

An aerial photograph of the Grissom Air Reserve Base, showing runways, taxiways, hangars, and various buildings. A blue graphic overlay is present on the left side, consisting of a vertical line with two circular nodes and a horizontal line extending from the top node to a dark blue rounded rectangle containing the title. The background is a light, hazy aerial view of the base and surrounding fields.

GRISSOM AIR RESERVE BASE
**OPERATIONAL AREAS
ACTION PLAN**

Prepared for:
Miami County Economic
Development Authority
February 5, 2021

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CONSERVATION & CONSULTING
FROM SEA TO STARS

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CONTENTS

EXECUTIVE SUMMARY.....	ES-1
SECTION 1: INTRODUCTION	1
1.1 Project Background	1
1.2 What is a Clear Zone?	2
1.3 Summary of the Process	4
1.4 Action Plan Objectives	6
1.5 Action Plan Overview	7
SECTION 2: EXISTING PROTECTIONS AROUND GRISSOM ARB	10
2.1 North Clear Zone	11
2.2 South Clear Zone	15
SECTION 3: LAND USE COMPATIBILITY IN THE OPERATIONAL AREAS.....	18
3.1 Land Use Compatibility in the Clear Zones	18
3.2 Land Use Compatibility in Other Operational Areas	21
3.2.1 VORTAC Standoff Areas	22
3.2.2 Taxiways	22
3.2.3 Primary Surface	23
SECTION 4: TOOLS & POTENTIAL FUNDING SOURCES	24
4.1 Demolition of Incompatible Structures & Buildings in the North Clear Zone	25
4.1.1 Potential Funding Sources for Demolition	26
4.2 Relocation of Private, Non-Profit, and Governmental Agencies Currently Operating Within the North Clear Zone	34
4.2.1 Potential Funding Sources for Business Relocation	36
4.3 Acquisition of Land or Easements	36
4.3.1 Purchase/Voluntary Sale of Land or Easements	38
4.3.2 North Clear Zone	40
4.3.3 South Clear Zone	41
4.3.4 VORTAC Standoff Areas	41
4.3.5 Right of First Refusal	42

4.3.6	Eminent Domain	43
4.3.7	Potential Funding Sources for Acquisition of Land or Easements.....	44
4.4	Land Swaps	48
4.4.1	Military-Civilian Land Swaps.....	49
4.4.2	Potential Funding Sources for Land Swaps.....	51
4.5	Contractual Agreements	52
4.5.1	Maintenance Agreements.....	52
4.5.2	Potential Funding Sources for Contractual Agreements	53
4.6	Zoning Ordinance Revisions.....	54
4.6.1	Potential Funding Sources for Zoning Ordinance Amendments	56
4.7	Other Potential Tools Identified During the Project	57
4.7.1	INDOT Office of Aviation Airport Capital Improvement Program	57
4.7.2	FAA Airport Improvement Program (AIP).....	58
4.7.3	FAA Military Airport Program (MAP)	59
4.7.4	Office of Economic Adjustment Defense Community Infrastructure Pilot Program (DCIP)	60
4.7.5	EDA Public Works and Economic Adjustment Assistance Programs	62
4.7.6	Indiana Opportunity Zones	63
4.7.7	Indiana’s State Redevelopment Tax Credit.....	64
SECTION 5: IMPLEMENTATION ACTIONS & TIMELINES		65
	Overall Timeline.....	67
	Task 1: Demolition.....	68
	Task 2: Relocation	70
	Task 3: Acquisitions	72
	Task 4: Land Swaps	73
	Task 5: Contractual Agreements	74
	Task 6: Zoning Ordinance Revisions	75
SECTION 6: CONCLUSION		76

APPENDICES

APPENDIX A: OPERATIONAL AREAS PARCEL SUMMARY.....	A-1
APPENDIX B: GRISSOM ARB OPERATIONAL AREAS EXISTING CONDITIONS, DEMOLITION PLANS, RELOCATION PLAN, AND COST ESTIMATES.....	B-1
APPENDIX C: PREFERRED RELOCATION PLAN (CONCEPT 1-B)	C-1
APPENDIX D: NORTH CLEAR ZONE DEEDS.....	D-1
APPENDIX E: EXISTING USAF EASEMENTS.....	E-1

FIGURES

FIGURE 1. 2014 GRISSOM ARB AICUZ ACCIDENT POTENTIAL ZONES	3
FIGURE 2. ACTION PLAN IMPLEMENTATION TIMELINE	8
FIGURE 3. NORTH CLEAR ZONE PARCELS	14
FIGURE 4. SOUTH CLEAR ZONE PARCELS	16
FIGURE 5. APZ EXISTING LAND USE COMPATIBILITY	20
FIGURE 6. GRISSOM ARB/434 ARW OPERATIONAL AREAS.....	21
FIGURE 7. NORTH CLEAR ZONE DEMOLITION PLAN OVERVIEW.....	25
FIGURE 8. THREE-PHASE PROCESS FOR MILITARY-CIVILIAN LAND SWAPS	49
FIGURE 9. MILITARY REAL PROPERTY DISPOSAL PROCESS.....	51
FIGURE 10. GRISSOM AEROPLEX QUALIFIED OPPORTUNITY ZONE	63

TABLES

TABLE 1. EXTENT OF EXISTING PROTECTIONS IN THE NORTH CZ	12
TABLE 2. EXTENT OF EXISTING PROTECTIONS IN THE SOUTH CZ.....	16
TABLE 3. SUMMARY OF POTENTIAL FUNDING SOURCES FOR DEMOLITION OF INCOMPATIBLE STRUCTURES IN THE NORTH CZ.....	33
TABLE 4. TYPES OF EASEMENTS	39
TABLE 5. GRISSOM ARB AREAS FOR POTENTIAL LAND SWAP	48

EXECUTIVE SUMMARY

This Operational Areas Action Plan implements a high priority strategy from the 2018 Grissom Air Reserve Base (ARB) Joint Land Use Study to develop an action plan to achieve land use compatibility in the base's North Clear Zone. The plan also addresses compatibility in other Grissom ARB Operational Areas, including the South Clear Zone, VORTAC standoff areas, taxiways, and the runway primary surface (see Figure ES-1). Land use compatibility in these Operational Areas is important due to the safety concerns associated with the presence of people and structures in these areas.

This Action Plan identifies tasks necessary to bring these Operational Areas into compliance with Department of Defense (DoD) and other federal safety guidance, as well as tools and funding opportunities that could be used to maintain or improve compatibility. Section 5: Implementation Actions & Timelines suggests short-, medium-, and long-term timelines for implementation of the recommended tasks.

Full implementation of the Action Plan will require significant funding and a long-term, coordinated, and phased effort between the DoD, Miami County Economic Development Authority (MCEDA), and other community partners. While the availability of funding may necessitate adjustments to the recommended timelines, the Action Plan anticipates a 20-year effort to achieve full implementation (see Figure ES-2).

The recommended actions are organized into six central tasks:

1. Demolition
2. Relocation & Construction
3. Acquisitions
4. Land Swaps
5. Contractual Agreements
6. Zoning Ordinance Revisions

Each task includes a series of subtasks. In some cases, the task includes preliminary steps that should be completed prior to other subtasks, such as assessing the feasibility of rehabilitating existing buildings for temporary or permanent relocation of North Clear Zone entities.

Other subtasks are iterative, meaning one cannot start until another is complete. For example, demolition of occupied buildings in the North Clear Zone cannot begin until the occupants are relocated to temporary or permanent facilities.

Some subtasks appear under different central tasks but are interrelated, such as the removal and relocation of portions of the perimeter fence—which appear under the demolition and relocation tasks.

While many tasks, like demolition and relocation, are complex and highly dependent on the availability of funding, other tasks, like contractual agreements and zoning ordinance revisions, are relatively low cost and include subtasks that can be implemented in the short-term to quickly advance compatibility in one or more of the Operational Areas.

Figure ES-1. Grissom ARB 434th Air Refueling Wing Operational Areas

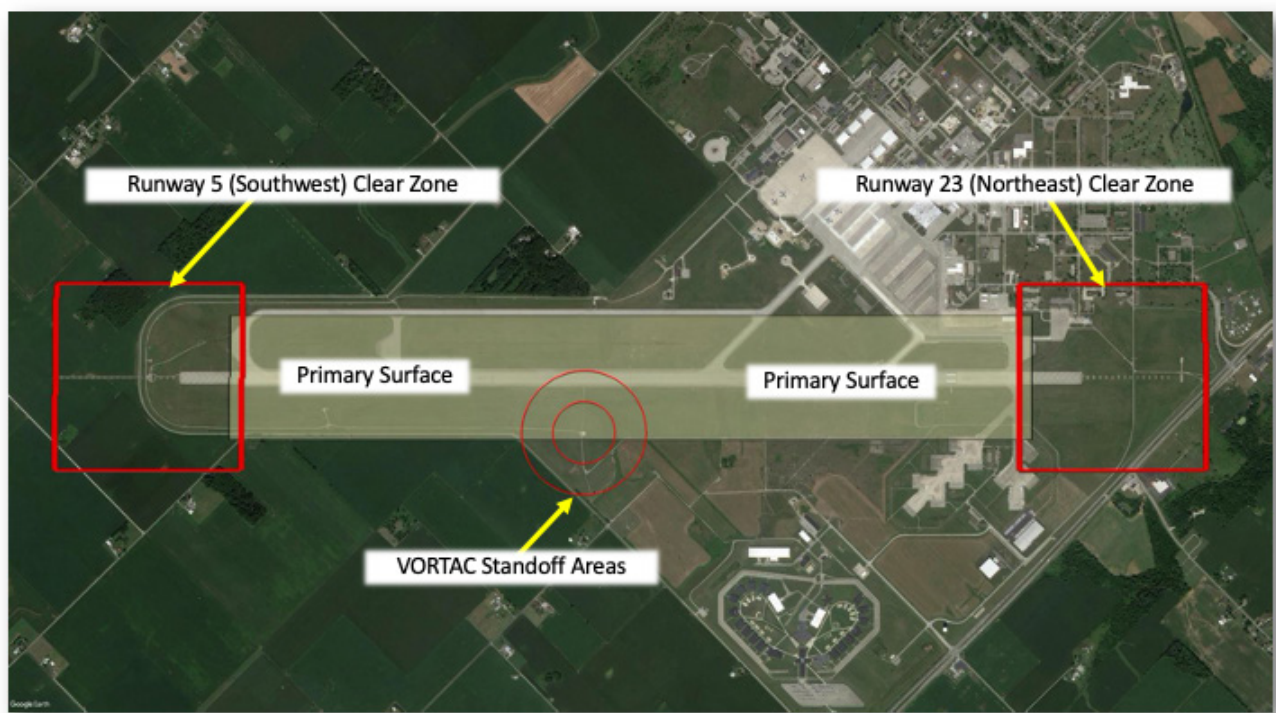


Figure ES-2. Action Plan Implementation Timeline

Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-2041
Task											
1. Demolition											
2. Relocation & Construction											
3. Acquisitions											
4. Land Swaps											
5. Contractual Agreements											
6. Zoning Ordinance Revisions											

This Action Plan includes six sections and a series of appendices that:

- » Explain the project background (Section 1),
- » Document existing conditions in the Grissom ARB Operational Areas (Sections 2 and 3; Appendices A, B, D, and E),
- » Identify tools and potential funding opportunities to help implement this Action Plan (Section 4), and
- » Recommend implementation tasks and their associated timelines (Section 5, Appendices A, B, and C).

SECTION 1: INTRODUCTION

1.1 PROJECT BACKGROUND

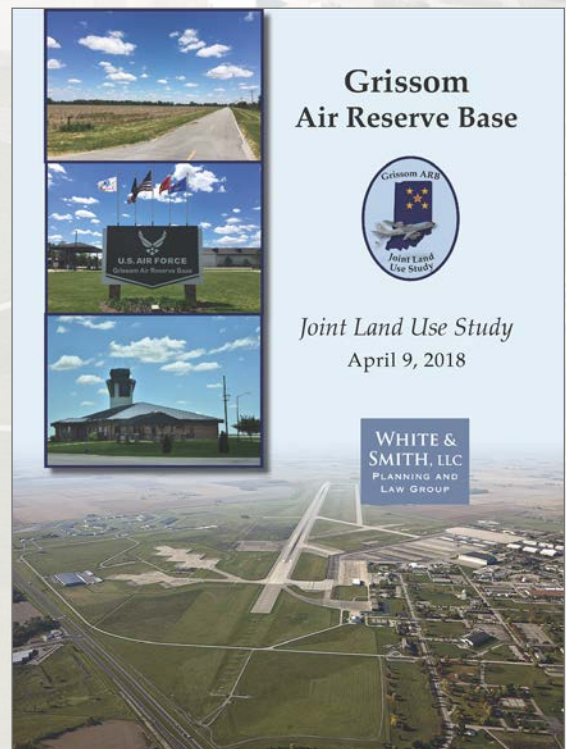
In 2017 and 2018, the Miami County Economic Development Authority (MCEDA) sponsored a Joint Land Use Study for Grissom Air Reserve Base (Grissom ARB or GARB). A Joint Land Use Study (JLUS) is a collaborative planning effort used in communities around the country to promote compatibility between military installations, civilian communities, and local governments. A JLUS is not regulatory in nature; in other words, its recommendations are only effective when implemented by the local community through adoption of regulations, agreements, comprehensive plan policies, or other tools. Serving as a guide for future decision-making, a JLUS identifies tools available to a community and assesses potential implementation strategies based on the local context.

The Grissom ARB JLUS recommends a series of conflict resolution strategies to address concerns identified in the study's conflict and compatibility analyses. The JLUS includes an implementation plan that assigns a relative priority and timeframe for each of the 32 conflict resolution strategies.

This Operational Areas Action Plan implements a high priority strategy to develop an action plan for compatibility in the Grissom ARB Clear Zone:

Action Plan for Clear Zone Compatibility. Develop an Action Plan to achieve land use compatibility in the northeast Clear Zone; consider acquisitions, relocation, amortization, land swaps, and other available tools for removing noncompatible structures and uses from the off-base portion of the Clear Zone on former Air Force properties.

(0-3 Year Timeframe, High Priority)



1.2 WHAT IS A CLEAR ZONE?

Areas immediately beyond the ends of military runways and along the approach and departure flight paths are considered to have significant potential for aircraft accidents. The Department of Defense (DoD) defines three levels of relatively high accident potential: the Clear Zone (CZ), Accident Potential Zone I (APZ-I), and APZ-II. CZs and APZs are not predictors of accidents; rather, they are areas where an accident is most likely to occur, if one occurs.¹

The size and configuration of the CZ and APZs, which are associated with all military airfields, is dictated by the runway classification and the typical flight tracks and operational profile of aircraft operating from the airfield. The Grissom ARB CZs and APZs identified in the 2014 Grissom ARB Air Installations Compatible Use Zone (AICUZ) Study are shown in [Figure 1](#).

