Source Information: FAA Aeronautical Navigation Products

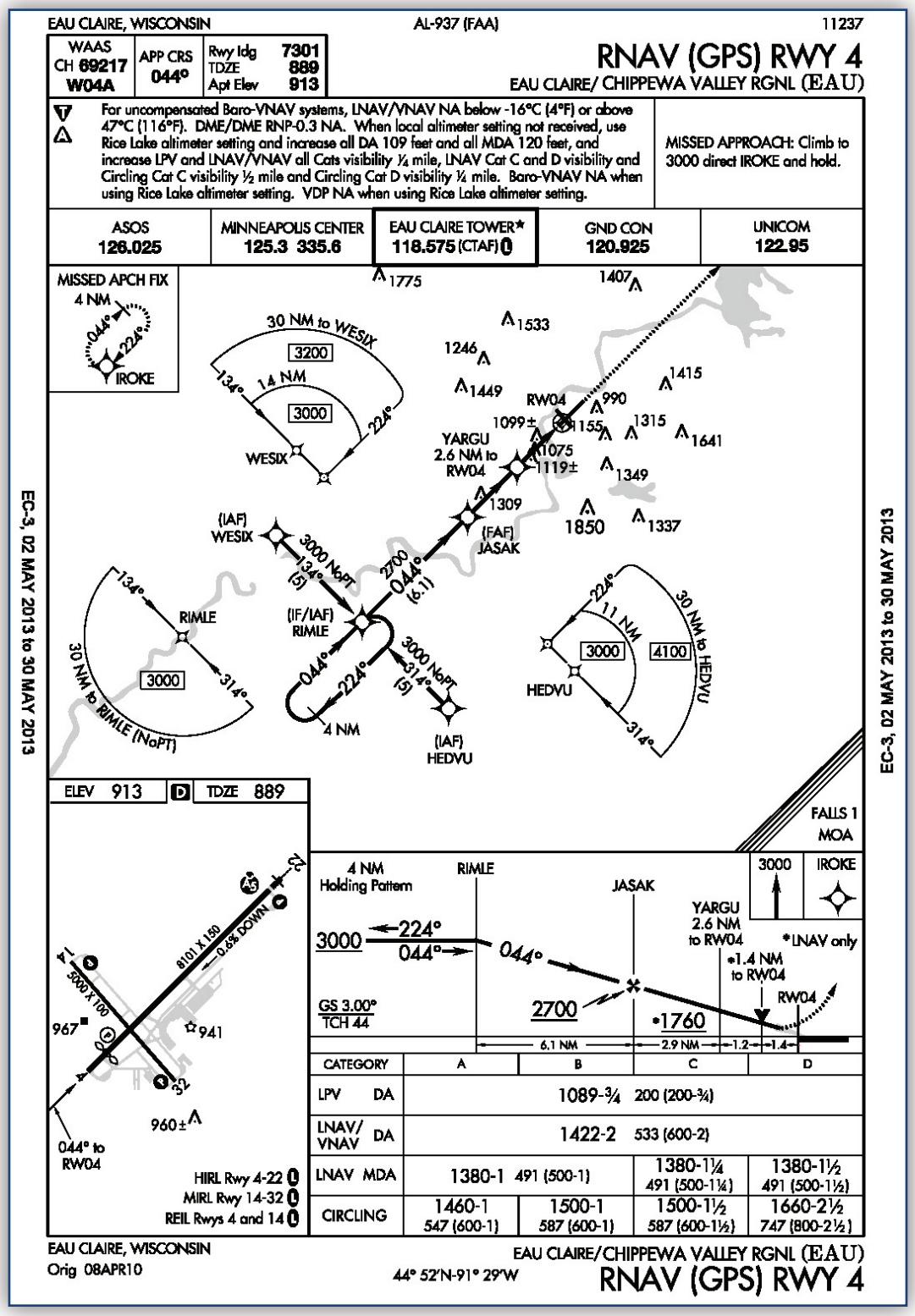

Figure 1-16 **RNAV (GPS) Rwy 4**

Source Information: FAA Aeronautical Navigation Products

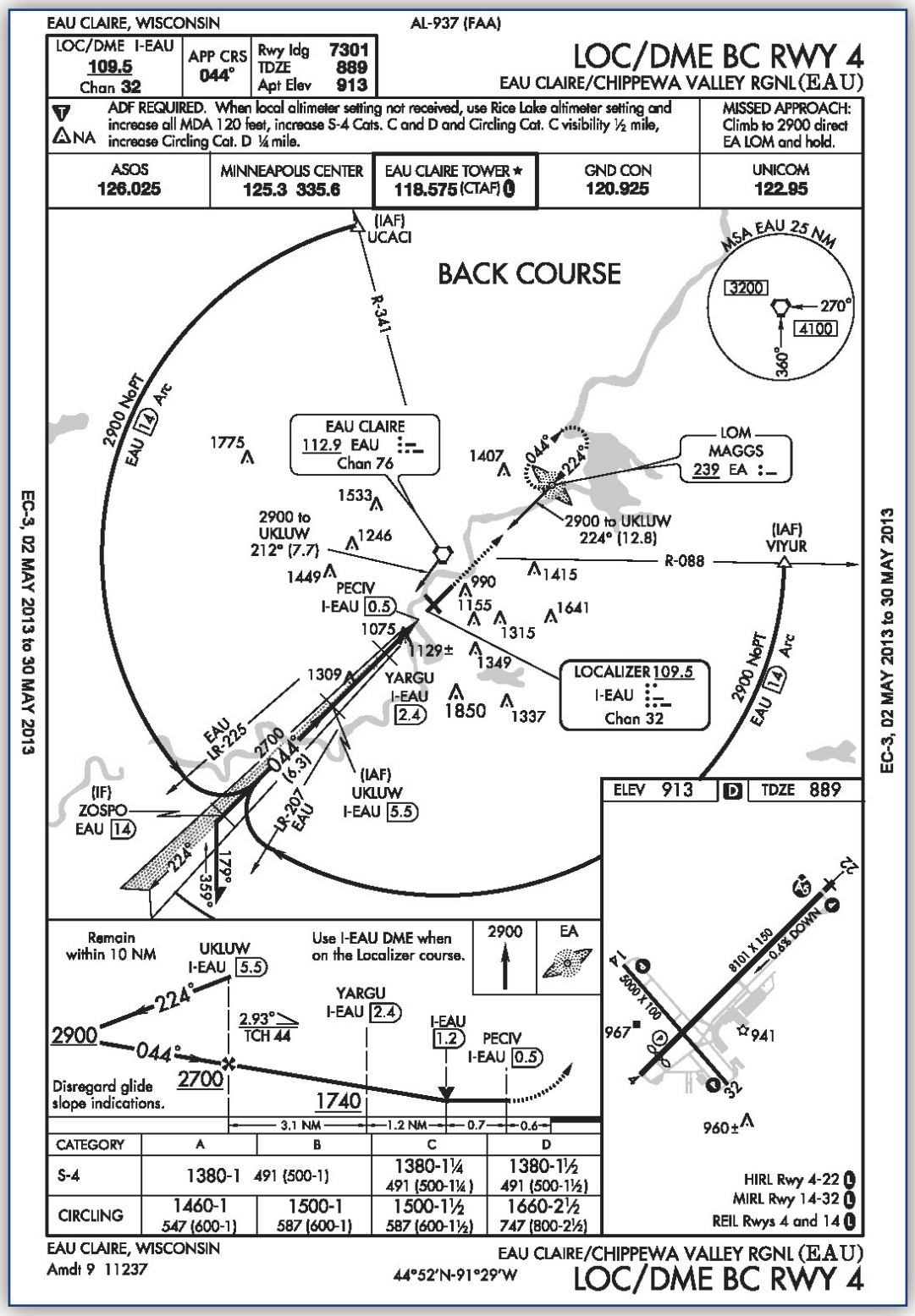

Figure 1-17 **LOC/DME BC Rwy 4**

Source Information: FAA Aeronautical Navigation Products

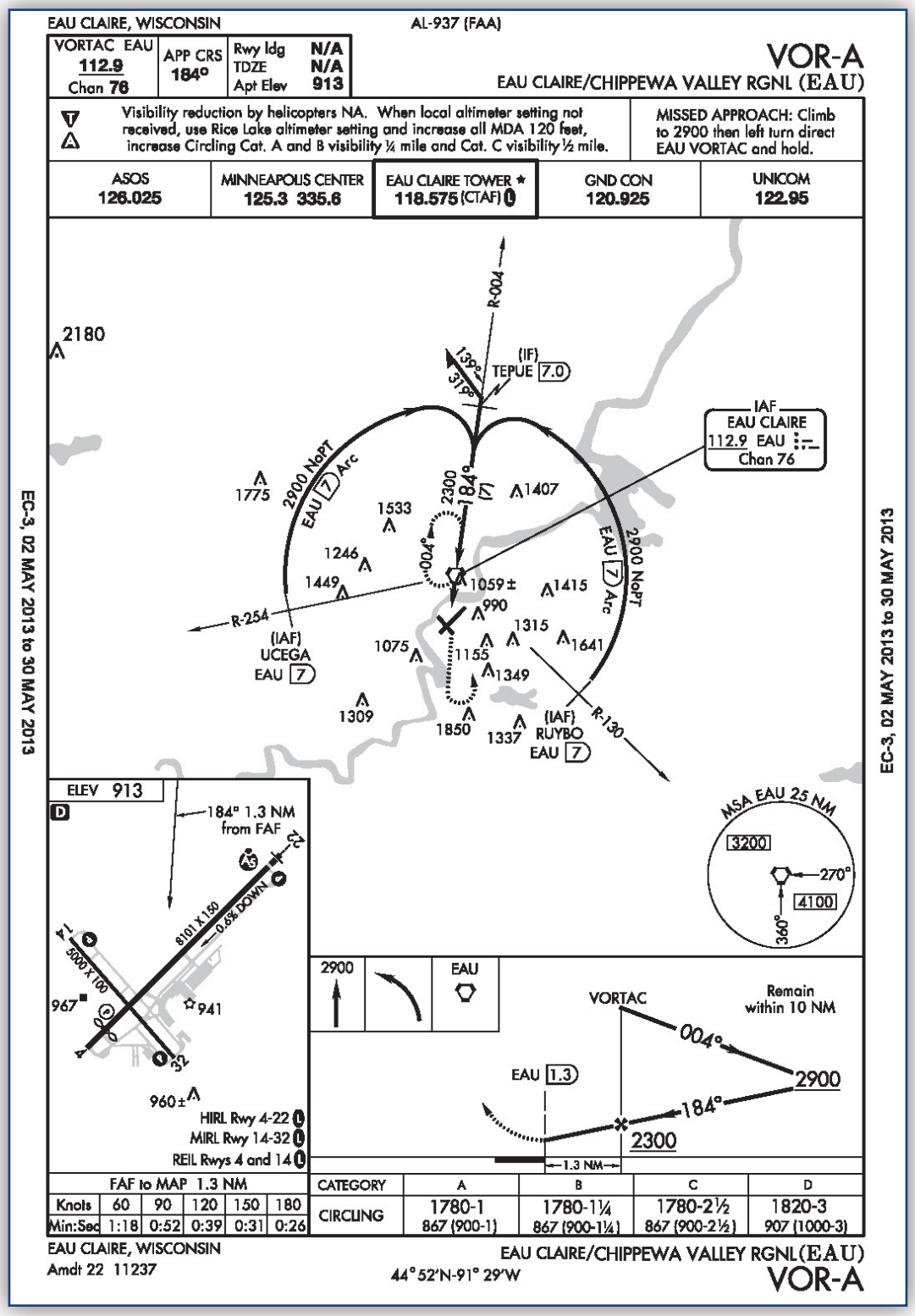

Figure 1-18 **VOR-A**

1.3.7 Passenger Terminal Building

The passenger terminal is centrally located on Airport property near the intersection of the two runways, south of Runway 4/22 and east of Runway 14/32. The passenger terminal building was originally constructed in 1967. A renovation and addition project occurred in 1981, which added approximately 19,000 square feet for a total building size of 45,455 square feet (including basement and mezzanine floor mechanical and electrical rooms, see **Table 1-12**). The 1981 expansion improved public restrooms, passenger waiting areas, ticketing counters, car rental concessions, baggage claim, baggage make-up, electrical, heating, ventilation and air conditioning (HVAC), and utilities.

