS INDICATED ON THIS AND OTHER SHEETS IN THESE DRAWINGS. THE DESIGN OF THESE COMPONENTS SHALL MEET ALL APPLICABLE CODES AND REQUIRED STANDARDS.

1. PRE-ENGINEERED METAL BUILDING SYSTEMS AND THEIR ATTACHMENT TO FOUNDATIONS.
2. STEEL STAIRS & GUARDRAIL ASSEMBLIES.
3. COLD-FORMED METAL FRAMING SYSTEMS (INTERIOR AND EXTERIOR), INCLUDING NON-LOAD-BEARING (CURTAIN WALL) WALL FRAMING.
4. **RAMMED AGGREGATE PIERS (GEO-PIERS) FOR DESIGN NET ALLOWABLE FOUNDATION BEARING PRESSURE OF 4,000 PSF**

The rammed aggregate piers (also referred to as “geopiers”) are also referenced in the Earthwork General Notes (sheet S000), as well as the Foundation Plan notes (note #14 on S100 & S101).

- 11. 2017 NEC Article 250.50 Grounding Electrode System.** All Grounding electrodes as described in 250.52(A)(1) through (A)(7) that are present at each building or structure served shall be bonded together to form the grounding electrodes system. Where none of these grounding electrodes exist, one or more of the grounding electrodes specified in 250.52(A)(4) through (A)(8) shall be installed and used. (see code section for exception)
Action required: Modify designs to show that all available locations. Include all wire sizes.
11/16/23 - Detail provided but wire sizes not found.

- Wire sizes have been added. Refer to detail #3/E501 and #5/E602.

- 12. 2018 IMC 403.2 Outdoor air required.** The minimum outdoor airflow rate shall be determined in accordance with Section 403.3. (see code for exception) **Action required:** Revise drawings to show outside air calculations as well as method of delivery.
Action required: Provide outdoor air calculations and methods of delivery.
11/16/23 - Calcs provided but method of delivery missing. (i.e. how does outside air get to the furnaces and how is it controlled)

-Outside air is brought into building through an energy recovery ventilator (ERV-1). Outside air from ERV-1 is ducted to the mixing box of each furnace. ERV supplies outside to furnaces during occupied periods. Refer to control diagram on sheet M501.

Licensed Contractors

- 1. 2018 Lee's Summit Code of Ordinance, Section 7-130.10 - Business License.** It shall be unlawful for any person to engage in the construction contracting business without first obtaining a business license as required under the applicable provisions of Chapter 28 of the Lee's Summit Code of Ordinances.



Action required: Either a Class A or Class B license is required. Provide the company name of the licensed general contractor and an email address & phone number for the on-site contact which is where inspection reports will be sent.

-Acknowledged

2. Lee's Summit Code of Ordinance, Section 7-130.4 - Business License. (excerpt)

No person, other than a licensed contractor or employees of a licensed contractor, shall engage in electrical, plumbing or mechanical business, construction, installation or maintenance unless duly licensed in accordance with this section.

Action required: MEP subcontractors are required to be listed on permit. Provide company names of licensed MEP contractors.

-Acknowledged

This concludes our response to your comments. Please feel free to give us a call should you have any further questions or concerns.

Sincerely,

David Mandelkern, AIA, LEED BD+C

