

# GILLESPIE COUNTY AIRPORT

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## MINIMUM OPERATING STANDARDS



**1/1/2020**

These minimum operating standards allow for the non-discriminatory and safe development and operation of the Gillespie County airport under the supervision of the Commissioners Court.

**GILLESPIE COUNTY AIRPORT  
MINIMUM OPERATING STANDARDS**

1. **REFERENCE.** Federal Aviation Administration Advisory Circular 150/5190-7 A, dated August 28, 2006. Subject: Minimum Standards for Commercial Aeronautical Activities on Public Airports. Advisory Circular 150/5190-6, dated January 4, 2007, Subject: Exclusive Rights at federally-obligated airports.
  
2. **BACKGROUND.** The owner of a public airport developed or improved with the assistance of funds administered by the Federal Aviation Administration (FAA) assumes certain responsibilities, among them the obligation to make the airport's facilities and services available on fair and reasonable terms without unjust discrimination. The grant of an exclusive right to conduct an aeronautical activity on an obligated airport is specifically forbidden by law. Where Federal funds have been expended on an airport the opportunity to engage in an aeronautical activity not provided by the airport owner should be made available to any person, firm or corporation meeting standards established by the owner which are relevant to the proposed activity, reasonable, and in the public interest. The owner of a public airport can restrict the commercial use of the airport, or the solicitation of business thereon, based on nondiscriminatory standards. The owner may insist, in return for the privilege of conducting an aeronautical activity on the airport, that the person, firm or corporation must meet the standards established by the owner governing the quality of services that are offered to the public in connection with the conduct of the aeronautical activity at the airport. These standards must, however, be reasonable, relevant to the proposed activity, and applied objectively and uniformly.

The development of minimum standards is done so as to not grant any single operator an exclusive right of doing business. Permission to do business will be granted to anyone at the discretion of the Commissioners Court provided they meet reasonable minimum standards. In exchange for this opportunity the business operator agrees to meet those reasonable minimum standards developed. It should be understood that the airport will continue to develop and maintain minimum standards with the knowledge that those standards will change from time to time so the airport can progress according to an orderly plan. Lease agreements take

precedence over any guidelines established herein. Demonstration of intent to conduct a business operation at the airport shall be by written application to the airport manager and Airport Advisory Board (AAB).

There are many types of aeronautical activities that are too varied to reasonably list within this document. When specific activities are proposed for businesses that do not fall within the categories documented, minimum standards can be developed on a case-by-case basis, taking into consideration the desires of the applicant and the airport, public demand for such service and the discretion of the Commissioners Court.

### **3. APPLICATION PROCEDURES.**

Any applicant wishing to establish an aeronautical activity on the airport shall be furnished an Airport Development Package, which will include, at a minimum: a copy of these Minimum Standards, and Gillespie County Airport Rules and Regulations. The application process has five phases. The first phase is the letter of intent. If an applicant wants to proceed with the process, he/she shall provide the Airport Advisory Board with a letter of intent with the following details, at a minimum:

- a. Name and address of applicant.
- b. The proposed land use, facility or activity being sought.
- c. Names and qualifications of individuals involved in such activity.
- d. The financial responsibility and the technical ability to carry out the activity sought.
- e. The proposed date for commencement of activity.
- f. Estimated cost of any structure or facility along with specifications of such.

Once approved to proceed by the Airport Advisory Board, the applicant will begin the engineering phase (phase II). Once the engineering is complete, the applicant will present a detailed presentation to the Advisory Board.

After the presentation is complete and all follow-up questions are answered to the satisfaction of the board, the applicant will work with the airport manager to draft a proposed lease for approval by the Gillespie County Commissioners Court (phase III).

Once the lease is signed by the Court, the applicant may start the construction phase (phase IV). (Note, it is the responsibility of the applicant to secure all required city construction permits, etc)

Finally, once construction is complete, an Airport Advisory Board representative and the airport manager will conduct a walk-through with the applicant to verify lease compliance (phase V).

#### 4. DEFINITIONS.

- a. **Minimum Standards.** The qualifications or criteria which may be established by an airport owner as the minimum requirements to be met as a condition for the right to conduct an aeronautical activity at the airport.
- b. **Aeronautical Activity.** Any activity which involves, makes possible, or is required for the operation of aircraft, or which contributes to or is required for the safety of such operations.
- c. **Aviation Service Business.** Any commercial aeronautical activity which offers aircraft maintenance or repair, aircraft rental or charter service, fuel and oil products, flight instruction or certification, tie-down or transient hangar service, and other support services to operators of aircraft.
- d. **Aircraft Storage Business.** Any commercial aeronautical activity which offers for rent or lease on a long or short term basis a facility for the indoor storage of aircraft.
- e. **Aircraft Refueling Business.** Any commercial enterprise which offers for sale aviation gasoline, automotive gasoline or jet fuel for consumption in an aeronautical activity.
- f. **Dedicated Use Corporate or Private Hangar Facility.** Aircraft storage and related facilities which are dedicated to the exclusive use of the Lessee and not available to the public.

