

Section 7

General Aviation System

The general aviation system is located in the center of the Midfield Zone, as delineated in Section 3, Development Concept. Its boundaries are defined by the limits of the passenger system to the south and the cargo system to the north. The system includes terminal buildings, apron for terminal staging, hangars, apron for hangar aircraft pullout, and apron for aircraft tie-down parking.

General aviation operations are conducted by a single fixed-base operator (FBO). The FBO provides aircraft storage, maintenance, and fueling services. In 2003, the FBO has as many as 26-based aircraft at their GSP facilities.

At present, GSP serves primarily the corporate aviation clientele. The following planning parameters were addressed relative to continuing to serve this niche of the general aviation market:

- Provide hangar space for all fixed-based aircraft
- Minimize aircraft taxiing distances
- Utilize existing facilities
- Provide flexibility for multiple fixed-based operators
- Centralize vehicle parking.
- Work with existing topography

Forecasts

Section 4, Traffic Projections, explains the rationale for projecting growth of fixed-base aircraft and itinerant aircraft for general aviation at GSP. As shown in Tables 4-5 and 4-6, annual general aviation and military movements may reach 49,200 operations by 2053. Peak hour movements are projected to be 18.

Facility Requirements

Table 7-1 summarizes the general aviation facility requirements based on the projections above. At ultimate capacity, the general aviation system will require 60 covered positions in approximately 258,000 square feet of hangar space, 30 outside tie-down positions, 12 staging positions, and more than 1,000,000 square feet of apron paving. Area for a second terminal has also been provided. Because the growth of general aviation traffic is not as predictable as commercial passenger traffic, land has been reserved for additional hangars, support facilities (e.g., maintenance hangar, paint hangars, parts warehouse, etc.), and attendant aprons.

Table 7-1 Aircraft Parking Position Facility Requirements

	Hangar Positions	Tie-Downs	Staging
Group I			
Jets	18	-	-
Turboprops	36	30	-
Group II	<u>6</u>	<u>-</u>	<u>12</u>
Total	60	30	12

Recommended General Aviation Layout

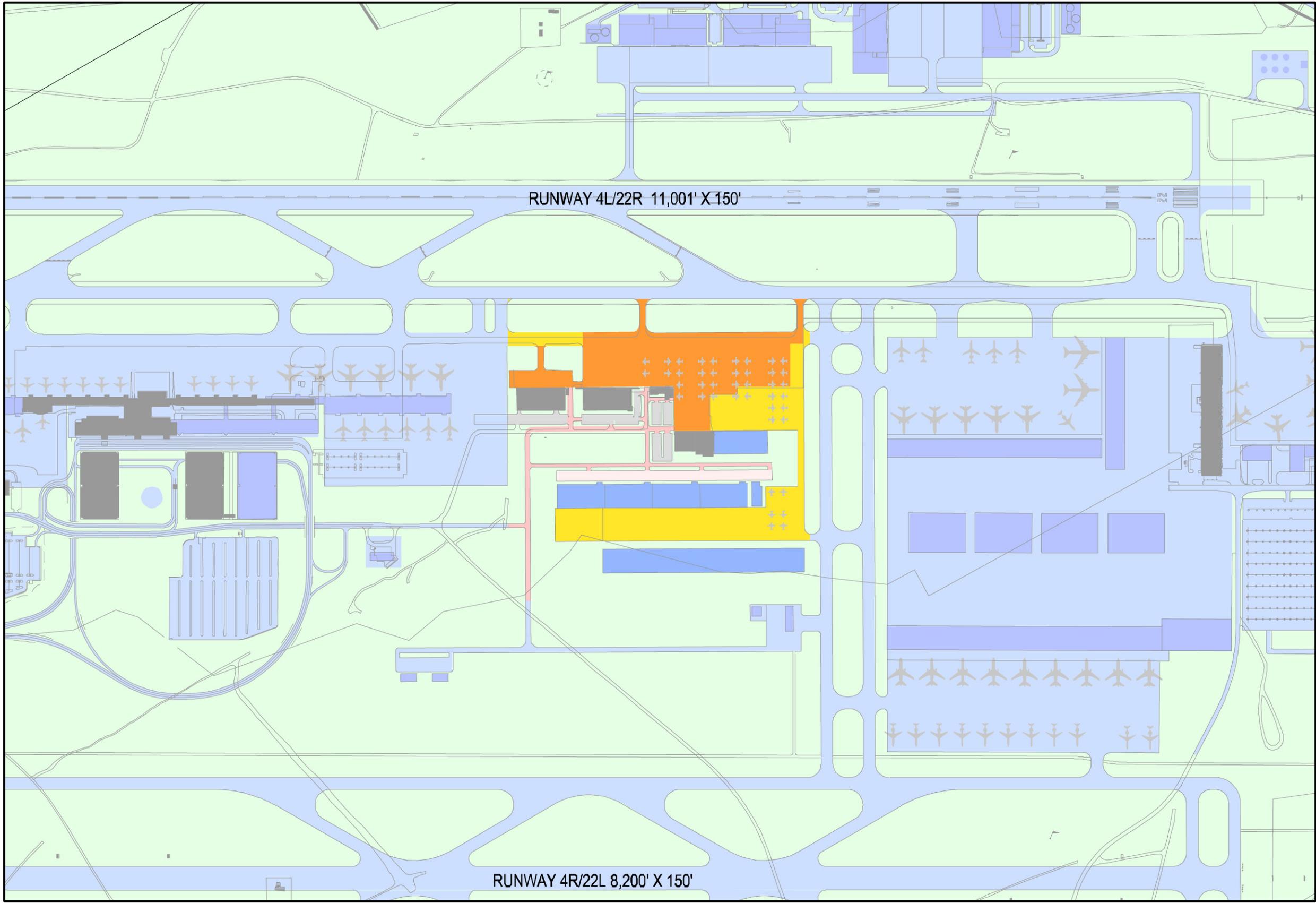
Two general aviation system concepts were considered and evaluated. Figure 7-1 presents the recommended concept at ultimate capacity.