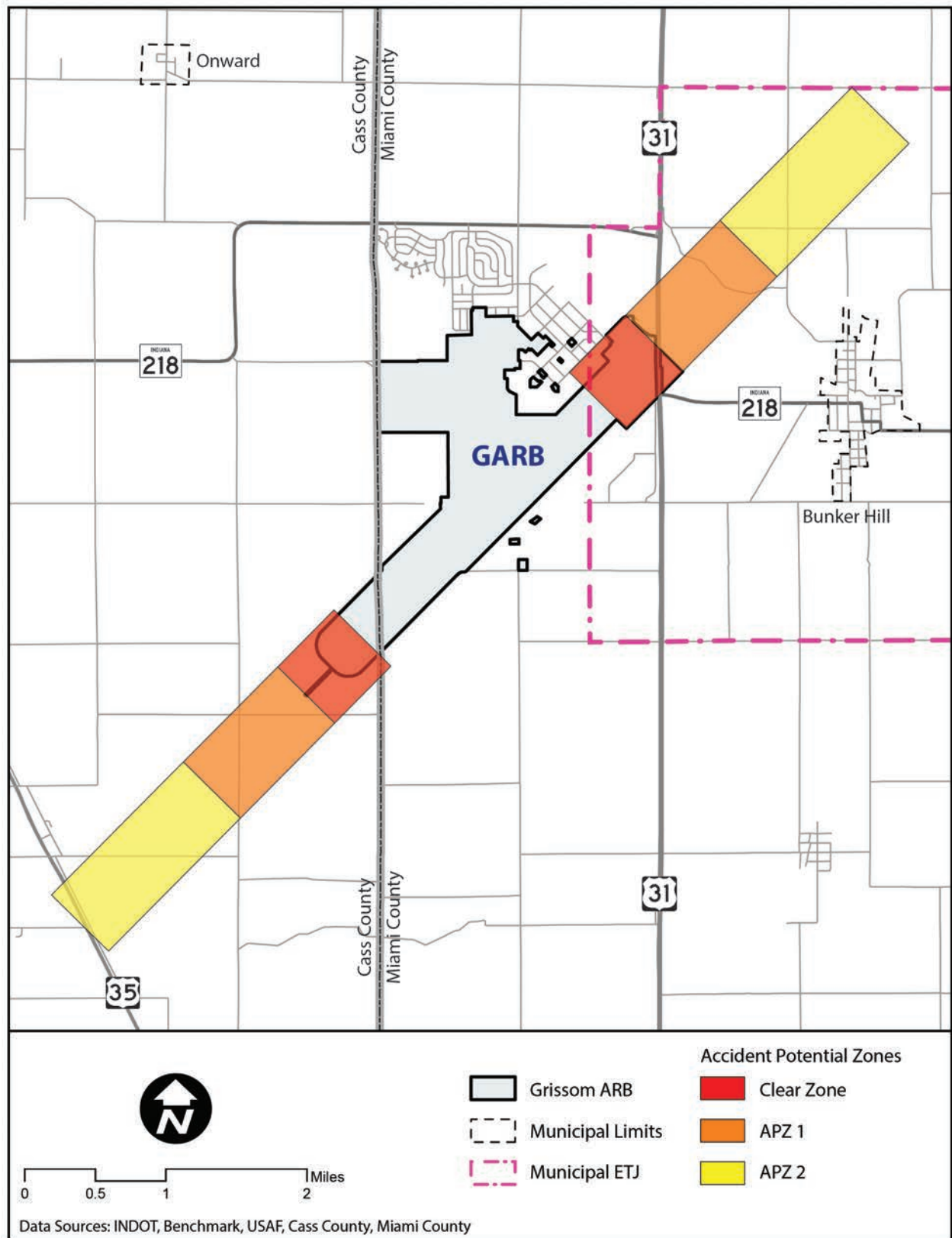
The Clear Zone is considered to be the most hazardous of the three zones, given its proximity to the end of the runway. According to current DoD and Air Force guidance, a CZ should not contain any above-ground structures other than essential airfield navigational aids and operational facilities.

DoD Instruction (DODI) 4165.57, Air Installations Compatible Use Zones (AICUZ), and Air Force Handbook (AFH) 32-7084, AICUZ Program Manager's Guide, consider only the following land uses compatible in a Clear Zone:

- » Agriculture, excluding livestock, orchards (trees), and grains or other crops or vegetation that unnecessarily attract birds or wildlife;
- » Undeveloped land;
- » Existing water areas provided they do not create bird or wildlife strike hazards.
- » Fenced, two-lane highways or streets without sidewalks or bicycle trails, provided that they do not violate obstacle clearance criteria and are not located in the graded portion of the Clear Zone;
- » Rights-of-way for communications and utilities provided all facilities and equipment are at grade level or underground; and
- » Essential navigation aids and operational facilities, provided there are no feasible alternative locations.

¹Air Force Handbook [AFH] 32-7084, AICUZ Program Manager's Guide, United States Air Force, 2 November 2017.

Figure 1. 2014 Grissom ARB AICUZ Accident Potential Zones (Map from 2018 Grissom ARB JLUS)





1.3 SUMMARY OF THE PROCESS

Following completion of the Grissom ARB JLUS in 2018, MCEDA initiated a project to develop an action plan to not only address the incompatible land uses and structures in the North Clear Zone, but also to identify incompatibilities in other Grissom ARB Operational Areas—including VORTAC standoff areas, taxiways, and primary runway surfaces—and assess the most appropriate ways to maintain land use compatibility in the South Clear Zone.

In November 2018, MCEDA issued a Request for Proposals (RFP) to develop this Operational Areas Action Plan and prepare other tools recommended by the JLUS, including overlay zoning districts, real estate disclosure and acknowledgment statements, a memorandum of understanding for renewable energy development procedures, and a military-community partnership website.

In 2019, MCEDA selected the White & Smith Team to complete the project. White & Smith, LLC teamed with CHA Consulting, Inc., Marstel-Day, LLC, and Shiel Sexton to prepare the Action Plan and other deliverables specified in the RFP.

The project kicked-off in August 2019 with a site visit by the consultant team. The Team toured buildings in the North Clear Zone and met with the JLUS Implementation Committee to discuss the project and deliverables.

The Team then began preparation of this Operational Areas Action Plan through a series of iterative tasks, including:

1. Documentation of buildings, structures, and lands in the Operational Areas;
2. Preparation of cost estimates for demolitions within the Operational Areas;
3. Preparation of cost estimates for relocations and reconstruction outside the Operational Areas;
4. Identification of tools and processes for long-term protection of Operational Areas; and
5. Development of short-, medium-, and long-term timelines for implementing protection of the Operational Areas.

In February 2020, the Team reviewed the results of the first three tasks listed above with the JLUS Implementation Committee. The Committee provided input on three

alternatives for relocation of existing businesses and organizations located in the North Clear Zone. The results of these three tasks are provided in [Appendix B](#). For quick reference, the preferred relocation plan (Concept 1-B) is also provided in [Appendix C](#).

In Spring 2020, the Team prepared a memorandum identifying and describing tools and processes that could be used for long-term protection of the off-base Operational Areas. The Committee confirmed the tools in July 2020 (*see*), which informed the development of the timelines for implementation of the recommended actions.

The Team worked with MCEDA's project manager to develop the timelines presented in [Section 5](#) based on current conditions and opportunities. This Action Plan was completed in February 2021.

Clarify Clear Zone Deed Restrictions Pertaining to Existing Structures. Clarify existing deed restrictions with respect to properties owned by MCEDA and located in the Clear Zone. The deed restrictions currently prohibit expansion of buildings located in the Clear Zone, but not the rebuilding of destroyed structures.

(0-3 Year Timeframe, Medium Priority)

Continued Coordination between Grissom ARB and MCEDA on Development Plans for the Aeroplex.

Grissom ARB and MCEDA should continue to coordinate on development and redevelopment of the Grissom Aeroplex to maintain current conditions of compatibility. Consider developing a master plan for future development that will advance economic programs in the community and also protect compatibility with the airbase.

(0-3 Year/Ongoing Timeframe, Medium Priority)

1.4 ACTION PLAN OBJECTIVES

The primary objectives of this Operational Areas Action Plan are to:

- » Ensure the long-term protection of the North Clear Zone and South Clear Zone, through Air Force ownership, easements, or other controls;
- » Control of the 500' R and 1,000' R standoff area required for proper siting of existing Facility #714 (VORTAC);
- » Control all required taxiway clearances; and
- » Control required perimeter fence clearances of the primary surface (runway) so that it may be reclaimed and perpetually maintained in strict conformance with airfield design criteria, per DoD Unified Facilities Criteria (UFC) 3-260-01.

In addition, this Action Plan addresses two related conflict resolution strategies identified in the Grissom ARB JLUS.

“There currently are a series of deed restrictions on the Aeroplex properties managed by the Miami County Economic Development Authority, which include terms related to repairs and expansions to buildings within the North Clear Zone. The legal relationship between these documents and local zoning laws should be examined to clarify which terms and ordinance provisions prevail. This effort may be taken up with the Clear Zone Action Plan discussed in Section E.”² Section 2: Existing Protections Around Grissom ARB discusses these deed restrictions and the consultant team’s findings.

As noted in 1.3 Summary of the Process, a step in the development of this Action Plan included the preparation of cost estimates for relocations and reconstruction outside the Operational Areas. This resulted in the selection by the JLUS Implementation Committee of the preferred relocation plan (Concept 1-B), which is provided in Appendix C.

1.5 ACTION PLAN OVERVIEW

Following this section, the Action Plan includes five sections and a series of appendices that:

- » Document existing conditions (Sections 2 and 3; Appendices A, B, D, and E),
- » Identify tools and potential funding opportunities to help implement the Plan (Section 4), and
- » Recommend implementation tasks and their associated timelines (Section 5 and Appendices A, B, and C).

Section 2: Existing Protections Around Grissom ARB discusses the existing deed restrictions and easements on properties in the North and South Clear Zones. Easements in the South Clear Zone date back to the 1980s and are largely responsible for the current level of compatibility in this Operational Area.

Section 3: Land Use Compatibility in the Operational Areas discusses the current degree of compatibility in other Operational Areas, including the VORTAC standoff areas, taxiways, and primary surface.

Section 4: Tools & Potential Funding Sources identifies techniques, grant programs, and other potential funding opportunities that could be used to help bring the Operational Areas into compliance with federal safety guidance.

Section 5: Implementation Actions & Timelines recommends specific tasks necessary to implement the Action Plan, along with their associated timelines. The recommended actions are organized into six categories:

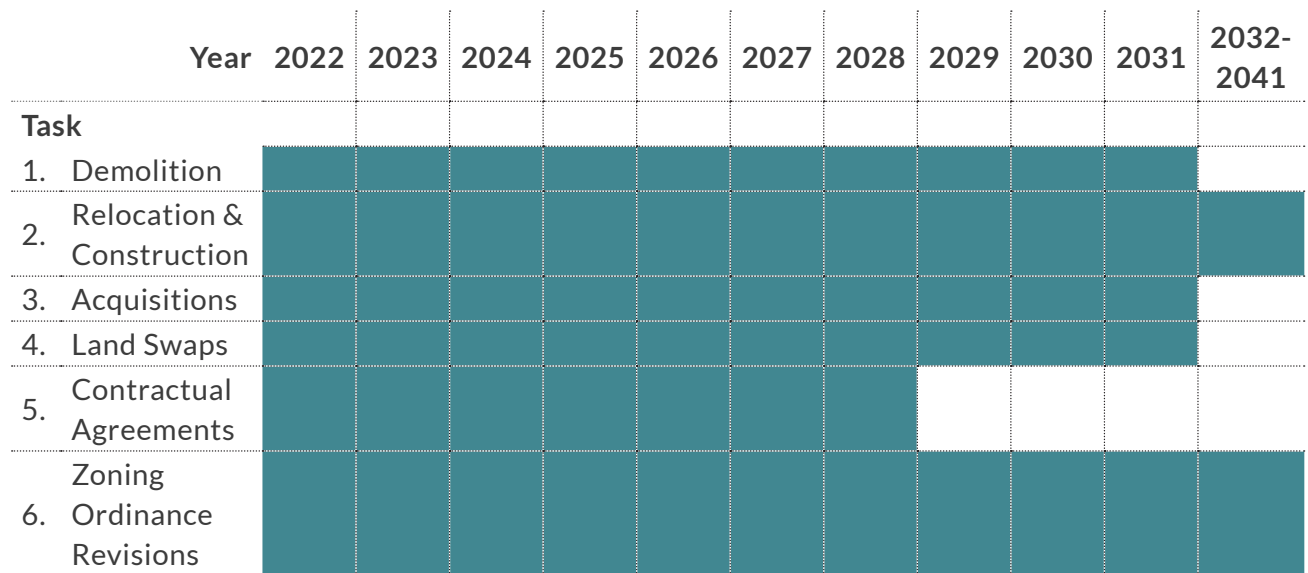
1. Demolition
2. Relocation of North Clear Zone Agencies
3. Acquisitions
4. Land Swaps
5. Contractual Agreements
6. Zoning and Regulatory Amendments

Figure 2 presents the overall timeline for implementation of the Action Plan. The timeline reflects full implementation of Tasks 1, 4, and 5 within the first ten years of implementation and full implementation of Tasks 2, 3, and 6 within 20 years. These timelines are dependent upon availability of funding.

It is worth noting that the primary subtasks under Task 6, Zoning Ordinance Revisions, are anticipated to occur within the first two years of implementation—even though the overall timeline shows this task extending through 2041. The subtasks associated with the long-term timeline of this task involve monitoring changes to Grissom ARB’s operations and to Air Force and other safety guidance that might warrant further revisions to local government zoning codes applicable within the Operational Areas.

Task 1, Demolition, and the relocation components of Task 2 are anticipated to be complete within the first ten years since these tasks are critical in the advancement of North Clear Zone compatibility. Due to the significant associated costs (approximately \$46 million), the construction components of Task 2 are anticipated as long-term implementation actions.

Figure 2. Action Plan Implementation Timeline



Appendix A: Operational Areas Parcel Summary summarizes the major findings and recommendations for each parcel located in the Operational Areas. The Overview also indicates whether there are existing protections (such as easements) and whether removal, clearance, or relocation actions are recommended; and suggests potential tools for long-term protection.

Appendix B: Grissom ARB Operational Areas Existing Conditions, Demolition Plans, Relocation Plan, and Cost Estimates includes documentation of buildings, structures, and lands in the Operational Areas; recommendations to bring these areas into compliance with federal safety guidance; cost estimates for demolitions within the Operational Areas; and cost estimates for relocations and reconstruction outside the Operational Areas.

Appendix C: Preferred Relocation Plan (Concept 1-B) provides the relocation and construction plan selected by the JLUS Implementation Committee. This plan is also provided in Appendix A, and is provided as a separate appendix for quick reference.

Appendix D: North Clear Zone Deeds includes several deeds for properties MCEDA owns in the North Clear Zone. The deed associated with Parcel E includes specific language related to the Clear Zone.

Appendix E: Existing USAF Easements includes existing easements held by the US Air Force on properties located primarily in the South Clear Zone.



SECTION 2: EXISTING PROTECTIONS AROUND GRISSOM ARB

The USAF already holds easements or has established deed restrictions limiting the use of some properties in the North and South Clear Zones. Most properties in the North Clear Zone not owned by the USAF and one privately-owned property in the South Clear Zone are protected through deed restrictions. Most properties in the South Clear Zone are protected through easements or USAF ownership. Three privately-owned properties in the South Clear Zone are protected only through Miami County or Cass County zoning. Further details are provided below.

