ENVIRONMENTAL ASSESSMENT
FOR THE PROPOSED
MIDFIELD DEVELOPMENT PROGRAM
AND RELATED IMPROVEMENTS
AT
JOHN GLENN COLUMBUS INTERNATIONAL AIRPORT
COLUMBUS, OHIO

Draft

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This environmental assessment becomes a Federal document when evaluated, signed, and dated by the Responsible FAA Official.

Responsible FAA Official

Date

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CHAPTER ONE
PROPOSED ACTION

1.1 INTRODUCTION

This Environmental Assessment (EA) analyzes the potential environmental effects of the proposed Midfield Development Program (MDP) and enabling projects (the Proposed Action) at the John Glenn Columbus International Airport (CMH or Airport) in Franklin County, Ohio.[1] The project sponsor is the Columbus Regional Airport Authority (CRAA), the owner and operator of CMH.

An EA is a disclosure document prepared for a proposed Federal or Federally-funded action, in compliance with the requirements set forth by the Council on Environmental Quality (CEQ) in its regulations for implementing the *National Environmental Policy Act of 1969* (NEPA), as amended (40 Code of Federal Regulations (CFR) 1500-1508).[2] The purpose of this EA is to investigate, analyze, and disclose the potential impacts of the Proposed Action and its reasonable alternatives. Depending upon whether certain environmental thresholds of significance are exceeded or not, this EA may either lead to a Finding of No Significant Impact (FONSI) or to the requirement for the preparation of an Environmental Impact Statement (EIS). This EA has been prepared in accordance with FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*; and Order 5050.4B, *NEPA Implementing Instructions for Airport Actions*. This EA was also prepared pursuant to other Federal and state laws relating to the quality of the natural and human environments.

1.2 DESCRIPTION OF THE PROPOSED ACTION

The Proposed Action consists of several development projects, known collectively as the MDP, as well as several enabling projects. **Exhibit 1-1, *Project Site***, shows the general project area along with the location of the project site at CMH. The Proposed Action would primarily occur within the midfield area at CMH, which is generally bound by Taxiway E to the north, Hamilton Road to the east, Runway 10L/28R to the south, and Stelzer Road to the west. Additionally, some proposed project elements would occur between Drake Road and I-670 and on the Airport Golf Course. The Proposed Action, which is shown on **Exhibit 1-2, *Proposed Action***, includes the following activities:

- Construction of a new Consolidated Rental Car Facility (CONRAC)
- Reclaim existing quick turnaround area (QTA) and levels P1 and P2 of the existing long-term parking garage for public parking use
- Construction of rental car support facilities at the Drake Road site

[1] In June 2016, the name of Port Columbus International Airport was changed to John Glenn Columbus International Airport. Some references to historic documents in this EA reference the name Port Columbus International Airport as it was the name of the Airport at the time the document was written.

[2] P.L. 91-190, 42 U.S.C. 4321, et. seq., *National Environmental Policy Act*, 1969, Section 102(2)(c).

- RTR Antenna Relocation and installation of new underground cabling
- Cell Phone Lot Relocation
- Reconfiguration of the existing International Gateway Loop Road
- Demolition of the existing Hertz, Avis, and former Dollar rental car staging areas
- Demolition of the existing McDonalds
- Construction of a new Parking Garage
- Redevelopment of east development area parcels and demolition of former U.S. Postal Service (USPS) facility
- Expansion of the Red Parking Lot and new entrance/exit to Stelzer Road at East 17th Avenue with various intersection improvements
- Closure of the Blue Parking Lot / Employee Lot
- Decommission Existing Taxiway D, Construct Replacement Parallel Taxiway north of Runway 10R/28L, and reconfigure taxiway exits per FAA guidelines
- Various stormwater improvements including rerouting stormwater to a potential new stormwater detention basin on the east side of CMH property and replacement of existing underground stormwater pipes at Outfall 4
- Construction of a Midfield Passenger Terminal and associated apron
- Construction of a Ground Transportation Center (GTC)
- Construction of a Central Utility Plant, Utility Corridor, and various utility improvements
- Extension of a sanitary sewer line
- Construction of a Second Crossover Taxiway
- Demolition of the existing Passenger Terminal and short-term parking garage
- Expansion or relocation of the existing fuel farm
- Construction of a new Concession Warehouse
- Removal and replacement of other existing aviation facilities

The Project Site is primarily located in the central core of CMH and is surrounded by commercial and aviation land uses. Site features include a combination of buildings, roadways, airfield pavement, and maintained grassy areas.

1.3 PROPOSED FEDERAL ACTION

The Proposed Federal Action includes the following project components:

Approval of the changes to the Airport Layout Plan (ALP) to reflect the proposed construction of the new structures associated with the MDP and removal of existing structures proposed for demolition, as well as NAVAID relocation, and roadway and infrastructure improvements for the new structures

The FAA action is necessary in connection with the construction of the proposed development projects including a proposed new CONRAC, midfield passenger terminal, parking garage, GTC, concession warehouse, central utility plant, a replacement parallel taxiway north of Runway 10R/28L, a new crossover taxiway adjacent to existing Taxiway H, expansion of the Red parking lot, new rental car support facilities, relocation of the existing RTR antennae, and removal and replacement of other aviation facilities. In addition, several existing structures will be demolished or relocated to accommodate the proposed new development. Pursuant to 49 USC §47107(a)(16), the FAA Administrator (under authority delegated from the Secretary of Transportation) must approve any revision or modification to an ALP before the revision or modification takes effect. The Administrator's approval includes a determination that the proposed alterations to the Airport, reflected in the ALP revision or modification, do not adversely affect the safety, utility, or efficiency of the Airport, including potential for impacts related to 14 CFR Part 77 (see following section).

Review and determination of the new structures associated with the MDP for potential obstructions to air navigation, navigational aids, or navigational facilities.

Pursuant to 14 CFR Part 77, the FAA must determine the effect of the proposed construction on the safe and efficient use of navigable airspace and air navigation facilities. The purpose of an aeronautical study is to determine whether the aeronautical effects of the specific proposal and, where appropriate, the cumulative impact resulting from the proposed construction or alteration when combined with the effects of other existing or proposed structures, would constitute a hazard to air navigation. The Proposed Action includes the construction of several vertical structures that would require review and determination. The FAA will issue a determination stating whether this proposed construction or alteration would be a hazard to air navigation.

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COLUMBUS REGIONAL AIRPORT AUTHORITY

Midfield Development Program
Environmental Assessment
John Glenn Columbus International Airport

LEB

Project Site

EXHIBIT:
1-1

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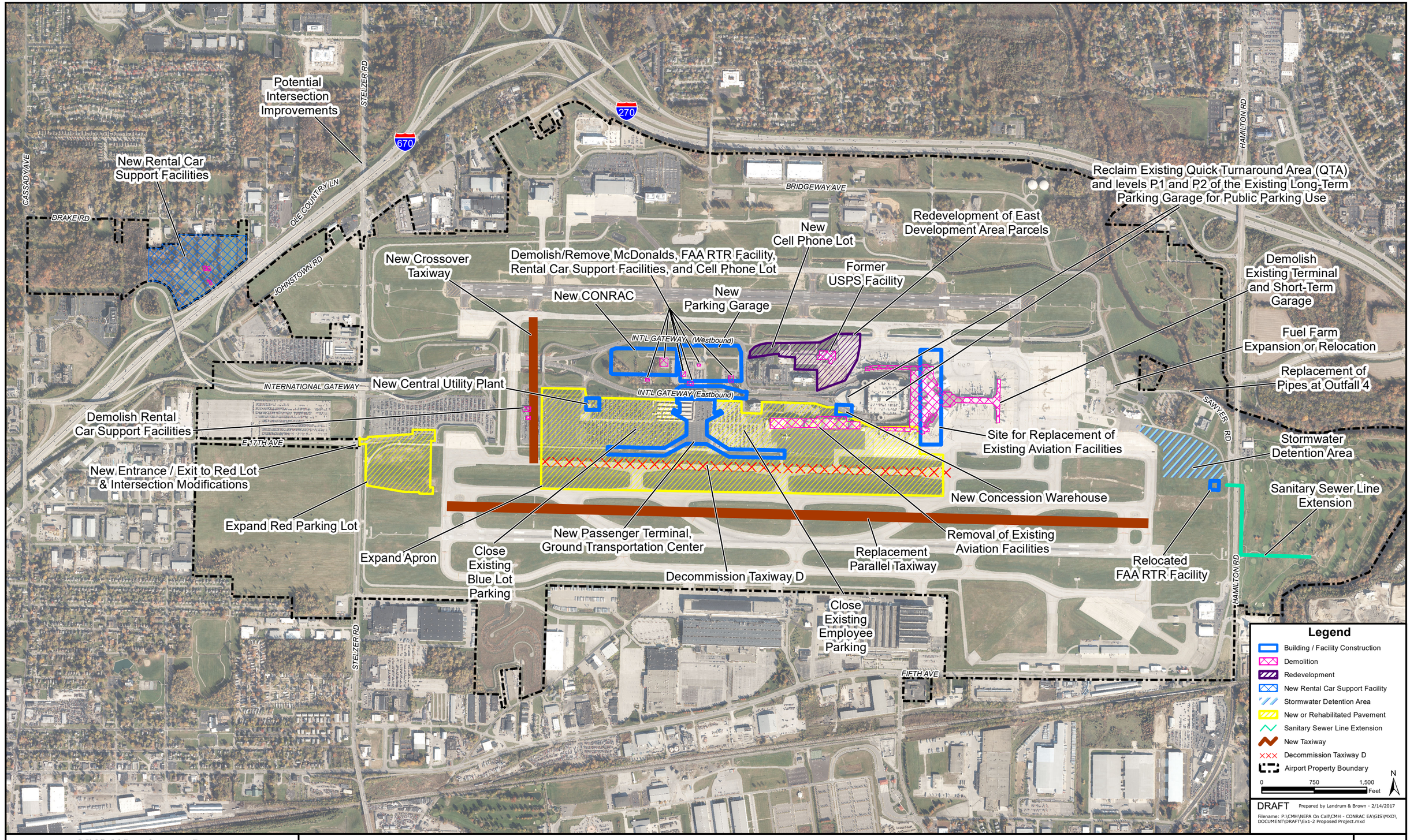

COLUMBUS REGIONAL AIRPORT AUTHORITY

Midfield Development Program
Environmental Assessment
John Glenn Columbus International Airport

LEB

Proposed Action

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Chapter Two

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CHAPTER TWO
PURPOSE AND NEED

This chapter of the Environmental Assessment (EA) describes the purpose and need for the Proposed Action at the John Glenn Columbus International Airport (CMH). Federal Aviation Administration (FAA) Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions* requires that an EA address and convey the purpose and need for a proposed project. According to the Council on Environmental Quality (CEQ) and their implementing regulations for NEPA, the purpose and need shall briefly specify the underlying purpose and need for the proposed action. The purpose and need for the proposed action serves as the foundation for the identification of reasonable alternatives to the proposed action and the comparative evaluation of impacts of the project. In order for an alternative to be considered viable and carried forward for detailed evaluation within the NEPA process and this EA, it must address the needs, as described more fully in the following sections.

2.1 PURPOSE OF THE PROPOSED ACTION

The Proposed Action consists of several elements having the following purposes:

- Provide sufficient parking capacity to meet current and forecast demand while maintaining an acceptable level of service;
- Provide sufficient rental car capacity and facilities to meet current and forecast demand while maintaining an acceptable level of service;
- Provide sufficient terminal capacity and improved level of service;
- Increase the efficiency of the airfield and reducing airfield taxi time;
- Maximize the use of airport land not needed for aeronautical development; and
- Provide sufficient facilities for aircraft fueling to support current and forecast airport operations.

The following sections describe the identified needs in more detail.

2.2 NEEDS

2.2.1 INSUFFICIENT PARKING AND RENTAL CAR FACILITY SPACE TO MEET CURRENT AND FORECAST DEMAND

There is a need for additional public parking in the garage to meet current and forecast demand. During peak days, the long-term area of the garage frequently fills to capacity. When this occurs, overflow traffic is sent to the short-term area of the garage. Due to the continued overflow of long-term demand into the short-term area of the garage, the short-term area frequently exceeds capacity. In addition, rental car demand in the existing parking garage facility currently exceeds capacity and there is limited ability to expand without further impacts to public parking. Forecast passenger growth at CMH will exacerbate the parking capacity problem that

currently exists. As a result, there is a need for additional public parking.[1] **Table 2-1** shows historic and projected capacity shortfalls at the parking garage based on previous demand forecasting and current capacity.

Table 2-1
PARKING GARAGE SPACE COMPARED TO CAPACITY FOR THE PEAK DAY OF THE DESIGN MONTH
John Glenn Columbus International Airport

YEAR	LONG-TERM GARAGE			SHORT-TERM GARAGE			TOTAL EXCESS/ (SHORTAGE)
	DEMAND	CAPACITY	EXCESS/ (SHORTAGE)	DEMAND	CAPACITY	EXCESS/ (SHORTAGE)	
2013	2,785	2,556	(229)	553	568	15	(214)
2014	2,825	2,556	(269)	589	568	(21)	(290)
2015	2,881	2,556	(325)	639	568	(71)	(396)
2016	2,938	2,556	(382)	690	568	(122)	(504)
2017	2,997	2,556	(441)	743	568	(175)	(616)
2018	3,055	2,556	(499)	795	568	(227)	(726)
2019	3,118	2,556	(562)	851	568	(283)	(845)
2020	3,180	2,556	(624)	907	568	(339)	(963)
2021	3,242	2,556	(686)	963	568	(395)	(1,081)
2022	3,304	2,556	(748)	1,018	568	(450)	(1,198)
2023	3,366	2,556	(810)	1,074	568	(506)	(1,316)

Source: Ricondo & Associates, Inc., 2014; CRAA, 2016.

A forecast of aviation activity was prepared as part of this MDP EA. This forecast was developed with a base year of 2014, and was updated to reflect 2015 airport operating data.[2] **Table 2-2** shows the FAA's Terminal Area Forecast (TAF) published in January 2016 compared to the MDP EA Forecast for passenger enplanements at CMH. As shown in Table 2-2, passenger enplanements are forecast to increase at CMH through 2035 in both the FAA's TAF and the MDP EA Forecast. The difference between the enplanement levels in the MDP EA Forecast and the forecasted enplanement levels for fiscal year 2030 from the latest TAF is approximately eight percent. As a result of the increase in enplanements, demand for the short-term and long-term public parking, rental car space, and terminal facilities would continue to increase with or without the Proposed Action. None of the elements of the Proposed Action would cause an increase or decrease in aircraft operations, nor would they result in changes to the aircraft fleet at CMH.

[1] *Port Columbus International Airport – Parking and Rental Car Demand/Capacity Analysis*, Ricondo & Associates, Inc., May 7, 2014.

[2] Actual enplanements and operations data was obtained through the end of calendar year 2015. However, economic data was not yet available for 2015. Therefore, 2014 is the forecast base year.

Table 2-2
FORECAST OF PASSENGER ENPLANEMENTS
John Glenn Columbus International Airport

YEAR	TAF ENPLANEMENT TOTAL	MDP EA FORECAST ENPLANEMENTS	DIFFERENCE
2014	3,102,511	3,173,046	2.3%
2015	3,220,437	3,397,952	5.5%
2016	3,514,695	3,615,900	2.9%
2017	3,597,329	3,805,600	5.8%
2018	3,673,939	3,931,600	7.0%
2019	3,753,271	4,035,100	7.5%
2020	3,843,953	4,119,300	7.2%
2025	4,249,034	4,527,500	6.6%
2030	4,632,302	5,013,000	8.2%
2035	5,052,119	5,636,800	11.6%

Source: FAA TAF published in January 2016; Landrum & Brown, 2016.

2.2.2 INSUFFICIENT TERMINAL CAPACITY TO ACCOMMODATE PROJECTED PASSENGER LEVELS

In 2009, the FAA published a Final Environmental Impact Statement (EIS) for proposed improvements at CMH, including the development of a new Midfield Passenger Terminal. Prior to conducting the EIS, the existing passenger terminal facilities were analyzed to estimate when that terminal facility would exceed its current capacity.[3,4] The results of the modeling determined the capacity of the existing terminal by increasing the number of passengers within the peak hour until demand exceeded the available capacity of the various terminal elements. This peak hour passenger volume was converted into an annual passenger volume using the peak hour/average day/peak month mathematical relationship. The annual passenger volume was then compared to the projection of annual enplanements in order to associate this level of activity to a specific year in the forecast. Based on that analysis, the existing terminal configuration was determined to exceed capacity at 5 Million Annual Enplaned Passengers (MAEP).[5] As shown in Table 2-2 above, the passenger levels at CMH are forecast to exceed 5 MAEP sometime between 2025 and 2035.

[3] Port Columbus International Airport – Capital Improvement Program, June 2005, prepared by The Program Management Team.
[4] Port Columbus International Airport – Existing Terminal Capacity Enhancements, September 2006, NBBJ + Leigh Fisher Associates.
[5] The 2011 CMH Ticket Lobby Modernization Study determined the capacity of the existing terminal to be 4.25 MAEP.

CRAA studied the possibilities for meeting the forecast passenger demand. Additional study of new terminal concepts identified the need for a terminal development envelope that is sufficiently large enough to accommodate terminal planning flexibility that will meet long-term demand (9 MAEP), allow for other support facility development, and maintain airfield operational flexibility and efficiency.

2.2.3 LACK OF DUAL NORTH/SOUTH TAXIWAY ON THE WEST SIDE OF THE AIRFIELD

CRAA must ensure an efficient airfield system, including runways and taxiways, to support aircraft operations. Currently, CMH has two parallel runways oriented in an east/west direction with the terminal, parking and other landside facilities located between the runways. On the west side of the airfield there is a single crossover taxiway that provides aircraft access between the two runways. This single taxiway limits airfield efficiency as aircraft can only taxi in one direction at a time. This situation can cause increased taxi time and delay if more than one aircraft needs to taxi in opposite directions between the north airfield and the midfield/south airfield and proposed passenger terminal. This results in one aircraft waiting for the other aircraft to exit the crossover taxiway before proceeding. Otherwise, the aircraft must taxi a greater distance to use the taxiway system on the east side of the airfield. This operational limitation will increase as aircraft operations increase at CMH. As shown in **Table 2-3**, aircraft operations are forecast to increase at CMH. This increase is expected to occur with or without the Proposed Action. The need for a second crossover taxiway was identified in the CRAA's 2005 PMT study and is currently shown on the approved Airport Layout Plan (ALP).

Table 2-3
FORECAST OF AIRCRAFT OPERATIONS
John Glenn Columbus International Airport

YEAR	TAF OPERATIONS TOTAL	MDP FORECAST OPERATIONS	DIFFERENCE
2014	125,070	124,114	-1.3%
2015	125,050	125,727	0.5%
2020	134,061	144,900	8.1%
2025	140,124	151,900	8.4%
2030	150,439	160,300	6.6%
2035	161,673	172,500	6.7%

Source: FAA TAF published in January 2016; Landrum & Brown, 2016.

2.2.4 THE NEED TO ENCOURAGE ECONOMIC DEVELOPMENT ON UNUSED OR UNDERUTILIZED PROPERTY AT CMH

CMH has been and continues to be a major provider of employment and an important factor in attracting businesses and development to the area. With the cyclical nature of the aviation industry, CRAA must generate revenue from various airport users in order to maintain a reliable source of income. In addition, CMH as an important economic development generator, should be developed to its maximum potential to provide jobs and economic development opportunities. The Loop Road Land Use Study[6] identified the highest and best use of properties within the Loop Road area that were not needed for aviation development. Several parcels, known collectively as the East Development Area, were identified for commercial redevelopment to meet the economic needs of the Airport and the region.

2.2.5 THE NEED TO PROVIDE SUFFICIENT FACILITIES FOR AIRCRAFT FUELING TO SUPPORT AIRPORT OPERATIONS

The CRAA must maintain infrastructure to adequately meet demand for airport services and operational performance. This includes providing facilities for storage and delivery of fuel for aircraft. The CRAA periodically assesses the capacity of the fueling systems to ensure they are adequate to meet current and projected demand loads. CRAA is initiating a study of fueling system capacity to ensure it can meet forecast demand. Based on preliminary estimates, existing fuel storage capacity will not be adequate to meet projected demand. It is anticipated that ongoing studies will confirm the need to expand aircraft fuel storage capacity to meet projected demand for fuel. This study will also identify the optimal location for the fuel farm, either expansion or relocation, and recommend the latest system upgrades for safety and efficiency.

2.3 HOW THE PROPOSED ACTION ADDRESSES THE NEEDS

In order to meet the previously stated needs, CRAA would implement the following projects and connected and enabling actions at CMH.

2.3.1 CONSTRUCT A NEW CONSOLIDATED RENTAL CAR FACILITY

The purpose of this element of the Proposed Action is to accommodate existing and forecast demand for public parking and to relocate rental car operations to a central and convenient location that is consistent with long-term airfield development plans. Currently, rental car operations occupy two levels of the existing parking garage, which prevents the use of approximately 1,164 parking spaces. At peak times, the existing parking garage is filled to capacity, forcing passengers to use the valet service or park at one of the long-term parking lots.

[6] Ricondo & Associates, Inc., Columbus Regional Airport Authority Loop Road Land Use Study, Final Report, April 2015.

