

CHAPTER 2 – INVENTORY OF EXISTING FACILITIES

2.01 Study Area

An airport does not have a single unique study area that can be defined for all planning purposes. For the development of this Master Plan, the overall study area evolved from the evaluation of data from Erie County, Pennsylvania, which is depicted on Figure 2-1.

This chapter provides a description of physical characteristics of the Airport environs, existing facilities at the Airport (depicted on Figure 2-2), and other transportation facilities. A discussion of the airport service region, population trends, and industry and employment trends is included in Chapter 4, Aviation Demand Forecasts.

Erie International Airport (elevation 733 feet above mean sea level) is a primary commercial service facility which accommodates aircraft from Airplane Design Groups I, II, and III, and Aircraft Approach Categories A, B, and C. The facility has been planned and designed as a primary commercial service facility according to Federal Aviation Administration Advisory Circular (AC) 150/5300-13, *Airport Design*, to accommodate Airport Reference Code C-III aircraft, those having approach speeds up to 141 knots with wing spans up to, but not including, 118 feet.

The geographic location of the Airport is latitude 42°-04'-55.273" North, longitude 80°-10'-34.409" West, about 5 miles southwest of the City of Erie. The Airport, shown on Figure 2-2 is set on approximately 415 acres of a relatively flat area.



ERIE
INTERNATIONAL AIRPORT
TOM RIDGE FIELD



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Erie International Airport
Study Area
Figure 2-1

2.02 Climate

Erie County climate described below is based on information provided by the National Oceanic and Atmospheric Association (NOAA) and The National Weather Service (NWS).

Erie County's climate is delineated by four distinct seasons and is known to be a humid and continental type of climate. The climate is substantially influenced by Lake Erie to the northeast. This influence is most felt in the winter with "lake effect" snow. Lake effect snow occurs when arctic air travels over Lake Erie, the reaction with the warmer temperature of the water causes snow. Winters and summers have seasonal highs and lows. The average annual temperature is 57° F. Temperatures in January range from an average low of 18° F to an average high of 32° F and in July from an average low of 63° F to an average high of 80° F. Annual liquid precipitation averages 41.5 inches. Annual snowfall averages 85.5 inches. Prevailing winds are from the west-northwest during winter and from the west during summer. Due to these prevailing winds, the Atlantic Ocean does not regularly affect the weather patterns in Erie County. However, during the summer months, a tropical storm may be strong enough to cause weather disturbances in Erie.

2.03 Topography

The office of the Pennsylvania State Climatologist provides this information on Erie County's topography:

Erie is located on the southeast shore of Lake Erie and the Erie International Airport is 6 miles southwest of the center of the city and about 1 mile from the lake shore. The terrain rises gradually in a series of ridges paralleling the shoreline to 500 feet above the lake level 3 to 4 miles inland and to 1,000 feet about 15 miles inland. Bordering Lake Erie is a narrow 40-mile strip of flat, rich land 3 to 4 miles wide called the Lake Erie Plain. Fine alluvial soils and favorable climate permit intensive vegetable and fruit cultivation, which is typical of the much larger area surrounding Lake Erie.

A soils map (see Figure 2-3) depicts and identifies the specific soils found in the vicinity of Erie International Airport.



E R I E

Source: US Dept of Agriculture Soil Conservation Service
Erie County Soil Survey 1960

Key

- Ba Beach and riverwash
- Bb Beach sand, stabilized
- BcA Berrign fine sandy loam, 0-2 percent slopes
- BcB Berrign fine sandy loam, 2-8 percent slopes
- CgB Conotton coarse sandy loam, 0-8 percent slopes
- CgC Conotton coarse sandy loam, 8-15 percent slopes
- ChA Conotton gravelly loam, 0-3 percent slopes
- CmA Chippewa silt loam, 0 to 3 percent slopes
- Cm Conotton gravelly sandy loam, moderately well drained variant, 0-3 percent slopes
- Cm3 Conotton gravelly sandy loam, moderately well drained variant, 3-8 percent slopes
- Ec Escarpments
- FaA Fredon loam, 0-3 percent slopes
- FaB Fredon loam, 3-8 percent slopes
- HaA Halsey water marsh
- OaA Ottawa fine sandy loam, 0-2 percent slopes
- OaB Ottawa fine sandy loam, 2-8 percent slopes
- PaB Trumbull silt loam, 3-8 percent slopes
- RaA Rimer fine sandy loam, 0-2 percent slopes
- ScA Sloan silty clay loam, 0-3 percent slopes
- WaA Wallington fine sandy loam, 0-2 percent slopes
- WcA Wauson fine sandy loam, 0-2 percent slopes
- WdA Wayland silt loam, 0-3 percent slopes
- WiB Williamson and Collamer silt loam, 2-8 percent slopes



ERIE
INTERNATIONAL AIRPORT
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Erie International Airport

Soils Map
Figure 2-3

2.04 Access and Transportation

2.04-1 Automobile Access and Parking

The Airport has one entrance from West 12th Street into the Airport. West 12th Street is an urban arterial roadway with two lanes of traffic in each direction. To gain access to the Airport from the public highway, travelers enter at the southwest end of the automobile parking lot via a two-lane access road. Once on the Airport, the public must choose between either short-term or long-term paid lots for parking, or curb side drop-off/pick-up of passengers.

The Airport roadway system provides for one-way loop circulation in front of the terminal building. Three lanes are available within the 34-foot curb-to-curb width. The inside lane is reserved for curbside drop-off/pick-up of passengers; the outer lane is reserved for ground transportation and commercial vehicle pick-up, leaving the center lane available for circulation.

The traveling public must exit from the automobile parking lot to the northeast. A gate is located at the end of the parking lot where an attendant collects the appropriate parking fee. Once through the secure gate, vehicles must either enter on to West 12th Street, or use the interior access road to travel back to the terminal building.

The rental car parking continues to be subdivided into three areas. A ready lot is located near the new baggage claim areas just northeast of the terminal. Rental car return is on the southwest side of the terminal near the ticket lobby. Storage lots for rental cars are located northwest of the terminal adjacent to the entrance road. Employee parking is made available at the southeast end of the public parking lot, adjacent to the NOAA building’s parking area.

Public Parking Lot



Table 2-1 presents the breakdown of the 923 automobile parking spaces available at the Airport.

**TABLE 2-1
AUTOMOBILE PARKING SPACES**

Public	
Short Term	106
Long Term	<u>538</u>
Subtotal	644
Employee	
	92
Rental Car	
Ready	31
Return	36
Storage	<u>120</u>
Subtotal	187
Total Automobile Parking	<u>923</u>

Source: C&S Engineers, Inc.

The entire automobile parking area is protected by closed circuit television (CCTV), and is equipped with lighting that appears sufficient.

2.04-2 Public/Commercial Transportation

Transportation planning is a cooperative effort among the Commonwealth, regional agencies and local governments, and the public. The planning process leads to the identification of transportation projects and services that are ultimately assembled into various capital programs, as follows:

- *Transportation Improvement Programs (TIPs)*—four-year outlooks, jointly developed by local, regional, and state transportation officials, which identify specific projects and the resources to implement them. The TIPs, in turn, are incorporated into the STIP.
- *Statewide Transportation Improvement Program (STIP)*—the statewide plan required by the U.S. Department of Transportation, which includes all highway and transit projects to be implemented over a four-year period. The STIP, in turn, represents the first component of the *Twelve Year Transportation Program*.
- *Twelve Year Transportation Program*—a mid-range plan required by Pennsylvania law that incorporates the STIP and identifies other projects to be implemented beyond the four-year range of the STIP. This program, in addition to covering highway and transit projects, also includes aviation, port, and freight rail projects.

