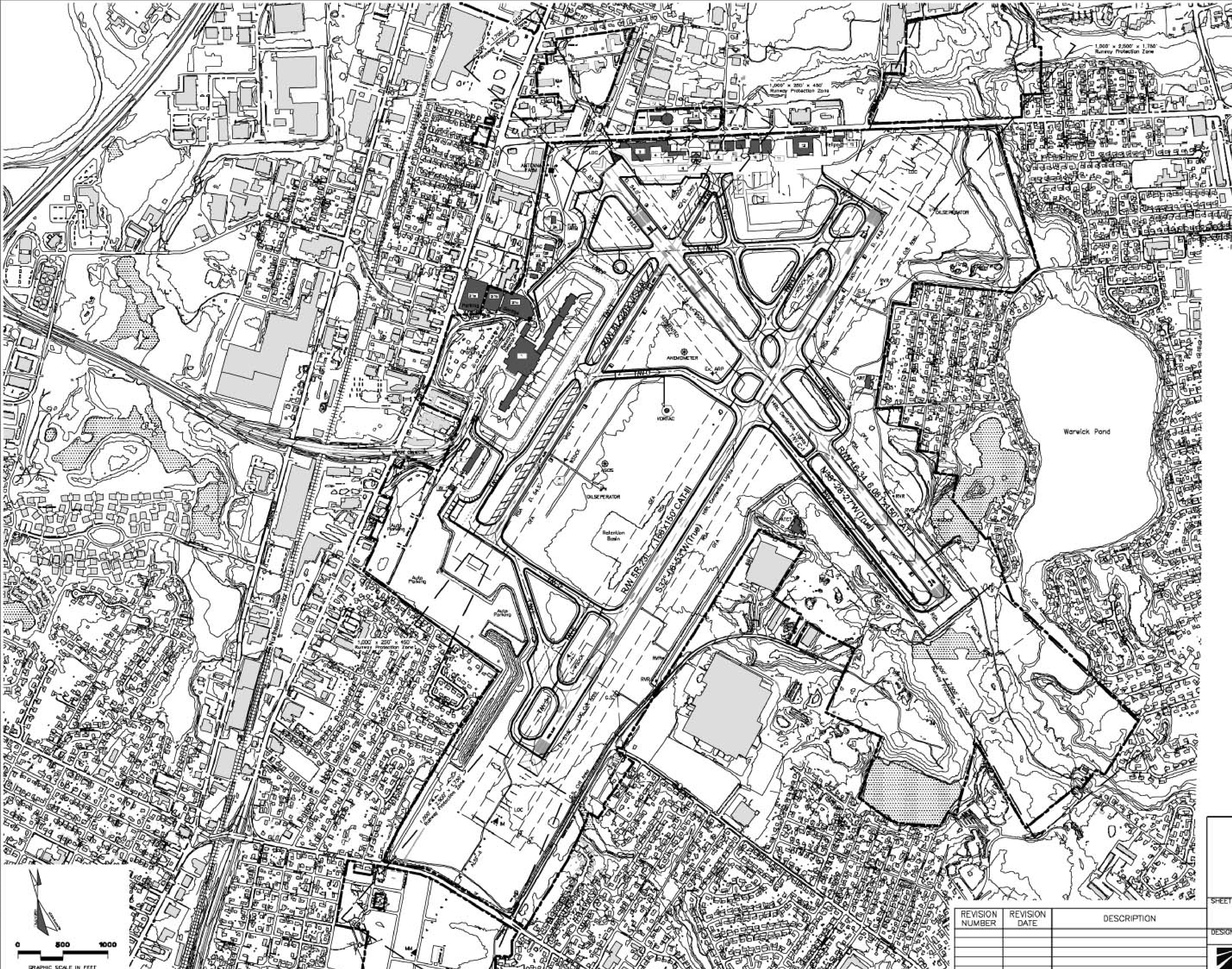

BUILDING DESCRIPTIONS	
1	TERMINAL BUILDING
2	GSE MAINTENANCE / BELLY CARGO FACILITY
3	HANGAR NO. 1
4	FLEET BANK HANGAR
5	OLD FIRE STATION
6	OLD TERMINAL BUILDING
7	HELICOPTER SERVICES HANGAR (QUALITY AVIATION)
8	TEXTRON HANGAR NO. 2
9	CVS HANGAR
10	TEXTRON HANGAR NO. 1
11	NORTHSTAR AVIATION (F.B.O.)
12	HANGAR NO. 2
13	HANGAR NO. 3
14	A.R.F.F. BUILDING
15	AIRPORT TRAFFIC CONTROL TOWER (A.T.C.T.)
16	MAINTENANCE SHOP
17	MAINTENANCE EQUIPMENT SHELTER
18	MAINTENANCE HEADQUARTERS
19	PAINT SHOP
20	SAND STORAGE SHELTER
21a	RED BEAM GARAGE
21b	AIRPORT VALET GARAGE
21c	RAC GARAGE
22	U.S. POSTAL BELLY CARGO FACILITY
23	RENTAL CAR FACILITIES
24	CENTRAL FUEL FARM