In addition, the USAF holds aviation, clearance, or combination aviation/clearance easements, dating from the 1960s, on properties located on the northeastern side of Grissom ARB, outside the North Clear Zone (see [Appendix D](#)).

2.1 NORTH CLEAR ZONE

In October 1994, Grissom was realigned as an Air Force Reserve Command facility. The Air Force soon transferred more than 1,300 acres of land (including existing buildings) to new owners.³ This included the transfer of several parcels and buildings located in the airfield's North Clear Zone to MCEDA. Two of these parcels subsequently were sold to private property owners.

When these parcels were transferred out of federal ownership, the deeds included restrictions due to the parcels' location in the North Clear Zone. These deed restrictions require compliance with FAA requirements,⁴ as well as the "applicable provisions, conditions, and restrictions" in the Grissom ARB Air Installations Compatible Use Zone (AICUZ) Study. The deeds for several parcels in the North Clear Zone are provided in [Appendix D](#).

The deed conveying "Parcel E," which includes existing Buildings 1, 32, and 37 (and others

located outside the Clear Zone), contains additional language specifically addressing uses and existing buildings in the Clear Zone. The deed restrictions allow continued use of the existing buildings in the Clear Zone, but prohibit their expansion; and limit land uses to airport-related activities, professional services, business services, and adult training programs. Although this language is not included in the deeds for the other parcels in the North Clear Zone, MCEDA has, in practice, applied these restrictions to all parcels it owns in the Clear Zone. Further, the Miami County and Bunker Hill military overlay zoning district ordinances account for this rebuilding allowance (*see* [4.6 Zoning Ordinance Revisions](#)).

An overview of the properties and existing protections in the North Clear Zone is provided in [Table 1](#). The map in [Figure 3](#) shows the location of these parcels.

³ 2014 Grissom ARB AICUZ Study, Section 2.2, Economic Impact, p. 2-4.

⁴ 14 CFR Part 77, *Objects Affecting Navigable Airspace*.

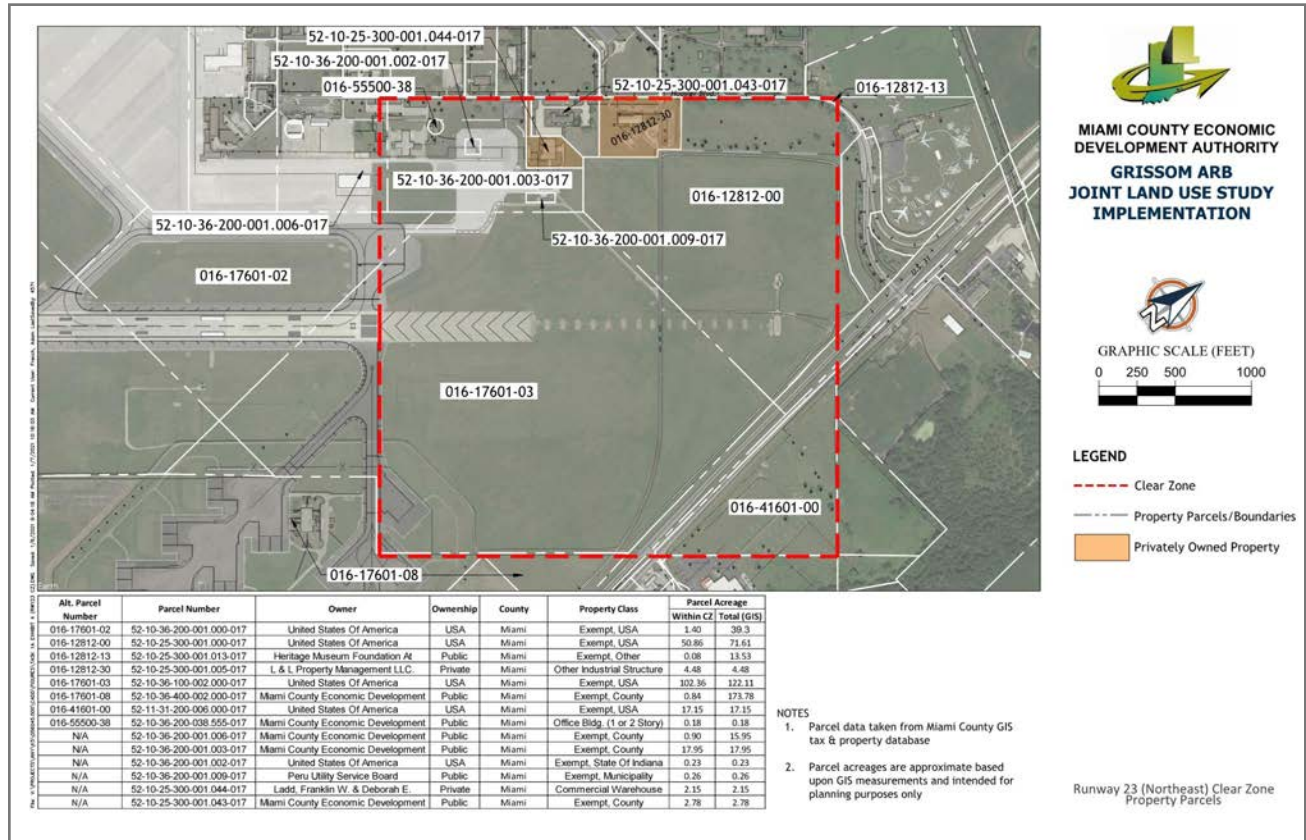
Table 1. Extent of Existing Protections in the North Clear Zone

Building	Parcel Number	Owner	Existing Protections			
			Deed Restriction	Easement	USAF Ownership	Zoning Overlay District
Building 1	52-10-25-300-001.043-017	MCEDA	●			●
Building 11	52-10-36-200-001.003-017	MCEDA	● ¹			●
Building 20	52-10-36-200-001.006-017	MCEDA	● ¹			●
Building 22	52-10-36-200-001.003-017	MCEDA	● ¹			●
Building 32	52-10-25-300-001.044-017	Ladd (private)	●			●
Building 33	52-10-25-300-033.555-017	MCEDA	● ¹			●
Water pump station & high voltage zone	52-10-36-200-001.009-017	Peru Utility Service Board				●
Building 37	52-10-25-300-001.005-017	L&L Property Management (private)	●			●
Building 38	52-10-36-200-038.555-017	MCEDA	● ¹			●
n/a	52-10-25-300-001.013-017 ²	Heritage Museum Foundation				●
n/a	52-10-25-300-001.000-017	USA			●	

Table 1, continued

Building	Parcel Number	Owner	Existing Protections			
			Deed Restriction	Easement	USAF Ownership	Zoning Overlay District
n/a	52-10-36-100-002.000-017	USA			●	
n/a	52-10-36-200-001.002-017	USA			●	
n/a	52-11-31-200-006.000-017	USA			●	
<p>¹While the deed for this parcel does not provide explicit restrictions related to the Clear Zone, MCEDA has, in practice, adhered to these same restrictions for all properties it owns in the North Clear Zone.</p>						
<p>²It appears a very small portion of this parcel is located in the North Clear Zone. This portion of the parcel is located along the edge of W. Hoosier Boulevard, and does not have trees or structures that need to be removed. See Appendix B, Section 2.3, Index-1, Demolition Plan (Overview). While the museum itself is not located in the CZ, it is located within APZ-I and considered an incompatible land use under current DoD and Air Force guidance (see Grissom ARB JLUS, Figure 3-32, p. 112).</p>						

Figure 3. North Clear Zone Parcels



2.2 SOUTH CLEAR ZONE

The USAF holds combination aviation, clear zone, clearance, and restrictive use easements on nine properties located in the South Clear Zone. The USAF obtained these perpetual easements in the early 1980's as part of the Grissom ARB Expanded Clear Zone Project.

The easements restrict current and future use of the land to preclude incompatible uses within the Clear Zone. The current easements allow livestock grazing, except feed lots and dairy herds, and utility and communication rights-of-way. However, current USAF guidance recommends against these uses in the Clear Zone.⁵ According to AFH 327084, compatible uses in the Clear Zone are limited to agriculture (except livestock); undeveloped land/open space; and fenced, two-lane roads without sidewalks.

The easements also provide the USAF the right to:

- » Make low and frequent flights and generate aircraft noise;
- » Regulate or prohibit light emissions, electrical emissions, and the release of substances into the air (e.g., steam, smoke, dust), that could impair pilot visibility, interfere with communication systems or navigation equipment, or otherwise interfere with aircraft operations;
- » Prohibit or remove buildings and non-frangible structures;
- » Prune and remove vegetation;
- » Post signs indicating the nature and extent of the USAF's control over the land; and
- » Ingress and egress for purposes related to the easement.

Based on the easement map exhibit provided by Grissom ARB, it appears one existing easement (on Parcel 09-15-03-400-024.000-012) needs to be slightly expanded to incorporate the entire portion of the South Clear Zone located thereon. See Grissom ARB's easement for Tract A 163-E and the associated easement map in [Appendix E](#).

One property—Parcel 52-13-11-200-003.000-005 ("3202-02")—in the South Clear Zone is protected through a deed restriction. The USAF conveyed this surplus property, encumbered with a deed restriction, to a private property owner in 1970. The deed restriction limits land uses to the growing of cultivated crops (excluding trees) and limits structures to fences. The deed also grants the USAF a perpetual easement and right-of-way in, under, and across the property for an underground electric cable line serving the approach lighting system and right of ingress and egress to repair, maintain, replace, or remove the line. The deed also references a highway easement and service road.

The South Clear Zone properties currently are undeveloped or in agricultural use, which is generally consistent with federal safety guidance. The only clearance action necessary to comply with federal safety guidance is the removal of trees on one (or possibly two)⁶ properties.

[Table 2](#) provides an overview of the properties and existing protections in the South Clear Zone. The map in [Figure 4](#) shows the location of these parcels.

⁵AFH 327084, 2 November 2017, *AICUZ Program Manager's Guide*, Table A2.1.

⁶Pending verification.

Figure 4. South Clear Zone Parcels



Table 2. Extent of Existing Protections in the South Clear Zone

Parcel Number	Alt. Parcel Number	Owner	Existing Protections			
			Deed Restriction	Easement	USAF Ownership	Zoning Overlay District
52-13-11-200-001.000-005	03202-00	Rush (private)				●
52-13-11-200-004.000-005	03202-01	Rush (private)				●
52-13-11-200-003.000-005	3202-02	Rush (private)	●			●
09-15-03-300-009.000-012	001-009	Pullen (private)		●		●

Table 2, continued

Parcel Number	Alt. Parcel Number	Owner	Existing Protections			
			Deed Restriction	Easement	USAF Ownership	Zoning Overlay District
09-15-03-400-016.000-012	001-016	Pines et al. (private)		●		●
09-15-03-400-019.000-012	001-019	USA			●	
09-15-03-400-024.000-012	001-024	Brittany Farms, LLC (private)		● ¹		●
09-15-10-200-002.000-012	010-002	Ladd Family Rev. Trust (private)		●		●
09-15-10-100-009.000-012	010-009	Pines et al. (private)		●		●
09-15-10-100-011.000-012	010-011	Pines et al. (private)		●		●
09-15-10-200-015.000-012	010-015	USA			●	
09-15-10-100-016.000-012	010-016	Ladd Family Rev. Trust (private)		●		●
09-15-10-100-017.000-012	010-017	Ladd (private)		●		●
09-15-10-100-019.000-012	010-019	Lieberman & Smith (private)		●		●
09-15-10-400-003.001-012	010-023	Willson (private)				●
Public Roads (E CR 950S; S 500W)	n/a	public				

¹Existing easement appears to exclude a small portion of the South Clear Zone. See Grissom ARB easement for Tract A 163-E and associated easement map in Appendix E.



SECTION 3: LAND USE COMPATIBILITY IN THE OPERATIONAL AREAS

3.1 LAND USE COMPATIBILITY IN THE CLEAR ZONES

Although the majority of land in Grissom ARB's North Clear Zone is located on the installation, the JLUS found the existing land uses located off-base to be incompatible with current DoD and Air Force land use compatibility guidance (see [Figure 5](#)).

The off-base land in the North CZ is an approximately 169-acre portion of the Grissom Aeroplex. The realignment of Grissom ARB's mission following Base Realignment and Closure (BRAC) Commission action in 1991 resulted in the transfer of Air Force property (land and existing buildings located thereon) to the community. The Grissom Aeroplex is a result of the civil redevelopment of approximately 850 acres of this former Air Force property, and now houses industrial, office, institutional, civic, and recreational uses. According to the Grissom Airport (GUS) National Plan of Integrated Airport Systems (NPIAS) Feasibility Study, "[o]f the 850 acres that was received by MCEDA, 275 acres have been sold. The remaining 575 acres (the Grissom Aeroplex) includes 215 acres of developed aviation-related structures (i.e., hangars, ramp space, office buildings, leased buildings, industrial and commercial operations, etc.) and 360 acres of developable land on the south side of the Runway 5/23 which includes 210 acres of 'shovel ready' property."

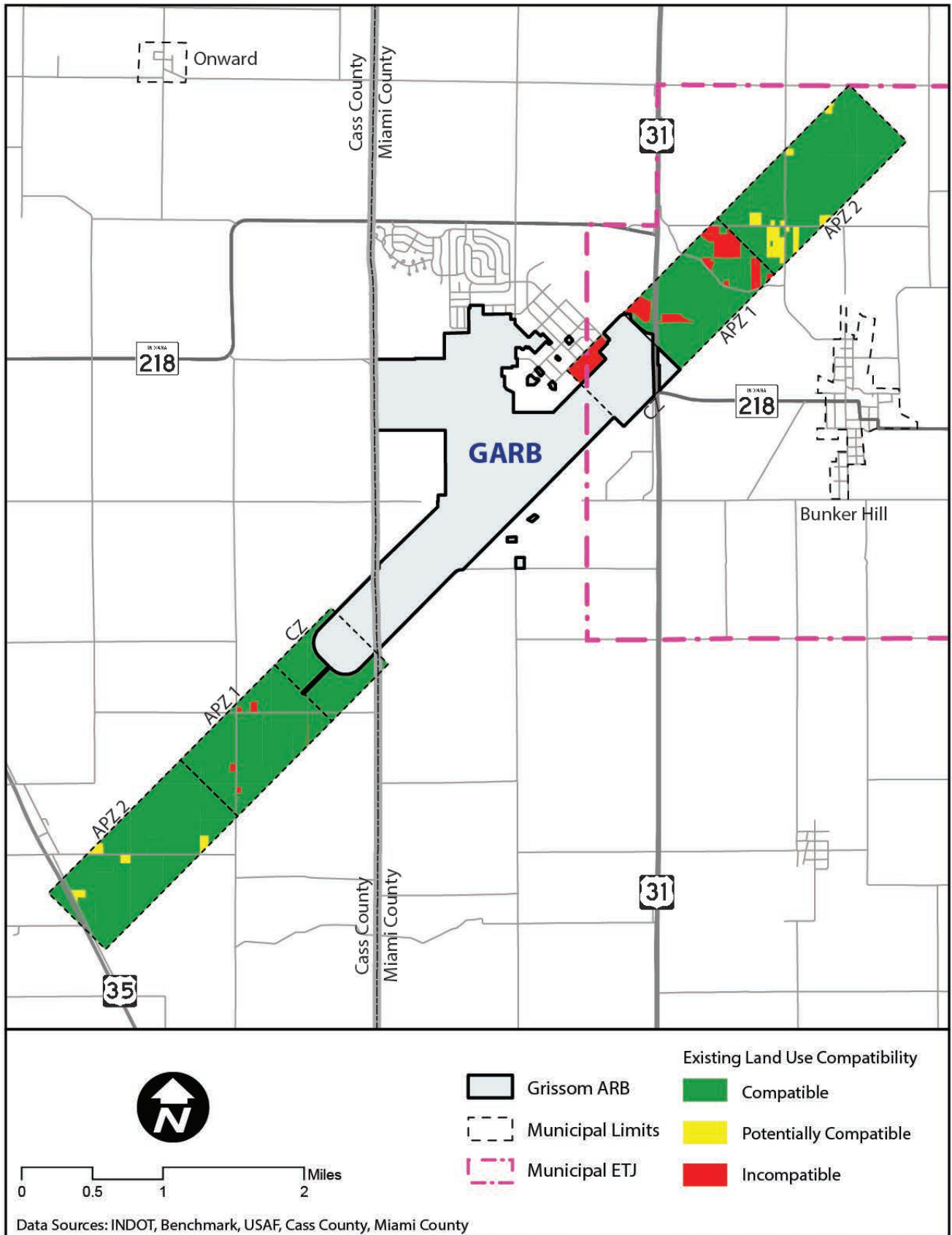
There are a number of buildings and improvements located within the portion of the North Clear Zone that lies outside the Grissom ARB fence line. Many of these are former Air Force buildings that were conveyed to the Grissom Redevelopment Authority following the base realignment and are now owned by MCEDA. This Plan recommends a series of actions, including demolition of existing buildings, to bring the land uses in the North Clear Zone into compliance with federal guidance.