This project element would relocate rental car companies from the existing parking garage and exclusive-use service areas, to a new Consolidated Rental Car Facility (CONRAC) in the loop road area at CMH. All rental car customer service counters would be located in a common building. Construction of a CONRAC would allow reclamation of approximately 1,164 parking spaces for terminal parking. Moving rental cars out of the existing parking garage facility to a consolidated rental car facility would free up space in the garage that is needed for public parking to meet current demand. The construction of the CONRAC at the Loop Road site would require the construction of offsite rental car support facilities south of Drake Road. The Elam Drake Farmhouse, which is listed on the National Register of Historic Places, is located on this property south of Drake Road. The Proposed Action would require the removal of the structures on the site. The FAA, CRAA, and Ohio Historic Preservation Office are developing a Memorandum of Agreement (MOA) to address the adverse impacts to this historic resource. Additional information regarding the Elam Drake Farmhouse and MOA is included in Chapter Four and Chapter Five.

The proposed location of the CONRAC is consistent with the long-term airfield development plans. As described in Chapter One, the proposed MDP includes the construction of a new Midfield Passenger Terminal to the west of the existing terminal facility that would be located south of the proposed CONRAC. In conjunction with the new Midfield Passenger Terminal, a new parking garage would be constructed adjacent to the new terminal and CONRAC to accommodate forecast demand for short-term and long-term parking with convenient access to the proposed Midfield Passenger Terminal (see section 2.3.2).

2.3.2 CONSTRUCT A NEW MIDFIELD PASSENGER TERMINAL, APRON, PARKING GARAGE, AND GROUND TRANSPORTATION CENTER

The CRAA conducted multiple terminal planning studies, including the 2005 Program Management Airport Development Plan,[7] to provide more information on the size, location, and layout of terminal improvements. The Loop Road Land Use Study reviewed and updated the timing and sizing of the planned Midfield Passenger Terminal and other supporting facilities. This project element would construct the Midfield Passenger Terminal to the west of the existing terminal. The new Midfield Passenger Terminal is planned to replace the existing passenger terminal, which would have exceeded capacity and reached the end of its functional life.

The initial phase of the new Midfield Passenger Terminal would be approximately 1,042,400 square feet in size with approximately 48 narrow body equivalent gates. The terminal would have the ability to be expanded to meet demand beyond the planning horizon for this EA. In addition, a new parking garage would be constructed to the north of the new terminal. Other support facilities and infrastructure would also be constructed, including utility and roadway improvements and a ground transportation center between the terminal and parking garage. An aircraft apron would be constructed around the proposed Midfield Passenger Terminal.

[7] Port Columbus International Airport, Program Management Airport Development Plan, June 2005, prepared by the CRAA Program Management Team.

2.3.3 CONSTRUCT A NEW CROSSOVER TAXIWAY ADJACENT TO THE EXISTING CROSSOVER TAXIWAY

This project element would construct a second crossover taxiway to provide another connection for aircraft taxiing to and from the midfield to Runway 10L/28R. The proposed second crossover taxiway would be located just east of the existing crossover Taxiway H and would bridge over International Gateway. This would allow simultaneous bi-directional taxi flow between the north airfield and midfield/south airfield, which would reduce congestion and taxi delay when more than one aircraft need to taxi in opposite directions to and from these locations on the airfield. The need for the proposed second crossover taxiway was identified in the CRAA's 2005 PMT Study and is currently shown on the approved ALP.

2.3.4 REDEVELOPMENT OF EAST DEVELOPMENT AREA PARCELS

This project includes the redevelopment of the east development area parcels which are located to the west of the existing passenger terminal and apron and to the north of the existing Hilton Garden Inn, Hampton Inn, and Fairfield Inn. This site includes the former U.S. Postal Service (USPS) facility that was recently vacated and no longer in use. Plans for this area include demolishing the former USPS facility and redeveloping the site. Potential options for redevelopment of this area include one or two new hotels and one or more restaurants on the site. The actual redevelopment scenario would be based on current and future market conditions.

2.3.5 EXPANSION OF FUEL FARM

This project includes the expansion of the existing fuel farm, either by expanding it in the current location or relocating and expanding it elsewhere on airport property. The exact location and layout would be determined through future planning efforts; although, it is anticipated that any expansion or relocation would occur within previously-disturbed ground that is currently owned by the CRAA. The expansion would enable the CRAA to provide fuel storage to meet the demand for existing and forecast levels of aircraft operations and to implement upgrades to ensure the latest designs for safety and efficiency are incorporated into the system.

2.3.6 ENABLING PROJECTS

Construction of the Proposed Action would require removal, replacement, or relocation of several facilities as described below.

Construction of the proposed CONRAC and new parking garage would require the relocation of the existing RTR Antenna installation and relocation of the cell phone lot. The RTR Antenna is proposed to be relocated to the east side of CMH within a grass field near the intersection of Hamilton Road and Sawyer Road. The Cell Phone Lot is proposed to be relocated to the East Development Area within the Loop Road near the existing Hilton Garden Inn. The existing McDonalds facility would be demolished and the Hertz Rental Car and former Dollar Rental Car staging facilities would be removed.

The existing Blue Parking Lot and employee lot would be closed to enable construction of the new Midfield Passenger Terminal and surrounding aircraft apron pavement. The existing Red Parking Lot would be expanded to offset the loss of parking spaces from the closure of the Blue Parking Lot. Phasing of the parking lot closure and new development would occur in a manner such that the required parking capacity would be maintained. Once the proposed CONRAC opens and the existing rental car operations are relocated from the existing long-term garage, additional public parking spaces would become available to further offset the loss of the Blue Lot. The existing Green Lot could also provide additional capacity for public and employee parking.

Construction of the new apron would require the closure of the existing Taxiway D from taxiway exit D3 to the existing crossover Taxiway H. To compensate for the loss of Taxiway D, a replacement taxiway would be constructed between Runway 10R/28L and existing Taxiway C. The other existing aviation facilities would be demolished and would relocate to a new site.

The Proposed Action would include the construction of a stand-alone concession warehouse for accepting delivery and storage of goods for the airport concessions within the passenger terminal. This warehouse would be approximately 35,000 square feet with truck parking and loading dock areas. The facility would be accessible via Sawyer Road without requiring circulation past the future terminal, thereby minimizing the congestion and potential security concerns posed by larger delivery vehicles.

This proposed project would also require the relocation of existing utilities and establishment of a new utility corridor along the north side of the Loop Road to support current and future airport development. A Central Utility Plant would be constructed to the west of the proposed Midfield Passenger Terminal.

2.4 TIME FRAME

Several enabling projects, including the relocation of the cell phone lot and relocation of the RTR antennae are proposed to occur in 2017. Phase 1 of the Proposed Action, which includes construction of the CONRAC, is proposed to begin by early 2018 and opening of the CONRAC is scheduled for 2020.

Full build-out of the projects assessed in this EA is proposed by 2030, which would ensure the proposed Midfield Passenger Terminal would be operational in time to accommodate passenger levels of 5 MAEP.

The timing and phasing of some of the individual project elements beyond Phase 1 is estimated at this time based on currently projected demand. Actual timing will be based on demand and will be subject to the availability of funding. Construction schedules may be refined to allow an efficient construction process with the least impact on airport users.

2.5 REQUIRED LAND USE/ENVIRONMENTAL APPROVALS AND PERMITS

Federal

- FAA approval of modifications to the Airport Layout Plan
- Federal environmental approval pursuant to NEPA
- Permit for the discharge of dredged or fill material into waters of the United States per Section 404 of the Clean Water Act administered by the U.S. Army Corps of Engineers
- Execution of a Memorandum of Agreement between the FAA and Ohio State Historic Preservation Office to resolve impacts to the Elam Drake Farmhouse
- Reimbursable agreement between FAA and CRAA for the relocation of the RTR Antenna

State

- National Pollution Discharge Elimination System Permit (NPDES) administered by the Ohio Environmental Protection Agency (OEPA)
- Water Quality Certification per Section 401 of the Clean Water Act administered by the OEPA

Local

- City of Columbus rezoning of property on the south side of Drake Road to permit the proposed rental car support facilities.
- Variance from City of Columbus for the proposed enclosure of Mason Run.

2.6 FORECAST OF AVIATION ACTIVITY

Forecasts of aviation activity have been prepared by both the FAA (2015 Terminal Area Forecast published in January 2016) and the CRAA for the Airport. Both forecasts predict the total number of operations and enplanements at CMH to increase annually with or without the Proposed Action. **Appendix F** includes a copy of the forecast prepared for this EA.

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Chapter Three

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CHAPTER THREE
ALTERNATIVES

3.1 BACKGROUND

The Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act of 1969 (NEPA) requires that the Federal decision-makers perform the following tasks:

- Evaluate all reasonable alternatives, including alternatives not within the jurisdiction of the Federal agency, and for alternatives that were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
- Devote substantial treatment to each alternative considered in detail, including a no action alternative and the proposed action, so that reviewers may evaluate their comparative merits.

This section describes alternatives to the Proposed Action, and evaluates the ability of the alternatives to meet the purpose and need described in Chapter Two, *Purpose and Need*. Federal and state guidelines concerning the environmental review process require that all prudent, feasible, reasonable, and practicable alternatives that might accomplish the objectives of a project must be identified and evaluated. Federal agencies may consider the applicant's purposes and needs and common sense realities of a given situation in the development of alternatives.[1]

3.2 INITIAL ALTERNATIVES SCREENING

3.2.1 CONRAC ALTERNATIVES

The proposed replacement of the existing rental car facilities includes the development of the Consolidated Rental Car Facility (CONRAC) as well as the replacement of the individual rental car companies' support facilities. The CONRAC would host the major functions of the rental car companies at CMH, including customer service counters, ready return lots, and quick turn-around (QTA) stations. Additionally, it is expected that the individual rental car companies would develop support facilities to conduct activities such as fueling, car washing and interior cleaning, overflow parking, and light maintenance.

Efforts were made to identify potential sites for the CONRAC and rental car support facilities. Several alternatives for the proposed CONRAC and support facilities were considered, including alternatives at the existing site as well as new sites. Depending upon the size of the site of the alternative CONRAC locations, the additional rental car support facilities may either be co-located with the CONRAC or located off-site.

The identification of suitable sites is based on size and location requirements. The CONRAC should be near the terminal area to minimize the transit distance to and

[1] *Guidance Regarding NEPA Regulations*, CEQ, 48 Federal Register 34263 (July 28, 1983).

from the terminal for passengers picking up and dropping off rental cars. The rental car support facilities, if not co-located, should be within a reasonable distance from the CONRAC to allow efficient movement of rental cars between the two locations. The site for the rental car support facilities must also be large enough to accommodate the forecast demand for rental car operations. Current forecasts indicate a site for the rental car support facilities must be at least 22 acres. This limits the number of available sites to a few large tracts of land at CMH. Tracts of land on Airport property that met the size criteria and were not within a runway protection zone or committed to other airport-related development were identified as potential alternative sites.

This initial alternatives screening included an evaluation of natural features, including wetlands and habitat. Potential sites for the CONRAC were surveyed for the presence of wetlands and habitat for endangered species. Potential sites that would cause impacts to large areas of wetlands of endangered species habitat were eliminated from consideration. Wetlands, some of which are high quality Category 3 wetlands, and potential habitat for the Federally-endangered Indiana bat and the Federally-threatened northern long-eared bat were identified on the Drake Road Site as shown in **Exhibit 3-1, *Drake Road Site Environmental Features***. The western portion of the Drake Road Site includes several wetlands, some of which are high quality, and is almost completely covered by wooded habitat. Therefore, the western portion of this site was eliminated from consideration as a site for any proposed development.

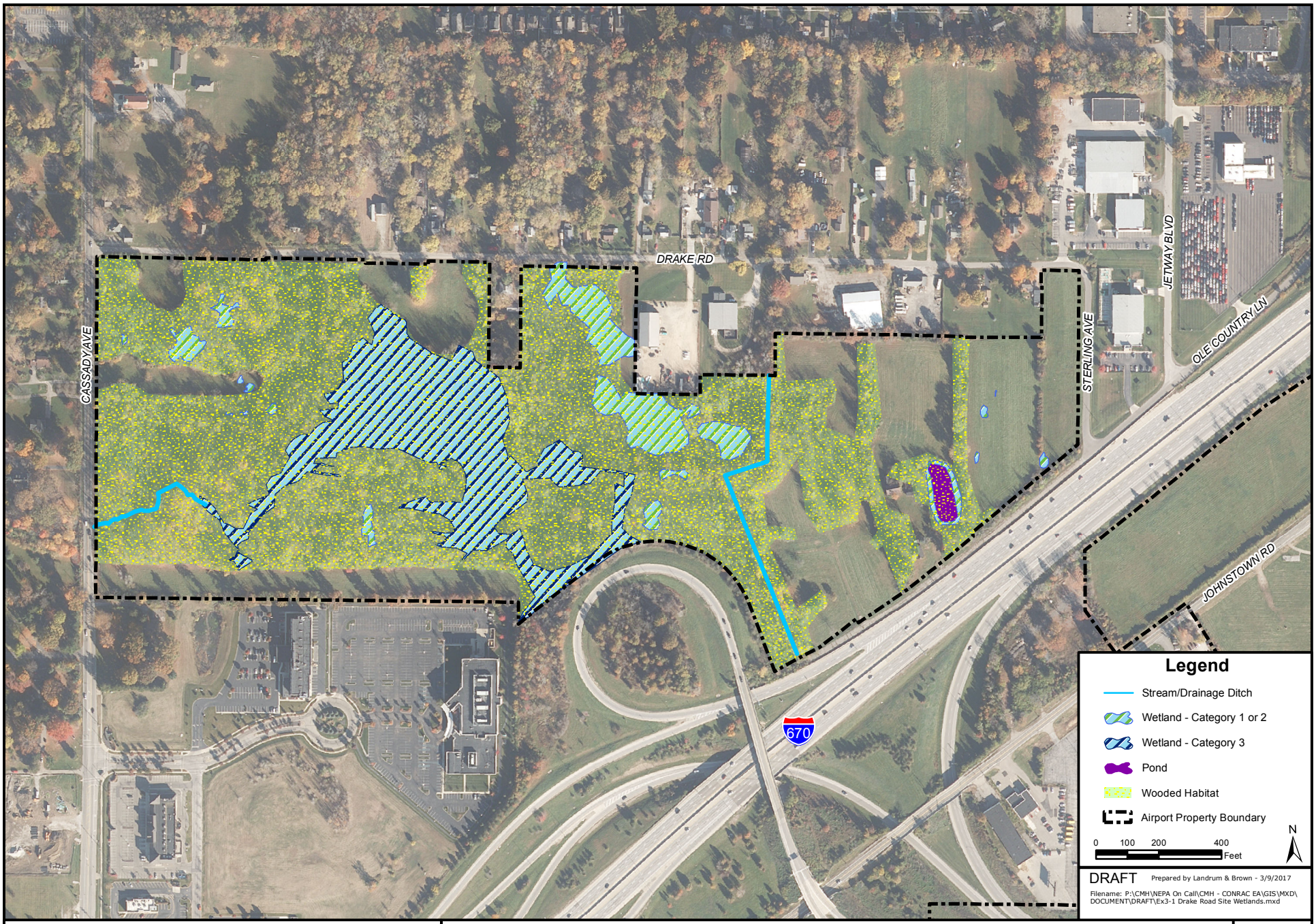
Exhibit 3-2, *Alternative CONRAC Locations*, shows the locations of the CONRAC alternatives that were evaluated. Each of these alternatives is described in the following sections.

Alternative C1: Modify Existing CONRAC

Three scenarios were considered at the existing site. The first was extending the useful life of the existing parking garage by adjusting the rate structure to manage parking demand. This alternative was implemented by CRAA, however it did not decrease the demand for the existing parking garage by adequate levels.

The second alternative explored was to reclaim 130 valet storage spaces for long-term parking. Analysis showed that this alternative could help in the short-term; however, it would not accommodate demand in the long-term. As a result, alternatives to extend the useful life of the existing parking garage were not carried forward as an alternative for detailed evaluation in this Environmental Assessment (EA) because they did not fully address the needs of the project.

The third alternative considered in the initial screen of alternatives was expansion of the existing parking garage. This alternative was determined not to be a reasonable alternative due to the location and construction of the existing garage. The site of the garage is constrained by other infrastructure and it is not possible to expand the garage outward without relocating the existing road network, terminal, and aircraft gates. The CRAA also investigated the possibility of adding new decks to the existing garage; however, it was determined that this was not possible as the existing piers could not support the additional levels.



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Drake Road Site Environmental Features

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Alternative CONRAC Locations

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Alternative C2a: Construct CONRAC at Loop Road Site and Rental Car Support Facilities on eastern Drake Road Site (Proposed Action)

The Loop Road Site would meet the purpose and need of accommodating parking demand while maintaining an acceptable level of service. The Loop Road Site is located adjacent to the proposed future terminal and as a result would integrate seamlessly with long-term plans for the development at CMH. Due to the location near the proposed Midfield Passenger Terminal, a CONRAC at the Loop Road site would allow convenient transit for passengers between the CONRAC and the terminal and would not require a busing operation once the proposed Midfield Passenger Terminal is constructed.

Alternative C2a would require remote facilities for rental car support activities. There is not enough space within the Loop Road site to construct an appropriately-sized CONRAC and associated rental car support facilities to meet forecast demand. Therefore, as part of Alternative C-2a, a rental car support facilities has been proposed on CRAA-owned property near Drake Road as shown in Exhibit 3-2.

Alternative C2b: Construct CONRAC at Loop Road Site and Offsite Rental Car Support Facilities on western Drake Road Site

This alternative is similar to Alternative C2a in which the CONRAC would be constructed within the Loop Road site. However, the required remote rental car support facilities would be constructed on the western side of the Drake Road site. While this site would meet the purpose and need, it would cause impacts to several acres of high quality forested wetlands and trees. Therefore, Alternative C2b will not be carried forward for further evaluation.

Alternative C3: Construct CONRAC and/or Rental Car Support Facilities at 17th Avenue Site

The 17th Avenue site, which is also shown in Exhibit 3-2, would provide enough space for a CONRAC facility and co-located rental car support facilities or a remote rental car support facilities in combination with a CONRAC at the Loop Road site. However, this alternative was eliminated as a viable site as it did not integrate with the proposed long-term location of the future terminal. This site would require a permanent busing operation, would cause additional transit time for passengers to and from the existing and future terminal, and would reduce the level of service. Furthermore, use of this site would result in the loss of the existing parking facilities at 17th Avenue that are currently purposed for other parking needs. This loss of parking spaces would cause peak demand to exceed capacity. The construction of a combined CONRAC and rental car support facilities, or a remote rental car support facilities with a CONRAC at the Loop Road site cannot be accommodated without the loss of existing parking at the 17th Avenue Site. Therefore, Alternative C3 will not be carried forward for further evaluation.

Alternative C4: Construct combined CONRAC and Rental Car Support Facilities at Drake Road Site

This alternative would construct a combined CONRAC and rental car support facilities at the Drake Road site. The site would provide enough space for a CONRAC facility and a connected rental car support facilities. However, similar to Alternative C3, this site would require a permanent busing operation, would cause additional transit time for passengers to and from the existing and future terminal, and would reduce the level of service. Furthermore, this alternative would require development on the western side of the Drake Road site, which would impact several acres of high quality forested wetlands and trees. Therefore, Alternative C4 will not be carried forward for further evaluation.

3.2.2 PRESERVATION OR REUSE OF THE ELAM DRAKE FARM

Consideration was given to preserving the Elam Drake Farmhouse and accessory structures, but none of the options were determined to be feasible.

On-Site Preservation Alternative

The size and layout of the rental car storage facilities was based upon the needs of the rental car companies to meet existing and forecasted storage capacity needs. Due to the central location of the Elam Drake Farmhouse and accessory structures, preserving the buildings would require expanding the footprint of the rental car support facilities and developing a ground access plan that is less operationally efficient than the current layout. This alternative would require the facilities to expand further into a wooded area that contains high quality wetlands and potential habitat for endangered species. Therefore, this alternative will not be carried forward for further evaluation.

Off-Site Preservation Alternative

An alternative for relocating and preserving the Elam Drake Farmhouse and accessory structures on another Airport-owned site was considered. The CRAA obtained a condition and feasibility study for relocation of the structures from a qualified structural engineer. According to that report, the Elam Drake Farmhouse and smokehouse cannot be moved due to the poor condition and large area loss of the structural components of each structure. The barn is in fair condition and can be moved by a qualified contractor experienced in moving large historic structures. However, there is no tract of land on Airport-owned property that is suitable for relocation of any of the structures that is not within a runway protection zone or otherwise encumbered with obligations for aviation use per Federal funding requirements. Therefore, this alternative will not be carried forward for further evaluation.

Adaptive Reuse Alternative

An alternative to incorporate the Elam Drake Farmhouse and accessory structures into the design of the rental car support facilities was considered. However, the farmhouse and smokehouse are in poor condition. These buildings exhibit large area loss of the structural components and would require extensive structural work to make the building suitable for reuse. The barn is in fair condition and would also require structural work to enable it for reuse. Furthermore, representatives of the rental car companies at CMH have stated that the buildings would not be suitable for reuse for their operations. Therefore, this alternative will not be carried forward for further evaluation.

