Airport Facility Requirements

Introduction

The purpose of the facility requirements analysis is to define current and future facility needs for the 20-year planning period.

– **Airside** Facilities (runways, taxiways, lighting, etc.)
– **Landside** Facilities (aircraft parking, hangars, terminal, etc.)
– **Support** Facilities/Infrastructure (vehicle roads, parking, utilities, etc.)
Design Aircraft

Design Aircraft (Existing)

- Airport Reference Code (ARC): B-I
- Raytheon/Beechcraft Baron 58 (Representative AC type, multi-engine piston)

Design Aircraft (Future)

- ARC: B-II
- Cessna Citation 550/560 Series (Representative AC type, multi-engine jet)
SOUTHWEST WASHINGTON REGIONAL AIRPORT
Kelso Airport - Airport Master Plan

A-I
12,500 lbs. or less (small)
- Beech Baron S5
- Beech Bonanza
- Cessna 182
- Piper Archer
- Piper Seneca

B-I
12,500 lbs. or less (small)
- Super King Air 200
- Cessna 441
- DHC Twin Otter
- Cessna Caravan
- King Air C90

A-II, B-II
12,500 lbs. or less (small)
- Super King Air 300, 350
- Beech 1900D
- Jetstream 31
- Falcon 20, 50
- Falcon 200, 900
- Citation II, Bravo XLS+
- Citation C3

B-II
Greater than 12,500 lbs.
- DHC Dash 7
- DHC Dash 8
- C-300, Q-400
- DC-3
- Convair 580
- Fairchild F-27
- ATP

A-III, B-III
Greater than 12,500 lbs.
- Lear 25, 35, 55, 60
- Israeli Westwind
- HS 125-700

C-I, D-I
- Gulfstream II, III, IV
- Canadair 600
- Canadair Regional Jet
- Lockheed Jetstar
- Citation X
- Citation Sovereign
- Hawker 800 XP

C-II, D-II
- Boeing Business Jet
- B 727-200
- B 737-300 Series
- MD-80, DC-9
- Fokker 70, 100
- A319, A320
- Gulfstream V
- Global Express

C-III, D-III
- B-757
- B-767
- DC-8/70
- DC-10
- MD-11
- L-1011

C-IV, D-IV
- B-747 Series

D-V
- B - 777
Airside Facility Requirements
Runway 12/30

<table>
<thead>
<tr>
<th>DESIGN STANDARDS</th>
<th>B-I Existing Standards</th>
<th>B-II Future Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAA Standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Runway Width</td>
<td>60 feet</td>
<td>75 feet</td>
</tr>
<tr>
<td>Runway RSA Width</td>
<td>120 feet</td>
<td>150 feet</td>
</tr>
<tr>
<td>Runway OFA Width</td>
<td>400 feet</td>
<td>500 feet</td>
</tr>
<tr>
<td>Runway OFA Length Beyond Ends</td>
<td>200 feet</td>
<td>300 feet</td>
</tr>
<tr>
<td>Runway Protection Zone Length</td>
<td>1,000 feet</td>
<td>1,000 feet</td>
</tr>
<tr>
<td>Runway Protection Zone Inner Width</td>
<td>500 feet</td>
<td>500 feet</td>
</tr>
<tr>
<td>Runway Protection Zone Outer Width</td>
<td>700 feet</td>
<td>700 feet</td>
</tr>
<tr>
<td>Runway Centerline – Parallel Taxiway Centerline Separation</td>
<td>225 feet</td>
<td>240 feet</td>
</tr>
</tbody>
</table>
Airport Conformance Items

**Airside Conformance**

- Runway 12 & 30 RPZs – Extend beyond airport property & buildings/development in RPZs
- Runway 30 RPZ – Road in RPZ (Talley Way)
- Runway 12 RPZ – Road in RPZ (Douglas St.)
- Runway OFA – Property Control (SW Corner)
- Part 77 Transitional Surface – Trees/Buildings
- East Parallel Taxiway Separation (future ADG II)
Airport Conformance Items

**Landside Conformance**

- Apron Taxilane OFA – Tiedown Separation <79’
- Hangar Taxilane OFA – T-hangar Separation <79’
- Part 77 Transitional Surface – Hangar Heights
Landside Development
(Forecast Demand)

- Net increase of 21 based aircraft (2017-2037)
  - 19 of 21 based aircraft are stored in hangars

- Aircraft Parking – Transient & Based Aircraft
Preliminary Development Alternatives

Introduction

- Developable Land Capacity
- Runway Length & Width (Existing & Future)
- Taxiway Configuration - East Parallel Taxiway (Alpha)
- West Hangar Taxilane