The JLUS found existing land use in the South CZ to be compatible with DoD and Air Force guidance (see [Figure 5](#)). There are no fixed structures in the South CZ, and all of the off-base land is undeveloped or in agricultural use. Just over 61% of the land in the South Clear Zone is privately owned. This Action Plan recommends steps to maintain this compatibility over the long-term, including the execution of new easements that restrict land use.

[Section 4](#) of the Action Plan recommends tools that can be used to bring the land uses in the North Clear Zone into compliance with federal guidance and ensure land uses in the South CZ remain compatible with airfield operations.

[Appendix B](#) describes the current state of the Clear Zones in more detail and recommends actions to bring these areas into compliance with current federal and military guidance and policies. It also provides cost estimates for demolition of North Clear Zone structures and presents a relocation and construction plan ([Appendix C](#)), with cost estimates, for entities currently located in the North Clear Zone.

Figure 5. Accident Potential Zone Existing Land Use Compatibility (Map from 2018 Grissom ARB JLUS)

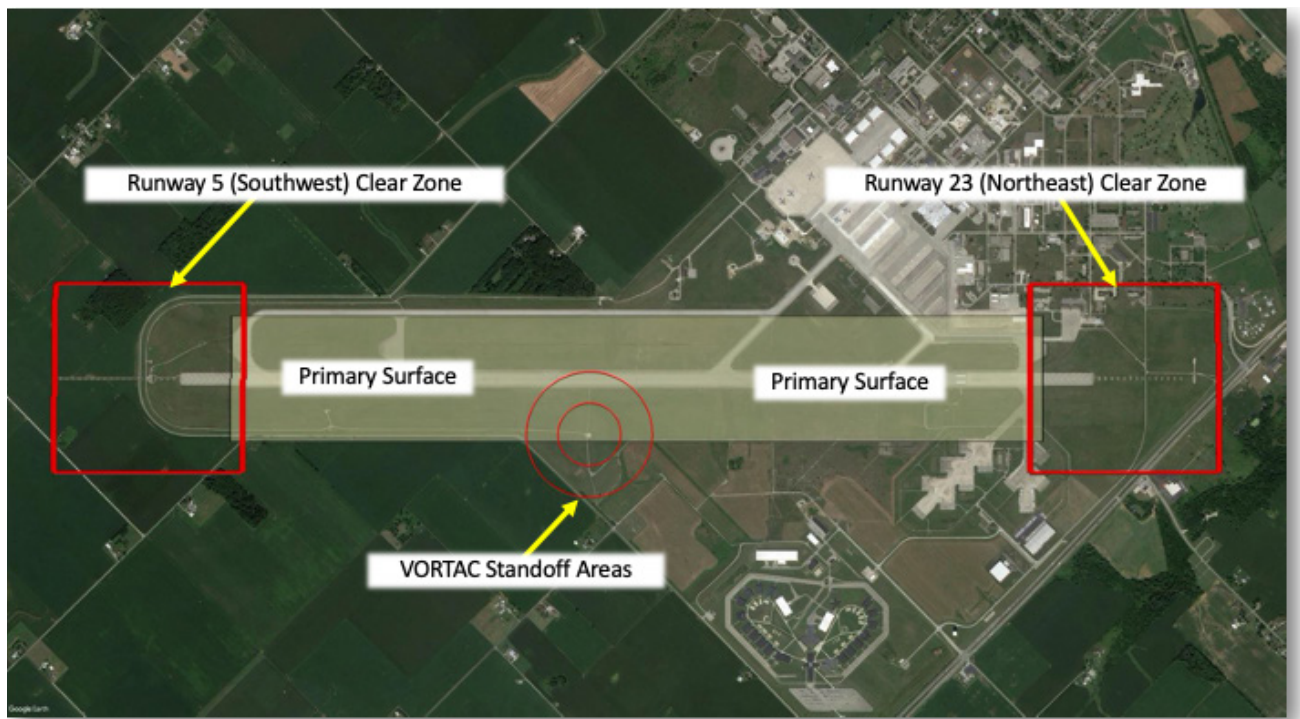


3.2 LAND USE COMPATIBILITY IN OTHER OPERATIONAL AREAS

In addition to the Clear Zones, it is important to maintain land use compatibility in other Grissom ARB/434 ARW Operational Areas, including the VORTAC standoff areas, taxiways, and the runway primary surface. [Figure 1](#) depicts these Operational Areas, and [Section 4](#) recommends tools that can be used to bring these operational areas, into compliance with federal regulations and guidance.

[Appendix B](#) describes and illustrates in more detail the current status of each Operational Area and recommends actions to bring these areas into compliance with current federal and military guidance and policies.

Figure 6. Grissom ARB/434 ARW Operational Areas



3.2.1 VORTAC STANDOFF AREAS

VORTAC is Grissom Airport's (GUS) combined navigational system. DoD and Federal Aviation Administration (FAA) guidance specify minimum setbacks ("standoffs") between VORTAC and airfield infrastructure.

In addition, FAA guidance suggests the 500-foot standoff area should be clear of all trees and structures, except for farm-type wire fencing less than four feet in height—if it is located at least 200 feet from the VORTAC.⁷ Wire and chain link fencing is acceptable within the 1,000-foot standoff area, as are trees up to 30 feet in height. The only allowable land uses are agricultural and include the growing of crops and livestock grazing, provided grazing does

not occur in the vicinity of the VORTAC system's monitor detectors.

According to the analysis conducted as one of the first steps in the development of this Action Plan (see [1.3 Summary of the Process](#) and [Appendix B](#), Section 1), the VORTAC standoff areas currently comply with federal guidance. However, there are no formal protections for the off-base portion of the standoff areas, which fall on one parcel owned by MCEDA and another by a private property owner. MCEDA and Grissom ARB do, however, have an interlocal agreement for maintenance of the perimeter fence on MCEDA's parcel in the standoff area.

3.2.2 TAXIWAYS

According to DoD's [UFC 3-260-01](#), taxiways at GUS require a minimum clearance of 200 feet from the taxiway centerline to fixed or mobile obstacles. DoD guidance further recommends the removal of pavement between taxiway edges and clearance areas.

[Appendix B](#) recommends removal of a portion of Taxiway 'G' within the 200-foot taxiway clearance area due its deteriorated state and potential to produce foreign object debris, which can pose an extreme hazard to aircraft.

⁷ FAA Order 6820.10, Chapter 4, p. 45, available: https://www.faa.gov/regulations_policies/orders_notices/index.cfm/go/document.information/documentID/9741

3.2.3 PRIMARY SURFACE

The Code of Federal Regulations (CFR) establishes imaginary surfaces for civil and DoD airports, including the runway primary surface.⁸ At GUS, the primary surface extends 1,000 feet laterally from each side of the runway centerline (for a total width of 2,000 feet) and 200 feet beyond each runway end. No fencing may penetrate the primary surface, including Grissom ARB's perimeter fence, unless a waiver is obtained from the USAF.

Portions of the perimeter fence are located within the primary surface and should be relocated. As recommended in [Appendix B](#), Grissom ARB should seek a waiver from DoD allowing a 4,810-foot portion of the fence (Fence Area 1) to remain. The closure or relocation of Runway Road and a portion of S. 500 W. would be required to provide sufficient area for fence relocation outside of the primary surface within this area. This issue needs further study by the community to determine feasibility, and a waiver would allow the fence to remain in the meantime. Another 6,605 linear feet of fencing located within or along the edge of the primary surface (Fence Area 2) should be relocated outside of the primary surface.

⁸ [14 CFR Part 77](#); *Safe, Efficient Use and Preservation of the Navigable Airspace*; §§77.19 and 77.21.

SECTION 4: TOOLS & POTENTIAL FUNDING SOURCES

This section describes and evaluates tools for facilitating the removal of buildings, structures, and incompatible land uses from the Operational Areas, including:

- » Demolition of incompatible structures and buildings in the North Clear Zone;
- » Protection of all lands in the Operational Areas, including those with structures proposed for demolition, through:
 - » Purchase/voluntary sale (of land or easements);
 - » Land swaps;
 - » Relocation of private, non-profit, and governmental agencies currently operating within the North Clear Zone;
 - » Contractual agreements;
 - » Zoning; or
 - » Other tools identified during the project.

The subsections discuss the advantages, disadvantages, opportunities, and limitations for the identified tools and funding sources.

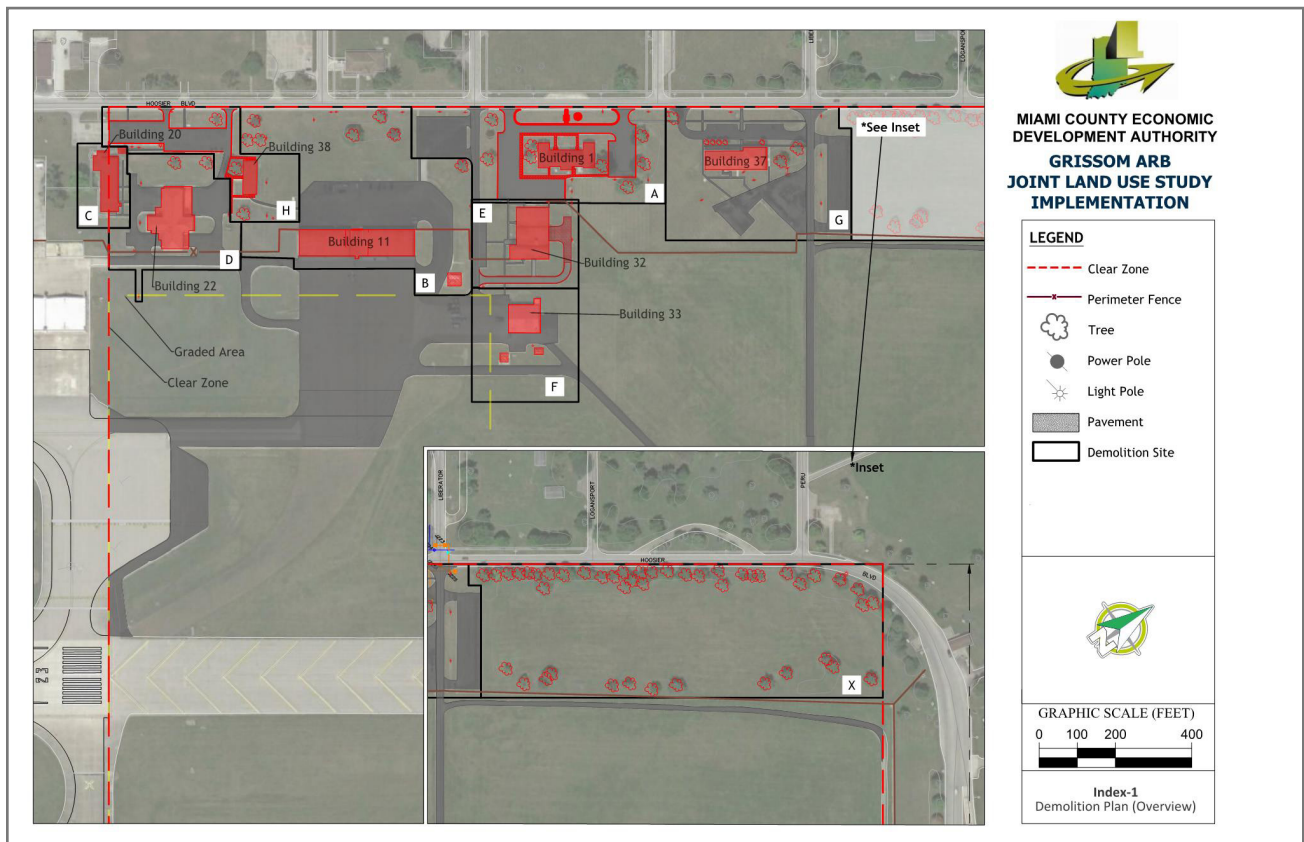
4.1 DEMOLITION OF INCOMPATIBLE STRUCTURES & BUILDINGS IN THE NORTH CLEAR ZONE

The estimated total demolition costs for buildings in the North Clear Zone are approximately \$3.88 million.

Due to the high level of aircraft accident potential in the Clear Zone, current DoD and Air Force safety guidance recommends no aboveground structures in the Clear Zone except for essential navigational aids.⁹

To bring the North Clear Zone properties located outside the Grissom ARB fence line into compliance with these safety guidelines, the eight existing buildings must be demolished. MCEDA owns six of these buildings, and the other two are privately owned. As specified in [Appendix B, Section 2, North Clear Zone Demo Plan & Cost Estimates](#), demolition includes removal of buildings as well as removal of utilities (e.g., power poles), fencing, and trees. The estimated total North Clear Zone demolition costs are approximately \$3.88 million. The overall demolition plan is shown in [Figure 7](#).