3.2.3 TERMINAL ALTERNATIVES

The terminal alternatives considered in this EA were based on the alternatives identified in the 2009 EIS at CMH. That EIS identified three alternatives for meeting terminal space needs as described in the following sections. These alternatives were reviewed based on current conditions. No other viable terminal alternatives were identified that were not assessed in the 2009 EIS.

Alternative T1: Expand Existing Terminal

Alternative T1 includes the expansion of the existing passenger terminal to accommodate forecasted demand. **Exhibit 3-3, *Terminal Alternative T1: Maximize Existing Terminal Envelope***, illustrates the area available for expanding the existing terminal within the existing confines of the airfield layout. The PMADP analyzed the feasibility of the existing terminal meeting future demand. The analysis concluded that the existing terminal, in its current configuration experiences a reduced LOS and cannot efficiently accommodate activity associated with 5 MAEP.

With the current runway separation (3,502 feet), it is technically feasible to expand the existing terminal. However, the considerable limitations to developing a terminal large enough to meet the long-term demand; meet the current security requirements; and accommodate the necessary roadways, parking, and other support functions makes it neither practical or reasonable. Alternative T1 does not ultimately result in the ability to develop a long-term single terminal, and therefore will not be carried forward for further evaluation.

Alternative T2: Midfield Terminal Development Envelope – South Airfield (Proposed Action)

Alternative T2 includes the development of new terminal facilities in the midfield area, with aircraft access from the south airfield. **Exhibit 3-4, *Terminal Alternative T2: Midfield Terminal – Proposed Action***, illustrates the terminal development envelope for Alternative T2. This alternative meets the terminal design criteria developed for the evaluation of overall space requirements, anticipated activity levels, typical passenger characteristics, and industry planning and design standards.

In addition, Alternative T2 allows the Airport to preserve their current and future flexibility to accommodate the capacity needs both on the airfield and in the terminal and landside areas. As such, this alternative would allow for future expansion of the terminal to accommodate growth. Therefore, Alternative T2 will be carried forward for further evaluation.

Alternative T3: Midfield Terminal Development Envelope – North Airfield

Alternative T3 includes the development of new terminal facilities in the midfield area, with aircraft access from the north airfield. **Exhibit 3-5, *Terminal Alternative T3: Midfield Terminal Envelope – North Airfield***, illustrates the terminal development envelope for Alternative T3. As shown on the exhibit, the apron area required for the terminal would extend north of Taxiway E and would impact Runway 10L/28R. This terminal development alternative would require the relocation of Runway 10L/28R to the north, which is not reasonable since Runway 10R/28L was recently relocated for this purpose. Therefore, Alternative T3 will not be carried forward for further evaluation.

3.2.4 AIRFIELD ALTERNATIVES

The proposed airfield alternatives are related to improving taxi time on the west side of the Airport for aircraft taxiing between the north airfield and the midfield/south airfield. Due to the limited area in which taxiway improvements can be built to connect the north and south airfield, only one alternative was considered, a second crossover taxiway.

Alternative A1: Construct a Second Crossover Taxiway (Proposed Action)

This Alternative includes the construction of a second crossover taxiway to the east of the existing crossover taxiway (Taxiway H). This proposed second crossover taxiway would enable simultaneous bi-directional taxi flow between the north airfield and midfield/south airfield, which would reduce congestion and taxi delay when more than one aircraft need to taxi in opposite directions to and from these locations on the airfield. Therefore, Alternative A1 will be carried forward for further evaluation.

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Terminal Alternative T1: Maximize Existing Terminal Envelope

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Terminal Alternative T2: Midfield Terminal - Proposed Action

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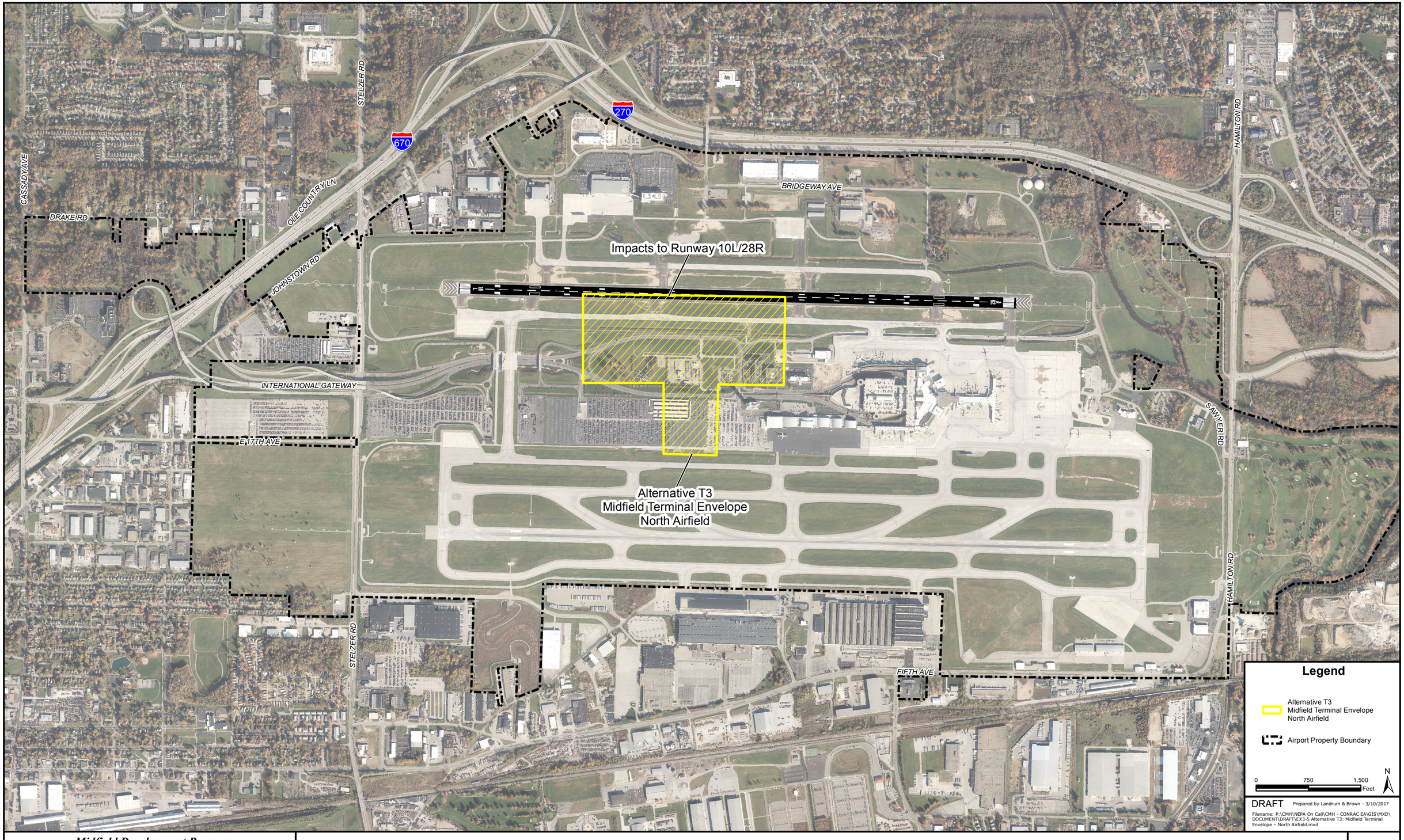

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Terminal Alternative T3: Midfield Terminal Envelope – North Airfield

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3.3 ALTERNATIVES CARRIED FORWARD FOR DETAILED EVALUATION

Alternative 1: No Action

To satisfy the intent of NEPA, FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*; FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures;* and other special purpose environmental laws, a No Action Alternative is carried forward in the analysis of environmental consequences provided in Chapter Five. With the No Action Alternative, the Proposed Action would not be constructed and the existing parking garage and rental car facilities would operate the same as current conditions. The No Action does not meet the stated purpose and need for this project. Although not always reasonable, feasible, prudent, nor practicable, the No Action Alternative is a required alternative under NEPA and serves as the baseline for the assessment of future conditions/impacts.

Alternative 2: Proposed Action

As described in Chapter One and shown in Exhibit 1-2, the Proposed Action includes:

- Construction of a new Consolidated Rental Car Facility (CONRAC)
- Reclaim existing quick turnaround area (QTA) and levels P1 and P2 of the existing long-term parking garage for public parking use
- Construction of rental car support facilities at the Drake Road site
- RTR Antenna Relocation and installation of new underground cabling
- Cell Phone Lot Relocation
- Reconfiguration of the existing International Gateway Loop Road
- Demolition of the existing Hertz, Avis, and former Dollar rental car staging areas
- Demolition of the existing McDonalds
- Construction of a new Parking Garage
- Redevelopment of east development area parcels and demolition of former U.S. Postal Service (USPS) facility
- Expansion of the Red Parking Lot and new entrance/exit to Stelzer Road at East 17th Avenue with various intersection improvements
- Closure of the Blue Parking Lot / Employee Lot
- Decommission Existing Taxiway D, Construct Replacement Parallel Taxiway north of Runway 10R/28L, and reconfigure taxiway exits per FAA guidelines
- Various stormwater improvements including rerouting stormwater to a potential new stormwater detention basin on the east side of CMH property and replacement of existing underground stormwater pipes at Outfall 4

- Construction of a new Midfield Passenger Terminal and associated apron
- Construction of a Ground Transportation Center (GTC)
- Construction of a Central Utility Plant, Utility Corridor, and various utility improvements
- Extension of a sanitary sewer line
- Construction of a Second Crossover Taxiway
- Demolition of the existing Passenger Terminal and short-term parking garage
- Expansion or relocation of the existing fuel farm
- Construction of a new Concession Warehouse
- Removal and replacement of other existing aviation facilities

Chapter Four

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CHAPTER FOUR
AFFECTED ENVIRONMENT

Pursuant to the environmental documentation requirements of Federal Aviation Administration (FAA) Orders 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, and 1050.1F, *Environmental Impacts, Policies, and Procedures,* this affected environment section succinctly describes existing environmental conditions of the potentially affected geographic area for the proposed construction of the Midfield Development Program (MDP) at the John Glenn Columbus International Airport (CMH or Airport).

4.1 ENVIRONMENTAL SETTING

CMH is an international airport located on approximately 2,274 acres of land northeast of downtown Columbus, Ohio. The Airport is located within Franklin County. CMH includes two parallel runways, designated Runway 10L/28R and Runway 10R/28L, which are oriented in an east-west configuration and spaced approximately 3,500 feet apart. Runway 10L/28R (the north runway) is 8,000 feet in length by 150 feet in width; and Runway 10R/28L (the south runway) is 10,113 feet in length by 150 feet in width. Both runways have high intensity runway edge lights and all four runway ends are equipped with a 1,400-foot medium intensity approach lighting system with runway alignment indicator lights (MALSR), a 4-light Precision Approach Path Indicator (PAPI), and an instrument landing system (ILS) approach. The runways are connected by a taxiway system with a central terminal, apron and vehicle parking facilities located between the two runways. The central terminal, parking, and other related airport facilities and infrastructure are located along the International Gateway loop road network.

4.2 PROJECT SITE

The Proposed Action would occur on property that is owned by the Columbus Regional Airport Authority (CRAA). **Exhibit 4-1, *Project Site*,** shows the location of the Proposed Action. The Proposed Action would primarily be located within the midfield area of the Airport between the north and south runways. Additional development is proposed to occur on the Airport Golf Course and an area between I-670 and Drake Road known as the Drake Road site.

The midfield area is generally bounded by Taxiway E to the north, Hamilton Road to the east, Runway 10R/28L to the south, and Stelzer Road to the west. This area includes the International Gateway loop road area that provides access to the existing passenger terminal, parking facilities, hotels, the Lane Aviation fixed base operator (FBO), the FAA Airport Traffic Control Tower (ATCT) and other facilities as shown on Exhibit 4-1. To the east of the existing passenger terminal are an airport fuel farm, the Aircraft Rescue and Fire Fighting (ARFF) building, the 94th Aero Squadron Restaurant and the Gate Gourmet facility.

The Airport Golf Course is located east of Hamilton Road. Big Walnut Creek flows around the north, east, and south sides of the golf course. The approach lights for Runway 28L are located within a narrow corridor on the golf course. It is within this corridor that proposed development would occur.

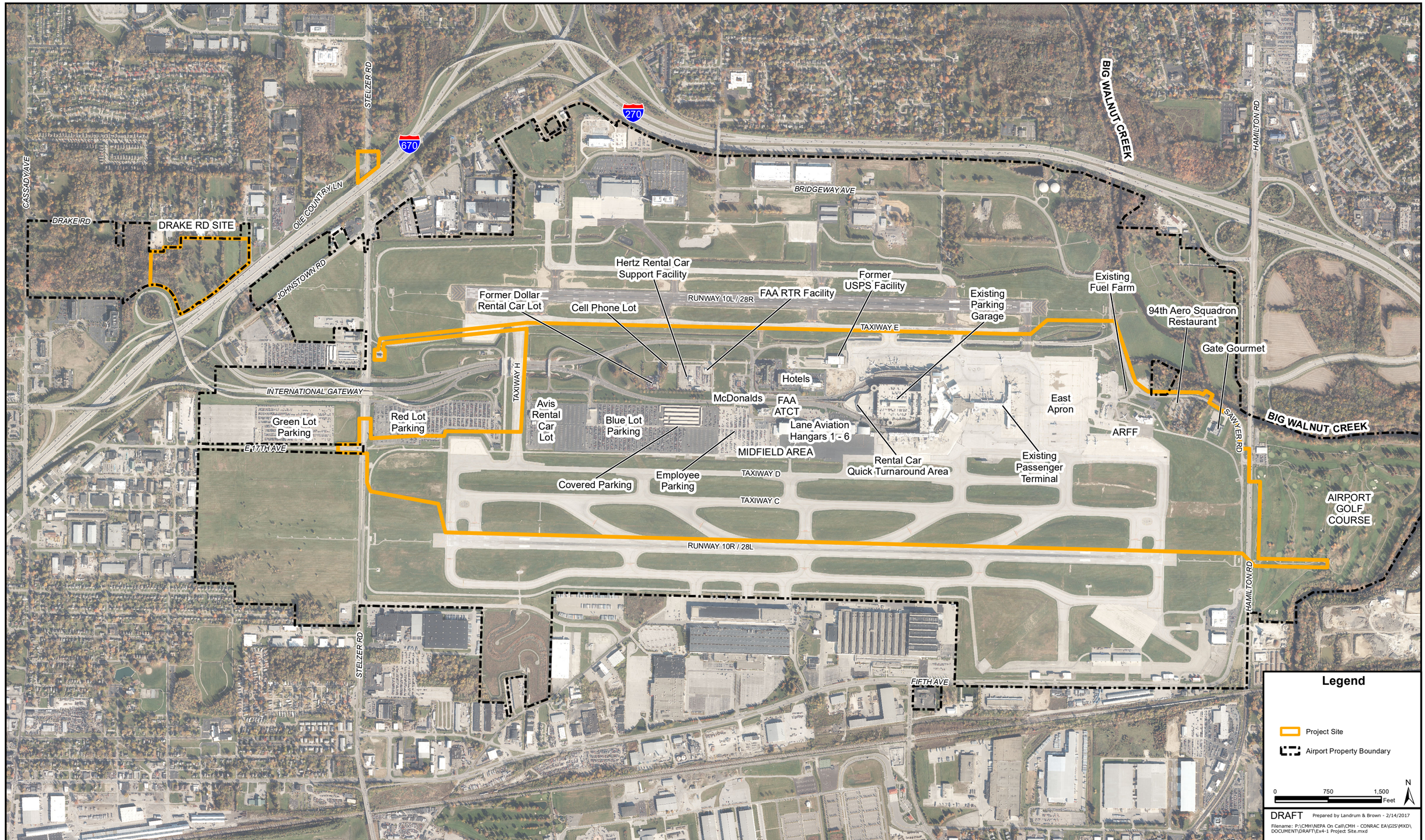
The Drake Road area includes property that has been acquired by the CRAA. This site is roughly bounded by Drake Road to the north, I-670 and Ole Country Lane to the south, Sterling Avenue to the east, and is approximately 1,500 feet from Cassady Avenue to the west. This area is moderately vegetated and includes vacant structures that comprised a former farmhouse and outbuildings.

4.3 RESOURCES POTENTIALLY AFFECTED

The No Action and Proposed Action do not have the potential to affect the following categories because the resources are not present: coastal resources, farmland, and wild and scenic rivers. Therefore, no discussion of the existing conditions related to these categories is included in this chapter. The Proposed Action has the potential to include impacts to the following resource categories:

- Air quality/Climate/Greenhouse Gas;
- Biological Resources;
- Climate;
- Department of Transportation 4(f) Resources
- Hazardous materials and solid waste
- Historic, architectural, archaeological, and cultural resources;
- Land Use;
- Natural resources and energy supply;
- Noise and Compatible Land Use
- Socioeconomics, Environmental Justice, and Children's Health and Safety;
- Visual Effects; and
- Water Resources (including Wetlands, Floodplains, Surface Waters, and Groundwater).

The current conditions for each of these resource categories are described in the following sections.



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Project Site

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4.3.1 AIR QUALITY

CMH is located within Franklin County, Ohio, which is included in the Metropolitan Columbus Intrastate Air Quality Control Region (Columbus AQCR).[1] The U.S. Environmental Protection Agency (USEPA) has designated the Columbus AQCR as marginal non-attainment for ozone (O_3) and maintenance for fine particulate matter ($PM_{2.5}$). Franklin County is designated attainment for all other Federally-regulated pollutants, which are carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), coarse particulate matter (PM_{10}), and lead (Pb).[2]

4.3.2 BIOLOGICAL RESOURCES

As shown in **Exhibit 4-2, *Ecological Features,*** there are areas in which trees, wetlands, and streams occur within the site of the Proposed Action that may serve as habitat for animal species. The U.S. Fish and Wildlife Service (USFWS) and the Ohio Department of Natural Resources (ODNR) reported that CMH is within the range of a number of threatened or endangered species as shown in **Table 4-1**.

Site features within the midfield area for the proposed construction of the Proposed Action include a combination of commercial development, access roads, paved surface vehicle parking areas, maintained grassy areas, and three wooded areas. The three wooded areas are located inside the loop road, the Drake Road site, and at Outfall 4 near the intersection of Sawyer Road and Hamilton Road.

The area inside the loop road includes a segment of Mason Run, which flows northwest to southeast through the western side of the midfield area and is bordered by some mature trees. Mason Run enters a culvert and continues underground beneath the south airfield. A survey of threatened and endangered species was conducted within the loop road area in May 2016. No federally-listed or state-listed species were documented within the loop road area from the literature review or during the field survey. Potential roosting habitat for the Indiana bat and northern long-eared bat was observed within the loop road. The loop road study area contained five potential roosting trees, although no individual bats were observed. These trees are isolated from other wooded areas and are surrounded by airport development and pavement.

The Drake Road area includes approximately 48 acres of trees, several wetlands, and a small stream that runs north to south through the site before entering an underground channel near I-670. Wetlands are discussed further in **Section 4.3.12**.

The area at Outfall 4 includes a stream that runs south to north and enters a culvert under Sawyer Road before flowing into Big Walnut Creek. The stream is surrounded by wooded corridor on either side.

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1 U.S. Environmental Protection Agency (USEPA), 40 CFR § 81.200, *Metropolitan Columbus Intrastate Air Quality Control Region*, (e-CFR data current as of November 28, 2016).