Table 1-12. Airport Terminal Square Footage (including main floor, basement, and mezzanine)

Description	Square Feet
Public Circulation	9,103
Public Waiting Area	2,332
Public Restrooms	1,520
Restaurant/Bar, Concessions, Vending	5,063
Hold Room (including gate C)	3,362
Security Checkpoint, Exit Lane, Private Search Room, Queuing	1,748
Ticketing Queue and Counter Area	1,086
Inbound/Outbound Baggage, TSA Baggage Screening, and Baggage Claim	4,738
Rental Car Counter Area, Queuing, and Office	793
TSA Office	1,003
Airline Office	795
FAA Office	606
MH Office	500
Other Office	124
Airport Administration	551
Conference Rooms	1,703
Non-Public Circulation	193
Chases, Walls, and Structure	5,222
Utilities – Mechanical, Electrical, HVAC	4,596
Custodial, Storage	418
Total Area	**45,455**

Sources: Mead & Hunt; Airport As-Built Drawings

In the early 2000s, several issues were identified with the passenger terminal building in relation to new security requirements and spatial organization. The spatial and operational relationships within the building were disjointed, which resulted in passenger flow conflicts and inefficiencies. Because of new security measures implemented after September 11, 2001, much of the secured passenger holding area was lost to accommodate new security screening equipment. As a result, the seating capacity in the secure passenger holding area was reduced to approximately 28 passengers, which was incapable of handling a fully loaded Saab 34-seat plane without altering security procedures and resulting in delays. Overlaps with charter flights were also becoming more frequent, resulting in 120 to 150 travelers requiring screening at the same time. This was a very cumbersome process that resulted in unpleasant passenger experiences. In addition, a mandatory 300 foot parking setback provision instituted after September 11 for implementation during heightened threat alerts reduced available parking spaces and increased walking distances to the terminal. Other issues identified at that time included combination of baggage make-up and baggage claim areas; ground-loading of aircraft which exposed passengers to weather and potential aircraft dangers, as well as non-compliance with the Americans with Disabilities Act (ADA); and finishes and lighting that were outdated and in need of an upgrade.

CVRA's terminal development project began with the ground breaking for Phase I on December 15, 2008. Phase I increased the size of the secure passenger holding area to include seating for current demand and added post-security restroom facilities. Phase I also provided more space for Transportation Security Administration (TSA) operations, equipment, and staff. Most areas on the non-secure side of the terminal building were also remodeled during this phase. Phase I also included a complete reconstruction of the terminal parking facility, which was almost 30 years old, and added automated parking revenue controls to the facility so passengers can now pay using credit cards. A ribbon cutting ceremony to celebrate completion of Phase I was held in December 2009, and the second phase of the project began in September 2010. Major Phase II improvements included a new enclosed passenger boarding bridge and addition of a baggage claim carousel. A ribbon cutting for the second phase of the project was held in July 2011. As a result of this project, the building is now ADA compliant and meets current building codes.