5. **USE OF STANDARDS.** The requirements of standards imposed on those proposing to conduct an aeronautical activity on a public airport should relate to the public interest. Airport standards should be designed to protect airport patrons from irresponsible, unsafe or inadequate service and to protect the investment the owner and the FAA have made in the airport.

Because the cost of meeting reasonable standards must be accepted as a normal business expense, no prudent operator will undertake the investment involved unless he foresees a volume of business that has not been fully developed. Thus, the use of reasonable standards, while safeguarding the public interest, has the additional effect of preserving the stability of an established business. Proper standards discourage the unqualified for the protection of both the established operator and the public.

**6. STANDARDS FOR ALL AVIATION SERVICE BUSINESSES.**

- a. Furnish all applicable services in a fair, equal and nondiscriminatory manner to all airport users.
- b. Publicly display in a location on the exterior of the building, signage that identifies the business, lists the normal hours of operation and provides an after hours telephone point of contact.
- c. Provide separate rest room facilities for men and women, which comply with the Architectural Barriers Act, for the use of customers.
- d. Obtain proper equipment for the service provided.
- e. Perform the service provided to the appropriate FAA Standard.
- f. Employ technicians with the appropriate training/certification.
- g. Provide adequate, serviceable fire suppression equipment.
- h. Lease sufficient land to provide adequate parking for customers and employees.
- i. Lease and build at least the minimum land and hangar building per requirements of Appendix A of these Minimum Operating Standards.
- j. Maintain the interior and exterior of the structure, signs, and leasehold grounds to a high order.
- k. Respond to airport emergencies at the request of the Airport Manager or local authorities.

**7. STANDARDS FOR FIXED BASE OPERATOR (FBO).**

The following items should be addressed.

- a. Provide service for the specific area or function being planned. For instance, if providing maintenance an FBO should provide sufficient hangar space and have an FAA certified mechanic on duty, if providing fuel an FBO should have either truck or pump delivery available and identify the type of fuel available. If the FBO expects

to service incoming and outgoing aircraft and passengers this facility should have sufficient space properly heated, lighted, and air conditioned. Ground space shall include an appropriate aircraft parking apron or hangar space to accommodate the proposed aeronautical activity. The applicant must comply with all safety recommendations and meet all local and State codes and be approved by the local fire marshal.

- b. Have sufficient office space and trained individuals to conduct the applicable business. For instance, flight training should have FAA qualified instructors and classroom space. Aircraft storage businesses need to have sufficient hangar or T-hangar spaces.
- c. All business activity must include restrooms, one for each sex, and be ADA compliant.
- d. Businesses must have sufficient leased parking space for both employees and customers. Any auto rental business must have space to park their available rental cars.
- e. Activities should construct buildings to match the standards of architecture and quality already established on the airfield.
- f. All businesses must maintain the interiors of buildings and the exteriors to a high order and properly dispose of any trash.
- g. Furnish all applicable services in a non-discriminatory manner.
- h. Abide by all rules and regulations established by the airport and furthermore obey all rules, requirements, or mandates placed upon the airport owner by the FAA, or the State of Texas. This includes all Grant Assurances of FAA Grants and the Terms and Conditions of State of Texas Grants.
- i. Any applicable business does not have the right to perform any service or business that is not included in the lease agreement with the airport owner.
- j. The airport owner has the right to approve placement of buildings, parking areas, or equipment and the exterior design of any building. These items should agree in concept with the future development of the airport as shown in the Master Plan.
- k. Comply with all parts of lease agreement.
- L. Respond to airport emergencies at the request of the Airport Manager or local authorities.

## **8. STANDARDS FOR AIRCRAFT STORAGE BUSINESSES.**

- a. Furnish all applicable services in a fair, equal and nondiscriminatory manner to all airport users.
- b. Publicly display in a location on the exterior of the building, signage that identifies the business and provides a telephone point of contact for the operator.
- c. Minimum hangar size for an aircraft storage facility is established as 10,000 square feet or in the case of a nested T-hangar, ten individual aircraft units.
- d. Lease and build at least the minimum land and hangar building per requirements of Appendix A of these Minimum Operating Standards.
- e. Provide adequate lighting and electrical power in each hangar.
- f. Maintain interior and exterior structure, signs, and immediate grounds in high order.
- g. Respond to airport emergencies at the request of the Airport Manager or local authorities.

## **9. STANDARDS FOR AIRCRAFT REFUELING BUSINESSES.**

- a. Furnish service in a fair, equal and nondiscriminatory manner to all airport users.
- b. Provide 24-hour service through automation or on-call response.
- c. Use industry best practices to provide continuous service. Minimize down time due to equipment failure or fuel outage.
- d. Provide adequate, serviceable fire suppression equipment.
- e. Provide readily visible exterior signage identifying business and telephone point of contact.
- f. Maintain equipment, structure, facilities, signs and grounds to high order.
- g. Provide trained personnel for fueling operations.
- h. Respond to airport emergencies at the request of the Airport Manager or local authorities.