Additional hangar space and apron area are initially provided adjacent to the existing north hangar by filling in the undeveloped area up to the setback line for the cross taxiway. The additional 50,000 square feet of hangar space will accommodate approximately 14 covered positions for the maximum-sized Group I aircraft, and the apron infill will accommodate all required tie-down positions. Six staging positions in front of the existing terminal have been provided for loading and unloading passengers. Because the airfield system uses the apron edge as a primary taxilane for aircraft circulation, the existing tie-down spaces and staging area have been reconfigured. These facilities will serve the general aviation requirements through the ultimate capacity of the existing runway.

Expansion for the ultimate development of the general aviation system is constrained by the passenger system to the south, the airfield system to the west, and the cargo system to the north. Consequently, expansion must occur to the east. In order to create a core of building facilities and centralize vehicle parking, expansion to the east will mirror the existing condition. Hangars will be constructed in a linear configuration parallel to the runways with a new apron area for hangar aircraft pullout on the east side. In order to maintain maximum flexibility for future growth scenarios, a second fixed-base operator terminal will be located at the north end of the apron with a staging apron for six aircraft on the north side. The new apron connects to the existing general aviation area via a Group II-rated taxiway that is parallel to the cross taxiways.

Aprons on both the east and west have apron-edge taxilanes that can accommodate Group II aircraft. The east apron connects directly to the taxilane and high-speed taxiway for Runway 3L/21R, and the west apron connects to the counterpoint of the cross taxiways. These direct access points decrease taxiing distances and improve circulation within the general aviation system.

The east side and south end of the east apron have been reserved for additional hangars, support facilities (e.g., maintenance hangar, paint hangars, parts warehouse, etc.), and attendant aprons, as mentioned above.



FACT SHEET

- Apron Size: 1,026,700 ft²
- Net New Apron Size: 502,700 ft²
- Staging Stands: 12
- Transit Stands: 30
- Fixed Based Operators: 2
- Hangar: 257,700 ft²
- Surface Parking: 625 stalls

LEGEND

- Existing Airfield
- New Airfield
- Existing Structures
- New Structures
- Existing Parking
- New Parking

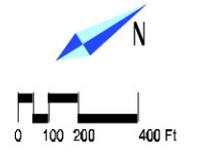


Figure 7-1 Ultimate General Aviation Configuration