

Appendix F – Full Range of Airfield Concepts

This appendix contains exhibits of the initial range of concepts developed during the planning process (See [Exhibit F-1](#), [Exhibit F-2](#), [Exhibit F-3](#), [Exhibit F-4](#), [Exhibit F-5](#), [Exhibit F-6](#) and [Exhibit F-7](#)). Input from the Study Resource Committee (SRC) and the Rhode Island Airport Corporation (RIAC) staff, together with analysis by the master plan team, was used to develop a full range of airfield concepts. This initial range of concepts included a wide range of options including a “do nothing” scenario, closure of the airport, minimal growth beyond the airport boundary, minor improvements to correct existing operational deficiencies and improve safety, runway extensions, and new parallel runways. Four groups of concepts were developed:

- Group A concepts’ primary goal is to have minimal or no development of the airfield. These concepts fall short of meeting the facility requirements identified in Chapter III, *Demand/Capacity and Facility Requirements*.
- Group B concepts aim to provide the needed capacity enhancements by providing two parallel runways (in addition to the crosswind runway) with 1,200 to 2,500 feet of lateral separation between the runways, which yields varying levels of dependence. A 1,200-foot separation is the separation required for Design Group V or VI¹ aircraft in order to allow simultaneous operations in good weather. A separation of 2,500 feet allows simultaneous arrivals and departures or simultaneous dual departures in poor weather, but not simultaneous arrivals.
- Group C concepts increase capacity by providing two parallel runways (in addition to the crosswind runway) that are separated laterally by 4,300 to 3,000 feet, which yields varying levels of independence. The normally approved minimum separation for dual independent approaches is 4,300 feet. The FAA will consider a minimum of 3,000 feet where 4,300 feet is impractical.
- Group D concepts increase capacity by using two parallel runways (in addition to the crosswind runway) with 5,000 feet of lateral separation, which yields independent parallel runways. A 5,000-foot separation is the recommended separation for simultaneous dual operations in all weather conditions (although as noted above, the FAA will consider a minimum of 3,000 feet lateral separation).

After reviewing the full list of concepts and considering the input received at the April 25, 2002 SRC meeting and the RIAC Board’s goals and objectives for the long-term vision of T. F. Green, RIAC decided that it was not willing to consider 20-year airfield concepts with extreme impacts (such as widely spaced parallel runways). RIAC then instructed the team to specifically consider concepts that fall short of the 20-year needs identified in Chapter III, *Demand/Capacity and Facility Requirements*, along with concepts that do

¹ Group V and VI include aircraft with wingspans of 171 feet up to but not including 262 feet (examples include the MD-11, Boeing 767, Boeing 747, and Boeing 777).

meet the 20-year needs. This policy decision by RIAC resulted in elimination of all of the Group C and D concepts and most of the Group B concepts. It also resulted in the addition of new Group A concepts.