Federal highway and transit statutes require, as a condition for spending federal highway or transit funds in urbanized areas, the designation of MPOs which have responsibility for planning, programming and coordination of federal highway and transit investments. As required by 23 USC 134, a metropolitan planning organization is designated for each urbanized area with a population of more than 50,000.

Regional transportation plans reflect the specific policy objectives of each region over the next 20 or more years. Erie Metropolitan Transportation Study (EATS), the designated Metropolitan Planning Organization (MPO) for the Erie, PA (pop. 177,668) metropolitan area, developed a vision statement for Erie County’s transportation system:

“To improve the quality of life for all residents and visitors of Erie County by developing, operating and maintaining a safe, efficient, user friendly, intermodal transportation system that enhances mobility, economic vitality, and is innovative, affordable and environmentally responsible.”

In response to recent legislation (ISTEA and TEA-21), the goal of the MPO/County is to enhance mobility for the entire population, including elderly, the work force, handicapped, pedestrians, bicyclists and commuters. The Erie County Transportation Plan includes recommendations for improving the existing highway network, transit system, rail, air and port transportation, and bicycle/pedestrian facilities; and outlines improvements that are needed in Erie County’s transportation system through the year 2015.

The following is a summary of the existing transportation system surrounding Erie International Airport as well as future planned improvements resulting from recommendations by the MPO to enhance the intermodal capability within the Erie Metropolitan area. Some or all of the recommendations, including the proposed extension of Runway 6-24 and the relocation of Powell Avenue to accommodate the extension, are included in the Pennsylvania State Transportation Commission's 1999 Twelve Year Transportation Program.

ERIE-WESTERN PENNSYLVANIA PORT AUTHORITY

The Port of Erie is located on the southeast shore of Lake Erie in Presque Isle Bay, approximately 7 miles northeast of Erie International Airport. It is one of three Pennsylvania ports and the only Pennsylvania port on the Great Lakes/St. Lawrence Seaway system.

The Port of Erie facilities include the Mountfort Terminal (which handles the Port's general cargo) and a 110,000 square foot warehouse. Additional facilities include 22 acres of security-controlled, well-lit and paved outside storage, and 50 additional acres available to accommodate any cargo needing specialized handling. The Port operates a 300-ton stiffleg derrick crane complemented by three high-capacity, heavy-lift cranes. The Port also has forklift capacity to 52,000 pounds.

According to Mountfort Terminal Tonnage Report for the period January – April 2000, a total of 46,139 tons of freight were exported and 2,558 tons were imported through the Port of Erie. More than 600,000 tons of materials, including stone, sand, salt, shingles and drywall, came into the Mountfort Terminal during 1999. That's more than double the 234,000 tons that came into the port six years ago. Freight is then diverted by rail or truck to outlying destinations from the Port. According to the Mountfort Tonnage Report through December 1999, of the approximately 600,000 tons of material imported through the terminal, 3,331 tons were diverted by truck, 5,204 tons by truck and rail, and 1,129 tons by rail alone. Of the approximately 17,274 tons exported, 13,800 were transported by truck and 3,474 by rail car.

A comparison of month of May total tonnage of imports/exports averages through the Port of Erie from May 1995-May 2000 is summarized in Table 2-2:

**TABLE 2-2
MOUNTFORT TERMINAL TONNAGE
MONTH OF MAY AVERAGES (MAY 1995-MAY 2000)**

TO:	5/1/00	5/1/99	5/1/98	5/1/97	5/1/96	5/1/95
SHIPS	3	5	4	2	2	1
Imports	46,139	83,083	46,339	41,499	48,664	21,634
Exports	2,558	3,353	775	0	0	0
TOTAL	48,697	86,436	47,114	41,500	48,664	21,634

Source: Erie-Western Pennsylvania Port Authority

There is a rail spur to the Port of Erie, which is owned partially by the Port Authority, and the remainder (from CSX line to the Bayfront Parkway) is owned by CSX Transportation. CSX Railroad services the pier three times a week.

Recommended intermodal improvements by the MPO in the *1998 Erie Metropolitan Transportation Study Long Range Plan Update* include enhancing multi-product shipping diversity by improving intermodal connections to the Port of Erie Terminal. Consequently, a two-lane industrial access road between Bayfront Parkway and the Port Authority Terminal is proposed.

TRUCKING INDUSTRY

The Council of Great Lakes Governors states that “The trucking industry has made the Great Lakes states the center of activity, assisted by the region’s 10,641 miles of U.S. interstate, which is 23.3% of the total mileage for the interstate system. The top four states for truck shipments in the United States are Illinois, Ohio, Pennsylvania, and Indiana.”

In 1998, Erie, Pennsylvania accounted for \$621 million dollars worth of export sales with a 99.4 percent increase over 1993 (US Bureau of the Census, Exporter Location Series). Exports were primarily to NAFTA countries Canada and Mexico.

According to the 1993 Commodity Flow Survey compiled by the Census Bureau, most commodities (81 percent of the value and 72 percent of the weight) were moved by trucks in the State of Pennsylvania. In 1997, a trend toward rail shipping is shown in Table 2-3 for the Commodity Flow Survey compiled by the Census Bureau for the 1997 Economic Census.

**TABLE 2-3
SHIPMENT CHARACTERISTICS BY TOTAL MODAL ACTIVITY FOR
THE STATE OF PENNSYLVANIA FOR 1997**

Mode of transportation	Ton-miles Number (millions)	Percent	Average Miles per shipment
Total	75,870	100.00	479
Truck	41,954	55.3	106
Rail	21,906	28.9	568
Shallow draft	5,522	6.9	779
Great Lakes	258	.3	618
Deep draft	S	S	6,976
Air	203	.3	1,158
Parcel, U.S. Postal Service or courier	945	1.2	820
Pipeline	S	S	S
Other and unknown modes	2,690	3.5	73

-Represents data cell equal to zero or less than 1 unit of measure.

-D Denotes figures withheld to avoid disclosing data for individual companies

-S Data do not meet publication standards because of high sampling variability or other reasons. Some unpublished estimates can be derived from other data published in this table. However, figures obtained in this manner are subject to these same limitations.

¹ Data represent activity for a given mode across single and multiple mode shipments. For example, “Truck” ton-miles includes total ton miles for shipments moving by truck only plus ton-miles for truck segments only of multiple mode shipments.

Source: US Census Bureau, 1997 Economic Census, 1999

RAILS

Approximately 70 trains pass through Erie, PA daily. Two adjacent railroad lines run along the southern edge of the airport property line. The two lines are part of the larger northeast rail system with lines that run along the Lake Erie shoreline between Buffalo, NY and Cleveland, OH. The southern-most line is owned and operated by Norfolk Southern Corporation. The northern-most line is owned and operated by CSX Transportation. Norfolk Southern and CSX Railroads transport and ship freight via these rail lines.

Norfolk Southern and CSX are Class I Railroads that own and operate terminals out of both Buffalo and Cleveland. CSX has intermodal terminals at both Buffalo and Cleveland locations. Norfolk Southern owns a warehouse for distribution services operated by Alcor Corporation on Pittsburgh Avenue just east of the Airport. About 50 companies in the region ship or receive commodities by rail. CSX's operation in Erie alone accounted for 12,000 rail carloads a year.