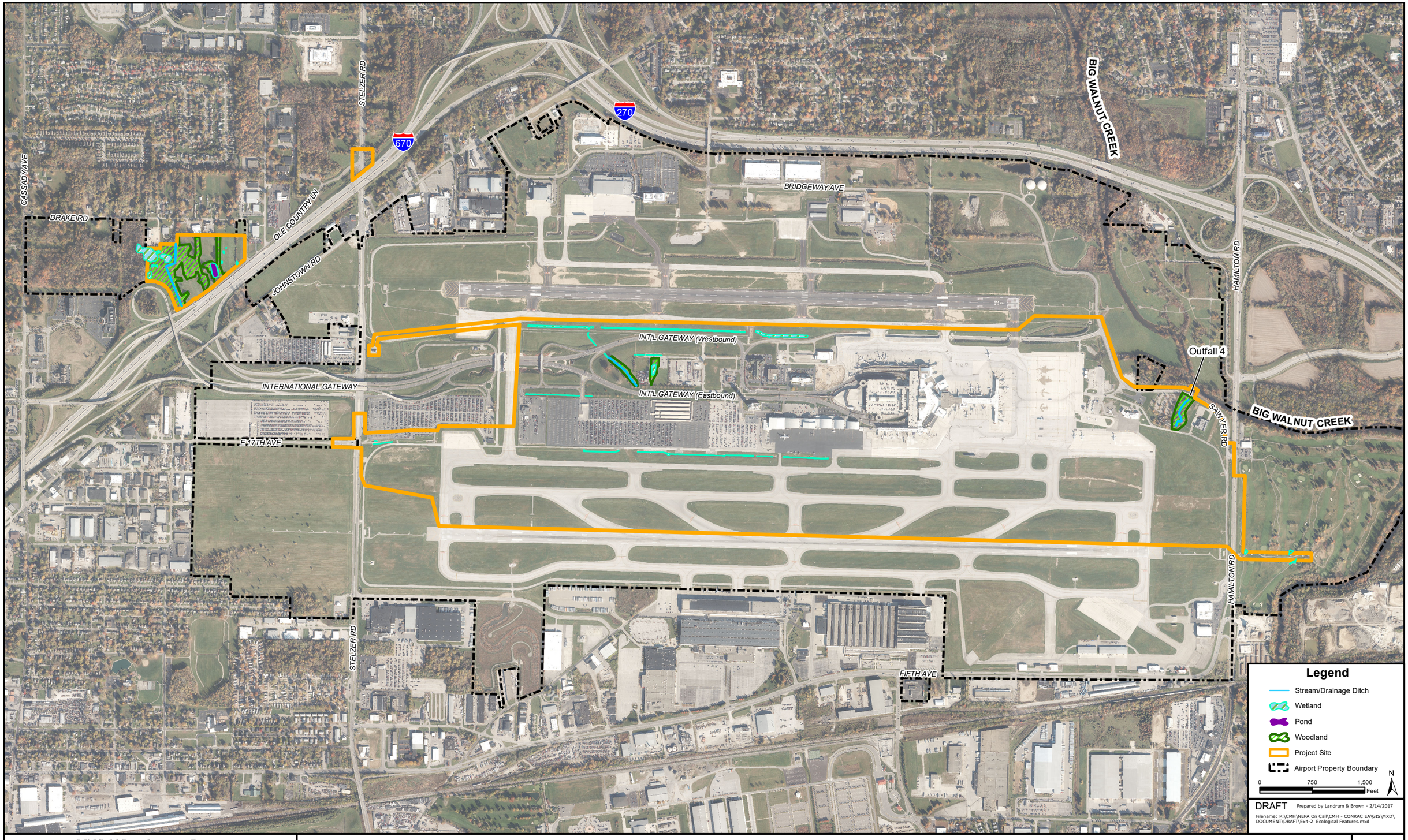
2 USEPA, Nonattainment Status for Each county by Year for Ohio, (Current as of September 22, 2016). Accessed on 1/10/2017 via http://www.epa.gov/airquality/greenbook/anayo_oh.html

Past coordination with the USFWS and ODNR has indicated that the site of the Proposed Action does not contain suitable habitat for the species listed in Table 4-1 with the exception of possible summer habitat of the Indiana and northern long-eared bats, which consists of suitable trees with exfoliating bark, crevices or cavities or hollow areas formed from broken branches located in upland areas or riparian corridors.[3]

The site is in range of the bald eagle, which was removed from the federal list of threatened and endangered species on August 9, 2007, but is still protected under the Bald and Golden Eagle Protection Act. Bald eagle nesting sites have been identified in the vicinity of CMH, although no nesting sites have been identified within the site of the Proposed Action.

No other protected plant or animal species have been identified within the proposed project site during field surveys or through a review of databases maintained by ODNR.

[3] Email communication from Brian Mitch, Ohio Department of Natural Resources, January, 8, 2010. Trees suitable for Indiana bat roosting include: Shagbark hickory (Carya ovata), Shellbark hickory (Carya laciniosa), Bitternut hickory (Carya cordiformis), Black ash (Fraxinus nigra), Green ash (Fraxinus pennsylvanica), White ash (Fraxinus americana), Shingle oak (Quercus imbricaria), Northern red oak (Quercus rubra), Slippery elm (Ulmus rubra), American elm (Ulmus americana), Eastern cottonwood (Populus deltoides), Silver maple (Acer saccharinum), Sassafras (Sassafras albidum), Post oak (Quercus stellata), and White oak (Quercus alba).



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Ecological Features

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Table 4-1
STATE AND FEDERAL THREATENED AND ENDANGERED SPECIES
John Glenn Columbus International Airport

COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS	OHIO STATUS
American Sweet-flag	Acorus americanus		P
Arbor Vitae	Thuja occidentalis		P
Badger	Taxidea taxus		SC
Bald Eagle	Haliaeetus leucocephalus	*	
Barn Owl	Tyto alba		T
Black Sandshell	Ligumia recta		T
Blacknose Shiner	Notropis heterolepis		X
Clubshell	Pleurobema clava	E	E
Cypress-knee Sedge	Carex decomposita		E
Deertoe	Truncilla truncata		SC
Elephant-ear	Elliptio crassidens		E
Elktoe	Alasmidonta marginata		SC
Fawnsfoot	Truncilla donaciformis		T
Four-toed Salamander	Hemidactylium scutatum		SC
Gattinger's-foxglove	Agalinis gattingeri		T
Golden-winged Warbler	Vermivora chrysoptera		X
Goldeye	Hiodon alosoides		E
Great Egret	Casmerodius albus		SC
Green-winged Teal	Anas crecca		SI
Indiana Bat	Myotis sodalis	E	E
Kidneyshell	Ptychobranchus fasciolaris		SC
Northern Brook Lamprey	Ichthyomyzon fossor		E
Northern long-eared bat	Myotis septentrionalis	T	
Northern Riffleshell	Epioblasma torulosa rangiana	E	E
One-sided Rush	Juncus secundus		P
Paddlefish	Polyodon spathula		T
Pale Umbrella-sedge	Cyperus acuminatus		P
Pocketbook	Lampsilis ovata		E
Pondhorn	Uniomerus tetralasmus		T
Prairie Brome	Bromus kalmii		P
Prairie False Indigo	Baptisia lactea		P
Prothonotary Warbler	Protonotaria citrea		SC
Purple Wartyback	Cyclonaias tuberculata		SC
Rabbitsfoot	Quadrula cylindrica	T	E
Rayed Bean	Villosa fabalis	E	E
River Redhorse	Moxostoma carinatum		SC
Rock Elm	Ulmus thomasii		P
Round Pigtoe	Pleurobema sintoxia		SC
Rusty patched bumble bee	Bombus affinis	E	

Table 4-1, *(Continued)*
STATE AND FEDERAL THREATENED AND ENDANGERED SPECIES
John Glenn Columbus International Airport

COMMON NAME	SCIENTIFIC NAME	FEDERAL STATUS	OHIO STATUS
Salamander Mussel	Simpsonaias ambigua		SC
Scaly Blazing-star	Liatris squarrosa		P
Scioto madtom	Noturus trautmani	E	
Shortnose Gar	Lepisosteus platostomus		E
Smooth Greensnake	Opheodrys vernalis		E
Snuffbox	Epioblasma triquetra	E	E
Spotted Darter	Etheostoma maculatum		E
Spreading Rock Cress	Arabis patens		E
Tall Larkspur	Delphinium exaltatum		P
Three-birds Orchid	Triphora trianthophora		P
Threehorn Wartyback	Obliquaria reflexa		T
Tippecanoe Darter	Etheostoma tippecanoe		T
Upland Sandpiper	Bartramia longicauda		E
Washboard	Megalonaias nervosa		E
Wavy-rayed Lampmussel	Lampsilis fasciola		SC
Weak Spear Grass	Poa saltuensis ssp. languida		P
Yellow-crowned Night-heron	Nyctanassa violacea		SI

E = Endangered: A native species or subspecies threatened with extirpation from the state. The danger may result from one or more causes, such as habitat loss, pollution, predation, interspecific competition, or disease.

T = Threatened: A species or subspecies whose survival in Ohio is not in immediate jeopardy, but to which a threat exists. Continued or increased stress will result in its becoming endangered.

SC = Species of Concern: A species or subspecies which might become threatened in Ohio under continued or increased stress. Also, a species or subspecies for which there is some concern, but for which information is insufficient to permit an adequate status evaluation. This category may contain species designated as a furbearer or game species, but whose statewide population is dependent on the quality and/or quantity of habitat and is not adversely impacted by regulated harvest.

SI = Special Interest: A species that occurs periodically and is capable of breeding in Ohio. It is at the edge of a larger, contiguous range with viable population(s) within the core of its range. These species have no federal endangered or threatened status, are at low breeding densities in the state, and have not been recently released to enhance Ohio's wildlife diversity. With the exception of efforts to conserve occupied areas, minimal management efforts will be directed for these species because it is unlikely to result in significant increases in their populations within the state.

X = Extirpated: A species or subspecies that occurred in Ohio at the time of European settlement and that has since disappeared from the state.

P = Potentially Threatened

*Note: The bald eagle was removed from the federal list of threatened and endangered species on August 9, 2007, but is still protected under the Bald and Golden Eagle Protection Act.

Source: *US Fish & Wildlife Service and Ohio Department of Natural Resources records*, January 7, 2017.

4.3.3 CLIMATE

Of growing concern is the impact of proposed projects on climate change. Greenhouse gases are those that trap heat in the earth's atmosphere. Both naturally occurring and anthropogenic (man-made) greenhouse gases include water vapor (H_20), carbon dioxide (CO_2),[4] methane (CH_4), nitrous oxide (N_2O), and ozone (O_3).[5]

Research has shown that there is a direct link between fuel combustion and greenhouse gas emissions. Therefore, sources that require fuel or power at an airport are the primary sources that would generate greenhouse gases. Aircraft are probably the most often cited air pollutant source, but they produce the same types of emissions as cars. Aircraft jet engines, like many other vehicle engines, produce CO_2, water vapor, nitrogen oxides, carbon monoxides, oxides of sulfur, unburned or partially combusted hydrocarbons (also known as volatile organic compounds (VOCs)), particulates, and other trace compounds.

According to most international reviews, aviation emissions comprise a small but potentially important percentage of human-made greenhouse gases and other emissions that contribute to global warming. The Intergovernmental Panel on Climate Change (IPCC) estimates that global aircraft emissions account for about 3.5 percent of the total quantity of greenhouse gas from human activities.[6] In terms of relative U.S. contribution, the U.S. General Accounting Office (GAO) reports that aviation accounts "for about 3 percent of total U.S. greenhouse gas emissions from human sources" compared with other industrial sources, including the remainder of the transportation sector (23 percent) and industry (41 percent).[7]

The scientific community is developing areas of further study to enable them to more precisely estimate aviation's effects on the global atmosphere. The FAA is currently leading several efforts intended to clarify the role that commercial aviation plays in greenhouse gas emissions and climate change. The most comprehensive is a multi-year program geared towards quantifying climate change effects of aviation. This program is called the Aviation Climate Change Research Initiative (ACCRI) and is funded by the FAA and NASA. ACCRI will reduce key scientific uncertainties in quantifying aviation-related climate impacts and provide timely scientific input to inform policy-making decisions. In addition, the FAA is funding a research initiative through the Partnership for Air Transportation Noise and Emissions Reduction (PARTNER) Center of Excellence (Project 12) to quantify the effects of aircraft exhaust and contrails on global and U.S. climate and atmospheric composition. With regard to airports, the FAA participated in a recent effort through the Transportation Research Board (TRB) Airport Cooperative Research Program (ACRP) to develop a

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4 All greenhouse gas inventories measure carbon dioxide emissions. Beyond carbon dioxide, GHG inventories may vary according to other greenhouse gases (GHGs) assessed.

5 Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also greenhouse gases, but they are, for the most part, solely a product of industrial activities. For example, chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) are halocarbons that contain chlorine, while halocarbons that contain bromine are referred to as bromofluorocarbons (i.e. halons) or sulfur (sulfur hexafluoride: SF_6).

6 IPCC Report as referenced in U.S. General Accounting Office (GAO) *Environment: Aviation's Effects on the Global Atmosphere Are Potentially Significant and Expected to Grow;* GAO/RCED-00-57, February 2000, p. 4.

7 Ibid, p. 14; GAO cites available EPA data from 1997.

guidebook on how to prepare airport greenhouse gas emission inventories. The "Guidebook on Preparing Airport Greenhouse Gas Emissions Inventories" (Report 11, 2009) is publicly available through TRB.[8]

Airport development has the potential to both affect climate change and to be affected by it. Changes in resource categories such as air quality, natural resources, and energy supply can potentially contribute to climate change by increasing the amount of greenhouse gases emitted. Conversely, some airport projects may be impacted by the potential effects of climate change, such as rising sea levels. At this time there is no consistent scientific indication of when and how the climate will change.

4.3.4 DEPARTMENT OF TRANSPORTATION ACT SECTION 4(F) RESOURCES

There is one recreation facility, the Airport Golf Course, located within the site of the Proposed Action. Disturbance to the Golf Course would be limited to an underground connection to an existing sanitary sewer line that would be located within the FAA approach light lane. There are no other public parks, recreation facilities, or wildlife or waterfowl refuges located within the site of the Proposed Action. Potential historic sites are discussed in **Section 4.3.6**.

4.3.5 HAZARDOUS MATERIALS AND SOLID WASTE

There are several structures within the site of the Proposed Action as shown on **Exhibit 4-3, *Potential Hazardous Material Sites***. Structures within the midfield site include a Hertz Rental Car facility, a small structure on the former Dollar Rental Car lot, a McDonalds, three hotels, a former USPS facility, an FAA RTR facility, an FAA Airport Traffic Control Tower (ATCT), the Lane Aviation facility, the rental car quick turn-around area, the existing terminal and parking garage and other utility features. Some of these structures are known to have or have the potential to contain hazardous materials. For this EA, information related to potential hazardous materials at these sites was obtained from a review of environmental reports, including the 1991 Metcalf & Eddy, Inc. *Phase I Environmental Audit Report for Port Columbus International Airport and Bolton Field* (1991 Phase I Report);[9] and site visits of these facilities conducted in July 2014 and December 2014. Additional information on the structures at the Elam Drake Farmstead was obtained from a Hazardous Material Visual Survey and Asbestos Survey and a lead-based paint survey conducted in 2006. The following sections summarize the status of hazardous materials known or potentially present at each site.

[8] Transportation Research Board (TRB) Airport Cooperative Research Program (ACRP) Report 11: Guidebook on Preparing Airport Greenhouse Gas Emissions Inventories, 2009; Available online at: http://www.trb.org/Publications/Blurbs/160829.aspx.

[9] The name of the Airport changed to John Glenn Columbus International Airport from Port Columbus International Airport in June 2016. Contemporary references to the Airport in this report use the new name; historical references to the Airport retain the Port Columbus name, as that was the name in use at the time.

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Midfield Development Program
Environmental Assessment
John Glenn Columbus International Airport

Potential Hazardous Materials Sites

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4-3

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Elam Drake Farmstead: This property contains a formal residence and smokehouse (ca. 1855), garage (ca. 1950), out building (early twentieth century), and barn (ca. 1868). Lead, asbestos, and hazardous materials surveys were conducted due to the age of the structures. The lead survey confirmed the presence of lead in various interior and exterior surfaces of the house and in the exterior of the outhouse, barn, and garage.[10] An asbestos and hazardous materials survey confirmed that the residence and the barn had no sign of asbestos. The barn additionally tested negative for hazardous materials. The residence contained hazardous materials, specifically, fluorescent light bulbs and ballasts.[11] The outhouse and garage were boarded up and inaccessible to the surveyors. Given the age of the structures, it is likely they contain similar materials and would be tested for asbestos and hazardous materials prior to removal.

Existing Terminal and Parking Garage: The existing passenger terminal at CMH opened in 1958 and has undergone extensive expansion and remodeling. Older portions of the building may contain lead paint, asbestos, and PCBs. The apron surrounding the terminal includes an in-ground hydrant fueling system. There are also several ASTs and USTs that are connected to emergency generators, including one AST in the central terminal, one AST in the parking garage, one UST in Concourse A, an AST and a UST in Concourse B, and an AST and UST in Concourse C.

FAA RTR Facility: The RTR Facility includes a small structure and three radio antennas. Previous coordination with FAA staff indicated this building was a former radar facility constructed between 1963 and 1966. According to FAA staff, the engine and fuel tank from the former radar facility were removed in 1978. FAA staff indicated that an asbestos survey has been conducted, and that asbestos flooring has been removed from the building, however, FAA staff could not locate the report to document if asbestos was found in other materials in the building. The 2014 site visit identified secondary containment structures outside of the FAA building. Discussions with FAA staff revealed that the secondary containment was used for used oil and antifreeze, and the only materials currently stored inside the building are dry batteries.[12]

FAA Airport Traffic Control Tower (ATCT): The ATCT is located on the south side of International Gateway. The facility was constructed in 2002/03. Past inventories of this facility indicate that it includes an above ground storage tank (AST) that is used for fuel for an emergency generator.

Fairfield Inn: The Fairfield Inn was constructed in 2013/14 and it is anticipated to meet all applicable regulations regarding hazardous building materials. Due to its age, it is not expected to contain asbestos or lead paint.

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[10] Professional Service Industries, Inc., *Lead Based Paint Survey for 2730-2738 Ole Country Road Demolition Project*, August 28, 2006.

[11] Professional Service Industries, Inc., *Hazardous Material Visual Survey and Asbestos Survey at 2730-2738 Ole Country Road*, August 21, 2006.

[12] Seal, Devon, and Lengel, John; Gresham Smith and Partners; Memo: *CMH Loop Road Environmental Summary, CRAA-CMH Loop Road Land Use Study*. January 15, 2015. [Referencing telephone phone interview between Ms. Terri Vance with FAA and Gresham Smith & Partners staff on August 21, 2014.]

Former Dollar Rental Car Facility: According to records maintained by the Franklin County Auditor, this structure was constructed in 1980. Past reports indicate that asbestos-containing materials may be present in the floor and ceiling tiles. Past reports document two USTs associated with the former Dollar Rental Car facility had been located on the site. A search of the Ohio Tank Tracking and Environmental Regulations (OTTER) database for underground storage tanks was conducted for this location. The OTTER database indicated that the two Dollar Rental Car USTs had been removed and had been issued No Further Action letters. Past reports of the site also documented a spill next to a former shed to the west of the Dollar Rental Car building. The Phase II investigation included sampling of the spill area, which detected elevated levels of total petroleum hydrocarbons. A letter was sent to Dollar Rental Car in 1991 requesting they clean up the spill and report it to authorities.[13] There is likely an oil/water separator connected to the existing storm sewer on site. Additional investigation and coordination would occur prior to construction to ensure that the site has been property cleaned, underground utilities removed, and no contamination exists.

Hertz Rental Car Facility: There are two structures on this site, a rental office building and a maintenance garage. According to records maintained by the Franklin County Auditor, the rental car building was built in 1971 and the other maintenance garage was built in 1959. Past reports indicate that PCBs may be present in older fluorescent lamp ballasts. There is also potential for asbestos-containing materials in the floor and ceiling tiles of both buildings. A review of past environmental reporting of this site identified one under-ground storage tank (UST) associated with the Hertz Rental Car operations, which was confirmed to be present at the site by Hertz staff and is still in service.

During site visits in 2014, sanitary sewer inlets were identified in the Hertz Rental Car maintenance garage, although no oil/water separator to remove oil and grease from maintenance garage discharges was found and Hertz staff were not aware of an oil/water separator on site. The 2014 site visit also identified new and used oil and other maintenance chemicals in the Hertz Rental car maintenance garage.[14]

Hilton Garden Inn: According to records maintained by the Franklin County Auditor, this structure was constructed in 2001. Due to its age, it is not expected to contain asbestos or lead paint.

Hampton Inn: According to records maintained by the Franklin County Auditor, this structure was constructed in 1996. Due to its age, it is not expected to contain asbestos or lead paint.

[13] Seal, Devon, and Lengel, John; Gresham Smith and Partners; Memo: *CMH Loop Road Environmental Summary, CRAA-CMH Loop Road Land Use Study*. January 15, 2015. [Review of Metcalf & Eddy, Inc. Phase I Environmental Audit Report for Port Columbus International Airport and Bolton Field, and the 1991 Metcalf & Eddy, Inc. Phase II Environmental Audit Report for Port Columbus International Airport and Bolton Field.]

[14] Ibid

Lane Aviation Facility: The Lane Aviation Facility includes six hangars, designated Hangar 1 through Hangar 6 in order from east to west. The hangars were constructed between 1957 and 2006. The 1991 Phase I Report indicated the potential presence of asbestos-containing materials in the Lane Aviation ceiling tile and thermal system insulation of the eastern hangars.

The 1991 Phase I report identified a spill south of the Lane Aviation Hangars in the infield area adjacent to the old Taxiway C (now Taxiway D). The Phase II investigation included sampling of the spill area, which detected elevated levels of total petroleum hydrocarbons in the soil.

Lane Aviation also has several above ground storage tanks and mobile above ground storage tanks containing used oil, gasoline and diesel stored inside of the hangars. There is a buried oil/water separator connected to the exterior drainage serving the mobile refueler parking area that is connected to the existing storm sewer. There are also likely buried oil/water separators in each of the hangars that connect to the sanitary sewer line that runs north of the hangars. These would be confirmed and removed if necessary.

McDonalds: According to records maintained by the Franklin County Auditor, this structure was constructed in 1989. Due to its age, it is not expected to contain asbestos or lead paint. During a site visit conducted, staff observed used cooking oil storage at the restaurant.[15]

Quick Turn-Around Area: There is a large fueling station at the rental car quick turn-around area that includes four 15,000-gallon USTs. There is also a carwash associated with the quick turn-around area with a potable water line and a sanitary sewer line servicing the car wash. It is believed that the sanitary line connects to a sanitary line that runs along the north side of the Lane Aviation Hangars.

USPS Facility: According to records maintained by the Franklin County Auditor, this structure was constructed in 1988. While past reports of this facility do not include an assessment of the USPS building, based on its age, asbestos building materials could be present in the building.[16] Due to its age, it is not expected to contain lead paint.