## **10. STANDARDS FOR FUEL STORAGE TANKS.**

- a. All fuel storage tanks shall be installed above ground on a poured concrete foundation designed to support the weight and structure of the tank. The foundation shall be sized and the tank positioned on the foundation so that a minimum distance of three feet is established between the

- outer dimension of the tank and the outer dimension of the foundation in any direction.
- b. Aboveground Storage Tanks (AST) shall meet the standards and specifications of Underwriters Laboratories (UL) Standard 142/2080 or UL Standard 142/2085. All tanks shall be provided with integral secondary containment intended to prevent any leakage from the primary tank from entering the environment.
  - c. AST shall be installed in accordance with the codes of the City of Fredericksburg to include the National Fire Protection Association (NFPA) codes. NFPA 30, the Flammable and Combustible Liquids Code, NFPA 30A, the Motor Fuel Dispensing Facilities Codes, and NFPA 70, the National Electrical Code, specifically apply.
  - d. AST shall be installed and operated in accordance with the requirements of the U.S. Environmental Protection Agency to include the Code of Federal Regulations Title 40, Part 112, Oil Pollution Prevention.
  - e. AST shall be installed and operated in accordance with the requirements of the Texas Commission on Environmental Quality to include Texas Administrative Code Title 30, Part 1, Chapter 334, Subchapter F, Aboveground Storage Tanks.
  - f. Owners/Operators of AST shall maintain their sites free of trash and debris.
  - g. Owners/Operators of AST shall insure that the vegetation within 15 feet of the concrete foundation on all sides is maintained at not more than 10 inches in height.
  - h. Pollution liability insurance shall be purchased and maintained by the owner/operator of AST. Such insurance shall be written to provide for third party losses for releases from petroleum-based storage tank system and for cleanup costs of the site under applicable state and federal laws. This insurance will be for the amount of \$500,000 or greater and shall not have a deductible of more than \$10,000. The insurance must be written by an insurer approved by the County of Gillespie.
  - i. Owners/operators of AST shall provide the Airport Manager with copies of an Aviation Fuel Dealer Permit issued by the Comptroller of the State of Texas, a Notice of Storage Tank Registration from the Texas Commission on Environmental Quality, a Certification of Registration for Weights and Measures from the Texas Department of Agriculture, and a Spill Prevention Control and counter Measures Plan prior to placing AST in service.



**11. STANDARDS FOR DEDICATED USE CORPORATE OR PRIVATE HANGAR OPERATIONS.**

- a. Provide toilet and rest room facilities inside the hangar for personnel who have access to the hangar.
- b. If aircraft maintenance or repair operations are undertaken, work shall proceed according to applicable FAA standards with personnel who are duly certified for the work.
- c. Provide adequate and serviceable fire suppression equipment.
- d. Provide adequate car parking, whether inside the hangar or outside, for personnel who use the hangar building.
- e. Lease and build at least the minimum land and hangar building per requirements of Appendix A of Minimum Operating Standards.
- f. Maintain the interior and exterior of the hangar building, aircraft ramp, signs and leasehold grounds in high order.
- g. Respond to airport emergencies at the request of the Airport Manager or local authorities.

**12. STANDARDS FOR RENTAL CAR BUSINESS.**

- a. The owner shall provide newer model vehicles in sound mechanical condition and in compliance with Texas vehicle laws.
- b. Provide vehicles on a non-discriminatory basis and operate the business according to applicable law.
- c. Provide a contact number for renting a car and for 24 hour roadside assistance.
- d. Provide a method for 24 hour key drop-off.

13. **COMMENT.** These Minimum Operating Standards complement the existing Gillespie County Airport Rules and Regulations, and the individual lease agreements signed between the County of Gillespie and airport investors. It is inevitable that as the airport grows, changes in the rules and regulations will be required. Likewise, it is likely that from time to time the Minimum Operating Standards may be adjusted for the purpose of improving the overall quality of service to the public at the airport.

APPROVED BY THE GILLESPIE COUNTY COMMISSIONERS COURT THIS  
30th DAY OF December, 2019.

  
Mark Stroehrer, Gillespie County Judge

Attest:   
Mary Lynn Rusche, Gillespie County Clerk



**GILLESPIE COUNTY AIRPORT  
MINIMUM OPERATING STANDARDS  
APPENDIX A  
BUILDING SPECIFICATIONS**

All designs and plans for the construction of hangars and T-hangars at the Gillespie County Airport shall conform to current accepted construction practices and shall meet or exceed the requirements of the Southern Standard Building Code *and the* building codes of the City of Fredericksburg. All plans shall be sealed by an architect or a structural engineer licensed to practice in the State of Texas. This certification is necessary to insure adequate frame and roof life load capacity as well as wind loads on sidewalls and hangar doors. Certification by the manufacturer of pre-engineered buildings shall be acceptable for this purpose.

The following specifications shall be included in all design specifications relating to the construction of conventional hangars or T-hangars at the Airport:

**STRUCTURE**

Hangars shall be of the fully enclosed type.

The roof and sidewalls shall be of standard steel construction conforming in design, fabrication, and erection to the requirements of the best practice for pre-engineered structures of this type. Each aircraft bay shall be a clear span with no structural members within the bay. Vertical component members shall be incorporated in the partition walls separating the bays. Any necessary cross bracing to prevent building shift shall also be incorporated into partition walls.