Amtrak operates daily service out of a passenger terminal in downtown Erie, PA, about 5.6 miles northeast of the Airport. This passenger route, known as the Lake Shore Limited utilizes the CSX rail line.

Planned improvements include the relocation of Norfolk Southern's 19th Street rail line to a new track along CSX's elevated right-of-way between 14th and 15th streets. In addition, the MPO has found that a local commuter rail and regional high-speed rail service are not feasible during the next 20 years.

ROADS/HIGHWAYS

Ground access to Erie International Airport is via West 12th Street (State Route 5). West 12th Street is a four lane arterial route that runs from downtown Erie, parallel with the Lake Erie shoreline along the north side of the Airport. The Airport is bounded on the west side by Asbury Road and on the east side by Powell Avenue. Erie International Airport is easily accessed from Interstate 90 using the Interstate 79 (north) exit, and then West 12th Street.

Roads and highways that are immediately adjacent to or connecting to Erie International Airport are recommended for capacity improvements. Heavy investment in waterfront development along the Bayfront District and improvements to the highway infrastructure along the Bayfront Parkway northeast of the Airport have been influential in traffic increases. Direct connections to the Airport that are slated in the MPO *1998 Erie Metropolitan Transportation Study Long Range Plan Update* include widening and adding center turn lanes to 12th Street, 26th Street and 38th Street. In addition, the relocation of Powell Avenue and the bridge over the railroad tracks is slated in the traffic equation for intermodal improvements because of the proposed runway extension at the Airport.

PUBLIC TRANSIT

Erie Metropolitan Transit Authority (EMTA) manages public transit in Erie. EMTA serves a population of approximately 187,814 people within an 80 square mile service area. The EMTA operates 44 buses during maximum service.

There presently are two bus lines that offer public transportation to and from the Airport terminal building. Route #1 is split into two different runs, one that arrives at the Airport via West 12th Street and one that utilizes 8th street. The daily service to/from the terminal operates every 35 minutes.

Planned transportation enhancements for public transit include an Intermodal Transportation Complex located in the Bayfront development district on the Presque Isle Bay south shore. It will be chiefly transit-oriented. The complex includes a new customs building and immigration building. The complex is anticipated to be a transit hub located near Presque Isle slips for ferry taxiing service. It is connected to the water ferry facilities, which are under Erie-Western Pennsylvania Port Authority proprietorship. Other planned actions include Bayfront Park and Ride facility and shuttle services with new 22-passenger shuttle CNG buses.

OTHER TRANSPORTATION FACILITIES

Taxi service is provided to the Airport by the Erie Yellow Cab Company. There are additionally national and regional charter motor coach operators in the Erie Metropolitan Area. These include Greyhound Bus Lines, Blue Bird Coach Lines, Gray Line of Niagara Falls, Ringsway Bus Lines and Rainbow Tours of Niagara.

2.05 Airport Vicinity

In the immediate vicinity or close proximity to the Airport are several properties, discussed in this section.

Fenestra Corporation Building

2.05-1 Fenestra Building

The Fenestra Corporation building lies adjacent to airport property along the railroad tracks and along the southern border of the airport at 4040 West 20th Street. Fenestra Corporation manufactured steel doors at the site between 1980 and 1994. As part of a settlement related to violations of the state's Solid Waste Management Act, Fenestra Corporation must donate the 8.9 acre property and the



building to the Erie Airport Authority. The approximate size of the Fenestra building footprint is 180,000 square feet. Because of the site's adjacency to both the airport and railroad tracks, this acquisition is important to the future development plans of the Airport. The area could be marketed (considering the higher time sensitivity for air freight) for continued growth of freight in the area.

UTILITIES

The City of Erie provides water to the Fenestra building. There is an existing 12-inch diameter water main that runs along Powell Avenue. An 8-inch diameter line extends down West 20th Street from Powell Avenue and services the Fenestra building with a 4-inch diameter connection to the building's water system. The water line on West 20th Street terminates at the Fenestra building.

The Millcreek Sewer and Water Authority provides sanitary sewer service to the Fenestra building. A 15-inch diameter pipe constructed of tile runs west down 20th Street from Powell Avenue. Fenestra is served by this main which continues underneath Runway 6-24 and connects with the subdivision that is located north of the runway.

According to the Millcreek Sewer and Water Authority there is no storm sewer service at the Fenestra site or along West 20th Street. There have been reports of drainage problems along West 20th Street causing basement flooding of the Fenestra building.

Natural gas service is provided by National Fuel. There is an 8-inch, medium pressure (25 lbs/square inch) gas main constructed out of steel that runs along the west side of Powell Avenue. A 4-inch medium pressure line runs down West 20th Street from Powell Avenue. A 195-foot stub connects Fenestra to the 4-inch gas line. The natural gas utilities are inspected annually and are in good condition.

2.05-2 Mobile Home Parks

Due to the close proximity of two existing mobile home parks to the Airport, the following is an overview of both parks. The first is the Riviera Estates, located on West 14th Street between Marshall and Linden Streets, northeast of the Airport. Riviera Estates, managed by Mobile Home Park Management, has been in business for approximately 25 years at its present location. The homes are located on three separate parcels according to Millcreek Tax Map. Two lots (#168 and 171) zoned for business currently have mobile homes that were existing there before it was zoned.

**TABLE 2-4
RIVIERA ESTATES MOBILE HOME PARK**

Parcel	Acres	Zoned	Number of Homes
Lot# 169	4.3	C-residential	45
Lot# 168	4	B-business	21
Lot# 171	<u>3.5</u>	B-business	<u>32</u>
Total	11.8		98 Homes

Source: C&S Engineers, Inc.

According to Mobil Home Park Management, each home is on a separate lot, which is rented month-to-month with no signed leases. Residents own the homes and have full responsibility to maintain them. Approximately half of the homes are considered new (built 1990 or newer) and half are considered older (built 1970’s or 80’s). The general condition of the homes at Riviera Estates are fair to good.

The second mobile home park is called Orchard Park Estates and is located off of Wilkins Road, southwest of the Airport. Orchard Park Estates has homes located on three streets off of Wilkins Road. The entire property is zoned C-residential. Each home is located on its own lot, which is rented month-to-month with no leases. The homes are owned by the residents who have the responsibility to maintain them. Most of the homes located at Orchard Park Estates are considered new and are in good condition.

**TABLE 2-5
ORCHARD PARK ESTATES MOBILE HOME PARK**

Parcel	Acres	Zoned	Number of Homes
Block# 130 Lot# 1	20	C-residential	13 homes on Elderwood 12 homes on Ironwood 13 homes on Jadewood
Total	20		38 Homes

Source: C&S Engineers, Inc.

2.05-3 Airport Property Map

As part of the planning process, a map of the existing property owned by the Erie Municipal Airport Authority was developed from certain deeds and plans of record. This property map is not intended to indicate an actual boundary survey of the Airport. Existing avigation easements owned by the Airport as of January 2000, are also shown on the map.

The information gathered on the existing airport property is reflected on the Airport Layout Plan. Once shown on the ALP, the information can be augmented to indicate what, if any, future land and avigation easements will be necessary to accommodate the future development plans for the Airport. (See Chapter 7 for complete set of final master plan drawings, including the airport property map.)

