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General Aviation Guidelines for Construction of New Aircraft Hangars Board Adopted January 28, 2025

City of Rapid City

Rapid City Regional Airport

Guidelines for Construction of New Aircraft Hangars

Section 1 – Purpose

The purpose of these Design Guidelines is to ensure development of consistent and high-quality infrastructure and to protect and enhance the investment of all those locating on the Airport.

These standards provide a basis for directing and evaluating the planning and architectural design of improvements to each piece of land.

Section 2 – Airport Mission

It is the Mission of the Airport to provide a safe, environmentally responsible and fiscally self-sustainable operation ensuring high quality services and facilities. Projects around the Airport have been initiated to meet the Airport's Mission, and we have made great progress in recent years. We are committed to making incremental improvements to ensure we have high quality facilities.

Section 3 – Goals

The following goals form the basis for these design standards:

IMAGE – To ensure the Airport has a high standard of care for the building located on the facility to ensure our Airport is welcoming, professional, and esthetically pleasing within architectural and design standards.

ECONOMIC – To attract development, protect property values, and enhance investment and the development of industry and jobs.

ENVIRONMENTAL – To conserve existing natural features and minimize adverse impact on the ecosystem.

FUNCTION – To encourage imaginative and innovative planning of facilities and sites and the flexibility to respond to changes in market demand.

SAFETY – To provide secure storage of aircraft and equipment and to provide for a safe environment to allow for a productive workforce.

VISUAL – To promote variety, interest and high standard of architectural and landscape design.

Section 4 – General Provisions

- (1) Buildings may not be constructed on Airport property unless approved by the Airport Board for conformance in each of the following areas:
 - (a) Current Airport Layout Plan (ALP).

- (b) All applicable Building Restriction Lines (BRL) and height restrictions.
 - (c) Interference with any Airport or Federal Aviation Administration (FAA) radio or guidance equipment due to location of type of structure.
 - (d) Minimum structural standards as described in Section 5.
 - (e) Access to the proposed building, including any required easements, roads or taxiways.
 - (f) An approved ground lease with the Airport Board.
 - (g) Minimum separation beyond the outermost perimeter of the structure complies with the ALP. This provision may be waived, in whole or in part, by the Airport Board to facilitate operations or access. Requests for waiver must be in writing, shall state the reason for the waiver, and shall state in detail the mitigating measures with respect to potential adverse impacts to the ALP that may arise from granting the requested waiver.
 - (h) Proper filing of FAA Form 7460 with the FAA, with copies to the Airport Board.
- (2) The Board is not obligated to provide or construct public ramp/apron or connecting taxiways for any operator or hangar developer. Further, the Board's ability to construct such ramp/apron or taxiway facilities is limited to the availability of funds, which may be dedicated to higher priority projects at the airport. Thus, the operator or hangar developer should expect to fund all facility needs (buildings, parking lots, ramps/apron, connecting taxiways) as a part of the total plan.

Section 5 – Application

These standards shall apply to all properties in the ALP and are in addition to any other jurisdictional requirements including but not limited to zoning ordinances and building codes of the City of Rapid City, South Dakota.

- (1) Copies of all structural plans, site plans, and material specifications developed by a licensed architect and/or engineer shall be provided to Airport Board for review and approval and upon approval shall become the property of the Airport.
- (2) Airport Executive Director or designated agent shall make frequent inspections during construction of any approved building. No material changes to, or variation from, approved plans and specifications shall be permitted unless approved in writing by Airport Board.
- (3) Construction of approved structure or material components thereof may not commence until the following documents or proofs are submitted and approved by the Airport Board:

- (a) Contractor's Comprehensive General Liability Insurance and Automobile Liability Insurance policies in the amount not less than defined by Airport Board.
 - (b) Contractor's Property Damage Liability Insurance shall be in an amount of not less than defined by Airport Board.
 - (c) Property insurance upon the entire Work site.
 - (d) A Performance, Material and Labor Payment Bond that equals the value of the proposed project in a form acceptable to the Airport.
- (4) Erection of temporary buildings must be approved in writing by Executive Director as to type, use, design and location on an individual basis for a specified term. Removal of temporary buildings must be done by the Lessee, at their expense, within fifteen days of the end of the approved term.
- (5) In the event of any failure on the part of any Lessee to comply with Airport requirements, or any failure to complete a construction project according to the approved plans and specifications or within a reasonable time as determined by Airport Board, the Airport Board may require that the structure be removed from Airport property, utilize the bond to complete the structure, and/or revoke any ground lease with the Lessee. In addition to the forgoing remedies, Airport Board shall retain all other remedies provided by the lease term or provided by law.