Roof walls and hangar doors shall be covered by securely attached, pre-enameled (of a color approved by airport management) formed steel sheets of not less than 26 gauge. All roof and sidewall seams shall be lapped and sealed, so as to be weather tight. Flashing of not less than 26 gauge pre-enameled steel should be installed at sills, eaves, gables, ridges, and around doors or in any other place where required to make the hangars weather tight and prevent entrance of birds. Pre-formed seal strips shall be installed where necessary to seal openings created by pre-formed steel sheets

being attached to flat framing of the structure and hangar doors.

Each individual hangar bay may be separated from adjacent bays/rooms by partitions. Partitions, if provided, shall be constructed of pre-formed 26 gauge steel sheets extending from the floor to the roof with no holes large enough to allow birds to pass from bay to bay.

#### **HANGAR DOORS**

Each hangar bay shall be equipped with a door or doors that are designed for operation by one person. Both horizontal rolling and vertical bi-fold doors are acceptable. It is desired that a walk-in door be included for access to each bay. Walk-in doors, if provided, shall include a cylinder lock. All doors should be equipped with necessary weather stripping to make a weather tight and bird tight installation.

#### **ELECTRICAL**

The electrical and light requirements for each hangar shall include as a minimum the following: one each 200 watts light fixture, and one each dual power receptacle. All wiring shall be encased in metal conduit.

#### **FLOOR**

Floors of hangars or T-hangars shall be of concrete or asphalt construction. Load bearing specifications shall meet or exceed criteria established by the architect or pre-engineered building manufacturer. Design and finishing shall provide proper fall for drainage so as to avoid "bird baths."

#### **AVIATION SERVICE BUSINESSES**

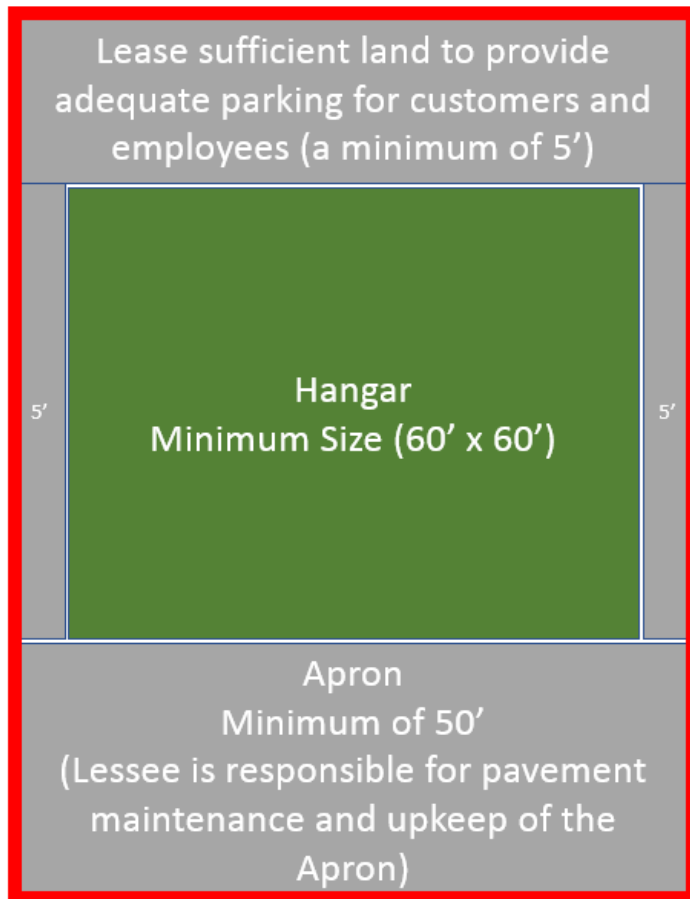
For purposes of this document, such businesses shall be defined as commercial operations which offer aircraft maintenance or repair, aircraft rental or charter service, fuel and oil products, flight instruction or certification, tie-down or transient hangar services, and other such support services to operators of aircraft. Such businesses may be privately owned and operated, according to guidelines, which follow.

Aviation Service Businesses as here defined, require prior authorization of the Commissioners Court to operate at the Gillespie County Airport, and shall comply with Airport Rules and Regulations and Minimum Operating Standards, as elsewhere defined.