2.06 Erie International Airport-Landside Facilities

The landside facilities at Erie International Airport are composed of the terminal building, the terminal apron and general aviation aircraft parking apron, support buildings, and several aircraft storage hangars. These facilities are shown on Figure 2-2.

The availability, location, and condition of existing facilities on the property will influence a development plan for the Airport. Thus, an inventory of buildings on the airport property was taken. The inventory considered a number of factors, including building condition, size, use, and composition. The buildings inventoried include administrative, commercial, and hangar facilities. Refer to Table 2-6 for a summarization of the buildings found at ERI.

The administrative buildings at ERI include the terminal building, which houses the airport administration, FAA offices, police and security administration, and Air Traffic Control Tower (ATCT). The Maintenance/Airport Rescue and Fire Fighting (ARFF) building has office space as well. The Maintenance/ARFF building is constructed of masonry block and in poor condition. The building has been added on to several times. The newest addition is a three-bay ARFF section that is in good condition. The remaining nine garage bays house repair equipment and facilities vehicles. These spaces are cramped, sustaining damage because of the tight quarters, have poor drainage, and no oil/water separators in place. The terminal complex is described in detail in a following section.

The majority of the non-hangar airport buildings are constructed out of masonry block with wood or steel interior frame construction. Buildings # 5, 6, and 7 are single-story buildings and are generally in fair to good condition. These buildings contain rental car businesses.

North Coast Air, the Fixed Base Operator (FBO), operates out of Hangars # 8, 10, 22 and 23, which are all large conventional hangars with areas of 13,825, 16,000, and 12,000, and 10,000 square feet, respectively. The hangars are constructed out of metal and are in good condition. Hangar #8 also has a small addition with office space attached to the hangar. North Coast Air owns T-hangars #17 and 18. There is failed asphalt pavement around all the T-hangars. Refer to Table 2-6 for a summary of the facilities and their condition.

Erie Aviation owns hangars # 11 and 12 which are also conventional hangars constructed of metal with areas of 8,000 and 5,950 square feet, respectively. Both of these hangars also have small additions with office space attached. Erie Aviation also owns hangar #9, a large conventional hangar that is approximately 16,000 square feet in size. The pavement condition around the conventional hangars is fair.

**TABLE 2-6
LANDSIDE FACILITIES CHARACTERISTICS**

Facility	Size	Condition	Composition	Description
Bldg.1	40,497sf	fair	masonry block/metal	Terminal/ATCT/admin
Bldg.2	3,600sf	fair	masonry block	F.I.S. Customs
Bldg.3	16,500sf	fair	masonry block	ARFF/maintenance
Bldg.4	3,000sf	fair	masonry block	Weather Bureau
Bldg.5	600sf	good	masonry block/metal	Budget
Bldg.6	1600sf	good	masonry block/metal	National
Bldg.7	1500sf	good	masonry block/metal	Avis
Bldg.8	13,825sf	fair	metal	FBO-offices (NCA*)
Bldg.9	16,000sf	fair	metal	Conv. hangar (EA*)
Bldg.10	16,000sf	fair	metal	FBO-conv. hangar (NCA)
Bldg.11	8,000sf	fair	metal	Conv. hangar (EA)
Bldg.12	5,950sf	fair	metal	Conv. hangar (EA)
Bldg.13	500sf	fair	metal	Fuel Facility
Bldg.14	150sf	fair	metal	Electrical vault
Bldg.15	—sf	fair	metal	Generator 6-24
Bldg.16	800sf	fair	wood/metal	FAA
Bldg.17	11,200sf	fair	metal	T-Hangar
Bldg.18	11,200sf	fair	metal	T-Hangar
Bldg.19	11,200sf	fair	metal	T-Hangar
Bldg.21	4,000sf	fair	metal	Fuel facility (NCA)
Bldg.22	12,000sf	fair	metal	FBO-conv hangar (NCA)
Bldg.23	10,000sf	fair	metal	FBO-conv hangar (NCA)

*EA-Erie Aviation

*NCA-North Coast Air

Source: C&S Engineers, Inc.

2.06-1 Passenger Terminal Complex

PASSENGER TERMINAL BUILDING

The passenger terminal building was originally constructed in 1956. Numerous modifications and upgrades to the terminal have taken place over the 44 years since the Airport began operating a passenger terminal complex.

The most recent upgrade has been the completion of a new 7,600 square-foot baggage claim area at the north end of the terminal. The new baggage claim area was open for passengers in December 1999. Refer to Figure 2-4 for a map of the terminal floor plan.

The passenger terminal building is generally divided into areas as shown in Table 2-7.

Baggage Claim Area (north end)



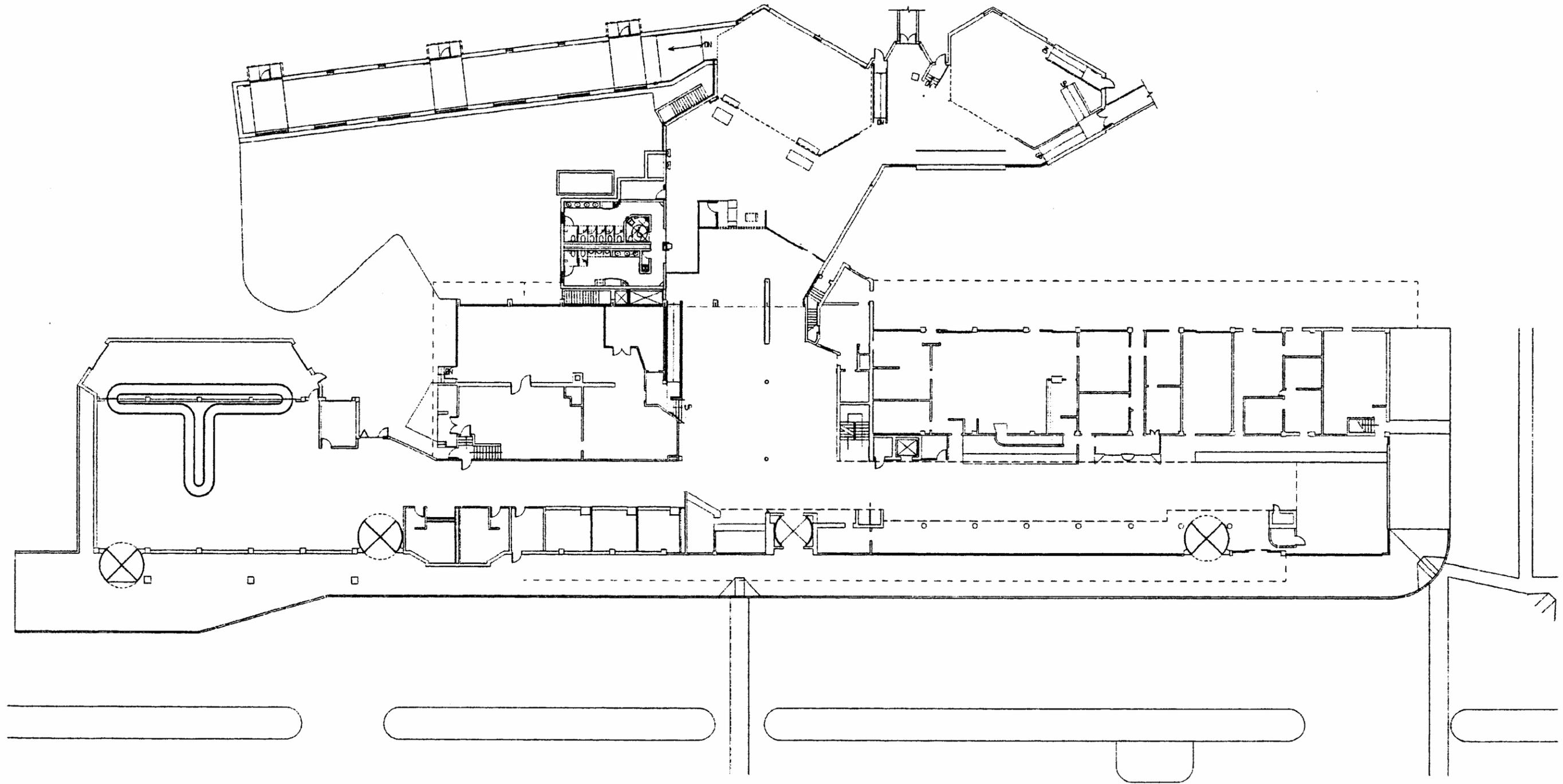
**TABLE 2-7
PASSENGER TERMINAL BUILDING
AREAS**