Utilities: The 1991 Phase I report stated that many of the transformers did not contain identification that they were free from PCBs. During the site visit, several transformers were observed in the Loop Road area. An emergency generator was identified adjacent to the entrance for the blue parking lot near the planned location of the central utility plant. The 2014 site visit and review of utility maps identified

[15] Seal, Devon, and Lengel, John; Gresham Smith and Partners; Memo: *CMH Loop Road Environmental Summary, CRAA-CMH Loop Road Land Use Study*. January 15, 2015.

[16] Ibid

sanitary sewer, storm sewer, water, electric, FAA/communications, lighting, and gas utilities in the Loop Road area that may need to be removed or relocated during construction.[17]

Avis Rental Car Lot: The Avis Rental Car Facility includes an office and maintenance facility. According to records maintained by the Franklin County Auditor, the rental car building was built in 1970. Due to the age of the structure, PCBs and asbestos-containing materials may be present. A review of past environmental reporting of this site identified two fuel storage tanks.

4.3.6 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

The midfield area of the Proposed Action site consists of and is surrounded by airport development while the Drake Property is surrounded by commercial, industrial, and residential land use.

The Area of Potential Effect (APE) was determined based on the areas of potential direct impacts (Direct APE) from the Proposed Project, as well as the limit of potential indirect impacts (Indirect APE) related to noise, viewshed, and setting. Both APEs are shown on **Exhibit 4-4, *Potential Historic Resources***. The Direct APE was determined by identifying the areas where ground disturbance and/or construction activities would occur. The Indirect APE includes the Direct APE, as well as an expanded area that has historically been subject to significant noise levels per FAA guidelines. For the purpose of this consultation, the 2012 Noise Contour from the 2009 Environmental Impact Statement (EIS) for the relocation of Runway 10R/28L is the most recent official representation of noise levels around the Airport and continues to represent current noise levels. The Indirect APE was further expanded to include areas where potential visual impacts may occur.

Most areas within the Direct APE have been previously surveyed or are previously disturbed. Additional surveys were conducted within the loop road area for this EA. In a letter dated November 29, 2016, the OHPO concurred that no significant archaeological resources were found within the midfield area or the Elam Drake Farmstead during past surveys and no additional surveying is necessary.[18]

A review of potentially historic resources was conducted for this EA. **Table 4-2** lists buildings that are at least 50 years old within the APE.

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[17] Seal, Devon, and Lengel, John; Gresham Smith and Partners; Memo: *CMH Loop Road Environmental Summary, CRAA-CMH Loop Road Land Use Study*. January 15, 2015. [Review of Metcalf & Eddy, Inc. Phase I Environmental Audit Report for Port Columbus International Airport and Bolton Field, and the 1991 Metcalf & Eddy, Inc. Phase II Environmental Audit Report for Port Columbus International Airport and Bolton Field.]

[18] Letter from Diana Welling, Department Head, Resource Protection and Review, Ohio History Connection, November 29, 2016.

Table 4-2
PROPERTIES FIFTY YEARS OLD OR GREATER WITHIN THE APES

PROPERTY	YEAR BUILT
Air Force Plant 85 and Associated Facilities	1940-1944
Nationwide (formerly Curtiss Flying Service) Hangar	1929-1930
CRAA President and CEO's Residence	circa 1930
Elam Drake Farmstead	
Elam Drake Farmhouse	circa 1855
Smokehouse	circa 1855
Brick Barn	circa 1868
Outhouse	20th Century
Concrete Block Garage	circa 1960
Existing John Glenn Columbus International Airport Passenger Terminal	1958
Hertz Rental Car Building	1959
Lane Aviation Facility (Hangars 1 & 2)	1957
Original Port Columbus Airport Terminal & Control Tower	1929
Remote Transmitter Receiver (RTR) Building	1963-1966
Residences on Drake Road	1950-1956
Transcontinental Air Transport (TAT) Hangar	1929

Source: Landrum & Brown, 2016.

The Elam Drake Farmstead is listed on the NRHP. The Elam Drake Farmstead includes five structures. A house, a smokehouse, and a brick barn, were built in the 1850s and 1860s; an outhouse was likely built in the early 20th Century, and a garage was built circa 1960. This property was listed on the NRHP in 1977. The original NRHP nomination form references the farmhouse; however, the barn and smokehouse are also noted as contributing parts of the NRHP resource. The farmhouse (FRA 2605-12) and barn (FRA-2606-12) are also listed on the Ohio Historic Inventory. A Historic American Building Survey (HABS) report was conducted for the Elam Drake Farmhouse in 2006.

The Air Force Plant 85 and Associated Facilities, and the Original Port Columbus Airport Terminal & Control Tower (FRA-1793-12) are listed on the NRHP. The TAT Hangar (FRA-9675-12), and the CRAA President and CEO's Residence (FRA-10474-12) are eligible or potentially eligible for the NRHP. The former Curtiss Flying Service Hangar (FRA-9676-12) was previously determined ineligible for the NRHP.

The existing John Glenn International Airport Passenger Terminal and the Lane Aviation Facility were evaluated for this EA. In a letter dated November 29, 2016, the OHPO confirmed that the buildings are not eligible for listing on the NRHP.

Several residences along Drake Road that were constructed between 1950 and 1956 would likely be within the viewshed of the proposed rental car support facility south of Drake Road. This area has undergone recent commercial development on adjacent property not owned by the CRAA. Construction of commercial rental car facilities, including parking lots and maintenance garages, would not significantly alter the

current visual setting. The single family detached homes in this area include various style of homes that were built in the 1950s and many have more modern accessory structures. A review of these properties did not identify any features that would indicate the homes are unique or significant compared to other 1950s era houses in the area. In a letter dated November 29, 2016, the OHPO confirmed that the buildings are not eligible for listing on the NRHP.

Other buildings that would be directly impacted within the APE include the existing RTR Building (built between 1963 and 1966), the existing McDonalds (built circa 1989), the former USPS Facility (built in 1988), the Avis rental car office and garage (built in 1970), the former Dollar rental car garage (built in 1980), and the Hertz rental car office and garage (built in 1959 and 1971). None of these buildings have been identified as eligible for the NRHP. These buildings are of utilitarian construction, do not have unique or significant architectural features, and are not known to be associated with significant historical events or persons. In a letter dated November 29, 2016, the OHPO confirmed that the buildings are not eligible for listing on the NRHP.

Aside from the Elam Drake Farmstead, the nearest known resources that are listed on or eligible for the NRHP are the Air Force Plant 85 and Associated Facilities and the Original Port Columbus Airport Control Tower. These resources are already within view of existing airport facilities and would have limited views of the proposed new development.

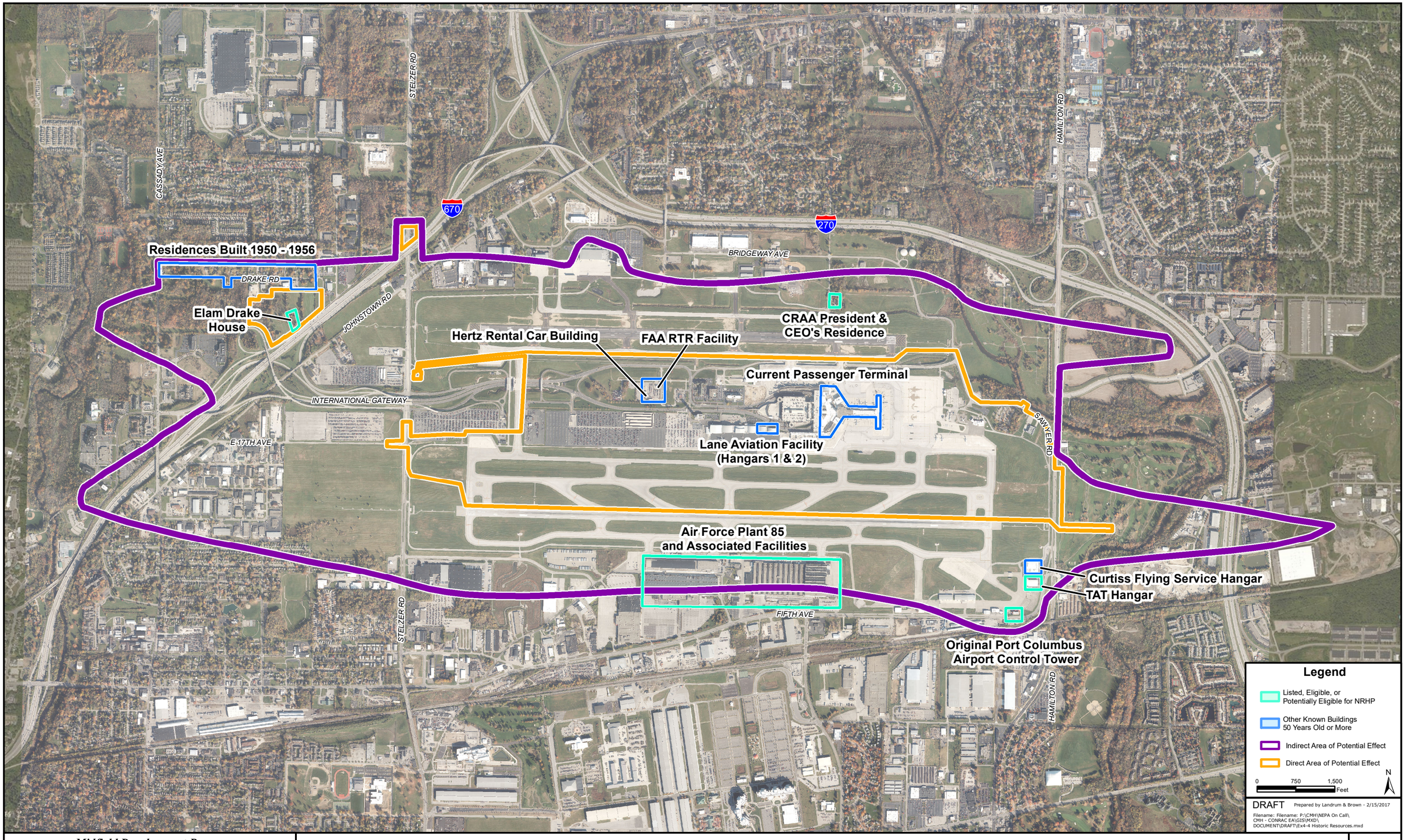
4.3.7 LAND USE

The Proposed Action would occur entirely on Airport property. Some proposed development would occur on the Drake Road site and the Airport Golf Course, which are owned by the CRAA. The site is primarily surrounded by airport-related land uses as shown in **Exhibit 4-5, *Existing Land Use***. The nearest residential land uses are located on Drake Road approximately 120 feet from the proposed development. Other nearby residential areas are located along Johnstown Road, 12th Avenue and 13th Avenue, and north of I-270.

4.3.8 NATURAL RESOURCES AND ENERGY SUPPLY

The Columbus area is a well-developed urban area with adequate access to natural resources for construction projects. The project site has access to utilities and fuel and these energy sources are not in short supply in the Columbus area. Electricity is provided to CMH by the Ohio Power Company, which is a subsidiary of American Electric Power Ohio (AEP Ohio). AEP Ohio provides electricity to nearly 1.5 million residential, commercial, and industrial customers in central Ohio.

Natural gas is provided to CMH through several sources. CMH participates in the City of Columbus natural gas self-help program, which acts as a cooperative to buy and distribute natural gas from several providers. In addition to the existing passenger terminal, CMH has several out buildings that are provided with natural gas directly from the local provider, Columbia Gas of Ohio. Columbia Gas of Ohio serves 1.4 million residential, commercial and industrial customers, and is the largest natural gas utility in the State of Ohio.



Midfield Development Program
Environmental Assessment
John Glenn Columbus International Airport

Potential Historic Resources

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AGLER RD
STELZER RD
HAMILTON RD
SUNBURY RD
CASSADY AVE
BRENTNELL AVE
670
270
BRIDGEWAY AVE
DRAKE RD
JOHNSTOWN RD
INT'L GATEWAY (Westbound)
INT'L GATEWAY (Eastbound)
INTERNATIONAL GATEWAY
SAWYER RD
E 17TH AVE
STELZER RD
FIFTH AVE

Legend

- Project Site
- Single-Family Residential
- Two-Family Residential
- Multi-Family Residential
- Mobile Home Park
- Ag/Open Space/Park
- Institutional
- Industrial
- Commercial
- Exempt
- Unclassified
- Airport Property

0 1,000 2,000 Feet

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COLUMBUS REGIONAL AIRPORT AUTHORITY

Midfield Development Program
Environmental Assessment
John Glenn Columbus International Airport

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Existing Land Use

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4.3.9 NOISE AND COMPATIBLE LAND USE

Noise levels at CMH are affected by aircraft operations. Aircraft noise levels are generally produced during arrival and takeoff along the major flight corridors to and from CMH. **Exhibit 4-6, *Future 2012 Noise Exposure Contour***, shows the noise contours that were prepared for the 2009 EIS[19] for the relocation of Runway 10R/28L. A forecast of aviation activity was prepared for the 2009 EIS. Based on that forecast, 241,600 annual aircraft operations (approximately 662 average-annual day operations) were projected to occur in 2012, which is a higher number of operations than occurred during the latest 12 months at CMH. Therefore, noise exposure levels today are expected to be similar to or lower than the 2012 projections from the 2009 EIS.

Exhibit 4-6 depicts the noise exposure patterns for CMH using the Day-Night Average Sound Level (DNL) noise metric based on operating levels that were forecast to occur in 2012. Per Federal guidelines, 65 DNL is generally the level at which noise-sensitive land uses are considered incompatible with aircraft noise unless mitigated to reduce interior noise levels below acceptable levels. As part of the FAA-approved Noise Compatibility Program and the Record of Decision for the 2009 EIS for CMH, the CRAA has offered sound insulation to eligible residential properties within areas identified as significantly impacted by noise per Federal guidelines as shown in Exhibit 4-6. Additional information regarding Federal guidelines for airport noise analysis, including more information on the DNL metric, is included in **Appendix I, *Noise Methodology***.

Construction activities associated with the Proposed Action are expected to result in minimal noise impacts to residential and other public land uses due to the limited amount of time the construction activity would occur. Major construction activities would be primarily limited to daylight hours. Additionally, noise from construction equipment would not likely be discernible from other background noise sources such as aircraft and roadway noise from I-670.

4.3.10 SOCIOECONOMIC CONDITIONS

CMH is located in Franklin County, Ohio, one of the fastest growing counties in the state. The population of Franklin County has increased by over seven percent since 2010 from 1,163,414 to an estimated 1,251,722 in 2014. In that same timeframe, the population of the ten-county Columbus Metropolitan Statistical Area (MSA) has increased by over six percent from 1,902,015 to an estimated 2,021,632.[20,21]

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[19] Port Columbus International Airport; Environmental Impact Statement, SECTION 303(c) and Section 106 of the National Historic Preservation Act Evaluation; March 2009.

[20] The Columbus Metropolitan Statistical Area includes Delaware, Fairfield, Franklin, Hocking, Licking, Madison, Morrow, Perry, Pickaway, and Union counties.

[21] U.S. Census Bureau, County Totals Dataset: *Population, Population Change and Estimated Components of Population Change: April 1, 2010 to July 1, 2014*, Accessed on November 18, 2016, at http://www.census.gov/popest/data/counties/totals/2015/index.html.

Total employment in Franklin County was 608,429 as of March 2014. This represents a more than eight percent increase in employment since 2010.[22]

A review of minority and low-income population data was conducted for this EA. Data was obtained from the U.S. Census Bureau for all block groups within a one-mile radius of the site of the Proposed Action. The population within those Census block groups is approximately 55 percent minority and 20 percent low-income.[23, 24, 25] The Proposed Action would occur entirely on Airport property, and no residential properties would be removed as part of the Proposed Action.

4.3.11 VISUAL EFFECTS

The midfield area project site is surrounded by airport land uses. Those airport facilities and the airfield have outdoor lighting per FAA requirements. The nearest residential land uses to the primary project site are located approximately 2,500 feet away to the northwest of the site along Johnstown Road. Other nearby residential areas are located approximately 1,500 feet to the southwest of the site of the Proposed Action along 12th Avenue and 13th Avenue, and approximately 3,000 feet to the north of the site of the Proposed Action north of I-270.

The Drake Road area project site is directly adjacent to commercial and residential land uses. The facility presents a compatible use with that of existing uses except for residential use. Adjacent off-airport property in this area has recently been converted to commercial and light industrial uses.

4.3.12 WATER RESOURCES

Floodplains

As shown on **Exhibit 4-7, *Floodplains***, portions of CMH property are within the 100-year floodplain adjacent to the Big Walnut Creek. This area fulfills the criteria for an area of special flood hazard with flood elevation data and is denoted as Zone AE. Floodplains classified as Zone AE include floodways and flood hazard areas inundated by 100-year floods, for which base flood elevations have been determined. There are no mapped floodplains within the site of the Proposed Action with the exception of a small area on the northeast side of the midfield in which underground utility expansion would occur.

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[22] U.S. Census Bureau, County Business Patterns (NAICS), Accessed on November 18, 2016 at http://censtats.census.gov/cgi-bin/cbpnaic/cbpsect.pl

[23] Low-income refers to the percentage of individuals in the study area whose median household income is at or below the Department of Health and Human Services poverty guidelines (to access these guidelines for 2016 available online at: http://aspe.hhs.gov/poverty/index.cfm.

[24] U.S. Census Bureau; 2010 Census, Table QTP4: Race, Combinations of Two Races, and Not Hispanic or Latino; Accessed March 20, 2017 at: https://factfinder.census.gov/faces/nav/jsf/pages/guided_search.xhtml.

[25] U.S. Census Bureau; American Community Survey, 2011-2015 American Community Survey 5-Year Estimates, Table B17017: Poverty Status in the Past 12 Months by Household Type by Age of Householder; Accessed March 20, 2017 at: https://factfinder.census.gov/faces/nav/jsf/pages/guided_search.xhtml.

AGLER RD
STELZER RD
HAMILTON RD
SUNBURY RD
CASSADY AVE
BRENTNELL AVE
670
270
DRAKE RD
JOHNSTOWN RD
BRIDGEWAY AVE
INT'L GATEWAY (Westbound)
INTERNATIONAL GATEWAY
INT'L GATEWAY (Eastbound)
SAWYER RD
E 17TH AVE
75 DNL
70 DNL
65 DNL
STELZER RD
FIFTH AVE

Legend

- Project Site
- Future (2012) Noise Exposure Contour from 2009 EIS
- Approved Residential Sound Insulation Program Areas
- Single-Family Residential
- Two-Family Residential
- Multi-Family Residential
- Mobile Home Park
- Ag/Open Space/Park
- Institutional
- Industrial
- Commercial
- Exempt
- Unclassified
- Airport Property Boundary

0 1,000 2,000 Feet

N

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COLUMBUS

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John Glenn Columbus International Airport

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Future 2012 Noise Exposure Contour (From the 2009 EIS)

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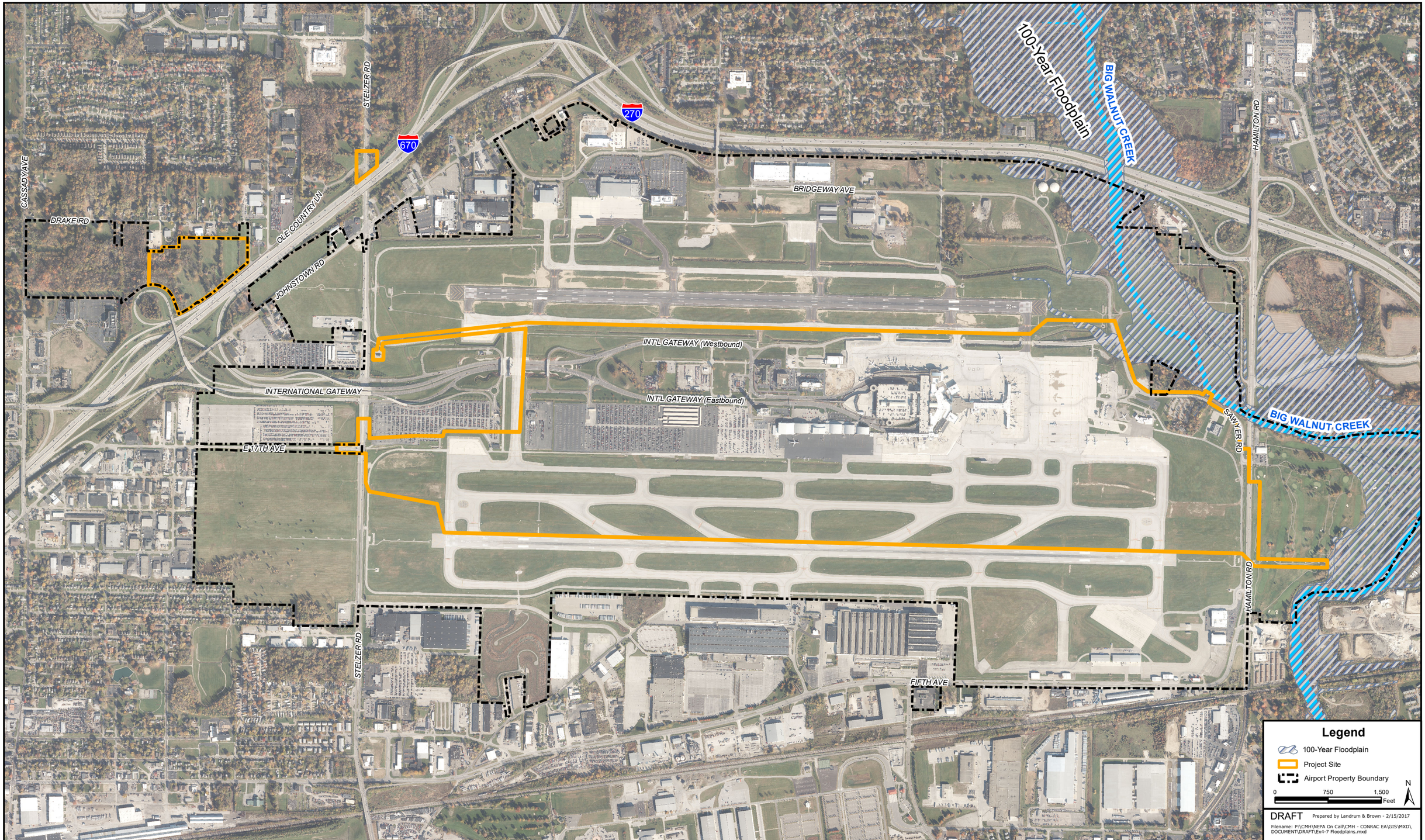

COLUMBUS

Midfield Development Program
Environmental Assessment
John Glenn Columbus International Airport

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Floodplains

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Surface Waters

Drinking water in the Columbus region primarily comes from three reservoirs. The Griggs and O'Shaugnessy Reservoirs are located on the Scioto River to the west and northwest of CMH. The Hoover Reservoir is located on the Big Walnut Creek to the north of CMH. These three reservoirs provide 90 percent of the more than 140 million gallons of water used daily in the Columbus area. The remaining 10 percent is drawn from the wells in southern Franklin County.[26]

CMH is located within the Big Walnut Creek watershed downstream of the Hoover Reservoir. CMH property is comprised of nine drainage basins. Sections of the project site are primarily located within Drainage Basins 2, 4, and 6 as shown in **Exhibit 4-8, *Drainage Basins***. The proposed location for the relocation of the RTR antenna is within Basin 4. Several open drainage channels and streams collect stormwater within these drainage basins.