Airport land is not available for sale for any purpose, but may be available by lease at the discretion of the Commissioners Court. Lease guidelines which apply to Aviation Service Businesses are as follows:

1. Lease sufficient land to construct a hangar of 60' by 60' minimum size with an aircraft parking apron of at least 50 feet in the front of the hangar. The minimum tract of land required to be leased is 70' width (5' on both sides of the hanger) by 115' depth (50' in front and 5' in the back) (See Figure 1 for an example). Provided, however, that the minimum tract size required to be leased may be increased to provide adequate parking for customers and employees of the business.
2. The minimum hangar door opening is specified as 58 feet wide by 16 feet high.
3. Generally a term of 30 years maximum, with option of renewal for an additional 10 year term on such conditions as may then be agreed upon by the parties.
4. Rent is determined by the location. Gillespie County has a 3-tier rent scale. The areas near the runway have a higher rent than the other areas. In addition, these rates are subject to an annual adjustment by the Consumer Price Index. Contact the Airport Manager for the current rates. Where fuel is involved, there is an additional fee of \$.06 per gallon of fuel dispensed (subject to Commissioners Court approval).
5. The lease agreement shall consider all responsibilities for, and costs of, the contemplated improvements, and assign them as may be agreed by the parties to the agreement, including but not limited to the following items:
  - A. Designation of site, and engineering works to establish boundaries and legal description.
  - B. Extensions of access road(s), provision of driveway(s), parking area(s) and sidewalks, as may be necessary for access to site, including the engineering specifications of such works which should be consistent with those of adjacent public improvements.

- C. Provision of utility services as may be necessary to serve the purposes of the improvements.
  - D. Site preparation works including grade, fill, levels and drainage provisions.
  - E. Extension of taxiway(s) and provision of ramps or aprons for access of aircraft to improvements, including the engineering specifications of these works, which should be consistent with Minimum Operating Standards, Appendix B.
  - F. Detail specifications of buildings, which should be consistent with this regulation.
6. Insurance for the risk of Gillespie County to be provided by the Lessee.
  7. Taxes on improvements are for account of Lessee.
  8. The lease and leasehold interests may be transferred or assigned only by prior approval of the Commissioners Court.
  9. Upon termination of the lease for whatever reason, all improvements revert to ownership of Gillespie County.



**Minimum Lease Area**

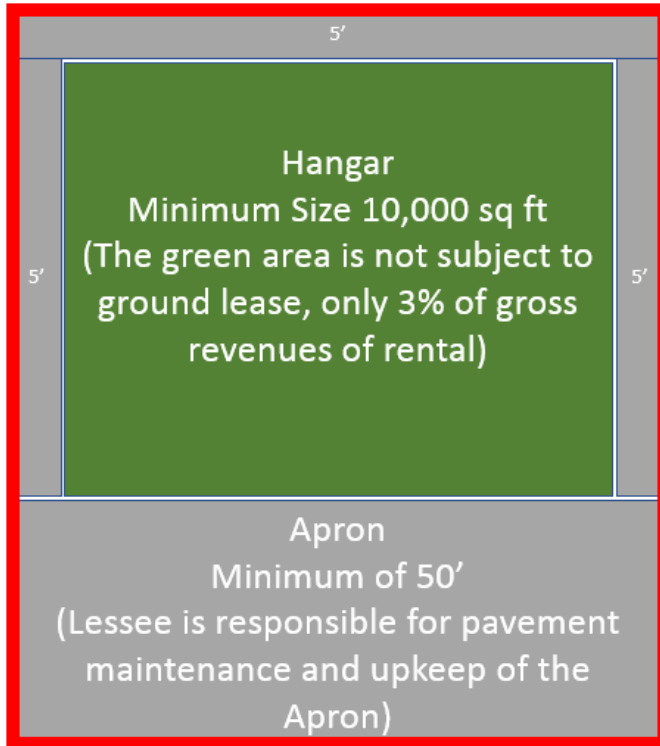
Figure 1. Service Business Hangar Example

## **AIRCRAFT STORAGE FACILITIES**

For purposes of this document, such facilities shall be defined as those used for storage of aircraft and related materials, whether offered to the public by hire, lease or sale, or for private use. Aircraft Storage Facilities shall comply with Minimum Operating Standards. There shall be no commercial operations of any sort conducted in or from Aircraft Storage Facilities, except by express agreement of the Commissioners Court and then under terms as may be agreed. The location of such storage facilities shall be designated by the Airport Manager.