Figure 7. North Clear Zone Demolition Plan Overview



⁹ See DoDI 4165.57, AFI 32-1015, and AFH 32-7084

Although Building 20 and portions of other buildings in the North Clear Zone currently are vacant, others are occupied by businesses or organizations that will need to relocate prior to demolition of the buildings (see [4.2 Relocation of Private, Non-Profit, and Governmental Agencies Currently Operating Within the North Clear Zone](#)). Five of the eight buildings, including one of the privately-owned buildings, need to be reconstructed outside the North Clear Zone (see [Appendix B, Section 3, Relocation Recommendations & Cost Estimates](#)). For these reasons, demolition must be combined with other tools, including business relocation and building construction. In addition, demolition may require the purchase (by the USAF or MCEDA) of the two privately-owned properties (or easements thereon) in the North Clear Zone. Due to the scope and costs associated with these tools, a phased approach likely will be necessary.

According to Grissom ARB engineers, at the time of this writing, DoD funding may not be used for demolition or other activities on the Clear Zone properties because the USAF has excessed properties in the Clear Zones,. However, the federal government could re-acquire these properties in order to protect the Clear Zones in perpetuity.

4.1.1 POTENTIAL FUNDING SOURCES FOR DEMOLITION

Projects involving demolition of the buildings in the North Clear Zone may be eligible for funding through a variety of federal and state grant programs, several of which are described below. These programs typically are available to local governments and other public entities and non-profit organizations, rather than private property owners. The Indiana Brownfields Program Revolving Loan Fund Incentive, however, is available to private property owners.

Likely costs associated with demolition include:

- » Property purchase price and associated transaction costs, including an appraisal (for the privately-owned parcels);
- » Environmental assessments;
- » Environmental cleanup transaction costs;
- » Business relocation costs (if applicable); and
- » Demolition and clearing, performed by a professional contractor.

FAA Airport Improvement Program (AIP)

See discussion of the FAA's Airport Improvement Program and Military Airport Program on [page 27](#).

With some exclusions, federal law defines a brownfield site as “real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant” (Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA], as amended).

EPA Brownfields Grants

Because some of the existing buildings in the North Clear Zone contain asbestos, a hazardous substance, the sites could be considered “brownfields” under federal law. This opens up funding opportunities through the U.S. Environmental Protection Agency (EPA).

The EPA offers several types of brownfields grants, including Assessment, Cleanup, and Multipurpose Grants. The grant programs share many of the same eligibility and programmatic requirements, including:

Units of local government are expressly eligible for Brownfields Grant funding, and it appears MCEDA is eligible for funding as well.¹⁰

While federally-owned property is not eligible for the grant programs, former military property that has been disposed of by the federal government is eligible.¹¹

Applicants may submit only one application per funding cycle for all types of Brownfields Grants. For example, an applicant may not apply for an Assessment Grant and a Cleanup Grant or two Assessment Grants during the same funding cycle.

Additional details on EPA Brownfields Grants, including frequently asked questions and application requirements, are available online at <https://www.epa.gov/brownfields/types-brownfields-grant-funding>.

The EPA also offers the Targeted Brownfields Assessment Program, which is described below.

¹⁰ US EPA, *Entities Eligible to Receive Brownfield Grants*, available: <https://www.epa.gov/brownfields/entities-eligible-receive-brownfield-grants>

¹¹ US EPA, *Fiscal Year 2020 Frequently Asked Questions for Brownfields Multipurpose, Assessment, RLF, and Cleanup (MARC) Grants*; Question G.5., p. 28; available: https://www.epa.gov/sites/production/files/2020-01/documents/fy20_faqs_1-21-20.pdf

>> Assessment Grants

The EPA offers three types of Assessment Grants: Site-Specific, Community-Wide, and Assessment Coalition Grants. In FY20, the EPA anticipated awarding approximately 100 grants using an estimated \$31 million in funding. The Site-Specific and Community-Wide Assessment Grants are the most appropriate for use on properties in the North Clear Zone.

The Site-Specific Assessment Grant offers up to \$200,000 in funding over a three-year grant period for a single site. The Community-Wide Assessment Grant offers up to \$300,000 in funding, also for a period of up to three years. Projects funded by the Community-Wide Grant may include more than one brownfield site. “Assessment Grants provide funding for developing inventories of brownfield sites, prioritizing sites, conducting community involvement activities, conducting planning, conducting site assessments, developing site-specific cleanup plans, and developing reuse plans related to brownfield sites,” but may not be used for cleanup activities.¹²

>> Cleanup Grants

The EPA’s Cleanup Grants provide up to \$500,000 in assistance over a three-year grant period. A 20% local match is required. Funds may be used for cleanup activities at one or more brownfield sites that are owned by the applicant. Funding may be obtained only once for each particular brownfield site.

The applicant must complete a Phase II Environmental Site Assessment prior to grant application submittal.

>> Multipurpose Grants

The EPA’s Multipurpose Grants offer up to \$800,000 in funding over a five-year grant period. The grant requires a \$40,000 cost share, which may be provided in cash or with labor, services, or materials. Funding may be used for a range of assessment and cleanup activities in a proposed project area. The applicant must own at least one brownfield site in the project area.

Applicants must be able to demonstrate how grant funds will result in at least one Phase II Environmental Site Assessment, one brownfield site cleanup, and an overall plan for

¹² US EPA, *FY20 Guidelines for Brownfield Assessment Grants*, available: https://www.epa.gov/sites/production/files/2019-10/documents/epa-olem-oblr-19-05_final_0.pdf

revitalization of one or more brownfield sites, if there is not already a plan in place.¹³

>> Targeted Brownfields Assessment Program

The EPA's Targeted Brownfields Assessment Program is a grant of services, meaning the applicant receives services, rather than direct funding, through the program. The program offers environmental consulting services, such as site assessments, conducted by EPA contractors.

The EPA's description of this program places a focus on the future revitalization and redevelopment of the brownfield site. Since the ultimate goal of this project is removal of all structures from the North Clear Zone, it is unclear whether an application for this program would be competitive.

The purpose of the Indiana Brownfields Program's Revolving Loan Fund (RLF) Incentive (U.S. EPA monies) is to facilitate the public or private redevelopment of brownfield sites throughout the state primarily by making low-cost funding available to eligible public and private borrowers through low-to-zero interest loans with flexible terms to finance environmental cleanups."

Indiana Brownfields Program

<https://www.in.gov/ifa/brownfields/2366.htm>

Indiana Brownfields Program

Because some of the existing buildings in the North Clear Zone contain asbestos, a hazardous substance, the sites could be considered "brownfields" under Indiana Code. The State's definition is similar to, and consistent with, the federal definition referenced above.

This opens up funding opportunities through the Indiana Brownfields Program, including the Revolving Loan Fund Incentive and the Phase I Environmental Site Assessment Initiative. These programs are offered by the Indiana Brownfields Program through the Indiana Finance Authority, with support from Indiana Department of Environmental Management project managers.¹⁴

>> Revolving Loan Fund Incentive

The purpose of the Indiana Brownfields Program's Revolving Loan Fund (RLF) Incentive (U.S. EPA monies) is to facilitate the public or private redevelopment of brownfield sites throughout the state primarily by making low-cost funding available to eligible public and private borrowers through low-to-zero interest loans with flexible terms to finance environmental cleanups."¹⁵

¹³ US EPA, *Types of EPA Brownfield Grant Funding*, available: <https://www.epa.gov/brownfields/types-epa-brownfield-grant-funding>

¹⁴ IDEM, *Brownfields*, available: <https://www.in.gov/idem/cleanups/2353.htm>

¹⁵ Indiana Brownfields Program (IBP), available: <https://www.in.gov/ifa/brownfields/2366.htm>

The Revolving Loan Fund (RLF) Incentive offers flexible loan terms based on the applicant's needs. Terms can last up to 20 years with no prepayment penalty, and the program offers interest rates from 0% to 3%. The loan terms may include deferral of principal and/or interest payments for up to two years.

The RLF is available to qualifying political subdivisions; non-profit organizations; and private, for-profit organizations. The Indiana Brownfields Program guidance notes that, for purposes of determining eligibility for financial assistance, "political subdivision" includes a redevelopment district and a redevelopment commission under [IC 36-7-14](#) or [IC 36-7-15.1](#).¹⁶

Loans made to a political subdivision or non-profit organization may be partially forgivable (the lesser of \$200,000 or 30% of the loan amount).

>> Phase I Environmental Site Assessment Initiative

The Phase I Environmental Site Assessment Initiative provides Phase I environmental site assessments to eligible political subdivisions and non-profit organizations to identify recognized environmental conditions on, and help quantify potential cleanup liability at, brownfield sites in their communities.¹⁷ Sites not owned by the applicant are eligible for assistance through this initiative, provided the applicant has written permission to access the site from the property owner.

Like the federal Targeted Brownfields Assessment Program, this program is unique in that funds are not directly provided to the applicant. The Indiana Finance Authority has pre-qualified environmental consulting firms that perform the site assessments. Once a site is selected to receive assistance, the Indiana Brownfields Program bids the work and selects one of these pre-qualified firms to provide the project-specific environmental site assessment services.

A Phase I Environmental Site Assessment (ESA) is more preliminary in nature than a Phase II or Phase III ESA, and typically does not include sampling or testing of air, groundwater, soil or building materials. Since asbestos already has been identified in many of the North Clear Zone buildings,

¹⁶ IBP, *Qualifying as a Political Subdivision for Indiana Brownfields Program Financial Assistance*, available: https://www.in.gov/ifa/brownfields/files/QualifyingPoliticalSubdivisions_10-08-08.pdf

¹⁷ Indiana Brownfields Program, *Financial Assistance*, <https://www.in.gov/ifa/brownfields/2366.htm#taxincentives>

Indiana Code defines brownfield as "a parcel of real estate that is abandoned or inactive; or may not be operated at its appropriate use; and on which expansion, redevelopment, or reuse is complicated; because of the presence or potential presence of a hazardous substance, a contaminant, petroleum, or a petroleum product that poses a risk to human health and the environment.
(IC 13-11-2-19.3)

a Phase I ESA may not be useful in most cases. However, it is unknown whether the privately-owned Building 32 contains asbestos or other hazardous materials, so a Phase I ESA may be an appropriate step.

“The Blight Clearance Program encourages communities with blighted properties to focus on long-term community development and revitalization through improving quality of place, generating jobs, and spurring economic revitalization. Eligible projects include the removal of deteriorated or abandoned downtown buildings or vacant/unusable industrial sites.”

Indiana OCRA
<https://www.in.gov/ocra/2718.htm>

Indiana Office of Community & Rural Affairs Blight Clearance Program

The Indiana Office of Community & Rural Affairs (OCRA) offers several grant programs, including one that may offer funding opportunities for demolition of buildings in the North Clear Zone. OCRA’s Blight Clearance Program provides up to \$500,000 in funding for projects that eliminate blight in communities. The OCRA once offered another program for blight elimination projects, the Community Focus Fund, but the fund is officially retired.¹⁸

The Blight Clearance Program (BCP) is funded with federal Community Development Block Grant (CDBG) dollars. Pursuant to a March 23, 2020 notice,¹⁹ OCRA has suspended its Planning Grants and Blight Clearance, Main Street Revitalization, and Public Facilities Programs until further notice. OCRA has redirected the funding for these programs to address COVID-19-related needs in Indiana communities.

The BCP is discussed in more detail below, as the program may offer funding again in the future. This information is based on the 2020 BCP Application Packet, and is subject to change in future funding years.

Eligible activities expressly include, but are not limited to, the following:

- » Demolition and/or clearance of slum and blight areas,
- » Environmental clean-up of sites for future development, and
- » Acquisition.

According to the 2020 BCP Application Packet, the lead applicant “must be a non-entitlement city, county or incorporated town that possesses the legal capacity to carry out the proposed program. The lead applicant may contract with a 501(c)(3) not-for-profit organization to carry out the activities of an eligible project...”²⁰

¹⁸ Email correspondence with OCRA; May 1, 2020

¹⁹ Notice available: <https://www.in.gov/ocra/cdbg.htm>

²⁰ OCRA, 2020 BCP Application Packet, p. 1, available: https://www.in.gov/ocra/files/CDBG_BCP_Revised_Application_Packet_2020.docx

The BCP offers applicants up to \$500,000 in funding (in one grant or multiple grants). Once an applicant has received the maximum funding, there is a 5-year waiting period (following project close-out) to apply for additional funding.

Each project requires a 10% local match. The match may be comprised of other local, state, or federal grant funds. In-kind matches are allowed, but require approval by the State CDBG Program Director prior to application submittal.

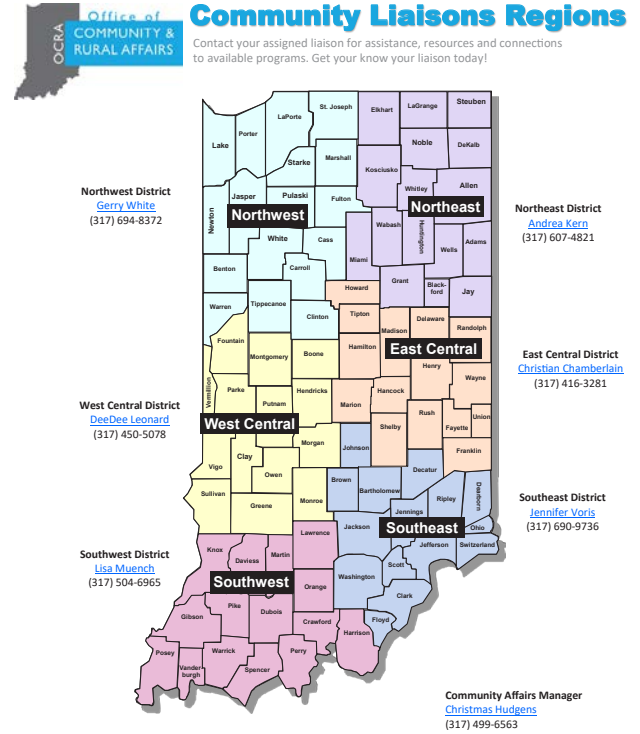
The application process includes two primary steps: proposal and application. The proposal is a preliminary step to ensure the proposed project meets national objectives and involves activities that are eligible for funding. When the program was active, it had monthly application deadlines which provides significant flexibility to applicants in submitting applications.

Following submission of a proposal, OCRA staff conducts a site visit and meets with the community to clarify requirements and provide technical assistance.

The applicant must hold one public hearing prior to submittal of a project proposal, and a second public hearing prior to submittal of a full application.

The OCRA encourages prospective applicants contact their Community Liaison to determine if a project is eligible for funding. Community Liaisons help communities throughout the state achieve community and economic development goals.

It is important to note that any program using CDBG funds requires grant administrators to be accredited CDBG Grant Administrators, and requires professional services (other than architectural and engineering services) to be secured through a Request for Proposal (RFP) process. Architectural and engineering services may be procured using a qualifications-based selection process.



Under the leadership of Lieutenant Governor Suzanne Crouch, who also serves as the Secretary of Rural Development, the Indiana Office of Community and Rural Affairs' (OCRA) mission is to work with local, state and national partners to provide resources and technical assistance to

The Executive Director of the North Central Indiana Regional Planning Council, Steven Ray, is an accredited CDBG Grant Administrator. Mr. Ray has administered grants for MCEDA, including the Office of Economic Adjustment grant that funded the Grissom ARB Joint Land Use Study.

Summary of Potential Funding Sources

Table 3 summarizes potential funding sources for demolition of incompatible structures in the North Clear Zone and indicates the Demolition Zones (see Appendix B) where the possible use of these funds could be explored.