Drainage Basin 2 drains the western side of the project site south of Taxiway E and east of Taxiway H (crossover taxiway). Stormwater from upper portions of Basin 2 discharges through Outfall 002 into an open ditch south of the project site that flows into Mason Run on the south edge of CMH property.

Drainage Basin 4 includes the southeastern section of CMH property, including the proposed location for the relocation of the RTR antenna. Stormwater runoff from Basin 4 primarily drains via overland flow into a channel that empties into Big Walnut Creek at Outfall 004 near the 94th Aero Squadron Restaurant.

Drainage Basin 6 includes the northeast section of the project site to the east and south of Sawyer Road. Basin 6 also includes the existing passenger terminal and surrounding apron. Stormwater from Basin 6 drains into Big Walnut Creek through Outfall 006 primarily via an unnamed manmade channel that flows west to east just south of Taxiway E.

The Drake Road project site is split between the Alum Creek Watershed and the Big Walnut Creek Watershed. The area contains the Drake Property, which has a 0.257-acre historic farm pond located in the eastern portion of the property. Two additional streams are located along the project site, one on the western side, which drains to Alum Creek. The other is isolated and drains southeast towards a ditch.

The CRAA has a National Pollution Discharge Elimination System (NPDES) permit (Permit OH0124311) for stormwater discharge from the drainage basin outfalls. The NPDES permit includes effluent limitations monitored at an upstream and a downstream monitoring station. Stormwater discharges at these outfalls have historically been in compliance with NPDES permit limits.

[26] City of Columbus, *Water Supply and Source Management History*, Online at https://columbus.gov/Templates/Detail.aspx?id=16077, Accessed November 16, 2015.

Groundwater

Franklin County's primary ground-water sources are the unconsolidated sand and gravel deposits and the carbonate aquifers. Areas in southeast Franklin County along the Scioto River and Big Walnut Creek offer the greatest potential for developing municipal and industrial ground-water supplies. Presently, the City of Columbus operates four collector wells located in the unconsolidated sand and gravel aquifers along the Scioto River and Big Walnut Creek.[27] These wells provide approximately ten percent of the drinking water in the Columbus area. There are no sole source aquifers as designated by the U.S. EPA located in Franklin County.

Wetlands and Streams

Wetland delineation field surveys were conducted within the boundary of the Proposed Action from May 2015 to November 2015.

A total of four streams totaling approximately 3,447 feet and 29 wetlands encompassing 3.90 acres were identified in the study area during the field investigation as listed in **Table 4-3** and **Table 4-4** and shown on **Exhibit 4-9, *Wetlands and Streams***.

The midfield area contains seventeen wetlands and three streams. Stream 4 (also known as Mason Run) has been previously channeled and the flow has been redirected from the original natural course due to historic construction at CMH. Stream 4 exhibited a bed and bank and an Ordinary High Water Mark (OHWM). A Headwater Habitat Evaluation Index (HHEI) was conducted for this section of Mason Run. The stream is considered a Modified Class II Primary Headwater Habitat (PHWH). Approximately 574 feet of channel was identified in the study area.

Stream F (tributary to Big Walnut Creek) exhibited a bed, bank and an Ordinary High Water Mark (OHWM). A Headwater Habitat Evaluation Index (HHEI) was conducted for this stream. The stream scored a 55, which is considered a Modified Class II Primary Headwater Habitat (PHWH). Approximately 1,365 feet of channel was identified in the study area.

Stream 2 (tributary to Big Walnut Creek) exhibited a bed bank and an Ordinary High Water Mark (OHWM). A Headwater Habitat Evaluation Index (HHEI) was conducted for this stream. The stream scored a 26, which is considered a Modified Class I Primary Headwater Habitat (PHWH). Approximately 480 feet of channel was identified in the study area.

Many of the wetlands within the midfield area are hydrologically connected to Mason Run. One forested wetland, Wetland 15C5, appears to be isolated.

[27] Ohio State University Extension Fact Sheet, Water Resources of Franklin County, Online at http://ohioline.osu.edu/aex-fact/0480_25.html, Accessed November 16, 2015.

COLUMBUS

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LEB

Drainage Basins

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The Drake Road area contains nine wetlands and one stream. The stream (identified as Stream 2) flows into a catch basin south of Drake Road. The stream enters a culvert and flow is conveyed underground to a discharge point into Big Walnut Creek. Stream 2 exhibited a bed and bank and an Ordinary High Water Mark (OHWM). Stream 2 is an ephemeral stream, which appeared to have been historically modified. A Headwater Habitat Evaluation Index (HHEI) was conducted for this stream. The stream scored a 26, which is provisionally considered a Modified Class 1 Primary Headwater Habitat (PHWH). Approximately 1,027 feet of channel was identified in the study. The nine wetlands are isolated and include both forested and non-forested vegetation.

The portion of the project site on the Airport Golf Course contains three wetlands. These wetlands appear to be isolated and are non-forested.

Table 4-3
STREAM WITHIN THE STUDY AREA
John Glenn Columbus International Airport

STREAM	LENGTH WITHIN STUDY AREA (IN FEET)	DESCRIPTION
Stream 4 (Mason Run)	574	Intermittent Stream
Stream F	1,365	Intermittent Stream
Stream 2 (drains to Big Walnut Creek at Outfall 4)	480	Intermittent Stream
Stream 2 (drains to catch basin south of Drake Road)	1,027	Ephemeral Stream

Note: Stream F is partially within the project area and partially outside the project area. Length of stream reported is the length within the study area.

Source: ASC Group, 2016.

Table 4-4
WETLANDS WITHIN THE STUDY AREA
John Glenn Columbus International Airport

WETLAND ID	ACREAGE	WETLAND TYPE	CONNECTIVITY	LOCATION	RECEIVING WATER
Wetland 12	0.538	PFO1	Isolated	Drake Road	n/a
Wetland 13	0.292	PFO1	Isolated	Drake Road	n/a
Wetland 14	0.043	PFO1	Isolated	Drake Road	n/a
Wetland 15	0.094	PFO1	Isolated	Drake Road	n/a
Wetland 16	0.142	PEM	Isolated	Drake Road	n/a
Wetland 17	0.009	PEM	Isolated	Drake Road	n/a
Wetland 18	0.016	PEM	Isolated	Drake Road	n/a
Wetland 19	0.001	PEM	Isolated	Drake Road	n/a
Wetland 20	0.023	PEM	Isolated	Drake Road	n/a
Wetland 3	0.039	PEM	Isolated	Golf Course	n/a
Wetland 4	0.051	PEM	Isolated	Golf Course	n/a
Wetland 7	0.040	PEM	Isolated	Golf Course	n/a
Wetland 15A	0.497	PEM	Connected	Midfield	Mason Run
Wetland 15B	0.758	PEM	Connected	Midfield	Stream F
Wetland 15C	0.023	PEM	Connected	Midfield	Mason Run
Wetland 15C1	0.001	PEM	Connected	Midfield	Mason Run
Wetland 15C2	0.014	PEM	Connected	Midfield	Mason Run
Wetland 15C3	0.002	PEM	Connected	Midfield	Mason Run
Wetland 15C4	0.020	PEM	Connected	Midfield	Mason Run
Wetland 15C5	0.175	PFO1	Isolated	Midfield	n/a
Wetland 15C6	0.046	PEM	Connected	Midfield	Mason Run
Wetland 15D	0.547	PEM	Connected	Midfield	Stream F
Wetland 16A	0.009	PEM	Connected	Midfield	Mason Run
Wetland 16B	0.050	PEM	Connected	Midfield	Mason Run
Wetland 17A	0.025	PEM	Connected	Midfield	Turkey Run
Wetland 17C	0.092	PEM	Connected	Midfield	Turkey Run
Wetland 17E	0.212	PEM	Connected	Midfield	Mason Run
Wetland 17H	0.019	PEM	Connected	Midfield	Mason Run
Wetland 17I	0.128	PEM	Connected	Midfield	Mason Run

Notes: 1. Wetland type based on Cowardin Classification system, PEM = Palustrine emergent, PFO = Palustrine forested.
2. Wetland 12 is partially within the project area. Acreage reported is the acreage within the study area.

Source: ASC Group, 2016.

COLUMBUS REGIONAL AIRPORT AUTHORITY

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L&B

Wetlands and Streams

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Chapter Five

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CHAPTER FIVE
ENVIRONMENTAL CONSEQUENCES

This chapter presents the assessment of environmental impacts addressed in considering reasonably foreseeable environmental consequences of the Proposed Action and the No Action alternative. As required by the Federal Aviation Administration (FAA) Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Projects,* and FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, the environmental categories listed below are addressed in this Environmental Assessment (EA). Construction activities could result in potential impacts to multiple categories. Per FAA Order 1050.1F, the assessment of potential construction related impacts is discussed where applicable for each of the categories listed.

As discussed in Chapter Four, *Affected Environment*, the No Action and Proposed Action do not have the potential to affect the following categories because the resources do not exist at the Airport: Coastal Resources, Farmland, and Wild and Scenic Rivers. Therefore, no discussion of potential impacts related to previously listed categories is included in this EA.

5.1 RESOURCES POTENTIALLY AFFECTED

The Proposed Action has the potential to include impacts to the following resource categories:

- Air quality/Climate/Greenhouse Gas;
- Biological Resources;
- Climate;
- Department of Transportation 4(f) Resources
- Hazardous materials and solid waste
- Historic, architectural, archaeological, and cultural resources;
- Land Use;
- Natural resources and energy supply;
- Noise and Compatible Land Use
- Socioeconomics, Environmental Justice, and Children's Health and Safety;
- Visual Effects; and
- Water Resources (including Wetlands, Floodplains, Surface Waters, and Groundwater).

The potential impacts for each of these resource categories are described in the following sections.

5.1.1 AIR QUALITY

The Clean Air Act (CAA), as amended in 1990, defines a non-attainment area (NAA) as a geographic region that has been designated as not meeting one or more of the National Ambient Air Quality Standards (NAAQS). CMH is located within Franklin County, Ohio, which is included in the Metropolitan Columbus Intrastate Air Quality Control Region (Columbus AQCR).[1] The U.S. Environmental Protection Agency (USEPA) has designated the Columbus AQCR as non-attainment for ozone (O_3) and maintenance for fine particulate matter ($PM_{2.5}$). Franklin County is designated attainment for all the other Federally regulated pollutants, which are carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), coarse particulate matter (PM_{10}), and lead (Pb).[2]

Proposed Action

The impacts to air quality due to the Proposed Action were determined in accordance with the guidelines provided in FAA, *Aviation Emissions and Air Quality Handbook Version 3*,[3] and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, which together with the guidelines of FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, constitute compliance with all the relevant provisions of NEPA and the CAA.

The Proposed Action would not cause unforecasted growth in aircraft activity, nor would it cause a change in fleet mix or a permanent change in runway use patterns, taxi time, or airfield delay. Therefore, no impacts from aircraft emissions would occur.

The Proposed Action would not cause an increase in the total number of vehicles at CMH. However, the Proposed Action would cause roadway changes and changes in surface vehicle traffic patterns at CMH. A traffic study has been conducted to identify potential impacts to surface vehicle traffic with the implementation of the Proposed Action. A copy of the traffic study is included in **Appendix E, *Traffic Study***. This traffic study has identified intersections that may experience an increase in traffic congestion due to changes in traffic patterns. However, the traffic study has identified potential measures, such as installing traffic signals or adjusting signal timing to prevent any potential increase in traffic congestion or intersection delay. Other intersections and roadway segments would experience a reduction in congestion and delay as the on-airport roadway system would be optimized for better traffic flow. Therefore, no air quality impact from surface vehicle traffic would occur. Air quality impacts from the Proposed Action would be limited to temporary impacts during construction.

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1 U.S. Environmental Protection Agency (USEPA), 40 CFR § 81.200, Metropolitan Columbus Intrastate Air Quality Control Region, (e-CFR data current as of November 28, 2016).

2 USEPA, Nonattainment Status for Each county by Year for Ohio, (Current as of September 22, 2016). Accessed on 1/10/2017 via http://www.epa.gov/airquality/greenbook/anayo_oh.html

3 FAA, *Aviation Emissions and Air Quality Handbook Version 3 Update 1,* January 2015.

No permanent increase in aircraft or vehicle emissions is would occur as a result of the Proposed Action. Therefore, the increase in emissions would be limited to temporary emissions from construction activity. A construction emissions inventory was calculated for the Proposed Action using USEPA NONROAD and MOVES emission factors to calculate emissions from construction equipment. The emissions estimated to occur during construction of the Proposed Action are provided in **Table 5-1**.

Table 5-1
CONSTRUCTION EMISSIONS INVENTORY SUMMARY
John Glenn Columbus International Airport

ANNUAL EMISSIONS SUMMARY						
CONSTRUCTION YEAR	**CRITERIA AND PRECURSOR POLLUTANTS** (tons per year)					
	CO	**VOC**	**NO_X**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
	CAA *DE MINIMIS* THRESHOLDS					
	100	***100***	***100***	***100***	***100***	***100***
2018	3.61	1.12	1.35	0.01	0.14	0.07
2019	20.53	32.38	8.24	0.07	1.40	0.43
2020	29.92	27.95	6.13	0.06	1.65	0.30
2021	5.29	10.55	2.30	0.02	0.48	0.11
2022	6.47	10.18	2.14	0.02	0.69	0.11
2023	21.14	20.15	3.61	0.06	1.07	0.16
2024	31.08	88.17	12.93	0.15	3.53	0.57
2025	76.06	91.41	16.23	0.25	5.48	0.68
2026	70.80	82.41	15.34	0.25	5.18	0.64
2027	39.08	83.22	14.28	0.20	5.08	0.60
2028	14.07	61.81	7.00	0.10	3.25	0.29
2029	16.03	62.49	8.70	0.11	4.00	0.35
2030	6.56	4.63	5.65	0.04	1.13	0.22

Source: Landrum & Brown Analysis, 2017.

The air quality assessment demonstrates that the Proposed Action would not cause an increase in air emissions above the applicable *de minimis* thresholds. Therefore, the Proposed Action conforms to the State Implementation Plan (SIP) and the CAA and would not create any new violation of the NAAQS, delay the attainment of any NAAQS, nor increase the frequency or severity of any existing violations of the NAAQS. As a result, no adverse impact on local or regional air quality is anticipated due to construction of the Proposed Action. No further analysis or reporting is required under the CAA or NEPA.

While the construction of the Proposed Action would be anticipated to contribute to fugitive dust in and around the construction site, the CRAA as the Sponsor would ensure that all possible measures would be taken to reduce fugitive dust emissions by adhering to guidelines included in FAA Advisor Circular 150/5370-10G, *Standards for Specifying Construction of Airports*.[4]

Methods of controlling dust and other airborne particles will be implemented to the maximum possible extent and may include, but not limited to, the following:

- Exposing the minimum area of erodible earth.
- Applying temporary mulch with or without seeding.
- Using water sprinkler trucks.
- Using covered haul trucks.
- Using dust palliatives or penetration asphalt on haul roads.
- Using plastic sheet coverings.

No Action

The No Action alternative does not involve any construction activities and therefore would not cause any impacts to air quality from construction activity. However, parking capacity is expected to be exceeded at the existing parking garage, which would cause traffic backup and additional trips as users drive to alternate parking facilities and are then bussed to the terminal. This would cause additional emissions from the traffic congestion and additional vehicle miles traveled.

5.1.2 BIOLOGICAL RESOURCES

FAA Order 1050.1F states a significant impact to biological resources (including fish, wildlife, and plants) would occur when the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) determines that the action would be likely to jeopardize the continued existence of a Federally-listed threatened or endangered species, or would result in the destruction or adverse modification of federally-designated critical habitat. The FAA has not established a threshold of significance for species of concern or non-listed species; however, the following factors should be considered, as noted in Order 1050.1F:

- A long-term or permanent loss of unlisted plant or wildlife species (i.e., extirpation of the species from a large project area);
- Adverse impacts to special status species (e.g., state species of concern, species proposed for listing, migratory birds, bald and golden eagles) or their habitats;
- Substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or their populations; or

[4] FAA Advisory Circular, *Standards for Specifying Construction of Airports*, Item P-156, *Temporary Air and Water Pollution, Soil Erosion, and Siltation Control*, AC 150/5370-10G (July 21, 2014)

- Adverse impacts on a species' reproductive success rates, natural mortality rates, non-natural mortality (e.g., road kills and hunting), or ability to sustain the minimum population levels required for population maintenance.

Proposed Action

As shown in **Exhibit 5-1, *Potential Habitat Impacts***, the Proposed Action would disturb approximately 13.3 acres of undeveloped and vegetated land, including approximately 11.7 acres of wooded area within the Drake Road site and 1.6 acres of wooded land within the Loop Road site that may include potential habitat for the Indiana bat and northern long-eared bat. As discussed in Chapter Four, *Affected Environment*, habitat and species presence surveys were conducted within the Loop Road area and within the Drake Road site. As noted in Chapter Four, during the field survey, no Federally or state-protected plant or animal species were observed. However, suitable summertime habitat for the Indiana bat and northern long-eared bat was identified. During the summer, both the bat species roost underneath bark, in cavities or in crevices of both live trees and dead trees.

Coordination with the U.S. Fish and Wildlife Service (USFWS) is ongoing to determine the effects on Federally protected species. Per previous USFWS guidance, suitable roost trees should be preserved wherever possible. However, if trees cannot be avoided, they should only be cut between October 1 and March 31. If implementation of the seasonal tree cutting restriction is not possible, summer surveys should be conducted to document the presence or likely absence of the Indiana bat and northern long-eared bat within the project area during the summer. The survey must be conducted by an approved surveyor and be designed and conducted in coordination with the USFWS.

The potential impacts to the Indiana bat and the northern long-eared bat habitat would be mitigated per USFWS guidelines including conducting tree clearing during the recommended period from October 1 through March 31. Additional steps for mitigation and avoidance of potential habitat impacts is discussed in Section 5.3 of this chapter. No other Federal or state protected species was found to occur at the Project Sites. Therefore, the Proposed Action would not cause a significant impact to biological resources.

No Action

The No Action alternative does not involve any development and therefore would not cause any impacts to biological resources.

5.1.3 CLIMATE

Although there are no federal standards for aviation-related greenhouse gas (GHG) emissions, it is well established that GHG emissions can affect climate. The Council on Environmental Quality (CEQ) has indicated that climate should be considered in NEPA analyses.

Proposed Action

Table 5-2 provides an estimate of the GHG construction emissions inventory. These estimates are provided for information only as no Federal NEPA standard for the significance of GHG emissions from individual projects on the environment has been established.