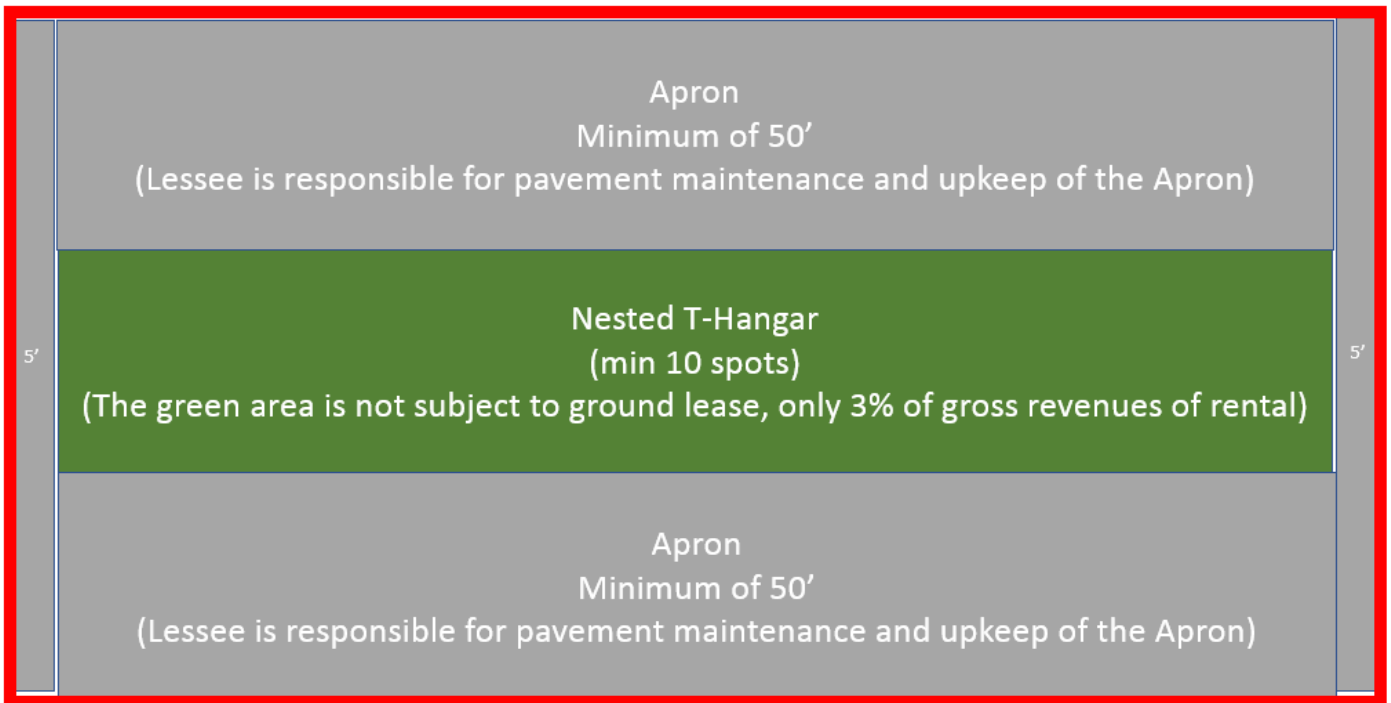
Aircraft Storage Facilities may be privately owned and operated, according to these guidelines. Land and improvements for Aircraft Storage Facilities are subject to similar guidelines as apply to Aviation Service Businesses, except that rent shall be 3% of gross revenues of rental in the case of the 'footprint' of the hangar building. As for the remaining lease areas, including the aprons, they fall within the 3-tier ground lease guidelines as described above in the "Aviation Service Businesses" section, paragraph 4. Contact the Airport Manager for the current rates.

Minimum hangar size for an aircraft storage facility (Box Hangar) is established as 10,000 square feet (Figure 2), or in the case of Nested 'T' Hangars, ten (10) individual units (Figure 3). An aircraft storage facility operator must lease sufficient land to provide an aircraft approach ramp of a minimum of 50 feet in depth in the front of the hangar, plus 5 feet at each end of the structure and 5 feet at the back. For the Nested 'T' Hangars, the minimum of 50 feet in depth is required in both the front and back of the hangar.



**Minimum Lease Area**

Figure 2. Private Aircraft Storage “Box” Hangar Example



**Minimum Lease Area**

Figure 3. Private “Nested” T-Hangars Example



## **CORPORATE AND PRIVATE HANGARS**

For purposes of this document, a Dedicated Use Facility shall be defined as all improvements, generally comprising an aircraft hangar, its support services and aircraft access ramp, undertaken for the long-term use of a specific user. Any such facilities shall comply with Airport Rules and Regulations and Minimum Operating Standards, as elsewhere defined.

Airport land is not available for sale for any purpose, but may be available by lease at the discretion of the Commissioners Court under the following Lease guidelines:

1. Lease sufficient land to construct a minimum hangar of 60' width by 60' depth, with a further minimum aircraft ramp provision of 50' depth by width of the hangar building. The minimum tract of land for hangar and aircraft ramp is 70' width (5' on both sides of the hanger) by 115' depth (50' in front and 5' in the back) (Figure 4).
2. Provide sufficient hangar building height to accept a minimum door opening onto the aircraft ramp area of 56' width by 16' height.
3. Hangar building construction shall conform to Minimum Operating Standards, Hangar and T-Hangar Specifications, but with further requirements for indoor toilets.
4. Term 30 years maximum, with option of renewal for an additional 10 year term on such conditions as may then be agreed upon by the parties.
5. Rent is determined by the 3-tier ground lease guidelines as described above in the "Aviation Service Businesses" section, paragraph 4. Contact the Airport Manager for the current rates. Lessee may provide offices and/or shop facilities inside the hangar building, and such other amenities as are consistent with over-night use of personnel, but not with full-time residential living quarters. All such further provisions shall fit inside the hangar building plan rectangle.
6. Lessee shall bear all costs of his improvements, including but not limited to the following:
  - a. Survey and designation of site, and engineering works to establish boundaries and legal description.
  - b. Provision of driveway(s), car parking area(s), and walkways as may be needed for access to site, including engineering specifications of such works

- which should be consistent with those of public improvements elsewhere on the Airport.
- c. Provision to site and building of services of Electricity, Water, Sewer and Telephone.
  - d. Site Preparation works including grade, fill, levels and drainage provisions.
  - e. Detail specifications of hangar building and aircraft ramp, which should be consistent with Minimum Operating Standards.
7. Insurance for the risks of Gillespie County to be provided by the Lessee.
  8. Taxes on improvements are for account of Lessee.
  9. The lease and leasehold improvements may be transferred or assigned only by prior approval of the Commissioners Court.
  10. Upon termination of the lease for whatever reason, all improvements revert to ownership of Gillespie County.