Table 3. Summary of Potential Funding Sources for Demolition of Incompatible Structures in the North Clear Zone

Potential Funding Source	Maximum Funding	Local Match	Demolition Zone
FAA AIP	75% to 95% of eligible project costs	5% to 25%	all
FAA MAP	90% to 95% of eligible project costs (for small primary, reliever, and general aviation airports)	5% to 10%	all
<i>EPA Brownfields Grants</i>			
Assessment Grants	\$200,000 (Site-Specific Assessment Grants) \$300,000 (Community-Wide Assessment Grants)	Not required	Zones A, B, C, D, E, and F Zone 8, Possibly Zones 9, 10, 11
Cleanup Grants	\$500,000	20%	Zones A, B, C, D, & F Zone 8, Possibly Zones 9, 10, 11
Multipurpose Grants	\$800,000	\$40,000	Zones A, B, C, D, & F Zone 8, Possibly Zones 9, 10, 11
Targeted Brownfields	n/a (grant of services)	n/a	Zones A, B, C, D, E, & F Zone 8, Possibly Zones 9, 10, 11
<i>Indiana Brownfields Program</i>			
Revolving Loan Fund	Interest rates from 0% to 3%	Repayment of Principal + Interest	Zones A, B, C, D, & F
Phase I Environmental Site Assessment	n/a (grant of services)	n/a	Zone E, Zone 5
OCRA Blight Clearance Program	\$500,000 every five years	10%	

4.2 RELOCATION OF PRIVATE, NON-PROFIT, AND GOVERNMENTAL AGENCIES CURRENTLY OPERATING WITHIN THE NORTH CLEAR ZONE

Most of the buildings owned by MCEDA and one of the privately-owned buildings in the North Clear Zone are occupied by private, non-profit, and governmental agencies. Before the buildings can be demolished, existing tenants must relocate. [Appendix C](#) includes the JLUS Implementation Committee's preferred relocation plan, which accommodates all agencies currently operating in the North Clear Zone.

Full realization of the preferred relocation plan involves the demolition of buildings outside the Clear Zone and the construction of new buildings to house the agencies currently operating in the North Clear Zone. Ideally, new buildings would be constructed and upfitted in the near-term, tenants would relocate, and the Clear Zone buildings would be demolished. However, as shown in [Appendix B](#), Section 3, the cost of the recommended relocation plan is significant and will require strategic phasing to accomplish.

Moving existing agencies out of the North Clear Zone is the most critical task due to the safety risk. Constructing new buildings and postponing relocation until businesses can occupy the new building(s) could significantly extend the timeframe in which the North Clear Zone is occupied by incompatible land uses.

If MCEDA or Grissom ARB has suitable buildings located outside the Clear Zone that could be occupied, agencies could temporarily relocate to one or more of these buildings. This addresses the most critical safety concern—people in the Clear Zone—and could be accomplished in a fairly short timeframe. MCEDA would continue to operate as a

landlord or Grissom ARB potentially could enter into a lease with one or more of the agencies.

As noted in [Appendix B](#), Section 3, the majority of the vacant MCEDA-owned buildings located in the Aeroplex outside the North Clear Zone are beyond their useful life and would require significant investment and renovation prior to housing office space. However, MCEDA currently is exploring the feasibility and cost of rehabilitating Building 28, the former Base Operations facility, to accommodate the FBO and MCEDA.

If Grissom ARB has suitable buildings for temporary relocation of the agencies, it could consider leasing the space to MCEDA or another North Clear Zone agency. [Title 10 USC § 2667](#) authorizes military departments to enter into short- and long-term lease agreements for underutilized—but not “excess”—land or facilities. Lease terms typically cannot exceed five years and require payment of fair market value rent, which may be paid in cash or in-kind goods or services. In-kind contributions may include maintenance, repair, improvement or construction of buildings or facilities.²¹ Grissom ARB would receive all of the lease revenue up to \$1 million and half of the revenue over \$1 million. This revenue can be used for a variety of installation activities, including maintenance, protection, alteration, repair, improvement, or restoration (including environmental restoration) of property or facilities; and construction or acquisition of new facilities.²²

Leases where the term exceeds one year or the fair market rent exceeds \$100,000

²¹10 USC § 2667(c)

²² [AFI 32-9003](#), 24 October 2018, *Granting Temporary Use of Air Force Real Property*, Section 5.6.2.

annually require selection of a lessee through a competitive bid process.²³ The competition requirement may be waived by the Secretary of the Air Force if “the lease serves a public interest and the use of competitive procedures in the selection of a certain lessee is unobtainable or incompatible with the public benefit served under the public interest identified.”²⁴

If Grissom ARB has available, non-excess buildings, a waiver to the competitive bidding process would be needed to ensure the North Clear Zone businesses receive the lease(s). Temporary relocation of organizations currently operating in the North Clear Zone may be sufficient justification for the waiver since removing uses/people from the Clear Zone serves a public interest, and the use of competitive bidding is incompatible with the purpose of NCZ business relocation.

If neither MCEDA nor Grissom ARB has suitable existing buildings, North Clear Zone agencies could relocate to other vacant buildings in the community. For example, the Beacon Credit Union building (located a few blocks north of the Grissom ARB Visitors

Center) is vacant and the owner may be willing to work with MCEDA to accommodate a community use. The type of relocation costs would be the same; however, if the bank retains ownership of the building, lease proceeds would benefit a private property owner rather than MCEDA or Grissom ARB. Since MCEDA currently leases office space to the North Clear Zone agencies, it would lose rental revenue until the agencies are able to occupy new buildings in the Aeroplex.

Assuming relocation of North Clear Zone businesses occurs prior to construction of new buildings, the process would require the following steps:

- » Identify suitable temporary locations for North Clear Zone businesses;
- » Verify the current zoning allows the proposed use(s);
- » Consider what, if any, changes to the building(s) are needed to accommodate the North Clear Zone agencies;
- » Building and site upfit or renovation, if needed; and
- » Business relocation.

²³ 10 USC § 2667(h)

²⁴ AFI 32-9003, Section 5.4.2.

4.2.1 POTENTIAL FUNDING SOURCES FOR BUSINESS RELOCATION

Costs associated with relocation may include:

- » Upfit or repair of temporary location (building and site, including parking areas) to meet needs of North Clear Zone businesses;
- » Staff time (for coordination, packing, etc.);
- » Packing materials (e.g., boxes and tape);
- » Changes to business materials (e.g., new business cards and letterhead); and
- » Fee for moving company.

If federal funding is used to acquire properties or demolish buildings in the North Clear Zone, businesses may be eligible for assistance under the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act.

Indiana's State Redevelopment Tax Credit may offer a funding opportunity for demolition and construction components of the preferred relocation plan. However, this tax credit generally only considers "hard" construction costs and likely would not cover costs associated with business relocation.²⁵

Otherwise, there appear to be few resources solely available for business relocation, at least in the context of the North Clear Zone. It is possible that business relocation expenses could be eligible as components of a larger project (i.e., combined with other tools recommended for demolition, acquisition, etc.), though each funding tool has its own specific cost eligibility requirements.

4.3 ACQUISITION OF LAND OR EASEMENTS

While the USAF and MCEDA own most of the land located in the Operational Areas, eighteen properties are privately-owned. Land (excluding public roads) in the Operational Areas not currently owned by MCEDA or the federal government includes:

- » North Clear Zone: 2 parcels (Buildings 32 & 37);
- » South Clear Zone: 13 (out of 15) parcels; and
- » 1000' VORTAC standoff area: 1 parcel.

As noted in [Section 2: Existing Protections Around Grissom ARB](#), both the North and South Clear Zones are protected through a combination of deed restrictions, easements, and military zoning overlay districts. The other Operational Areas

have some level of protection through zoning, although the zoning overlay districts do not specifically address the VORTAC standoff areas.

To fully protect the privately-owned portions of the Operational Areas and ensure they are perpetually maintained in compliance with federal safety guidance, acquisition of land or easements is required. Acquisition of land or easements can be accomplished through purchase/voluntary sale, right of first refusal, or eminent domain, as discussed below.

Acquisition of real property by the military is a complex process. Fee simple acquisition typically takes at least three years. Acquisition of an easement can be accomplished in less than one year, but the process could take up to

²⁵ Indiana Economic Development Corporation, *Redevelopment Tax Credit Program Policy*, available: <https://iedc.in.gov/incentives/>

three years.²⁶

Current Air Force policy on real property acquisition is to “[a]cquire the least amount of interest and space for the shortest term possible to conduct and sustain mission operations in the following order of preference:

- » Temporary, Non-exclusive use (License).
- » Easement (perpetual or term).
- » Lease.
- » Fee.”²⁷

According to AFI 32-9001, Sec. 1.3.7., “[c]ondemnation is a last resort after all other procedures to acquire mission essential property have failed. The Air Force may condemn any interest” listed above.

However, it is Air Force and DoD policy to own Clear Zone land or control the land through restrictive use easements—particularly when local land use regulations do not provide sufficient protection from incompatible land uses.²⁸

Acquisition of land or easements by MCEDA likely could be accomplished in less time and through a less complex process than acquisition by the USAF; however, DoD funds could not be used to acquire land or easements on former Air Force property now held by MCEDA. In addition, MCEDA would be responsible for maintaining the property—with few, if any, compatible, revenue-generating land uses.

²⁶ AFI 32-9001, 28 September 2017, *Acquisition of Real Property*, Section 1.16.

²⁷ AFI 32-9001, 28 September 2017, *Acquisition of Real Property*, Section 1.1.2.

²⁸ AFH 32-7084, Section 2.10; DoDI 4165.57, Section 8.

4.3.1 PURCHASE/VOLUNTARY SALE OF LAND OR EASEMENTS

Fee simple acquisition of land in the North Clear Zone and other Operational Areas would allow conversion of the uses of the acquired land to those consistent with federal safety guidelines. MCEDA or, ideally, the USAF would fully control the land and ensure it is maintained in compliance with these guidelines. This could involve acquisition of entire parcels, or just those portions located in the Operational Areas.

Fee simple purchase requires sufficient funding but, if fully funded, this strategy is highly effective, fairly efficient, and is equitable to property owners. However, it is likely the least preferable avenue of acquisition for the Air Force—at least outside the Clear Zone—as noted above.

Acquisition of land in fee will allow the USAF or MCEDA to use it as necessary. However, if outright purchase is not desirable or practical, the USAF or MCEDA may pursue non-possessory interests in the land that adequately restrict land use or otherwise preserve compatibility in the Operational Areas. For example, the USAF or MCEDA might either purchase the easement from the landowners or acquire it as a gift (i.e., donation). Acquisition of an easement might be a suitable alternative, allowing the USAF or MCEDA to avoid purchasing land itself. Instead, the USAF or MCEDA would purchase the right to use the land (or to keep it vacant), at a cost less than fee simple purchase.

The value of an easement is determined through appraisal of the property and by the type of permissible use for the property. Ideally, the land can continue to be used or leased for a use allowed under the easement, maintaining value in the land, while limiting what the USAF or MCEDA would have to pay to the servient owner. However, for properties in the Clear Zone, compatible uses are quite limited, so the cost of an easement likely would be comparable to the cost of fee simple land acquisition.

Several types of easements could be used to protect the Operational Areas, including avigation, clearance, clear zone, conservation, and restrictive use easements. These types of easements are defined in [Table 4](#). Easements should be acquired in perpetuity whenever possible to protect the Clear Zones and other Operational Areas.

Table 4. Types of Easements

Type of Easement	Definition
Avigation Easement	An easement or right of overflight in the airspace above or in the vicinity of a particular property. It also includes the right to create such noise or other effects as may result from the lawful operation of aircraft in such airspace and the right to remove any obstructions to such overflight (AFI 32-9001).
Clear Zone Easement	Right to prohibit all uses of clear zone land that are incompatible with or could impede aircraft operations. The clear zone is land within 3,000 feet of the runway threshold and extending 1,000 to 1,500 feet on each side of the runway center line (AFI 32-9001).
Clearance Easement	Right to remove or prevent obstructions rising into the airspace (AFI 32-9001).
Conservation Easement	A nonpossessory interest of a holder in real property that imposes limitations or affirmative obligations with the purpose of: retaining or protecting natural, scenic, or open space values of real property; assuring availability of the real property for agricultural, forest, recreational, or open space use; protecting natural resources; maintaining or enhancing air or water quality; or preserving the historical, architectural, archaeological, or cultural aspects of real property. (Indiana Code 32-23-5-2)
Restrictive Use Easement	Prohibits certain activities or land uses, such as uses that could create hazards to aircraft.

Avigation easements likely are not the ideal solution for all of the Operational Areas because this type of easement deals primarily with the right for aircraft to use the airspace above the land, for aircraft to create noise, and for the USAF to remove buildings that obstruct the flight path, none of which are entirely relevant to the Operational Areas addressed in the Action Plan. A more appropriate choice for use in the Operational Areas likely is a clear zone, clearance, and/or restrictive use easement—any of which also could be combined with typical avigation easement provisions.

In fact, the USAF used a combination easement approach in the Grissom ARB Expanded Clear Zone Project in the 1980's (see [Section 2:](#)

[Existing Protections Around Grissom ARB](#)). These easements include elements of avigation, clear zone, clearance, and restrictive use easements.

Unlike the other types of easements listed in [Table 4](#), conservation easements are held by a conservation organization, such as a land trust, rather than the USAF. A conservation easement would ensure the property remains in a natural state or in agricultural use and can limit land uses on the property.

Private property owners in the Clear Zones could voluntarily place a conservation easement on their property and perhaps receive an income or property tax reduction pursuant to [26 USC § 170\(h\)](#). In addition, agricultural conservation easements could be compatible in the Clear Zones—particularly in the South Clear Zone. See further discussion regarding the USDA's Agricultural Conservation Easement Program on [page 47](#).

4.3.2 NORTH CLEAR ZONE

Fee simple acquisition by the USAF of all properties in the North Clear Zone may be the most expedient choice for long-term protection of this Operational Area. Under the deed restrictions and current zoning, the existing buildings can continue to be used indefinitely and can be replaced within the same footprint and height (see [Section 2:](#)

[Existing Protections Around Grissom ARB](#) and [4.6 Zoning Ordinance Revisions](#)).

Although fee simple acquisition may be the least preferable method of USAF property acquisition outside the Clear Zone and the land in the North Clear Zone was previously owned

(and “excessed”) by the federal government, USAF ownership of the North Clear Zone properties would be the preferred method for long-term protection of this area. This would allow the USAF to maintain and use the property as needed for compliance with current (and future) safety and operational requirements.

If the USAF is uninterested in fee simple ownership and MCEDA retains ownership of its North Clear Zone parcels, MCEDA and the USAF could explore the use of a contractual agreement for maintenance of these properties ([see 4.5.1 Maintenance Agreements](#)).

Outright sale, rather than establishing easements that essentially eliminate the current uses of the properties, likely would be preferable to MCEDA and the private property owners. The land could also be acquired using a land swap, as discussed in [4.4 Land Swaps](#).