Table 5-2
GHG CONSTRUCTION EMISSIONS INVENTORY
John Glenn Columbus International Airport

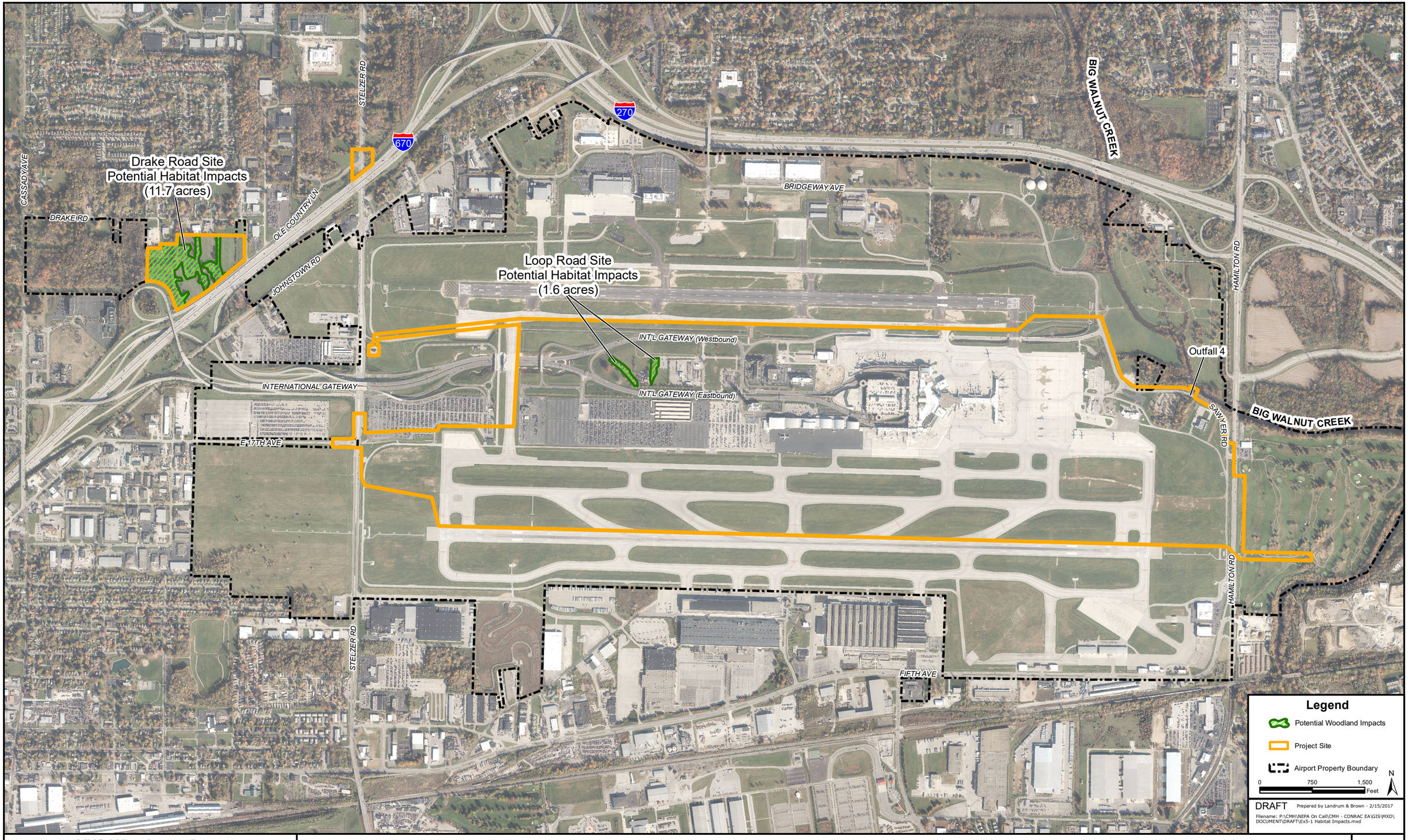
METRICS	ANNUAL METRIC TONS (PEAK YEAR)		
	CO_2	CH_4	N_2O
Construction	21,296	1.21	0.16
GWP_{100}	1	25.00	298.00
CO_{2e}	21,296	30.36	47.56
CO_{2e} Net Emissions	**21,374**		

Notes: 1. CO_2 = Carbon Dioxide, CO_{2e} = Carbon Dioxide equivalent, CH_4 = Methane, N_2O = Nitrous oxide, GWP: Global Warming Potential
2. Total emissions may not sum exactly due to rounding.

Source: Landrum & Brown Analysis, 2017.

No Action

Under the No Action alternative, there would be no increase in project specific GHG emissions. However, parking capacity is expected to be exceeded at the existing parking garage, which would cause traffic backup and additional trips as users drive to alternate parking facilities and are then bussed to the terminal. This would cause additional emissions from the traffic congestion and additional vehicle miles traveled.



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Potential Habitat Impacts

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5.1.4 DEPARTMENT OF TRANSPORTATION ACT SECTION 4(F) RESOURCES

Proposed Action

There is one recreation facility, the Airport Golf Course, located within the site of the Proposed Action. There are no other public parks, recreation facilities, or wildlife or waterfowl refuges located within the site of the Proposed Action. Disturbance to the Golf Course would be limited to an underground connection to an existing sanitary sewer line that would be located within the FAA approach light lane that extends through the golf course. The CRAA owns the property on which the approach light lane is located. The sanitary sewer line would be installed underground and the land would be returned to its original condition following installation. The sanitary sewer line would not directly impact the golf course or require any closure or reconfiguration of any part of the golf course. Construction would not cause any temporary closure of the golf course or disrupt the use of the facility.

As discussed in Chapter Four, Section 4.3.6, there is one historic property listed on the National Register of Historic Places, the Elam Drake Farmstead, which would be directly disturbed by the Proposed Action. Therefore, the Proposed Action would result in a physical taking of the resource. Additional analysis of the potential impacts to this resource is discussed in Section 5.1.6. FAA has initiated Section 4(f) consultation with the Department of Interior (DOI) regarding proposed impacts to the Elam Drake Farmstead. **Appendix H*, Department of Transportation Section 4(f) Resources***, includes a copy of the FAA's submittal to DOI.

The Proposed Action would not cause unforecasted growth in aircraft activity, nor would it cause a change in fleet mix or a permanent change in runway use patterns. The Proposed Action would not cause a permanent increase in taxi time or airfield delay. Therefore, no indirect impacts from aircraft noise or operations would occur to any Section 4(f) Resource.

No Action

Under the No Action alternative, there would be no development that would cause direct or indirect impacts to a Section 4(f) Resource.

5.1.5 HAZARDOUS MATERIALS AND SOLID WASTE

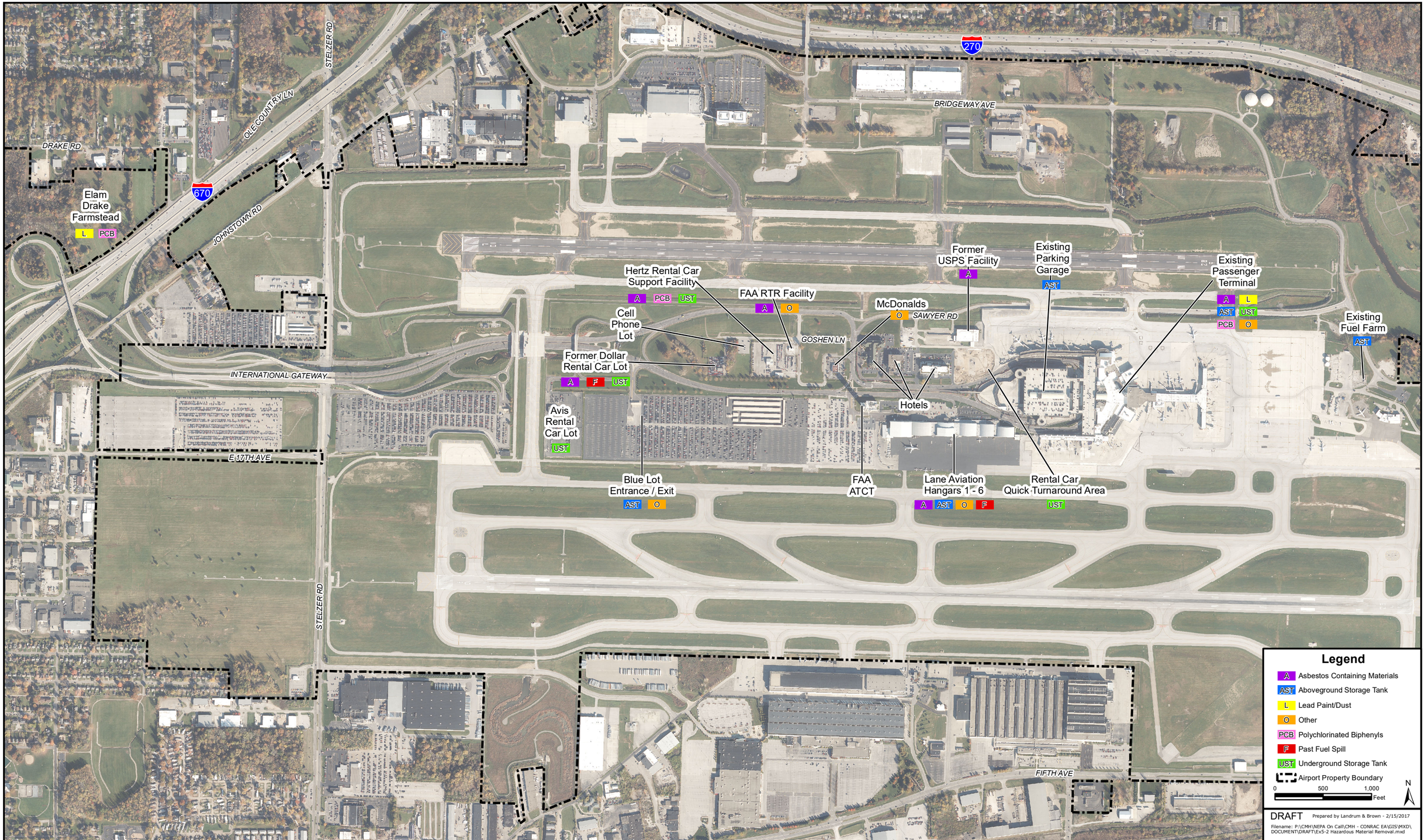
Proposed Action

The Proposed Action would include the removal of several structures. Past reports indicate the potential for asbestos-containing materials in the floor and ceiling tiles and that PCBs may be present in older fluorescent lamp ballasts in many of the buildings. The Proposed Action would also require the removal of existing fuel tanks and underground fuel lines that have been used to refuel rental cars within the rental car QTA. **Exhibit 5-2, *Potential Hazardous Materials Sites***, shows the sites from which known or potential hazardous materials would be removed. These materials are not considered to be uncommon and disposal practices exist to handle and dispose of the materials safely; therefore, no impact is anticipated. It would be the responsibility of the CRAA to ensure that the contractor would arrange for the transportation and disposal of all hazardous materials that would be created as a result of the demolition in accordance with Ohio EPA and other applicable regulations. Additional surveying and testing would occur prior to demolition to ensure all hazardous materials are identified and property disposed of to prevent contamination. Sites of potential soil contamination from past fuel spills would be tested to determine if contaminated soils exist. Any contaminated soil would be properly disposed of and/or remediated per all applicable regulations. Therefore, no significant impacts related to hazardous waste would occur as a result of the Proposed Action.

Additional solid waste would be generated from construction and demolition debris. This solid waste would be disposed of per applicable regulations. Facilities and processes are available in the Columbus area to accommodate the proper disposal of solid waste. Therefore, no significant impacts related to solid waste would occur as a result of the Proposed Action.

No Action

Under the No Action alternative, there would be no development that would impact any sites containing hazardous materials and no additional solid waste would be generated. Therefore, no impacts would occur.



Midfield Development Program
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Potential Hazardous Materials Sites

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5.1.6 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

Proposed Action

As discussed in Chapter Four, Section 4.3.6, and shown in Exhibit 4-4, properties within the APE that are listed on, eligible for, or potentially eligible for the NRHP include:

- Air Force Plant 85 and Associated Facilities,
- The CRAA President and CEO's Residence,
- The Elam Drake Farmstead (includes the house, smokehouse, outhouse, brick barn and garage),
- The Original Port Columbus Airport Control Tower, and
- The TAT Hangar.

Of those properties, only the Elam Drake Farmstead would be directly impacted. The Elam Drake Farmstead would be impacted and all structures would be removed. Ground disturbance would likely remove any artifacts. Coordination was conducted with the Ohio Historic Preservation Office (OHPO) per Section 106 of the National Historic Preservation Act regarding this impact. Based on this coordination, it was determined that this would constitute an adverse impact per the National Historic Preservation Act. Efforts to avoid this adverse impact were considered but no viable alternative was identified that met the purpose and need while avoiding impacts to the Elam Drake Farmstead. Therefore, the FAA, OHPO, and CRAA entered into a Memorandum of Agreement (MOA) to address the impacts and mitigate the adverse effects. Additional information on this coordination and the MOA process is included in **Appendix C, *Historic and Cultural Resources***.

Other properties were reviewed for potential indirect effects due to noise or visual impacts. The Proposed Action would not cause unforecasted growth in aircraft activity, nor would it cause a change in fleet mix or a permanent change in runway use patterns, increased taxi time, or airfield delay. Temporary changes in aircraft noise levels may occur during construction but would return to normal conditions. The following section discusses properties in relation to potential visual effects.

The Air Force Plant 85 and Associated Facilities, the Original Port Columbus Airport Terminal & Control Tower, the CRAA President and CEO's Residence, and the TAT Hangar would not be directly impacted by the Proposed Action. These properties may be within view of the new development and may experience temporary changes in noise patterns during construction. However, these properties are already within view of the Airport and additional airport-related development would not significantly change the overall setting. Furthermore, uses at these properties are not noise-sensitive and any temporary change in noise levels would not diminish the significance or integrity of the property. Therefore, no impacts would occur to these properties.

No Action

Under the No Action alternative, there would be no development and no impacts to historic resources would occur.

5.1.7 LAND USE

Proposed Action

The Proposed Action would occur entirely on Airport property and the Airport Golf Course. The site is surrounded by airport-related land uses as shown in **Exhibit 4-5, *Existing Land Use***. The proposed development would primarily occur within the central core of CMH property and would be surrounded by similar development. The proposed rental car support facilities at the Drake Road site would occur on land that is adjacent to existing commercial and residential uses. A portion of this property is currently zoned residential "R-Rural" by the City of Columbus. Current zoning regulations for this zone type do not permit commercial automobile maintenance and storage facilities. Coordination with the City of Columbus Department of Building and Zoning Services will be initiated to determine the process for requesting the property be rezoned to allow the proposed development. Surrounding parcels have been rezoned for similar commercial and light industrial uses. Recent planning efforts have identified this area as suitable for redevelopment for commercial and light industrial uses. The Joint Economic Development Strategy published by City of Columbus Development Department, Planning Division in April 2008 noted that the north side of Drake Road is also planned for office/light industrial uses. Therefore, the Proposed Action would not be inconsistent with local land use plans or strategies.

No Action

Under the No Action alternative, there would be no development and no changes to existing land use patterns would occur.

5.1.8 NATURAL RESOURCES AND ENERGY SUPPLY

Proposed Action

The Proposed Project would require the use of readily available construction and paving materials such as sand, stone, aggregate, water, wood, steel, glass, and other building materials. These materials are not in short supply in the Columbus region. The Proposed Action would require fuel during construction. Operation of the proposed new facilities would require electricity and natural gas for heating, cooling, and interior and exterior lighting of the new facilities. Many of the proposed new facilities would replace older, less efficient facilities, which could achieve a reduction in energy use. The Proposed Action would not consume a notable quantity of natural resources, nor would it exceed local supplies for fuel and energy. Therefore, no significant impacts to natural resources or the local energy supply would occur as a result of the Proposed Action.

No Action

Under the No Action alternative, there would be no development or use of natural resources for construction.

5.1.9 NOISE AND COMPATIBLE LAND USE

Proposed Action

As noted in Chapter Four, Section 4.3.9, noise exposure levels today are expected to be similar to or lower than the 2012 projections from the 2009 EIS. The Proposed Action would not cause unforecasted growth in aircraft activity, nor would it cause a change in fleet mix or a permanent change in runway use patterns, flight tracks, or departure profiles. Therefore, no impacts from aircraft noise would occur.

The proposed rental car support facilities at the Drake Road site may cause an increase in noise levels from vehicle maintenance facilities. These activities are not anticipated to generate a significant amount of noise that would exceed noise levels generated by other nearby land uses or roadways.

Construction activities associated with the Proposed Action are anticipated to result in minimal noise impacts to residential and other public land uses due to the limited amount of time the construction activity would occur. Major construction activities would be primarily limited to daylight hours.

No Action

Under the No Action alternative, there would be no development or changes that would cause changes to existing noise levels.

5.1.10 SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

Socioeconomics

Proposed Action

The Proposed Action would not cause the relocation of existing residences. No off-airport businesses would be displaced by the Proposed Action. Some Airport tenants would relocate to new facilities, including rental car support operations, fixed-base operations and concessions within the terminal facility. Coordination is ongoing with affected Airport tenants to ensure adequate replacement facilities have been included as part of the Proposed Action. This would not be considered an economic hardship or divide an established community.

The Proposed Action would accommodate forecasted growth in aviation activity at CMH and would not induce population growth. The Proposed Action would not cause the demand for public services to exceed local capacity, nor would it cause a decrease in the local tax base.

The Proposed Action would cause changes to existing traffic patterns on Airport property and to and from the proposed rental car support facilities at the Drake Road site. A Traffic Impact Study has been conducted to determine impacts on traffic levels. A copy of the traffic study is included in **Appendix E, *Traffic Study***. The traffic study assessed level of service (LOS) on the following roadway segments and intersections as shown in **Exhibit 5-3, *Intersection Analysis***, under both the No Action and the Proposed Action conditions.

- Intersection of International Gateway & Sawyer Road
- International Gateway Eastbound Intersection at ATCT – signalized intersection for through traffic / traffic from parking lot exit
- International Gateway Eastbound - stop controlled intersection for eastbound traffic turning left onto westbound loop
- Intersection of Stelzer Road & Ole Country Lane
- Intersection of Stelzer Road & Johnstown Road
- Intersection of Stelzer Road & International Gateway Eastbound
- Intersection of Stelzer Road & International Gateway Westbound
- Intersection of Stelzer Road & E 17th Avenue

1	Intersection of International Gateway & Sawyer Road
2	International Gateway Eastbound Intersection at ATCT – signalized intersection for through traffic / traffic from parking lot exit
3	International Gateway Eastbound - stop controlled intersection for eastbound traffic turning left onto westbound loop
4	Intersection of Stelzer Road & Ole Country Lane
5	Intersection of Stelzer Road & Johnstown Road
6	Intersection of Stelzer Road & International Gateway Westbound
7	Intersection of Stelzer Road & International Gateway Eastbound
8	Intersection of Stelzer Road & E 17th Avenue

Legend

▲ Intersection Analyzed

0 500 1,000 Feet

N

DRAFT Prepared by Landrum & Brown - 2/15/2017

Filename: P:\CMH\NEPA On Call\CMH - CONRAC EA\GIS\MXD\DOCUMENT\DRAFT\Ex5-2 Hazardous Material Removal.mxd

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Environmental Assessment
John Glenn Columbus International Airport

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Intersection Analysis

EXHIBIT: **5-3**

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The traffic study assessed future traffic conditions based on forecast traffic levels. For the Proposed Action, conditions were assessed with potential roadway changes at various development phases during the MDP. For the No Action, the same forecast traffic levels were applied to the existing roadway network. A comparison of the Proposed Action and the No Action was conducted to determine if any level of service (LOS) impacts would be likely to occur. **Table 5-3** shows the level of service ranges for both unsignalized and signalized intersections based on criteria from the Highway Capacity Manual. According to this analysis, two intersections would experience a reduction in LOS under the Proposed Action.

Table 5-3
LOS CRITERIA FOR SIGNALIZED & UNSIGNALIZED INTERSECTIONS
John Glenn Columbus International Airport

LEVEL OF SERVICE	UNSIGNALIZED INTERSECTION DELAY (SECONDS/VEHICLE)	SIGNALIZED INTERSECTION DELAY (SECONDS/VEHICLE)
A	. 10	. 10
B	> 10 - 15	> 10 - 20
C	> 15 - 25	> 20 - 35
D	> 25 - 35	> 35 - 55
E	> 35 - 50	> 55 - 80
F	> 50 or V/C ratio > 1.00	> 80 or V/C ratio > 1.00

Source: Transportation Research Board, Highway Capacity Manual, Sixth Edition, 2010.

The intersection of Stelzer Road and East 17th Avenue would be anticipated to experience an LOS reduction from LOS A to LOS B. This reduction would be due to the construction of a new entrance/exit to the proposed Red Lot expansion at the intersection of Stelzer Road and East 17th Avenue. This would convert this existing intersection from a 3-way to a 4-way intersection. LOS impacts could be mitigated through adjustment to the signal timing to allow better flow of traffic entering and exiting the Red Lot at this location. Potential traffic impacts could also be mitigated by limiting the time in which this second Red Lot entrance/exit is open. It is anticipated that the majority of traffic entering and exiting the Red Lot would continue to use the existing primary access point at International Gateway and some drivers would utilize the proposed secondary access point to/from Stelzer Road out of convenience. The CRAA has plans to monitor usage and open this secondary entrance/exit gate during peak times only. Therefore, traffic impacts at the intersection of Stelzer Road and East 17th Avenue would be anticipated to be minimal.