Section 6 – Minimum Development Standards

- (1) General Requirements: This general section requires permits for the building, plumbing, mechanical, and electrical.
- (a) All structures shall be designed and constructed in accordance with the Building, Plumbing, Mechanical and Electrical Codes as adopted by City of Rapid City, South Dakota.
 - (b) All plans must be approved by all required local or state building inspection offices and all permits must be obtained before construction begins.
 - (c) All electrical, plumbing, mechanical or any other work that is governed by Federal, State or local licensing regulations will be performed only by individuals or companies so licensed.
 - (d) All construction shall be in compliance with all applicable zoning regulations, FAA regulations, height restrictions, and other regulations issued by any agency having jurisdiction over work or projects within the scope of these standards.

- (e) Airport Board must approve the schedule for all work, and the approved schedule shall become binding upon the Lessee unless modification of the schedule has been approved in writing by Airport Board.
- (2) Special Requirements: The following are adopted to promote safety, insurability of structures on Airport properties, and to maintain the value of all Airport properties.
- (a) Footings and Foundations: The Building Code currently adopted by City of Rapid City shall apply as to the requirements for design of the structure and foundations to be engineered (stamped/sealed). Soil tests are usually performed and are highly recommended at the Airport. Copies of the design bearing the seal of a registered engineer and/or architect and geo-technical reports shall also be submitted to Airport Board.
 - (b) Structural Strength and Materials: The Building Code currently adopted by City of Rapid City shall apply as to allowable materials and structural strength for the structural class or types as determined by use, seismic zone, wind and/or snow loads.
 - (c) Fire Rating: The fire ratings of structures used for the storage of aircraft, motor vehicles, and flammable or hazardous materials shall comply with the Building Code and any Federal, State or Municipal Fire Codes and are subject to the approval of the City of Rapid City Building Division and the City Fire Department.
- (3) Framing: All structural framing should be of metal.
- (4) Exterior:
- (a) All exterior surfaces must be pre-finished aluminum, steel, Concrete Masonry Unit (CMU) or concrete construction. No painted wood or other material may be used. No galvanized metal shall be used on any exterior surface.
 - (b) All exterior materials and colors must be submitted to Airport Board for approval before construction starts. The Airport Board does not require a single color, however, and would prefer hangar siding to match the neighboring hangars and be an earth tone in color.
 - (c) No wood or wood composite siding or roofing shall be allowed. Exceptions to the rule may be granted by Airport Board based on aesthetics or Airport operational requirements. Requests for exceptions must be made in writing at time of initial plan review.
 - (d) The minimum gauge steel used for roofing shall be twenty-nine (29) and shall be factory finished in a color approved by Airport Board and warranted by manufacturer as to color fastness for a minimum of twenty (20) years.