4.3.3 SOUTH CLEAR ZONE

Easements, rather than fee simple land acquisition, may be the most appropriate choice for long-term protection of the three privately-owned properties in the South Clear Zone that are currently protected only through zoning. While zoning is an effective protection, it is subject to change by future governing bodies. Easements, on the other hand, can be established in perpetuity. In addition, establishment of new easements is consistent with the manner in which the other South Clear Zone properties are protected.

4.3.4 VORTAC STANDOFF AREAS

A portion of one parcel located in the 1000’ VORTAC standoff area is privately-owned. The other two parcels located in the VORTAC standoff areas are owned by MCEDA and the USAF. In order to maintain compliance with federal requirements, the USAF should acquire an easement or fee simple ownership of the portion of the privately-owned parcel in the VORTAC standoff area.

If MCEDA retains ownership of the parcel it owns in the VORTAC standoff areas, the USAF and MCEDA could establish a contractual agreement to maintain compliance with federal requirements ([see 4.5 Contractual Agreements](#)).

4.3.5 RIGHT OF FIRST REFUSAL

In the context of real estate, right of first refusal (ROFR) is established by contract between a landowner (the “grantor”) and another party (the “holder” of the ROFR) where the grantor agrees to offer the land to the holder upon receipt of an offer for the land from a third party. The grantor must offer the holder the option to purchase at the same price and under the same conditions offered by the third party. If the holder declines, then the right is “extinguished” and the grantor may sell to another party. ROFR is typically used for fee simple acquisition of land, rather than acquisition of easements.

ROFR contracts can be customized to each situation, but typically should specify the type of third party offer(s) that trigger the ROFR as well as the timeframes for the grantor to notify the holder of a third party offer and for the holder to respond.

This tool could be used for the two privately-owned properties in the North Clear Zone. The USAF or MCEDA would act as the holder of the ROFR. Payment to the grantor may be necessary to secure the ROFR.

10 U.S. Code § 2663 authorizes military departments to enter into options to acquire land “if the Secretary [of the military department] considers it suitable and likely to be needed for a military project of the military department.” Air Force policy requires sufficient justification prior to acquiring *any* interest in land, and specifies that “encroachment protection outside an installation’s perimeter” is sufficient justification.²⁹ Under federal law, payment for an option may not exceed 12% of the estimated fair market value of the property.

The USAF or MCEDA could enter into a ROFR contract with the two private property owners in the North Clear Zone.

Current zoning requires Clear Zone property owners to seek purchase or relocation assistance from Grissom ARB or MCEDA if a nonconforming structure in the Clear Zone is damaged by more than 50% of its value (see 4.6 Zoning Ordinance Revisions). While not a right of first refusal per se, this provision functions much the same way.

²⁹ Air Force Instruction 32-9001, 28 September 2017, Acquisition of Real Property, Section 1.4.1.3.

While this tool could delay demolition in the North Clear Zone, it would ensure the privately-owned properties do not transfer to other private parties without MCEDA or the USAF first having the option to purchase. It also protects property rights by allowing the current property owners to continue to use the land and buildings for as long as they desire—subject to applicable zoning regulations ([see 4.6 Zoning Ordinance Revisions](#)).

If this tool is used, MCEDA/USAF should identify possible funding options for property purchase and ensure one or more can be available in the timeframes specified in the ROFR contract.

4.3.6 EMINENT DOMAIN

The exercise of eminent domain gives government the power to condemn property rights only for a “public use,” (with some very limited exceptions) and only with payment of “just compensation.” The entity exercising this extraordinary authority initiates a judicial proceeding, during which just compensation is determined, and declares the public use to which the property will be put.

Eminent domain can be used for the acquisition of land or easements. In fact, the USAF acquired easements on two properties in the South Clear Zone through the exercise of eminent domain ([see Appendix E](#), Easement for Tract A167 E-1 & E-2).

The exercise of eminent domain is recognized as an available authority for the USAF, local governments, and possibly MCEDA. However, this is an approach of last resort that should be used only if other tools are not sufficient to achieve long-term compatibility, safety, and protection of property in the Operational Areas. Air Force policy affirms that condemnation “is a last resort after all other procedures to acquire mission essential property have failed.”³⁰

³⁰ [AFI 32-9001](#), 28 September 2017, *Acquisition of Real Property*, Section 1.3.7.

4.3.7 POTENTIAL FUNDING SOURCES FOR ACQUISITION OF LAND OR EASEMENTS

Costs likely associated with acquisition include:

- » Purchase price;
- » Property appraisal;
- » Transaction costs (closing costs and title work);
- » Business relocation costs (if applicable); and
- » Demolition and clearing (including associated environmental clean-up, if applicable).

State and Federal Funding

As noted above, the ideal end state for the North Clear Zone would be USAF ownership of all parcels, including parcels owned by MCEDA currently, the sale of which would be necessary to help fund MCEDA's preferred relocation and construction plan (see [Appendix C](#)). Implementation of this plan is critical to relocating existing agencies from their current locations in the North Clear Zone.

Clearly, federal (DoD) funding would be required for the acquisition of MCEDA's Clear Zone parcels. This will require significant coordination between MCEDA and Grissom ARB officials and between Grissom ARB officials and other DoD Components, both prior to and during the real property transfer process. The timeline largely would be driven by DoD and Air Force policies and procedures, which, as noted above, can be complex.

For example, DoDI 4165.71, Real Property Acquisition, requires approval by the Under Secretary of Defense (USD) for Acquisition, Technology, and Logistics (now the USD for Acquisition and Sustainment) of any real property acquisition where the estimated purchase price exceeds \$1 million.³¹

This approval must occur "prior to any public announcement, request for proposals, notice of intent to perform environmental analysis, request for legislation or budget line item, press release, or other official notice."³²

While the final acquisition cost would result from negotiations between the USAF and MCEDA, the assessed tax value of

³¹ [DoDI 4165.71](#), *Real Property Acquisition*, Section 6.1, Land Acquisition Approval

³² [DoDI 4165.71](#), Section 6.1

REPI Program Priorities

- » Potential to mitigate encroachment that impacts the military mission;
- » Advancement of National Defense Strategy priorities;
- » Capacity, usage, and uniqueness of the military capability being protected;
- » Innovation that increases mission sustainability, leverages additional funds, or creates new tools to support readiness;
- » Timeliness to complete land transactions;
- » Holistic community planning efforts that address land use and demonstrate significant participation in local and regional planning efforts (e.g., Compatible Use Program and sustained involvement in collaborative land use planning);
- » Benefits to, and investments from, partner organizations and the community; and
- » Further advancement of designated Sentinel Landscapes goals.

*Department of Defense,
REPI Program 14th Annual
Report to Congress,
February 2020*

MCEDA's properties is \$1,601,400.³³

A joint effort by MCEDA, DoD, and possibly the State of Indiana and Miami County, may be needed to acquire the two privately-owned parcels (Buildings 32 and 37). Based on the assessed tax values, the value of the two privately-owned parcels in the North Clear Zone is \$784,600.³⁴ MCEDA could provide land and MCEDA, Miami County, and/or the State of Indiana potentially could facilitate tax incentives to assist in the property acquisition and business relocation. However, federal, state, and/or local funding will be needed to supplement MCEDA's contributions.

FAA Airport Improvement Program (AIP)

See discussion of the FAA's Airport Improvement Program and Military Airport Program on [page 27](#).

Readiness and Environmental Protection Integration (REPI) Program

Established in 2003, the DoD's Readiness and Environmental Protection Integration (REPI) Program helps maintain military readiness by addressing encroachment near military installations, primarily through buffer partnerships. Partnerships are established through voluntary agreements between the military, state and local governments, and environmental conservation organizations. The REPI Program offers funding to acquire easements from willing landowners in order to preserve existing compatible land uses and wildlife habitat on lands around military installations.

"The Office of the Secretary of Defense oversees and administers the REPI program by issuing guidance, defining DoD-wide policies and priorities, and providing the congressional funds to the Military Services, who then implement the projects."³⁵

Through FY2019, the REPI program has protected more than 688,000 acres of land at 109 locations in 33 states.³⁶ In 2020,

³³ As of 7 December 2020, <https://www.miamicountyin.gov/168/Property-Information>

³⁴ As of 7 December 2020, <https://www.miamicountyin.gov/168/Property-Information>

³⁵ DoD, *REPI Guide for State, Local, and Private Partners*, available: http://repiprimers.org/docs/repi_primer.pdf

³⁶ DoD, *What is REPI? Fact Sheet*, available: https://www.repi.mil/Portals/44/Documents/Resources/REPI_FactSheet_WhatIsREPI.pdf

DoD funded the first REPI project in the state of Indiana at NAS Crane. The project will promote compatible land use and protect agricultural lands and natural habitat in the vicinity of NAS Crane and its Lake Glendora Testing Facility in order to maintain military testing and training capabilities and allow for future mission growth.³⁷

Title 10 USC § 2684a expressly authorizes the DoD to enter into partnerships with state and local governments and conservation organizations to promote land use compatibility in the vicinity of military installations, maintain or improve military resilience, and protect the Clear Zone from encroachment.

The DoD implements this statutory authority through the REPI Program. However, REPI funds typically cannot be used to acquire land or easements in a Clear Zone. Rather, Clear Zone acquisitions should be “part of a larger comprehensive compatible land use strategy.” This policy was expressed in Air Force Instruction 32-7063, Section 5.2.3.3, but the superseding instruction (AFI 32-1015, *Integrated Installation Planning*) does not address the use of REPI funds for Clear Zone acquisitions. Further, there is no express policy in DoDI 4715.24, *REPI Program & Encroachment Management* related to the use of REPI funds for Clear Zone acquisitions. However, a March 2018 REPI Primer specifically states “[t]he [§ 2684a] authority also allows for protecting Clear Zone areas, but the REPI program does not provide its funds for these acquisitions.”³⁸

While it appears current USAF/DoD policy disallows the use of REPI funds in the Clear Zone, DoD notes the USAF currently “is transforming its off-base encroachment efforts with a comprehensive strategy that integrates a full range of tools, including REPI and use of the 2684a authority.”³⁹

In 2018, the Air Force consolidated management of its REPI Program under the Air Force Civil Engineer Center. Under AFCEC leadership funding has significantly increased, and the program is anticipated to expand.⁴⁰

³⁷ DoD, *REPI Project Profile: NSA Crane*, available: https://www.repi.mil/Portals/44/Documents/Buffer_Fact_Sheets/Navy/NSACrane.pdf

³⁸ DoD REPI Program, *A Guide for State, Local and Private Partners*, available: http://repiprimers.org/docs/repi_primer.pdf

³⁹ DoD, *Service Programs*, available: <https://www.repi.mil/Buffer-Projects/Service-Programs/>

⁴⁰ USAF, AFCEC consolidates program to maximize lethality, readiness; May 26, 2020; available: <https://www.afcec.af.mil/News/Article-Display/Article/2197850/afcec-consolidates-program-to-maximize-lethality-readiness/>

The White River Military Coordination Alliance developed an interactive mapping tool, the Conservation Incentive Toolkit, to promote land conservation in the vicinity of NAS Crane. The Toolkit is available online at: <https://wrmcalliance.com/toolkit/>

REPI funds potentially could be used to protect lands in the Operational Areas (other than the Clear Zones) and in the vicinity of Grissom ARB from encroachment. Successful REPI projects typically include multiple community stakeholders and a comprehensive strategy that addresses REPI Program priorities (see callout box, [page 45](#)). Eligible applicants include States, political subdivisions of a State, and private land and natural resource conservation organizations.

REPI projects are funded through either Military Service funds or REPI Program funds identified by Congress as a line-item in DoD's annual budget.⁴¹

REPI projects require an ongoing commitment from stakeholders, as most projects require long-term monitoring, enforcement, and, in some cases, long-term natural resource management.

Land eligible for agricultural easements includes cropland, rangeland, grassland, pastureland and nonindustrial private forest land. NRCS prioritizes applications that protect agricultural uses and related conservation values of the land and those that maximize the protection of contiguous acres devoted to agricultural use.
<https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/acep/>

USDA Natural Resources Conservation Service Agricultural Conservation Easement Program (ACEP)

The Natural Resources Conservation Service's (NRCS) Agricultural Conservation Easement Program (ACEP) is a potential source of funding for acquisition of easements on lands in the Operational Areas.

The ACEP provides funding for Agricultural Land Easements to protect working agricultural lands and limit non-agricultural land uses. While NRCS prioritizes easements that protect working agricultural lands, other lands are eligible (see callout box, next page).

Eligible partners include state and local governments and non-governmental organizations that have farmland or grassland protection programs. This program is currently funded at \$450 million per year by the 2018 US Farm Bill.⁴² For individual projects, the ACEP funds up to 50% of the fair market value of the easement, or up to 75% if "grasslands of special environmental significance" will be protected.⁴³

⁴¹ DoD, *REPI Program Buffer Partnerships: A Guide for State, Local, and Private Partners*, March 2016, available: https://www.repi.mil/Portals/44/Documents/Primers/Primer_REPI_Buffer_Partnerships.pdf

⁴² Land Trust Alliance, *Farm Bill Conservation Programs*, available: <https://www.landtrustalliance.org/topics/federal-programs/farm-bill-conservation-programs>

⁴³ NRCS, *Agricultural Conservation Easement Program*, available: <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/acep/>

4.4 LAND SWAPS

As noted in 4.3 Acquisition of Land or Easements, eighteen properties located in the Operational Areas are privately-owned. Land swaps offer an alternative method for land acquisition, presumably at a lower cost than outright purchase.

In a land swap, the USAF or MCEDA (or a local government partner) exchanges excess land located outside the Operational Areas for a privately-owned parcel (or a portion of a parcel) of comparable value located within an Operational Area. Land swaps could also occur between the USAF and MCEDA.

This process requires Grissom ARB and/or MCEDA to identify excess land that could be available for exchange. At the time of this writing, Grissom ARB has identified five on-base parcels that may be excess to military needs and thus eligible for a land swap (see [Table 5](#)).

MCEDA owns undeveloped land in the Aeroplex that may or may not be suitable for a land swap. If excess land is available, it must be in a location desirable to the other property owner to make the land swap a successful strategy.

MCEDA has expressed interest in conducting a land swap with Grissom ARB in order to make adjustments to parcel boundaries on the eastern side of the runway. The goal is USAF ownership of the VORTAC standoff area and the parcels on which the perimeter fence is located. MCEDA and Grissom ARB currently have an interlocal agreement addressing maintenance of the perimeter fence on these parcels.