The terminal development project resulted in improved overall energy efficiency of the terminal building, including installation of new energy efficient windows, insulation, and mechanical systems. A study was completed just prior to Phase I in 2008, which analyzed the economic feasibility of installing a geothermal heat pump system as part of the terminal renovation. This study found that, although the initial cost of a geothermal heat pump system is approximately twice that of a conventional chiller/boiler hot water reheat system, a geothermal system would result in greatly reduced on-going gas, electric, operations, and maintenance costs. These reduced life cycle costs would allow the geothermal system to pay for itself in approximately 10 years, and would result in a total cost savings of approximately $650,000 over the 25-year life of the system. A geothermal heat pump system was not installed as part of the terminal development project; however, the building can be retrofitted for installation of such a system. The system would require installation of a vertical geothermal bore field to the immediate southeast of the existing terminal parking lot. This area should be reserved for future installation of the bore field.

Airport administration functions, including the TSA and the FAA, are conducted in the north wing of the terminal. The terminal building also includes space for airline ticketing counters and offices; rental car agency counters and support space; baggage claim and handling; a restaurant and additional concessions; administrative staff offices and conference rooms; restrooms; and utilities. The current floor plan for the passenger terminal building is presented in **Figure 1-19**.

1.3.8 Fixed Base Operator

There is one Fixed Base Operator (FBO) at EAU, named Heartland Aviation. Heartland Aviation provides jet charter and air ambulance services; aircraft maintenance, fueling, rental, and storage services; and flight instruction services to both based and transient general aviation (GA) users at EAU. The FBO has offices in a 16,000 square foot building located to the immediate east of the ARFF building (see Section 1.13.12). A floor plan for this facility is presented in **Figure 1-20**, which includes a reception area with pilot supply shop, waiting area, flight instruction room, and various staff offices; as well a large hangar space. Heartland also has an additional 16,800 square foot aircraft maintenance hangar and 4,000 square foot truck garage. Heartland operates a charter fleet consisting of a Citation II, a Citation III, and a Citation II air ambulance.

Source Information: Mead & Hunt, Inc.