Basement Level	
Unexcavated	6,300 sf
Electrical Equipment	2,310 sf
Transformer Vault	450 sf
Building Maintenance	680 sf
Circulation Space	610 sf
Storage Space	1,675 sf
Ground Level	
Airport Police/Security	470sf
Airline Tenant Space	6,307 sf
Concessions Tenant Space	4,748 sf
Public Space – Secured	8,330 sf
Public Space – Non-secured	11,597 sf
Support Space	470 sf
Second Floor	
Airport Administration	1,593 sf
FAA Facilities Offices	4,880 sf
Third Floor	
FAA Area	1,415 sf
Fourth Floor	
Control Tower Cab	312 sf

Source: C&S Engineers, Inc.

The total enclosed area for the passenger terminal building is approximately 40,497 square feet according to the *Terminal Area Accessibility Analysis and Terminal Area Master Plan* completed in January 1995. The Terminal Area Master Plan does not include the recent construction of the baggage claim which consists of 7,600 square feet.

The basement level of the terminal houses the terminal’s HVAC controls, telephone, and electrical equipment. Hot water boilers and steam-generated heat provide the heat source for the entire terminal. The boiler uses natural gas as an energy source. The boiler and natural gas meters are both located on the basement level of the complex. Air conditioning is supplied to the complex by roof-top-mounted units.



Electrical Vault

The power source for the airfield lighting originates from an electrical vault located on the basement level. The electrical vault is in a rather confined and cluttered space. The FAA has an emergency generator located within a fenced area adjacent to the electrical vault. The generator provides backup power for the main runway lighting system only.



Upon entering the terminal building, enplaning passengers will find themselves in a central public lobby area. To the right, a ticket lobby extends the length of the terminal building with airline ticketing, airline offices, and a baggage check-in area. To the left there is a baggage claim area, a restaurant and gift shop, and restrooms. Straight ahead one would pass through a security area into the departure lounge for airline service. The departure lounge is complete with airline service desks, seating areas, restrooms and phones.

Central Public Lobby Area



Aircraft boarding is provided on the ground level of the terminal. Passengers board aircraft through either of the two elevated loading bridges extending up from a secured first floor departure lounge. Passengers may also board walking out on the ramp to the aircraft through one of the four gates located at ground level.

The Authority is currently undertaking a project to improve the overall aesthetics of the passenger terminal building.

Doors, windows, ceilings, and wall covering are being replaced to improve the atmosphere for the traveling public and visitors.

USAirways, Northwest AirlinK, and Continental Express provide commercial airline service. North Coast Air also provides service from the FBO facility located southwest of the terminal building. National Car Rental, Avis, and Budget operate rental car companies. Rental Car companies are located within the central lobby of the terminal building.

The passenger terminal building provides passengers with public amenities including a restaurant, bar, and a gift shop located in the central lobby of the terminal. Additional amenities such as public telephones, restrooms, and beverage concessions are all located within or adjacent to the central lobby of the terminal.

Airport police offices are located adjacent to the central lobby of the terminal. The offices provide space for the security cameras for the airport as well as for the Chief of Police and other officers. The office space is confined and is inadequate in size for the services being provided by the police. The shortage of space for the airport police is due to growth of personnel and equipment over the past two years. The space that the offices are in also serve as a storage and training facility. The airport police central location at the Airport is required for a quick response time to tenants, boarding areas, and ARFF emergencies.

The airport administration offices are located on the second floor of the terminal. The space consists of offices for the Executive Director, Assistant Director, Accounting, and Administrative Assistant. A conference room and a small storage area/kitchen are also located on the second floor. Additional administrative and storage space is needed for supplies and office support equipment, such as copiers.

Within a secured area adjacent to the airport administration offices, the FAA has office space allocated to them. Office space is provided for Airways Facilities and Air Traffic Control personnel, and two TRA-CON rooms. The public is restricted from gaining access to this part of the terminal. The office space appears to be adequate for the services being provided by the FAA.

The third floor of the terminal is reserved for equipment and two maintenance rooms for the FAA control tower cab. The third floor is restricted from public access and is used by authorized airport personnel and the FAA only.

The fourth floor contains the FAA control tower cab for the Airport. This floor is also a secured area restricted from the public. As part of the inventory it was also noted that the existing airfield lighting control panel has exceeded its useful life and is in need of replacement.

UTILITIES

The Airport is currently supplied water from the City of Erie’s Water Authority and water system. A six-inch diameter water line serves the terminal complex from a water main running along West 12th Street. The passenger terminal complex is served by a six-inch diameter sanitary sewer line connected to the city’s trunk line. Natural gas is supplied to the terminal building by National Fuel Gas; a natural gas line runs from West 12th Street to the meter room on the basement floor of the terminal. GPU supplies electric power to the airport via above-ground power lines running from West 12th Street to Grant Avenue, then underground to the weather bureau, terminal building, and the remaining areas on the Airport.

TERMINAL MASTER PLAN

A Terminal Area Accessibility Analysis and Terminal Area Master Plan was completed in January 1995, by Edward Just Associates, in cooperation with the Pennsylvania Department of Transportation, Aeronautics Division.

The recommended approach for meeting the aviation demand was for a phased expansion and renovation of the existing complex, with incremental capacity increases as required to meet that demand.

The implementation program focused on the upgrade of utilities and improvements related to the Americans with Disabilities Act (ADA). The program consisted of four phases:

- Phase 1- Modernization of the central lobby and ticketing lobby, as well as a curb canopy, signing, graphics, and entry vestibules.
- Phase 2 – Expansion of the baggage claim wing with relocated car rental facilities.
- Phase 3 – Expansion of the gate and passenger holding area, as well as second level passenger loading capabilities.
- Phase 4 – An open-ended capacity expansion program allowing particular components to be expanded as required.

The Authority has implemented many components of Phase 1 with the exception of a new curb canopy due to funding constraints. Construction has recently been completed on Phase 2 of the program. As funding becomes available Phases 3 and 4 will be implemented according to the Authority.

The Terminal Master Plan also made recommendations for vehicle circulation improvements and additional public parking capacity. To date the Authority has not implemented the recommendations outlined for improving the road system and auto parking capacity.

2.06-2 Aircraft Parking Apron

The Airport's primary aircraft parking apron is located on the south side of the terminal complex. This apron is where the commercial aviation activity is handled. Additional aircraft parking apron is available for corporate and general aviation activity adjacent to the fixed base operator's conventional hangars.