**Minimum Lease Area**

Figure 4. Private Hangar Example

## **NOTICE OF CONSTRUCTION**

Any person or their agent who intends to sponsor construction shall *in coordination with the Airport Manager* submit notice to the FAA Regional Air Traffic Division, through the Texas Department of Transportation Division of Aviation, on Form 7460-1, "Notice of Proposed Construction or Alteration," if the proposed construction or alteration, regardless of height or location, will be on the Airport.

The notice of Proposed Construction or Alteration shall be filed at least 30 days prior to the date at which construction or alteration of a structure will begin.

## **APPROVAL BY COMMISSIONERS COURT**

Plans for construction or alteration of buildings at Gillespie County Airport must be submitted to the Airport Manager for review and approval by the Commissioners Court not less than 45 days prior to the planned start of construction.

**GILLESPIE COUNTY AIRPORT  
MINIMUM OPERATING STANDARDS  
APPENDIX B  
PAVEMENT SPECIFICATIONS**

**PURPOSE:** The purpose of this Appendix is to provide the Gillespie County Airport standards and requirements for grading and pavement.

**DEFINITIONS:**

Owner: Gillespie County represented by Airport Manager or designated representative.

Developer: Lessee who is developing a project at the airport

Contractor: The contractor may be working directly for the Owner (Gillespie County), or Lessee.

Testing Laboratory: laboratory qualified to test subgrade, base, or hot mix that is approved by Owner.

**GRADING:**

I. MATERIALS TO BE REMOVED, STOCKPILED AND REUSED; OR REMOVED FROM THE SITE:

1. Topsoil

- a) Areas of constructed facilities in fill areas: The topsoil in the area of constructed facilities and for a distance of at least two (2) feet past construction lines shall be removed to a depth of at least 6 inches. It is intended that stripping this 6 inches of material will remove grass and other vegetative matter. This topsoil shall be stockpiled by the contractor for use in final grading of the project. A minimum of 4 inches of topsoil is to be placed on areas that have been worked.
- b) Cut Areas: The topsoil shall be stripped to a depth of at least 6 inches to a distance of at least two (2) feet past construction lines. If suitable, this material shall be stockpiled by the contractor for use in final grading of the project.

- c) Topsoil shall be fertile soil, free from objectionable material and be readily able to support growth of planting. Soil excavation in "a." and "b." above containing vegetative or other objectionable material not suitable for topsoil shall be removed from the site by the contractor.
  - d) Excess topsoil shall be stockpiled on the airport property or removed from the site as designated by Owner.
2. Rocks and stones excavated shall be removed from the site or as directed by the Owner.
3. The subgrade shall be excavated to allow for placement of the base material and paving. Suitable material shall be utilized in fill areas.

## II. SUBGRADE

1. Subgrade in fill areas shall be scarified to a depth of at least 6 inches then watered, bladed, and compacted. This may be waived if, in the opinion of the engineer or by acceptable test, the subgrade is dense. The remaining subgrade shall be placed in 6 inch compacted depths watered, bladed and compacted utilizing material from "I.1.b." above.
2. Subgrade in cut areas shall be scarified to a depth of at least 6 inches in preparation for adding material as required. Then the subgrade shall be watered, bladed and compacted to grade. This may be waived if, in the opinion of the engineer or by acceptable test, the subgrade is dense. This waiver must be approved by Owner to be effective.
3. Compaction of the subgrade shall be verified by proof rolling the entire area with approved compaction equipment. Unstable areas, including sand pockets, shall be reworked, removed, or replaced. It is intended that the compaction of the subgrade be 95% of the maximum dry density determined using Texas SDHPT Test Method TEX 113-E with a compactive effort as recommended in the test method. If the subgrade compaction is questionable, in the opinion of the Owner, then the contractor shall obtain the services of an approved testing laboratory and verify the compaction by testing. The cost of testing shall be paid by the contractor.

4. INSPECTION: Prior to installation of the base material, the compacted subgrade shall be inspected and approved by the Owner. The contractor shall provide notice at least 24 hours prior to the time when the inspection is needed.

### III. SUBBASE MATERIAL

1. The subbase material shall be placed on the prepared subgrade sprinkled, bladed and compacted.
2. Subbase compaction: The compaction required for the subbase shall be the same as compaction for subgrade, see item "II.3." above.