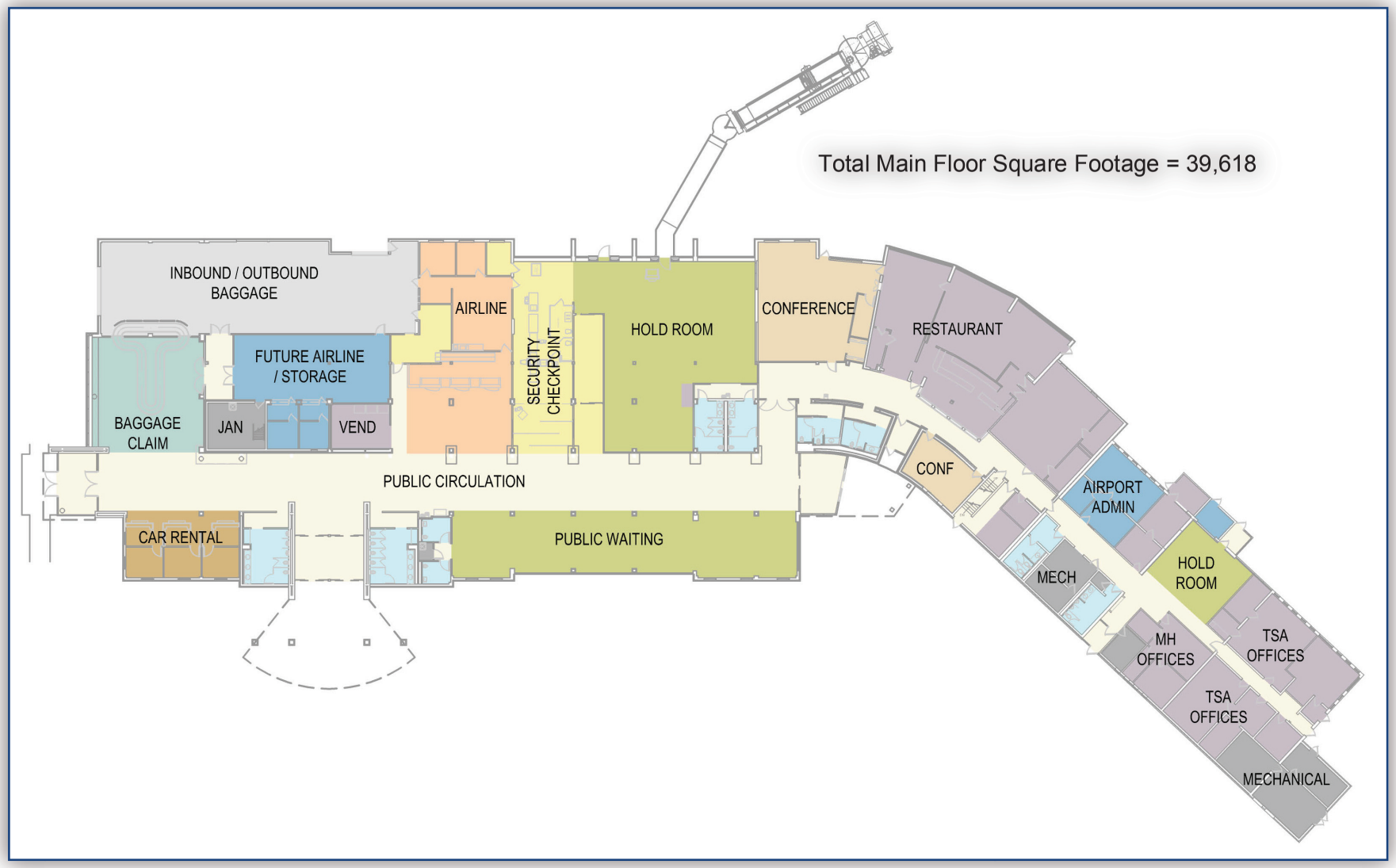

Figure 1-19 Passenger Terminal Building Main Floor Plan

Source Information: Mead & Hunt, Inc.