The aircraft parking apron is approximately 22,000 square yards. All aircraft arriving or departing the apron must utilize either Taxiway B, C, D, E, or F. The apron was originally constructed of 10-inches of concrete and is in good condition. The apron was expanded by 3,000 square yards in 1997, to accommodate the installation of a deicing facility. Two-thousand square yards of deteriorated slabs elsewhere on the apron were also replaced at that time. All new concrete pavement was constructed of 14-inch concrete and is in excellent condition.

The apron currently has aircraft parking positions available for five commuter airlines and two major airlines. Two elevated passenger loading bridges are available for the major airlines to use during arrivals and departures.

Aircraft Parking Apron

The terminal building has apron lighting installed adjacent to the face of the building and extending above the roof to illuminate the aircraft parking apron. The aircraft apron lighting appears to be adequate.

An aircraft deicing system was completed in 1998, to address run-off of deicing fluid during the winter months. The effluent from the deicing operations is pumped into an 18,000-gallon storage tank. The local sewage treatment plant allows for a metered release of the effluent into the sanitary sewer.



2.06-3 Airport Support Areas

AIRPORT MAINTENANCE AND EQUIPMENT BUILDING

The original airport maintenance building was constructed in 1959, at the same time as the passenger terminal building. Over the years, the building has undergone two major additions. Three vehicle bays were constructed in 1988, on the south end of the building to accommodate the Airport's ARFF vehicles. As part of the same project, two vehicle bays were also constructed on the north end of the building for maintenance equipment.

The building consists of a steel structure, concrete block with a brick facade, and a flat built-up roof system. In 1998, the Airport renovated the interior by installing new lighting, ceiling, doors, and heating system. The recent renovation project was intended to bring the building in compliance with existing regulations.

Airport maintenance equipment and personnel occupy 9,000 square feet at the northern end of the building. The Airport currently has 7 full-time maintenance personnel who also serve as ARFF personnel. The Airport also employs one full-time airport equipment specialist, one full-time terminal maintenance position, and one part-time terminal maintenance person. In addition, all the airport police and security officers are cross-trained in ARFF. The Airport has the necessary level of personnel on staff 24 hours a day.

Airport Maintenance Equipment



Table 2-8 lists the major pieces of maintenance equipment for the airport.

**TABLE 2-8
AIRPORT MAINTENANCE EQUIPMENT**

Equipment Type	Quantity
Snow blowers	2
Snow plows with wing (one includes a chemical spreader)	2
Snow plow without wing	1
Front-end loader	1
Runway sweepers	2
Dump truck (1 ton)	1
Tractors	2
Mower	1
Street sweeper	1
Pick-up trucks	2

Source: C&S Engineers, Inc.

Equipment is maintained inside the building as well. Maintenance personnel’s tools and repair equipment are located in front of many of the trucks and plows making circulation around the shop area difficult and confined. The maintenance building also has a small office area where personnel track weather information as well as aviation activity. A lounge area and locker room/restroom are also provided for personnel who are on duty.

The Airport also stores approximately 20 cubic yards (cy) of sand inside one of the vehicle bays at the north end of the maintenance building. The sand is used on the airfield during the winter months to improve traction on the pavement. The sand is delivered by 10-wheeler

dump trucks, off-loaded inside the vehicle bay, and stockpiled inside the building via front-end loader. Considerable damage to the maintenance building has taken place over the years by utilizing the vehicle bay as a sand and road salt storage facility. Damage to the existing concrete block wall and overhead doorway can be readily seen. The Master Plan will make recommendations for alternate facilities for the storage of sand.

Numerous miscellaneous equipment that cannot be stored inside the maintenance building because of lack of space is kept outside adjacent to the building. In addition, 2500 and 1500 gallon HDPE above-ground storage tanks are located at the northern end of the building. The storage tanks are filled with runway deicing fluid. Also stored at the northern end of the building are extra materials needed by maintenance personnel.

Maintenance Building Damage



AIRPORT RESCUE AND FIREFIGHTING BUILDING

The requirements for Airport Rescue and Fire Fighting (ARFF) services at an airport are established under Federal Aviation Regulations (FAR) Part 139-*Certification and Operations: Land Airports Serving Certain Air Carriers*. FAR Part 139.315 establishes a system of indexing airports that are regularly served by scheduled passenger service aircraft. The overall length of the aircraft having five or more daily departures determines the airport's ARFF index.

Outside Storage at Maintenance Building



The Airport currently operates as an Index B facility. Index B includes aircraft more than 90 feet and up to 126 feet long. An Index B classification means that the airport must have either one truck that can carry 500 gallons of extinguishing agent and 1500 gallons of water along with the commensurate quantity of ARFF for foam production or two trucks, one that transports the extinguishing agent and a second that transports 1500 gallons of water and the above mentioned quantity of ARFF.

The Airport’s ARFF equipment occupies the remaining 4,500 square feet at the southern end of the maintenance building. The closest staffed station fire support comes from Engine 11 located approximately 5 miles away, and Engine 12 located approximately 7 miles away from the Airport.

The Airport currently has the following ARFF equipment:

- 1976 Walters Fire Truck - 500 gallons of water, 200 gallons of foam, 500 pounds of dry chemical, poor condition.
- 1978 Walters Fire Truck - 1800 gallons of water, 300 gallons of foam, fair condition.
- 1990 E-One Fire Truck – 1500 gallons of water, 250 gallons of foam, 500 pounds of dry chemical, good condition.

ARFF Equipment



The ARFF vehicles at the Airport currently meet FAR Part 139 certification requirements according to Airport personnel. Bulk storage for all three vehicles is stored within the vehicle bays of the ARFF building. Emergency supplies as well as firemen’s clothing are also contained within the vehicle bays. The building is kept clean and neat considering the necessary supplies that are stored within the building. Limited circulation around the vehicles is available within the bays of the ARFF building.

AIRCRAFT FUEL STORAGE FACILITIES

Aviation fuel storage at the Airport is handled by the fixed base operator as shown in Table 2-9.

**TABLE 2-9
AVIATION FUEL STORAGE**

Northern fuel farm	Gallons
Avgas	12,000
Jet A	12,000
Diesel	500
Gasoline	500
Southern fuel farm	
Jet A	15,000
Jet A	15,000
Glycol	10,000

Source: C&S Engineers, Inc.

Fuel Storage Facilities



The fuel storage facilities are located south of the FBO conventional hangars and east of the existing T-hangars.

Fuel storage is centrally located to the general aviation hangar area on the Airport. Taxiways D, H and B provide easy access to the fuel area. In addition to the Northern and Southern fuel farms, North Coast Air also owns four fuel trucks, two Jet A trucks with 3,000 and 3,200 gallons of capacity

and two AVGAS trucks with 750 gallons of capacity each. All the trucks are in good condition.

Refer to Table 2-10 for a complete summary of storage tanks at the Airport.

**TABLE 2-10
FUEL STORAGE TANKS SUMMARY**

Erie International Airport				
Fac. ID #2518900	Tank ID	Use	Capacity (gallons)	Date installed
	1A	Heating Oil	1,500	Dec-94
	7	Gasoline	4,000	Nov-90
	8	Diesel	6,000	Nov-90
North Coast Air				
Fac. ID #2591534				
	1A	100LL	12,000	Oct-96
	2A	Jet A	12,000	Oct-96
	3A	Gasoline	500	Oct-96
		Diesel	500	Oct-96
	001A	Jet A	15,000	Oct-96
	002A	Jet A	15,000	Oct-96
	003A	Glycol	10,000	Oct-96

Source: C&S Engineers, Inc.