LEGEND

EXISTING	
	PAVEMENT EDGE
	PROPERTY BOUNDARY
	RUNWAY PROTECTION ZONE (RPZ)
	PERIMETER FENCE
	GROUND CONTOURS (5' INTERVALS)
	WETLANDS
	BUILDINGS OFF AIRPORT
	BUILDINGS ON AIRPORT
VASI	VISUAL APPROACH SLOPE INDICATOR (VASI)
REILS	RUNWAY END IDENTIFIER LIGHT (REIL)
	AIRPORT BEACON
	AIRPORT REFERENCE POINT

AIRPORT DATA

AIRPORT REFERENCE POINT (ARP)(NAD 83)	LAT (N)	41°-43'-31"
	LON (W)	71°-25'-41"
MAGNETIC DECLINATION		15°-19.8'W DECEMBER 1995
AIRPORT ELEVATION (MSL)		56'

REVISION NUMBER	REVISION DATE	DESCRIPTION

Rhode Island Airport Corporation

T. F. GREEN AIRPORT

WARWICK, RHODE ISLAND

SHEET TITLE

Existing Airport Layout

DESIGNED	DRAWN	CHECKED	APPROVED
RPE	RPE	RPE	RPE

Landrum&Brown

PROJECT NO.

DATE: Apr 18, 2002

SHEET 1

MASTER PLAN UPDATE

Theodore Francis Green Airport

Warwick, Rhode Island

Rhode Island Airport Corporation

FAA Approval Letter

FAA Approval Letter

FAA Approval Letter

DRAWING INDEX

Draft: Date
Revised: Date

Approved by

FEDERAL AVIATION ADMINISTRATION

Director: ______ Date: ______

T. F. GREEN AIRPORT

Executive Director of RIAC: ______ Date: ______

FileName: W:\PVD\ALP\Plans_Set\PVD-TITLESHEET.dwg Date: 11/13/02 @ 16:34:16 Tab: Layout1

Landrum&Brown

DRAFT

Chapter V – Airport Plans

The T. F. Green Master Plan has evolved through the analytical efforts described in the previous chapters, review and discussion with the Study Resource Committee (SRC), and policy discussions by the Rhode Island Airport Corporation (RIAC). This chapter presents the resulting plan in a set of detailed drawings, referred to as an airport plans set.

An airport plans set depicts existing facilities and future facilities planned within a 20-year period. Airport plans sets are submitted to the Federal Aviation Administration (FAA) for approval and then become the official layout drawings for the airport. All development at Federally-obligated airports must be done in accordance with an FAA-approved Airport Layout Plan (ALP). ALPs are true plans in that the depicted development represents improvements that would best serve the expected demand based on what is known today. FAA's approval is conditional upon environmental review of the projects pursued by RIAC for implementation. In this case, RIAC decided to first subject the projects proposed for the foreseeable future to environmental review – in the form of an Environmental Impact Statement (EIS), Environmental Assessments (EAs), and Categorical Exclusions – prior to submitting the plan for approval. An approved ALP puts the surrounding jurisdictions on notice so that they may incorporate information that will prevent and minimize incompatible land use and planning.

This chapter contains a description of the applicable design standards and the drawings in T. F. Green's airport plans set.

V.1 Airport Design Standards

The airport plans set was prepared following the standards and recommendations provided by the FAA for use in the design of civil airports. Advisory Circular 150/5300-13, *Airport Design*, was the primary reference used to ensure compliance with these standards. The FAA New England Region's ALP checklist was used to ensure completeness and the correct depiction of facilities and standards.

Design standards related to airport geometry are based on an airport reference code (ARC). The ARC is a coding system used to relate airport design criteria to the operational and physical characteristics of the airplanes operating and expected to operate at the airport. The ARC includes two components: aircraft approach category and airplane design group. The aircraft approach category, based on the aircraft approach speed, relates to the operational requirements of the aircraft while the airplane design group, based on aircraft wingspan, relates to the physical requirements of the aircraft. The most demanding aircraft expected to regularly use T. F. Green by 2020 is the B-767-300. This aircraft is categorized as Approach Category C and Airplane Design Group IV, or ARC C-IV.

Table V.2-1 lists the applicable airfield design standards for ARC C-IV. Except where noted, all aeronautical and airfield design standards shown in this table have been incorporated into the proposed geometry.