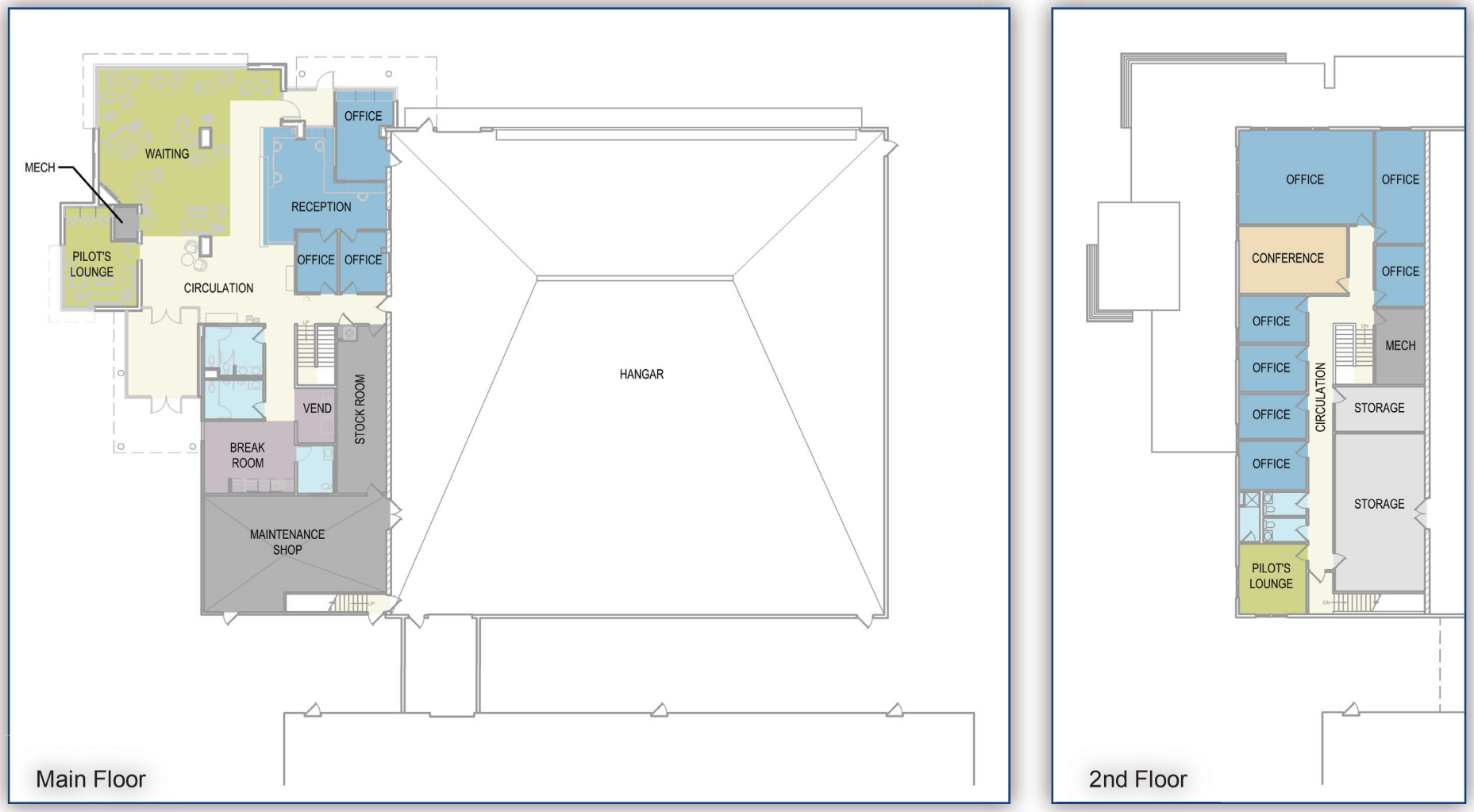

Figure 1-20 Heartland Aviation Building Floor Plans

1.3.9 General Aviation Aircraft Storage Hangar Areas

There are two GA aircraft storage hangar areas located on the Airport. One is located to the northeast of the Heartland Aviation FBO facilities, and the other is located on the south central portion of Airport property east of Runway 4/22 and west of Runway 14/32. The northeast GA hangar area is shown in **Figure 1-21** and the south GA hangar area is shown in **Figure 1-22**. Northeast GA hangar area tenants include the locally-based home improvement store chain, Menards, Inc., which stores its fleet in the M-row hangars. South GA hangar area tenants include the Mayo Clinic, which utilizes a helipad and staff quarters facility in this area in addition to its hangar.

1.3.10 Automobile Circulation and Parking

Access to the passenger terminal area is available from Starr Avenue and Melby Street. As discussed in Section 1.3.7, terminal area automobile parking facilities were completely reconstructed at EAU in 2009. Terminal long-term and short-term parking is shown in **Figure 1-23**. EAU has several parking lots in the terminal area containing a combined 565 parking spaces. A breakdown of these spaces by functional area is presented in **Table 1-13**.

Table 1-13: Automobile Parking

Functional Area	Number of Stalls
Short-Term	91
Short-Term Handicapped	4
Long-Term	337
Long-Term Handicapped	11
Car Rental	72
Employee	50
Total	**565**

Source: Mead & Hunt; Airport As-Built Drawings

1.3.11 Air Traffic Control Tower

The Airport's first air traffic control tower (ATCT) opened on November 1, 2006, and is located on the west side of the airfield. As of June 2013, the ATCT is managed and staffed under the FAA contract tower program, and is operated under a contract between FAA and Midwest Air Traffic Control. The ATCT location and height provides controllers with sufficient visibility of all controlled movement areas, including the runways, taxiways, terminal area, and airspace in the Airport vicinity. The ATCT is operated daily from 5:30 AM to 8:30 PM. Air traffic controllers located in the tower provide instructions to aircraft operating in the air and on the ground. Airborne traffic communication takes place on the 118.575 frequency and ground control communication takes place on the 120.925 frequency. The 118.575 frequency also serves as the Common Traffic Advisory Frequency (CTAF) when the tower is closed. UNICOM communications are monitored by the FBO on the 122.95 frequency.

Source Information: 2010 Microsoft Corporation and its Data Suppliers, Airport Staff

Figure 1-21 **Northeast GA Hangar Area**