All of the storage tanks used at the Airport are in good condition. All the tanks in use have current registrations that are valid through the year 2000. North Coast Air and the Airport both own the storage tanks they use and are responsible for their maintenance and registration status.

Customs Building

CUSTOMS BUILDING

The United States Customs occupies a 1500 square-foot building southwest of the terminal building. The building was completed in 1995, and is constructed of concrete block with a flat built-up roof. Custom agents occupy the entire building which includes:

- Office space
- Inspection area/lobby
- Storage rooms
- Restrooms
- Kitchenette area



In general, the building is in excellent condition and is in no apparent need of modifications or renovations at the present time.

The Customs agents utilize the entire building and do not appear to need additional space within the building to perform their duties.

Due to the close proximity of the glycol effluent storage tank to the customs building, the electronic controls for the deicing collection system are also located in a closet space within the inspection room of the customs building.

Electronic Controls for Deicing



WEATHER BUREAU BUILDING

The National Oceanic and Atmospheric Administration (NOAA) building is located northwest of the passenger terminal building. NOAA's primary function at the airport is to provide up-to-date weather information to the NOAA office in Cleveland, the Airport and the local community.

The building is constructed of concrete block with a brick facade, a built-up roof system and is approximately 2,500 square feet in area. Currently NOAA has only one staff person stationed at the facility. The building has numerous offices, weather reporting stations, storage room, restrooms, and lounge area. In general, the building is in excellent condition. The space in the building is excessive in size for the number of personnel currently stationed in the

facility. Access to the weather bureau is through the main entrance to the Airport, then proceeding into the employee parking area. Vehicle parking is located adjacent to the building.

The weather radio tower is located between the employee parking area and the NOAA facility. The radar tower is the responsibility of NOAA.

DEICING COLLECTION SYSTEM

Deicing Agent Storage Tank

Federal Environmental Protection Regulations require that airports using deicing fluids to remove ice from aircraft have in place the ability to collect and dispose of the deicing agent in accordance with federal regulations. The Airport completed the construction of a Glycol Recovery System in 1998. The Airport currently uses a potassium acetate-based deicing agent called Cryotech E-36 that performs in the same manner as glycol does through the recovery system. The deicing recovery project involved cooperation among many state and federal agencies and the airlines.



The collection system consists of a series of inlet structures located on the aircraft parking apron. Each inlet structure has valves allowing redirection of the flow of E-36 from the apron to a below-ground holding tank located adjacent to the parking apron. Periodically, the E-36 will be pumped from the below-ground holding tank to an above ground 18,000-gallon storage tank. The above ground storage tank has the capability to release the E-36 into the sanitary sewer system at a rate of 20 gallons per hour.

The airlines are responsible for deicing aircraft at the Airport. According to airport personnel, the deicing recovery system is working as designed. The Airport has been able to offer increased service as they become familiarized with how the system best works.

In 1998, the Airport used approximately 500 gallons.

In 1999, the Airport used approximately 1,500 gallons.

In 2000, the Airport used approximately 3,000 gallons.

The Airport is responsible for the overall compliance with federal regulations regarding the use and disposal of Potassium Acetate E-36. Cryotech E-36 is authorized for use at airports by FAA Advisory Circular 150/5200-30A. Both the recovery system and the 18,000 gallon above ground storage tank are in good condition. Registration for the storage tank is not necessary according to the PADEP. Similarly, the EPA's Spill Prevention Control and Countermeasures (SPCC) program only monitors tanks containing petroleum products.

2.07 Erie International Airport-Airside Facilities

This section describes the airside facilities at Erie International Airport, which include two runways, a taxiway system, and navigational aids. Runway 6-24 is the primary runway. Runway 24 is used approximately 70% of the time and Runway 6 30% of the time for air carrier, air taxi, corporate jet, twin turbine, and military aircraft operations. Approximately 5% of twin piston and single piston operations occur on Runway 20 and 1% on Runway 2. The remainder of twin and single piston aircraft operations are split two-thirds on Runway 24 and one-third on Runway 6.

2.07-1 Runways

Erie International Airport is equipped with a two-runway system, with runways designated 6-24 and 2-20. This runway system and its physical characteristics are shown in Table 2-11.

**TABLE 2-11
RUNWAY SYSTEM CHARACTERISTICS**

Characteristics	6-24	2-20
Category	Transport	Transport
Use	Primary	Secondary
ARC	C-III	B-II
Length	6,505'	3,530'
Width	150'	150'
Strength (1,000's lbs)	SW-65, DW-98, DTW-180	SW-50, DW-60, DTW-150
Condition	Good	Good
Composition	Asphalt-grooved	Asphalt
Wind Coverage (15 mph)	85.26%	84.48%
Gradient	0.031%	0.113%
Approach	50:1	20:1
Safety Area Condition	Non-Standard	Non-Standard
Marking	Precision	Non-precision
Lighting	High Intensity	Medium Intensity

Note the following abbreviations used in Table 2-13:

ILS-Instrument Landing System

VOR/DME-VHF Omni-directional Range/Distance Measuring Equipment

NDB-Non-Directional Radio Beacon

Source: FAA Form 5010- 12/30/99, ALP (1990) and C&S Engineers, Inc.

2.07-2 Taxiways

The taxiway system at the airport consists of nine taxiways, all in generally satisfactory condition:

**TABLE 2-12
TAXIWAY CHARACTERISTICS**

Taxiway	Condition	Dimension	Description
Taxiway A	Good	80' wide	Partial parallel taxiway to Runway 6-24.
Taxiway A1,A2,A3	Good	90' wide	Stem taxiway provides access to Runway 6-24.
Taxiway B	Good	50' wide	Partially parallel to runway 2-20, provides access to the terminal apron from runway end 20.
Taxiway C	Good	90' wide	Provides terminal access from Taxiway A.
Taxiway D	Good	150' wide	Provides access to terminal and FBO apron from Taxiway A.
Taxiway E	Good	90' wide	A stem from terminal apron to Runway 2.
Taxiway F	Good	90' wide	A stem from terminal apron to Runway 6.
Taxiway G	Good	90' wide	A partial parallel taxiway to Runway 6.

Source: C&S Engineers

According to the FAA, the airport currently has one approved modification of standards. An airport with a Category C-III design aircraft, the required taxiway-to-runway separation is 400 feet. Currently, there is a 375-foot separation between Runway 6-24 and Taxiway A. However, the most common aircraft operating at Erie International are the A-320, B-737, MD-80, and F-100, which require a taxiway-to-runway separation distance of only 318 feet. According to the FAA, due to the expense of relocating Taxiway A, a modification of standards was requested and subsequently approved. The approval was based on the operation of the above-described aircraft.

2.07-3 Navigation Aids

A navigation aid (NAVAID) can be described as "any facility used for guiding or controlling flight in the air or during the landing or takeoff of aircraft." This category includes landing instrumentation, runway marking, lighting and other visual aids. Erie International Airport currently is equipped with the marking, lighting, and navigation aids, listed in Table 2-13.