- (e) Where CMU, poured in place or preformed concrete walls are used, the exterior shall be sealed and stained in a color approved by Airport Board.
 - (f) All signage on hangars and leased property must have prior approval from the Executive Director and/or Airport Board. All wayfinding signs on the building must include the Airport's standard number system and be visible at all times. This is used by the Airport's Fire Department to identify the hangar in the event of an emergency. All new signage must be approved by the Board and shall be kept in good repair at all times.
- (5) Floor and Ramp Construction: All Floors and ramps must be constructed of concrete having a minimum of five (5) inch thickness or as approved and shall include reinforcement of a type approved by Airport Board. Ramp slopes shall not exceed two percent (2%). Copies of the design bearing the seal of a registered architect or engineer shall be submitted to Airport Board. A stiff broom finish is required on exterior ramps.
- All hangars must have, at a minimum, paved interior floors and paved taxi lanes to their unit with sufficient width and clearance of other buildings as recommended by FAA design standards.
- (6) Doors: All pedestrian doors must be of metal construction.
 - (7) Drainage: The gradient of the finished floor of any proposed structure and the surrounding surfaces shall provide for positive flow of water into the existing Airport storm sewer system. In areas where no storm sewer exists, Airport Board may require the installation of inlet and pipe designed for anticipated maximum flow and loading to be installed and attached to the existing storm sewer system.
 - (8) Oil/water Separators: Aviation repair and paint facilities, dealerships, fuel stations, equipment degreasing areas, and other facilities generating wastewater with oil and grease content are required to pre-treat these waters before discharging to the sanitary sewer system. Pre-treatment requires that an oil/water separator be installed and maintained on site.
 - (a) Oil/water separators shall be commercially manufactured and sized for the intended discharge rates for the facility where it is installed.
 - (9) Landscaping: The Rapid City Regional Airport strives to achieve a pleasing aesthetic quality in the colors, design, uniformity, and structure of any new hangars developed on the Airport. As such, proposed hangar development must be approved by the Board for conformity to aesthetic quality standards. The Board can reject distasteful designs and color schemes at their discretion. The Airport Board may require landscaping due to the location of the structure. All plans for landscaping shall be approved by Airport Board. Grass is the preferred ground covering. Trees are not encouraged to be planted as they contribute to the attraction of birds.

- (10) Utilities: Connection to electric, gas, sanitary sewer and telephone shall be the responsibility of the Lessee. All new electric, cable TV, Internet, and telephone lines shall be placed underground. Upon completion of construction, an As-Built showing the exact location of all Lessee installed utilities shall be provided to Airport Board.
- (a) No trenching or excavation shall commence until all pipes and lines in the area have been located. Utility companies shall be contacted for locations. The Lessee shall be responsible for any damage to existing utilities or communication lines.
- (11) Access: Airport Board may require the Lessee to construct paved roadways, taxiways and controlled access gates to provide access to the structure. Plans for any roadway or taxiway so required shall be submitted to Airport Board for approval.

Sidewalks and walkways connecting doorways to parking areas are required at each conventional hangar.

- (12) Clean up and Reclamation: A covered dumpster or other appropriate covered receptacle shall be on site prior to construction and shall be used for all waste materials.
- (a) All areas disturbed during hangar construction, including utility trenches, must be cleaned up, compacted and covered with topsoil and compacted again. The entire area shall then be covered with sod or re-seeded by the Lessee with an approved grass seed mixture.
- (b) All areas around the hangar, apron, and ramp must be back-filled in a manner that will allow mowing over the edges of ramps and adjacent buildings.
- (13) Hangar Size: Minimum conventional hangar size shall be 50 feet by 40 feet. Larger hangar sizes may be constructed and are encouraged, but all hangars must first be shown on the Airport Layout Plan and approved by Airport Board. All hangars must conform with applicable City of Rapid City construction and Fire Code requirements. Conventional hangars must have common design elements which include:
- (a) Clear-span interior construction and concrete floors.
- (b) Hangar apron at a minimum shall be equal to the width of the hangar door, may be asphalt, and must connect to the existing taxi lanes and must accommodate the movement, staging, and parking of the largest Aircraft currently and/or anticipated to utilize hangar.
- (c) Paved automobile parking spaces shall be provided, based upon the size and expected occupancy of the proposed hangar as outlined in the Airport Minimum Standards. Per City code one parking space for each employee and one space for each 250 square feet of office space is required.

- (14) Additional restrictions or requirements may be imposed by Airport Board when, in their judgment, such restrictions or requirements are necessary to ensure safety, airport operations, aesthetics, or property value.

Section 7 – Notice to Proceed

- (1) When satisfied that all provisions of this directive have been, or will be fulfilled, the Airport Executive Director or designee will issue a letter notifying the Lessee to proceed with the approved work. All materials will be shared with the appropriate City Departments.
- (2) Any loss incurred due to work performed, material purchased, or subleases signed by the Lessee prior to receipt of Notice to Proceed shall be the Lessee's responsibility.