The intersection of Stelzer Road and Ole Country Lane would experience an increase in traffic from rental car company employees driving to and from the proposed rental car support facilities at the Drake Road site. This could increase traffic congestion primarily due to vehicles driving from the proposed CONRAC to the rental car support facilities when making a left turn from northbound Stelzer Road onto westbound Ole Country Lane. This is currently an unsignalized intersection with an approximately 100-foot left turn lane; therefore vehicles making the left turn must stop and wait before turning if traffic is coming south on Stelzer. The existing turn lane length is limited by bridge piers under the Interstate 670 overpass and therefore cannot be lengthened. During peak times, traffic waiting to turn left may extend beyond the

turn lane and cause delay for northbound through traffic on Stelzer which would reduce this intersection movement from LOS C to LOS D. It is anticipated that this potential congestion at this intersection could be mitigated by installing a signal with a protected/permissive northbound left turn arrow. Under signal control, if implemented in the future, the intersection movement would operate at LOS B compared to LOS D.

It is anticipated that traffic flow on the International Gateway loop road would improve under the Proposed Action as the roadway would be reconfigured and optimized for access to the proposed new CONRAC, parking garage, and ground transportation center. The opening of the CONRAC would alleviate some of the congestion in the existing garage and eliminate backups at the entrance and terminal curbfront that currently occur during peak times. Any reduction in level of service and increase in congestion at the intersection of Stelzer Road and East 17th Avenue and the intersection of Stelzer Road and Ole Country Lane would likely be offset by reductions in congestion along the International Gateway loop road.

As noted above, no residences or off-airport businesses would be relocated and no significant impacts would occur from the relocation of on-airport businesses due to the Proposed Action. Furthermore, no significant public service demands would occur. Any traffic impacts would be anticipated to be minimal and could be mitigated through common traffic control measures such as installation of new signals and adjustments to signal timing. Therefore, no significant socioeconomic impacts would be anticipated to occur as a result of the Proposed Action.

No Action

Under the No Action alternative, there would be no development or changes that would cause changes to socioeconomic conditions, including changes in traffic patterns or relocation of residences or businesses.

5.1.10.2 Environmental Justice

Proposed Action

The Proposed Action would not cause disproportionate impacts to minority or low income populations. No other significant impacts have been identified that would cause a unique or disproportionate impact to a minority or low income community. Therefore, no significant environmental justice impacts would occur as a result of the Proposed Action.

No Action

Under the No Action alternative, there would be no development or changes that would cause impacts to minority or low-income populations.

5.1.10.3 Children's Environmental Health and Safety Risks

Proposed Action

The Proposed Action would not cause disproportionate impacts to children. No other significant impacts have been identified that would cause a unique or disproportionate impact to children. The construction sites would be fenced off to prevent access to the site. Therefore, no significant impacts to children's health or safety would occur as a result of the Proposed Action.

No Action

Under the No Action alternative, there would be no development or changes that would cause impacts to children's environmental health and safety.

5.1.11 VISUAL EFFECTS

Proposed Action

The Proposed Action would create new airport-related development that would affect the existing viewshed. Additionally, new exterior lighting would be installed to illuminate the proposed new facilities. The proposed development would be adjacent to other airport-related development and would not significantly alter the existing views or setting. Residential properties on the north side of Drake Road would likely have a view of the proposed rental car support facilities at the Drake Road site. These properties are already near similar commercial development on non-airport owned property. Any new lighting would be directed towards the ground and is not anticipated to cause additional light emissions impacts. Therefore, no significant visual impacts would occur as a result of the Proposed Action.

No Action

Under the No Action alternative, there would be no development or changes that would cause visual impacts.

5.1.12 WATER RESOURCES

Floodplains

Proposed Action

As shown on **Exhibit 4-7, *Floodplains***, portions of CMH property are within the 100-year floodplain adjacent to the Big Walnut Creek. There are no mapped floodplains within the site of the Proposed Action with the exception of a small area on the northeast side of the midfield in which underground utility expansion would occur. These proposed underground utilities would not be subject to risk from flooding and would not increase the potential for or severity of a flood. No other development would be constructed within a 100-year floodplain. Therefore, no significant impacts related to floodplains would occur as a result of the Proposed Action.

No Action

Under the No Action alternative, there would be no development or changes that would cause floodplain impacts.

Surface Waters

Proposed Action

The Proposed Action would modify and increase impervious surface area at CMH, which would cause additional stormwater runoff. The existing stormwater pollution prevention plan and NPDES permit (Permit OH0124311) would be modified to account for the proposed development. The Proposed Action includes plans for the construction of a new stormwater detention basin at Outfall 4 to accommodate existing levels of stormwater runoff as well as any additional runoff that would be generated by the additional impervious surface area.[5] Additional stormwater collection facilities would be required to be incorporated into the design of the proposed rental car support facilities on the Drake Road site to collect and treat stormwater runoff from that site. Stormwater facilities and NPDES conditions would be coordinated with the City of Columbus and the OEPA Division of Surface Water

No Action

Under the No Action alternative, there would be no development or changes that would cause impacts to surface water resources.

Groundwater

Proposed Action

There are no sole source aquifers as designated by the U.S. EPA or known drinking water protection areas designated by the Ohio EPA within the site of the Proposed Action. Therefore, no significant impacts to groundwater resources would occur as a result of the Proposed Action.

No Action

Under the No Action alternative, there would be no development or changes that would cause impacts to groundwater resources.

[5] The CRAA is currently coordinating with the City of Columbus to determine the appropriate facilities for management of stormwater on the site. Final plans for stormwater facilities will be in accordance with all applicable local, State, and Federal guidelines.

Wetlands

Proposed Action

Wetland delineation field surveys were conducted within the boundary of the Proposed Action from May 2015 to November 2015. Four streams totaling approximately 3,447 feet and 29 wetlands encompassing 3.90 acres were identified in the study area during the field investigation. Three of the four streams, totaling 2,081 linear feet would be impacted by the Proposed Action as shown in **Table 5-4** and **Exhibit 5-4, *Wetlands and Stream Impacts***. These streams would be channeled and diverted to maintain stream flow. The Proposed Action would impact the 29 wetlands as shown in **Table 5-5** and **Exhibit 5-4**. Tables 5-4 and 5-5 and Exhibit 5-4 show the total acreage of wetlands and length of streams that would be impacted by the Proposed Action. These features would be cleared and filled to accommodate the proposed development.

Coordination with the U.S. Army Corps of Engineers (USACE) and OEPA Division of Surface Water is ongoing to obtain the necessary permits for the proposed impacts to wetlands and streams. It is expected that the proposed impacts would require an individual permit per Section 404 of the Clean Water Act as well as a Section 401 Water Quality Certification and isolated wetland permit from OEPA. Mitigation for the loss of wetlands and streams would be implemented per permit requirements to ensure no significant impacts to wetlands and streams would occur.

No Action

Under the No Action alternative, there would be no development or changes that would cause impacts to wetlands or streams.

Table 5-4
STREAM IMPACTS
John Glenn Columbus International Airport

STREAM	LENGTH WITHIN STUDY AREA (IN FEET)	DESCRIPTION
Stream 4 (Mason Run)	574	Intermittent Stream
Stream 2 (drains to Big Walnut Creek at Outfall 4)	480	Intermittent Stream
Stream 2 (drains to catch basin south of Drake Road)	1,027	Ephemeral Stream

Source: ASC Group, 2016.

Table 5-5
WETLAND IMPACTS
John Glenn Columbus International Airport

WETLAND ID	ACREAGE	WETLAND TYPE	CONNECTIVITY	LOCATION	RECEIVING WATER
Wetland 12	0.538	PFO1	Isolated	Drake Road	n/a
Wetland 13	0.292	PFO1	Isolated	Drake Road	n/a
Wetland 14	0.043	PFO1	Isolated	Drake Road	n/a
Wetland 15	0.094	PFO1	Isolated	Drake Road	n/a
Wetland 16	0.142	PEM	Isolated	Drake Road	n/a
Wetland 17	0.009	PEM	Isolated	Drake Road	n/a
Wetland 18	0.016	PEM	Isolated	Drake Road	n/a
Wetland 19	0.001	PEM	Isolated	Drake Road	n/a
Wetland 20	0.023	PEM	Isolated	Drake Road	n/a
Wetland 3	0.039	PEM	Isolated	Golf Course	n/a
Wetland 4	0.051	PEM	Isolated	Golf Course	n/a
Wetland 7	0.040	PEM	Isolated	Golf Course	n/a
Wetland 15A	0.497	PEM	Connected	Midfield	Mason Run
Wetland 15B	0.758	PEM	Connected	Midfield	Stream F
Wetland 15C	0.023	PEM	Connected	Midfield	Mason Run
Wetland 15C1	0.001	PEM	Connected	Midfield	Mason Run
Wetland 15C2	0.014	PEM	Connected	Midfield	Mason Run
Wetland 15C3	0.002	PEM	Connected	Midfield	Mason Run
Wetland 15C4	0.020	PEM	Connected	Midfield	Mason Run
Wetland 15C5	0.175	PFO1	Isolated	Midfield	n/a
Wetland 15C6	0.046	PEM	Connected	Midfield	Mason Run
Wetland 15D	0.547	PEM	Connected	Midfield	Stream F
Wetland 16A	0.009	PEM	Connected	Midfield	Mason Run
Wetland 16B	0.050	PEM	Connected	Midfield	Mason Run
Wetland 17A	0.025	PEM	Connected	Midfield	Turkey Run
Wetland 17C	0.092	PEM	Connected	Midfield	Turkey Run
Wetland 17E	0.212	PEM	Connected	Midfield	Mason Run
Wetland 17H	0.019	PEM	Connected	Midfield	Mason Run
Wetland 17I	0.128	PEM	Connected	Midfield	Mason Run

Notes: 1. Wetland type based on Cowardin Classification system, PEM = Palustrine emergent, PFO = Palustrine forested.
2. This table includes the total acreage of wetlands that would be impacted by the Proposed Action. Wetland 12 is partially within the project area and would be partially impacted. Acreage reported is the acreage within the study area that would be impacted.

Source: ASC Group, 2016.

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Wetland and Stream Impacts

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5-4

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5.2 CUMULATIVE IMPACTS

The Council on Environmental Quality (CEQ) NEPA regulations (40 CFR 1508.7) define a cumulative impact as "...the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time."

Cumulative impacts must be evaluated relative to the direct and indirect effects of the Proposed Action for each environmental category discussed previously in this chapter. As with the environmental consequences discussion, the No Action alternative serves as the reference point against which potentially significant cumulative impacts are evaluated. Significant cumulative impacts are determined according to the same thresholds of significance used in the evaluation of each environmental category in the environmental consequences discussion. For the Proposed Action under review in this EA, the categories where impacts may occur include air quality, biological resources, compatible land use, historic resources, natural resources and energy supply, water quality, and wetlands. The intersection of Stelzer Road and East 17th Avenue would be anticipated to experience an LOS reduction from LOS A to LOS B. This reduction would be due to the construction of a new entrance/exit to the proposed Red Lot expansion at the intersection of Stelzer Road and East 17th Avenue. This would convert this existing intersection from a 3-way to a 4-way intersection. LOS impacts could be mitigated through adjustment to the signal timing to allow better flow of traffic entering and exiting the Red Lot at this location. Potential traffic impacts could also be mitigated by limiting the time in which this second Red Lot entrance/exit is open. It is anticipated that the majority of traffic entering and exiting the Red Lot would continue to use the existing primary access point at International Gateway and some drivers would utilize the proposed secondary access point to/from Stelzer Road out of convenience. The CRAA has plans to monitor usage and open this secondary entrance/exit gate during peak times only. Therefore, traffic impacts at the intersection of Stelzer Road and East 17th Avenue would be anticipated to be minimal.

There are several past, present, or reasonably foreseeable future projects at CMH that may combine to create cumulative impacts as described in the following sections.

Past Projects

North Runway Rehabilitation

This project included rehabilitation of the existing Runway 10L/28R pavement and associated taxiway and airfield lighting upgrades. An EA was prepared to assess the potential impacts of this project. No significant impacts were identified and the FAA issued a FONSI in September 2014. Impacts were limited to temporary construction impacts. The runway rehabilitation project was completed in late 2016.

Fleet Fueling Station Replacement

This project replaced the existing fueling system/station at the CMH Airfield Maintenance Facility on the northeast side of the airfield. The project included replacement of existing underground fuel storage tanks with new above ground tanks, installation of new fuel pumps, expansion of a service vehicle driveway, and other minor site development. No significant impacts were identified and the project was categorically excluded from further analysis by the FAA in March 2016. This project was completed in late 2016.

Present Projects

North Airfield Development

This project includes the development of approximately 30 acres along the northern boundary of CMH. Plans for the site include the development of four buildings each approximately 100,000 square feet in size with associated parking and driveway access. The project would also include the removal of an approximately 3,000 square foot building. No significant impacts were identified and project was categorically excluded from further analysis by the FAA in March 2014. Potential impacts that were assessed included temporary construction impacts and potential water quality impacts from the increase in impervious surface area. Two of the buildings have been constructed and construction of the third building is expected to be completed by September 2017. Construction of the fourth building is planned to occur in the next five years.

Private Hangar Facility

This project includes the construction of a private hangar facility on the north airfield at CMH. The facility would be located on the south side of Bridgeway Avenue east of Goshen Lane. The facility is to be constructed in two phases. The first phase includes the construction of a new 55,000 square foot general aviation hangar. The facility will include a new surface vehicle parking lot that would be approximately 32,000 square feet in size. The second phase of the project is planned to include construction of a second, 55,000 square foot hangar and a 19,000 square foot surface vehicle parking lot. The existing aircraft apron would also be expanded by approximately 72,000 square feet. No significant impacts were identified and project was categorically excluded from further analysis by the FAA in April 2016. Impacts include temporary construction impacts, removal of wetlands, and potential water quality impacts from the increase in impervious surface area. Site preparation activities are underway at this time.

Performance Based Navigation Procedure Implementation

FAA is developing Performance Based Navigation procedures at CMH. The proposed changes are part of the FAA's Next Generation Air Transportation System, or NextGen. It is too early to determine what if any impacts may result, however, at this time, it is not anticipated that there would be any significant impacts, either individually or cumulatively associated with any NextGen changes.

Reasonably Foreseeable Future Projects

City of Gahanna Hike/Bike Path Extension

The City of Gahanna has prepared a concept plan for the extension of the Big Walnut Creek Trail (BWCT). Discussion has occurred between the City of Gahanna and the CRAA regarding the possibility of extending the BWCT hike/bike path along Big Walnut Creek through the eastern boundary of the Airport and continuing eastward adjacent to the Airport Golf Course. Final plans for this project, including path location, are conceptual in design at this time. Likely impacts from this type of project include temporary construction emissions, potential tree removal along Big Walnut Creek, and potential construction of a bridge over Big Walnut Creek.

The following sections summarize the potential cumulative impacts for each of the identified categories due to the above referenced projects.

5.2.1 AIR QUALITY

The construction of the Proposed Action will cause a temporary increase in emissions from construction activity. The results of the air quality analysis completed for this EA show that implementation of the Proposed Action as compared to the No Action would result in *de minimis* (negligible and insignificant)[6] increases in air emissions during construction. Therefore, the *de minimis* emissions defined for the Proposed Action, when combined with the present and future projects identified above, will not have the potential to change the current status of the air quality in Franklin County and will not result in significant cumulative impacts.

5.2.2 BIOLOGICAL RESOURCES

Potential impacts to biological resources would be limited to loss of habitat for the Federally endangered Indiana bat and threatened northern long-eared bat. The Proposed Action would remove approximately 13.3 acres of undeveloped and vegetated land that has been identified as containing suitable roosting trees during the summer foraging season for these protected species. No individual bats have been identified at the site. Mitigation to prevent potential impacts would include avoidance of tree clearing during the summer foraging season for the protected bats. Therefore, no impacts to the species would occur and no cumulative impacts would occur when combined with other past, present, and reasonably foreseeable future actions.

[6] A Federal action that is demonstrated to cause *de minimis* emissions is defined as having negligible or insignificant impacts; reference FAA, *Aviation Emissions and Air Quality Handbook*, see Glossary entry for "*de minimis*," January 2015. The phrase "*de minimis*" literally means "of minimum impact." It is intended that qualification for *de minimis* means there will be no significant contamination of the air.

5.2.3 COMPATIBLE LAND USE

Impacts to compatible land use are site specific and will not combine with impacts from other projects to cause significant impacts.

5.2.4 HISTORIC RESOURCES

Impacts to historic resources are site specific and will not combine with impacts from other projects to cause significant impacts.

5.2.5 NATURAL RESOURCES AND ENERGY SUPPLY

Airport development projects may impact the demand for energy by proposing the development of new buildings, airfield lighting, or other on-airport facilities that could affect energy consumption. The assessment of natural resource and energy supply for the Proposed Action in this EA concluded that, while there would be relatively small increases in the need for building materials such as sand, gravel, metal, wood, or other materials, the necessary resources are not in low supply. Many of the proposed new facilities would replace older, less efficient facilities, which could achieve a reduction in energy use and it is not anticipated that demand for energy would exceed local supplies. Other projects have the potential to increase demand for energy and consumption of natural resources. However, because CMH is within a highly urbanized setting in which energy and natural resources are not in short supply, it is not anticipated that the cumulative demand for energy or natural resources would exceed capacity of the local energy suppliers or deplete the supply of natural resources.

5.2.6 SOCIOECONOMIC IMPACTS

Socioeconomic impacts of the Proposed Action include the relocation of businesses and Airport tenants and changes to traffic patterns. Affected Airport users would be relocated to other facilities on Airport property and potential traffic impacts would be mitigated through the implementation of traffic improvements and other traffic control measures; therefore, no significant cumulative impacts would occur.

5.2.7 WATER QUALITY

Results of the water quality analysis conducted for this EA concluded that there was the potential for increased stormwater runoff due to the Proposed Action. Some of the other past, present, and future projects have the potential to increase stormwater runoff due to an increase in impervious surfaces. However, it is anticipated that any potential cumulative impacts to surface water or groundwater quality resulting from these projects would be negligible, as it would be mandatory for all projects to comply with existing and future water quality permit requirements. The Proposed Action includes improvements to the existing stormwater collection system, including a new stormwater detention basin, to collect and treat runoff as a result of the increased impervious surface area. BMPs will also be employed during construction to limit erosion. Therefore, impacts to water quality, when combined with other past, present, and reasonably foreseeable future actions would not be anticipated to cause significant impacts to water quality.

5.2.8 WETLANDS

Impacts to wetlands would be mitigated to replace the loss of wetlands due to construction of the Proposed Action. Therefore, there would be no significant cumulative impacts to wetlands when combined with impacts from other projects.

5.2.9 SUMMARY OF CUMULATIVE IMPACTS

Based on the discussion above, the cumulative impacts of the Proposed Action, when added to the other past, present, and reasonably foreseeable future actions, is minimal. The Proposed Action would have affects on the environment similar to those that already exist. All the projects identified above have independent utility from, and are not connected with the Proposed Action. The limited impacts associated with the Proposed Action addressed in this EA, when considered with impacts from the other projects, are not anticipated to lead to additional significant impact. As necessary, mitigation procedures would be implemented to minimize potential adverse impacts that would occur during construction. Furthermore, impacts to wetlands will be mitigated according to USACE and OEPA permit requirements.

5.3 MITIGATION

When considering mitigation, there are three principals the FAA follows per CEQ guidance – avoidance, minimization, and mitigation.

5.3.1 AVOIDANCE

Avoidance refers to keeping away from the resource, resulting in no impact. The proposed rental car support facilities at the Drake Road site have been designed to avoid high quality wetlands and vegetation that is potential habitat for the Indiana and northern long-eared bats on the western side of the site.

5.3.2 MINIMIZATION

Minimization reduces potential impacts. Elements of the Proposed Action, including the proposed CONRAC, replacement terminal, and parking garage, will be designed to meet forecast needs while fitting within the available land within the loop road and midfield area in order to keep development within previously disturbed land as much as possible.

5.3.3 MITIGATION

There are three environmental categories in which mitigation is required to reduce or prevent impacts from exceeding any thresholds of significance: biological resources, historic resources, and wetlands and streams.

Biological Resources

Potential biological resource impacts would be prevented by following seasonal tree clearing guidelines to prevent impacts to the Indiana bat or northern long-eared bat.

Historic Resources

Impacts to historic resources would be mitigated through the execution of a MOA between the FAA, OHPO, and CRAA.

Wetlands

Mitigation for impacts to wetlands and streams would be identified through ongoing coordination with the USACE and the OEPA. It is anticipated that wetlands will be mitigated at a 1.5:1 or greater ratio. Wetland mitigation would occur offsite at an approved wetland mitigation bank. Details of the coordination with USACE and OEPA, and the mitigation plan are included in **Appendix D, *Water Resources***.

5.4 CONSISTENCY WITH APPROVED PLANS OR LAWS

The Proposed Action would be consistent with all Federal, state, and local environmental plans, laws, and/or administrative determinations. The City of Columbus and Franklin County will be contacted to ensure the proposed development meets all zoning and street access regulations.

Chapter Six

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CHAPTER SIX
LIST OF PREPARERS

To aid the reader, this section lists the individuals who assisted in the preparation of this Environmental Assessment (EA).

Mr. Rob Adams, Officer-in-Charge

Mr. Chris Sandfoss, Project Manager and Environmental Analysis

Mr. Chris Babb, Air Quality Analysis

Ms. Gabriela Elizondo, Environmental Analysis

Mr. Charles Lang, Exhibits

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