**TABLE 2-13
NAVIGATIONAL AIDS**

Item	Location
High Intensity Runway Lighting (HIRL)	Runway 6-24
Medium Intensity Runway Lighting (MIRL)	Runway 2-20
Precision Runway Marking	Runway 6-24
Non-Precision Runway Marking	Runway 2-20
Medium Intensity Taxiway Lighting (MITL)	All taxiways and ramps
Medium Intensity Approach Light System with Runway Alignment Indicator Lights (MALSR)	Runway 6-24
Simplified Short Approach Lighting System (SSALS)	Runway 6
Air Traffic Control Tower (ATCT)	Terminal Building
Instrument Landing System (ILS)	Both ends of Runway 6-24
Global positioning satellite (GPS)	
Very High Frequency Omni-Directional Range supplemented with Distance Measuring Equipment (VOR/DME),	Runway 6-24
Visual Approach Slope Indicator (VASI)	Runway 24 Runway 20
Wind Cone/Supplemental Wind Cone	North side of Runway 24, 1000' west AER
Automated Terminal Information Service (ATIS)	Terminal
Non-Directional Radio Beacon (NDB)	On top of the ATCT

Source: FAA Form 5010 12/30/99 and ERI Masterplan (1990)

2.07-4 Airspace

In order to delineate facilities and airspace meriting examination in relation to the Airport and its airspace requirements, a 25 nautical-mile (NM) radius circle was constructed around the project site (see Figure 2-5). The airspace within this area includes several airports that can handle general aviation, while others are private/restricted fields and cannot be expected to provide reliever capability.

Table 2-14, lists the airports within a 25 NM radius circle around Erie International Airport. The private use fields have some use to local pilots as landmarks or emergency landing areas.

**TABLE 2-14
NEIGHBORING AIRPORTS**

Airport	Dimension (Surface)	Location in NM* (to the Airport)
Erie County	Runway 9-27 3030x60' (asphalt)	15 nm SE
Moorhead Airpark	Runway 8-26 2085x200' (turf)	14 nm NE
Pratt's Eastern Divide	Runway 8-26 2600x75' (turf)	23 nm East
Corry Lawrence	Runway 14-32 4100x75' (asphalt)	26 nm SE
Fairview Evergreen (pvt)	Runway 8-26 1840x100' (turf)	5 nm SW
Waisley (pvt)	Runway E-W 2000x150' (turf)	5 nm South
Franklin Center (pvt)	Runway E-W 2000x150' (turf)	10 nm South
	Runway NE-SW 2600x200' (turf)	
Carlson (pvt)	Runway 9-27 2500x100' (turf)	17 nm SE
	Runway 15-33 1600x100' (turf)	
Willows (pvt)	Runway 10-28 2000x100' (turf)	11 nm South
Marther (pvt)	Runway E-W 2200x100' (turf)	18 nm SE
	Runway N-S 1950x100' (turf)	
Shearer (pvt)	Runway 1-19 1430x30' (asphalt)	18 nm SE
G & N (pvt)	Runway 9-27 2700x100' (turf)	15 nnm SW
Morton's (pvt)	Runway 9-27 1200x50' (turf)	18 nm South
Strawberry Acres (pvt)	Runway N-S 2000x 160' (turf)	16 nm SE
Thermal G. Ranch (pvt)	Runway 7-25 1200x100' (turf)	18 nm South
Victor's (Kingsville, OH-pvt)	Runway 18-36 2600x50' (turf)	25 nm SW
Murtha (Conneaut, OH-pvt)	Runway E-W 1500x75' (turf)	24 nm SW

*Nautical Miles

Source: C&S Engineers, Inc., and FAA Form 5010 (1999)

The ERI TRACON provides radar service to VFR aircraft within the Erie Terminal Service Area (TRSA). This service is the radar sequencing and separation service provided between IFR aircraft and participating VFR aircraft, when requested. Erie TRACON is a Level III terminal facility and uses the Advanced Radar Terminal System (ARTS IIE) radar presentation system as an integral part of the Airport Surveillance Radar (ASR-7F) system. ARTS II produces an alpha-numerical identification on the radar screen for aircraft under operational control. This information is used to assist the controller to identify, sequence, and separate aircraft approaching, departing or over-flying the terminal area. In addition, ERI uses Brite Radar Indicator Tower Equipment (BRITE) for initial sequencing of arrivals and departures at the Airport. The airport also utilizes an Automatic Terminal Information System (ATIS), which is a systematic recording of the most current weather conditions, automatically transmitted to all aircraft.

AIR TRAFFIC CONTROL

Implementation of safe flying conditions in the skies requires efficient airspace management. Good air traffic control (ATC) procedures coupled with a well-developed airspace environment can effectively manage the space environment. Therefore, an analysis of the ATC and the surrounding airspace at the Airport (ERI) is necessary. In addition, since the Federal Aviation Administration (FAA) holds the ultimate responsibility for decisions concerning airspace management and air traffic control at ERI, any changes recommended require the FAA's review and approval.

AIRSPACE PROCEDURES

The air traffic flow around ERI is comprised of airline, commuter, business, limited military, and general aviation. Most airline traffic will operate IFR, even when the weather allows for visual operations. The remaining air traffic's operations will vary depending on weather conditions. On IFR flights, pilots operate primarily in reference to aircraft instrumentation and air traffic control instructions regardless of weather conditions, while VFR pilots operate under visual reference to the ground and other aircraft.

All IFR aircraft operating within the ERI TRACON delegated airspace are under the control of ERI controllers. IFR arriving aircraft are transferred from Cleveland Air Route Traffic Control Center (ARTCC) control to ERI TRACON control prior to reaching one of the designated arrival gates of the airspace, which is a particular point in airspace usually designated by a NAVAID. Cleveland ARTCC establishes the initial sequencing of aircraft and provides the adequate separation from all other known aircraft. Control of aircraft departing from ERI is transferred to Cleveland ARTCC before an aircraft climbs to 6,000 MSL, unless previously coordinated between the two ATC facilities.

Most IFR aircraft transit the ERI airspace via one of the federal airways in the area. Many aircraft pilots utilize Very High Frequency, Omni-directional Range (VOR) Low Altitude Airways, while all aircraft assigned altitudes above 18,000' MSL use the Jet Route (High Altitude) system. The VOR is located 4 nautical miles southwest of the Airport. It utilizes a frequency of 110.8 MHz and is identified by the three-letter identifier ERI. Co-located with the VOR is Distance Measuring Equipment (DME), which provides distance data to aircraft enroute or on approach. The DME operates on UHF radio space and is assigned channel 45. The VOR Airway system is also known as the Victor Airway and is used for flight operations below 18,000' MSL. Victor Airways and Jet Routes utilize VOR facilities on the ground to provide pilots with course guidance.

APPROACH PROCEDURES

Approach procedures to the Airport and their associated visibility minimums are summarized in Table 2-15.

**TABLE 2-15
PUBLISHED APPROACHES**

Runway end	Approach type	Visibility minimum	Approach category
6	ILS	¾ mile	A,B,C,D
24	ILS	¾ mile	A,B,C,D
24	VOR/DME or GPS	¾ mile	A,B
24	VOR/DME or GPS	1 mile	C
24	VOR/DME or GPS	1 ¼ mile	D
6	VOR/DME or GPS	1 mile	A,B,C,D
6	NDB	1 mile	A,B
6	NDB	1 ½ mile	C
6	NDB	1 ¾ mile	D
24	NDB	¾ mile	A,B
24	NDB	1 mile	C
24	NDB	1 ½ mile	D

Source: U.S. Terminal Procedures Nov. 4 to Dec. 30, 1999