### IV. BASE MATERIAL

1. Base material shall conform to TxDOT, 2014 "Standard Specifications for Construction of Highways and Bridges", Item 247, Type A, Grade 1, 2, or 5: Crushed Limestone Base Material.  
Base Material Thickness in Parking Areas, Drive Lanes, and Aircraft Areas: 0.833 feet (10 inches)
2. The base material shall be sprinkled, mixed and compacted utilizing approved compaction equipment.
3. Base Material Compaction: The flexible base should be moistened to within 2% of optimum moisture content and compacted to at least 100% of the maximum dry density as determined by TEX-113E.
4. Base Material Compaction Quality Control: The contractor shall retain the services of an approved engineering testing laboratory for the purpose of quality control during base construction. The contractor shall include the cost of this testing in the contract and pay for same. In place density tests shall be performed for each 500 sq. yd of surface area of the compacted base material, minimum of 3 locations. The contractor shall furnish the Owner with copies of the test reports of density testing.
5. Base Material Finish
  - a. It is the intent of this specification to obtain a complete course, or courses, of flexible base of uniform moisture and density with a closely knit surface free from laminations, cracks, ridges or loose material and to the surface requirements specified.
  - b. Upon completion of the base work, the surface shall be smooth and in conformity with the typical sections and to the established lines,

grades and suitable for application of surface paving. Deviations in excess of 1/4 inch in 10 feet shall be corrected. All irregularities, depressions, or weak spots which develop shall be corrected.

6. INSPECTION: Prior to the installation of the paving, the compacted base material shall be inspected and approved by the Owner. The contractor shall provide notice at least 24 hours prior to the time when the inspection is needed.

#### **PAVING - HOT MIX ASPHALTIC CONCRETE (HMAC)**

I. THIS ITEM SHALL CONSIST OF A WEARING SURFACE COMPOSED OF HMAC CONSTRUCTED ON THE PRIMED AND PREPARED BASE MATERIAL.

II. MATERIALS.

1. The prime coat should consist of an emulsified asphalt conforming to TxDOT Item 300.2 (4) and be applied at a minimum application rate of 0.20 gal per sq. yard.
2. HMAC. The asphalt concrete surface course for parking lots and driveways should be plant mixed, hot laid Type D (Fine Graded Surface Course) meeting the specification requirements of Item 340, of TxDOT, 2014 "Standard Specifications for Construction of Highways, Streets and Bridges".
  - The use of RAP (Recycled Asphalt Pavement) or RAS (Reclaimed Asphalt Shingles) in the mix design is prohibited for taxiways and aprons.
  - For development outside the leased area, it is the responsibility of the developer to provide lab test of the base and hot mix material at the request of the Owner.

III. CONSTRUCTION METHODS

1. The finished base material shall be primed. The prime coat shall be applied so that a uniform and complete coverage is obtained. The contractor shall take care to avoid spraying concrete curbs and other structures during priming. Prime coat asphalt on exposed concrete surfaces shall be removed by the contractor.
2. The asphaltic concrete shall be finished without depressions, ridges or high spots. The finished

compacted thickness of the asphaltic concrete shall be not less than 2 inches.

- a. Manholes and Valve Covers. All manhole and valve covers shall be covered with thin plywood or other suitable material before paving to prevent them from being paved over. These covers will then be uncovered after paving operations and the exposed asphalt edges tamped to achieve a smooth durable transition between the cover and the asphalt surface.
3. Asphalt on concrete curbs shall be removed.
4. Protect newly finished pavement from all traffic until cleared by the engineer.

#### IV. QUALITY CONTROL

1. The contractor shall employ the services of a testing laboratory which is approved by Owner to evaluate in-place density.
  - a. Density. It is intended that the HMAC be applied and compacted to achieve a minimum of 95% of theoretical density.
2. Smoothness. Finished surface must be smooth to within 1/4 inch in 10 feet.

#### **PAVING - CONCRETE PAVEMENT (Special Provisions)**

THE FOLLOWING ARE MINIMUM SPECIFICATIONS FOR PRIVATE HANGAR EXTERIOR CONCRETE WITH LIGHT AIRCRAFT. ANY AREAS THAT ARE ANTICIPATED TO HAVE HEAVY AIRCRAFT OR TRUCK TRAFFIC SHOULD BE DESIGNED FOR THE RESPECTIVE LOADS.

1. Light Duty Aprons - 6 inch thickness with #4 bars on 12" o.c.e.w. over compacted subgrade or limestone base private hangar apron extensions into County land. Control joints shall be provided with maximum spacing of 20 feet. All joints in County concrete will have sealant to reduce weed growth. Concrete pavement shall have grading plan designed to prevent ponding of water.
2. Hydraulic cement concrete shall be Class A or P with 28 day compressive strength of 4,000 psi.
3. Finishing: Broom Finish



**ACCEPTANCE :**

FOR DEVELOPMENT OUTSIDE THE LEASED AREA, THE DEVELOPER WILL PROVIDE A "BILL OF SALE" TO THE COUNTY. THIS FORM WILL BE REQUIRED PRIOR TO ACCEPTANCE OF WORK AND WHEN COUNTY WILL ACCEPT OWNERSHIP/MAINTENANCE OF THE IMPROVED AREA. ALL WORK AREAS SHALL BE CLEANED OF DEBRIS. UNPAVED AREAS SHALL HAVE TOPSOIL AND BE RESTORED WITH SEEDING OR PERMANENT EROSION CONTROLS.