The Runway Safety Area (RSA) and Object Free Area (OFA) surfaces depicted in this table are of particular importance in the development of the ALP. The RSA is a "defined surface surrounding a runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or other excursion from the runway." The OFA is "an area on the ground centered on a runway, taxiway, or taxilane centerline provided to enhance the safety of aircraft operations by having the area free of objects, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes." The size of the RSA and OFA is dependent on the type and size of aircraft using each runway.[1]

Table V.2-1
RECOMMENDED FAA AIRFIELD DESIGN STANDARDS
T. F. Green Airport

Design Element	Design Standard (Feet)
Runway Width	150
Runway Centerline to:	
Parallel Taxiway Centerline[1]	400
Aircraft Parking Area	500
Runway Safety Area Width	500
Runway Safety Area Length Beyond Runway End	1,000
Runway Object Free Area Width	800
Runway Object Free Area Length Beyond Runway End	1,000
Taxiway Width	75
Taxiway Centerline to:	
Parallel Taxiway/Taxilane Centerline	215
Fixed of Moveable Object	129.5
Taxilane Centerline to:	
Parallel Taxilane Centerline	198
Fixed of Moveable Object	112.5
Taxiway Safety Area Width	171
Taxiway Object Free Area Width	259
Taxilane Object Free Area Width	225

[1] Lateral separation of 600 feet is required when the ceiling is less than 100 feet and visibility is less than ¼-statute mile.

[1] FAA Advisory Circular 150/5300-13, *Airport Design*.

The Runway Protection Zone (RPZ) and Obstacle Free Zone (OFZ) must also be considered in designing airport facilities. The RPZ is a trapezoidal area on the ground centered off the end of the runway along the centerline. Its purpose is to enhance the protection of people and property on the ground. An OFZ is the airspace below 150 feet and above the established airport elevation, along the runway and extended runway centerline. The OFZ is required to be clear of objects to provide protection for aircraft. The dimensions of the RPZ and OFZ vary depending on the type of aircraft using the runway and the runway approach visibility minimums.[2]

In addition, obstructions in the airspace and the approaches to each runway end must also be considered. The analysis of obstructions is based on criteria defined in Federal Aviation Regulation (FAR) Part 77, *Objects Affecting Navigable Airspace*. Part 77 establishes several imaginary surfaces in relation to an airport and to each runway end in order to protect against hazards that could affect the safe and efficient operation of the airport. The FAR Part 77 surfaces are described in Chapter I, *Inventory*, Section I.5.1, *Airfield Facilities*.

V.2 Airport Layout Drawings

The airport plans set includes the following drawings:

- **Title Sheet**
- **Existing Airport Layout Plan**
- Future Airport Layout Plan
- Data Sheet
- Terminal Area Plan
- Phasing Plan
- Airspace Plan
- Existing and Future Runway Approach Plan and Profiles
- On-Airport Land Use Plan
- Off-Airport Land Use Plan

The airport plans drawings are prepared at a large scale and are presented in this section in reduced form.

Title Sheet and Data Sheet

These sheets provide pertinent information about the airport. This information includes a location map, a vicinity map, existing and proposed runway data, wind coverage, and other airport data.

[2] FAA Advisory Circular 150/5300-13, *Airport Design*.

Airport Layout Plans

The existing and future ALPs are a graphic presentation of existing and proposed facilities, their location on the airport, and the pertinent clearance and dimensional information required to show compliance with the applicable standards described in Section V.1, *Airport Design Standards*. The future ALP shows the development proposed through 2020 that the sponsor is likely to pursue for development, if demand materializes as expected.

Terminal Area Plan

This plan provides an enlarged view of the terminal area. The terminal building, parking lots and garages, and on-airport roadway network are the primary features on this plan sheet. These facilities are presented in more detail on this sheet than on the ALP.

Phasing Plan

The phasing plan depicts the proposed phasing for all of the master plan projects. It shows development that would be completed by the planning horizons of 2005, 2010, and 2020.

Airspace Plan

The airspace plan is a graphic description of the FAR Part 77 criteria described in Section V.1, *Airport Design Standards*. This plan allows surrounding jurisdictions to determine if construction of a proposed structure will penetrate any of the existing or proposed surfaces. The airspace plan is also used to indicate obstructions which are located within the imaginary surfaces of the airport. Obstructions were identified based on aerial photography, obstruction charts, ground surveys, and previous obstruction studies. A summary of the obstructions is provided on the airspace plan drawing.

Runway and Approach Plan and Profiles

These sheets show the plan and profile views for each existing and proposed runway approach. These sheets provide a large scale view of the interior portion of the approach surfaces. These plans allow for identification of obstructions within the protected areas off each runway end.

Land Use Plans

The on-airport land use plan depicts existing and proposed uses within the airport's property limits. The off-airport land use plan is included as part of the plans set to identify potential noise impacts resulting from the Master Plan development program.

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REMAINING AIRPORT PLANS SET DRAWINGS

TO BE PROVIDED

The master plan team identified three airfield concepts (A7, A8, and A9) that best meet the future needs for T. F. Green. Because the detailed community and environmental actual data and assessment will take place in the EIS, the RIAC Board decided to let the EIS process determine which alternative is best. Once an EIS alternative is selected, the airport plans set will be developed and provided to the FAA.