Table 5. Grissom ARB Areas for Potential Land Swap

Building/Area	Acreage (Approx.)
Building 151 (Telephone Switch)	1.021 ac
Building 18 (RAPCON)	1.138 ac
Lighting Vault Area	1.059 ac
Building 100 (Old Fire Station)	2.358 ac
Former Control Tower Ground (east side runway)	1.186 ac
Total Acreage	6.762 ac

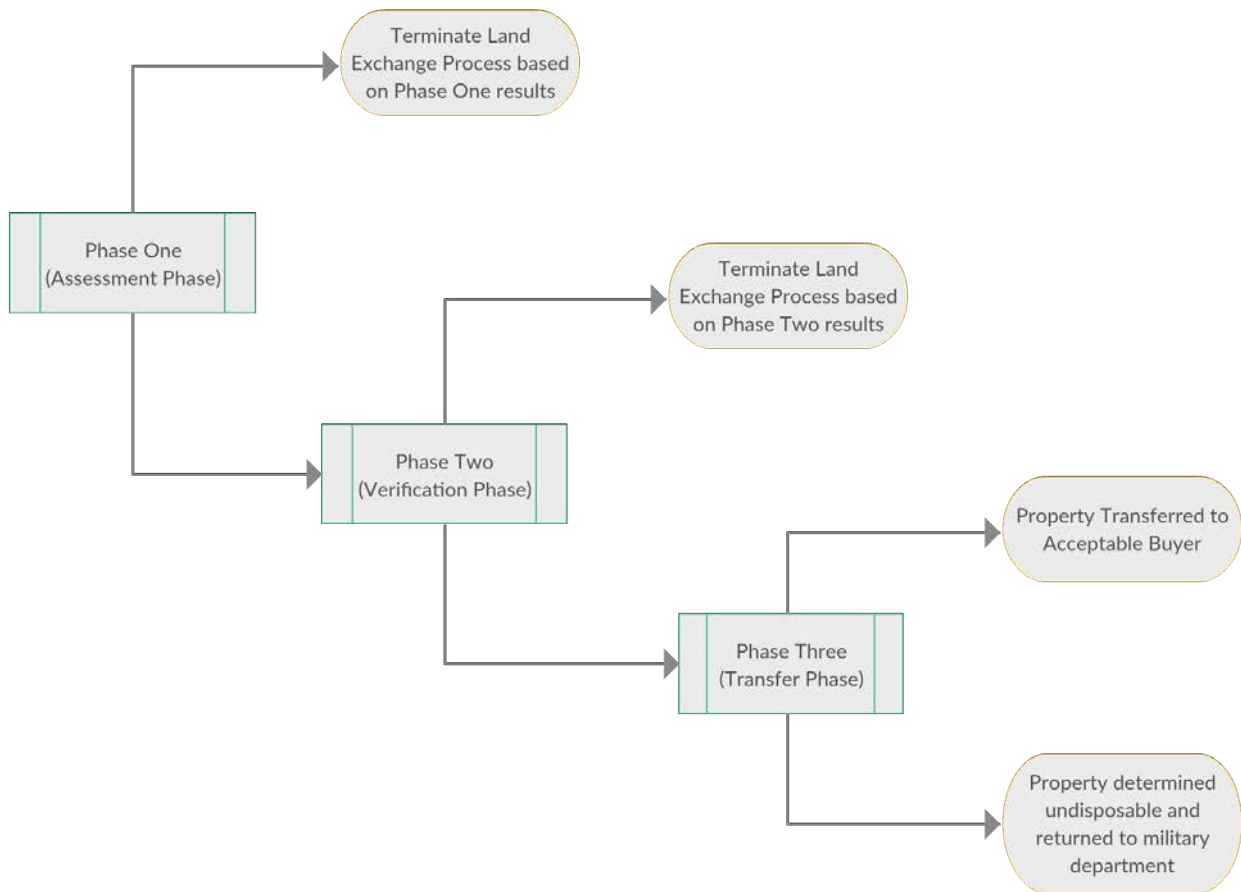
4.4.1 MILITARY-CIVILIAN LAND SWAPS

Title 10 U.S.C. § 2869 authorizes the DoD to use land swaps “to limit encroachments and other constraints on military training, testing, and operations.”

Military land swaps involve a complex process that typically takes at least three years and, depending on the selected site, can involve significant costs to complete. The authors recommend an iterative three-phase process for land swaps between military installations and civilian landowners, as shown in [Figure 8](#).

“The Air Force may exchange Air Force property for non-Air Force property of equal or greater value as authorized by statute or special legislation”
 (Air Force Instruction 32-9001, 28 September 2017, *Acquisition of Real Property*, Section 1.3.6).

Figure 8. Three-Phase Process for Military-Civilian Land Swaps



Phase One is an “assessment phase,” in which stakeholders make a threshold determination of whether the proposed land exchange is feasible. If so, the parties embark on Phase Two, the “verification phase” in order to validate the Phase One feasibility determination or, after further study and evaluation, to determine the effort is not feasible. Phases 1 and 2, together, can take one year or more to complete.

Phase Three involves the final steps to ready the property for its end use, including federal excessing. The federal excessing process is managed by the General Services Administration (GSA), and takes a minimum of two years to complete. The process for disposing of military real property is shown in [Figure 9](#).

Federal law requires excess real property to first be offered to other federal agencies. If federal agencies do not express interest in acquisition, it is declared “surplus property.” Title 40 USC § 545 authorizes non-competitive (“negotiated”) disposals of surplus federal real property in certain circumstances, including when: “with respect to real property, the character or condition of the property or unusual circumstances make it impractical to advertise publicly for competitive bids and the fair market value of the property and other satisfactory terms of disposal can be obtained by negotiation;”⁴⁴ and “the disposal will be to a State, territory, or possession of the United States, or to a political subdivision

of, or a tax-supported agency in, a State, territory, or possession, and the estimated fair market value of the property and other satisfactory terms of disposal are obtained by negotiation.”⁴⁵

Under this statutory authorization for negotiated disposals, GSA first offers state and local governments and nonprofit agencies an opportunity to purchase the property at a discount of up to 100% of the fair market value—provided the land is used for a public benefit. “Some of the qualifying uses include public health, homeless assistance, education, park and recreation, correctional, law enforcement, [and] emergency management.”⁴⁶

If there is no interest in the land for a Public Benefit Conveyance, it is offered to state and local governments and nonprofit agencies at fair market value.⁴⁷ Finally, if the surplus real property is not disposed of through a negotiated disposal, it is offered for public bid.

Prior to disposal, negotiated sales of federal real property valued at more than \$100,000 require the submittal of an Explanatory Statement to the appropriate Committee(s) of Congress.⁴⁸

A land swap requires both disposal and acquisition of property. As noted in 4.3.1 Purchase/Voluntary Sale of Land or Easements, military land acquisition also involves a complex process that typically takes at least three years.

⁴⁴ 40 USC § 545(b)(7)

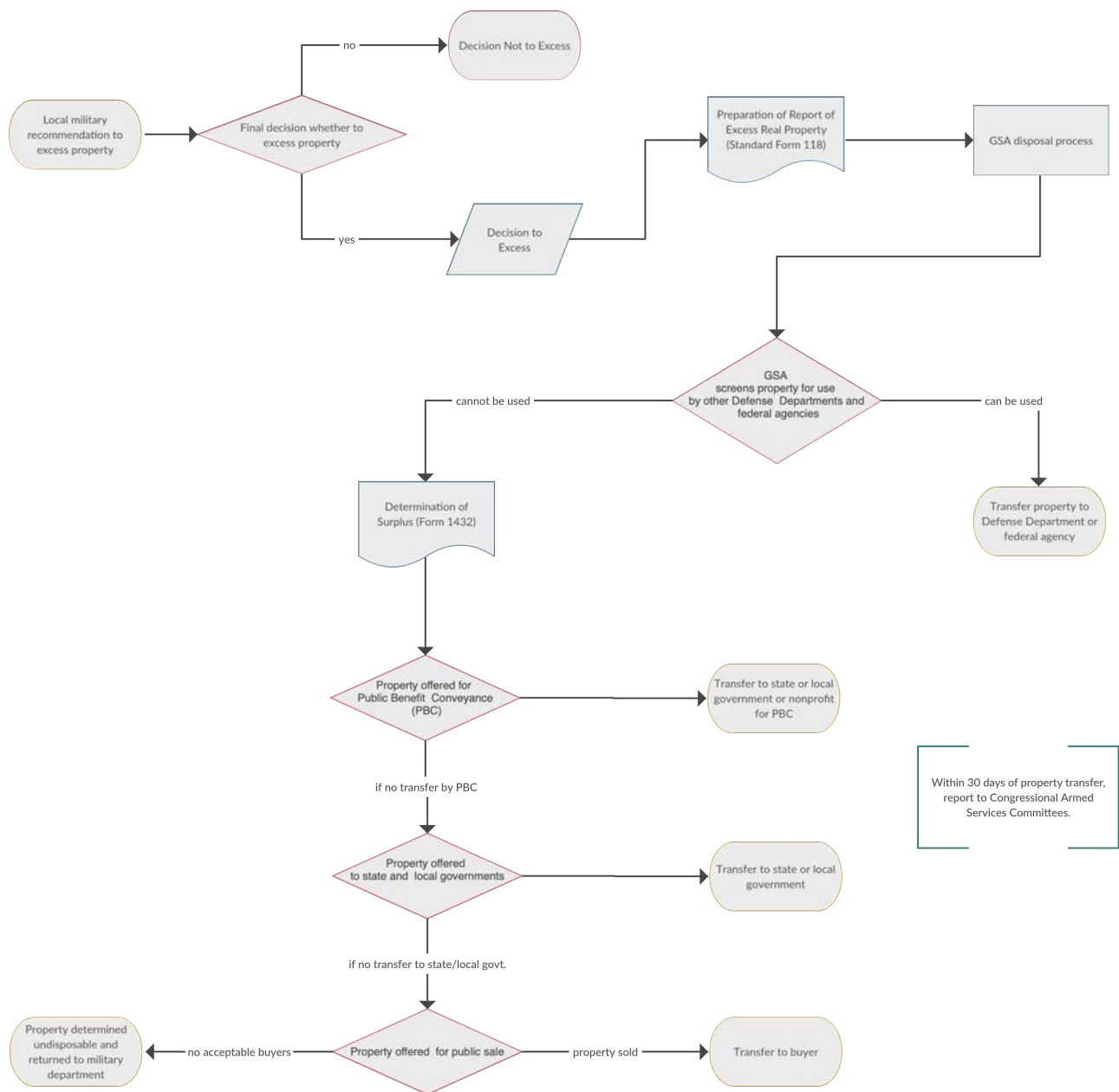
⁴⁵ 40 USC § 545(b)(8)

⁴⁶ GSA Office of Real Property Utilization and Disposal, *Public Benefit Conveyance Legislation*, <https://disposal.gsa.gov/s/PBC>

⁴⁷ 40 USC § 545(d)(2)

⁴⁸ 40 USC § 545(e)

Figure 9. Military Real Property Disposal Process



4.4.2 POTENTIAL FUNDING SOURCES FOR LAND SWAPS

None identified. Costs likely associated with a land swap include:

- » Property appraisals
- » Transaction costs (closing costs and title work)
- » Property costs, if the swapped land is not equal in value

4.5 CONTRACTUAL AGREEMENTS

Contracts are legally enforceable agreements between two parties to perform or refrain from performing certain activities. Contractual agreements could be used in some of the Operational Areas to maintain compliance with federal safety requirements.

Contractual agreements could potentially be used in the North Clear Zone. For example, it appears a very small portion of the Grissom Air Museum parcel is located in the North Clear Zone. This portion of the parcel is located along the edge of W. Hoosier Boulevard, and does not have trees or structures that need to be removed.⁴⁹ However, the USAF and the Heritage Museum Foundation could enter into a contractual agreement that requires this portion of the parcel to be maintained in its current condition.

Additionally, [Appendix B](#), Section 1, recommends implementation of an agreement between Grissom ARB and MCEDA for MCEDA's property located in the VORTAC standoff areas. The agreement would ensure the land is maintained with its current use and that no objects of interference are located within the standoff areas.

The USAF and MCEDA have an existing agreement related to the perimeter fence located on MCEDA's properties, which allows Grissom ARB to maintain the fence. This existing agreement could be amended to provide the necessary protections for the VORTAC standoff area as well, since one of the parcels on which the fence is located is also in the 1000' VORTAC standoff area.

4.5.1 MAINTENANCE AGREEMENTS

Maintenance agreements are a specific type of legal contract where one party agrees to maintain the asset of another party. These types of agreements are commonly used for private roads, stormwater drainage facilities, landscaping, and equipment, but could apply to any real or personal property. The agreement describes the role and responsibilities of each party, financial obligations (if any), and any policies or procedures that must be followed in the execution of each party's responsibilities.

⁴⁹See [Appendix B](#), Section 2.3, Index-1, Demolition Plan (Overview).

If MCEDA retains ownership of its North Clear Zone parcels, MCEDA and the USAF could explore the use of a maintenance agreement for these properties. Once the existing businesses are relocated and the buildings are demolished, there are few uses MCEDA could establish on these parcels. MCEDA would be responsible for property maintenance, but would be largely unable to use or generate income from the properties. A maintenance agreement would authorize the USAF to maintain the property in accordance with safety and operational requirements, while limiting MCEDA's responsibility.

Air Force policy⁵⁰ does not address the use of maintenance agreements, but does address the use of licenses, leases, easements, and fee simple acquisition. Non-exclusive use licenses allow the Air Force to acquire the least amount of interest in land, and could be used for maintenance in the North Clear Zone. However, this type of instrument is intended for temporary, short-term use, and likely is not the most appropriate choice for use in the Operational Areas. Air Force policy prefers the use of easements when a long-term (or perpetual) interest in real property is needed.

In addition, maintenance agreements would not necessarily address other compatibility aspects, such as land use, in the Operational Areas.

4.5.2 POTENTIAL FUNDING SOURCES FOR CONTRACTUAL AGREEMENTS

None identified. Should Grissom ARB and MCEDA enter into a contractual agreement related to any of the Operational Areas, costs likely would be minimal and involve only the preparation, review, and execution of the agreement by legal counsel and possibly a survey of the property.

The first step is to ensure federal law and Air Force policy allow Grissom ARB to enter into such an agreement. If this tool can be used, then Grissom ARB and MCEDA must ensure the proposed maintenance agreement complies with all applicable laws and Air Force policies.

⁵⁰ See [Appendix B](#), Section 2.3, Index-1, Demolition Plan (Overview).

4.6 ZONING ORDINANCE REVISIONS

The Operational Areas are located in unincorporated Cass County, unincorporated Miami County, or Bunker Hill's extraterritorial jurisdiction. A few parcels in the North Clear Zone are partially within Bunker Hill's ETJ, with the remainder of the parcel located outside the ETJ in unincorporated Miami County. Each of these three jurisdictions has adopted a military zoning overlay district that applies to properties outside the Grissom ARB fence line.

The Miami County and Bunker Hill Grissom ARB Overlay Districts were adopted in 2018. The overlay districts restrict land use in the Grissom ARB Accident Potential Zones (including Clear Zones) and Noise Zones and restrict land use and height in the airfield imaginary surfaces. They also require coordination between the local government and Grissom ARB on proposed development located under the imaginary surfaces. These overlay districts are consistent with current federal safety guidance.

Development located in the overlay districts that was constructed according to regulations in place at the time, but that is no longer compliant with current zoning regulations is considered to have legal nonconforming status. Generally, nonconforming structures and uses may continue, but their repair, renovation, or replacement are restricted.

The Miami County and Bunker Hill Grissom ARB Overlay District ordinances specifically address nonconforming structures in the Grissom ARB Clear Zones. An excerpt from the Miami County ordinance is below (the Bunker Hill Grissom ARB Overlay uses similar language).

The overlay district provisions for nonconforming structures in the Clear Zone are less restrictive than the nonconforming structure and use provisions that apply elsewhere in the jurisdictions (and in the overlay district, outside the Clear Zone). The overlay districts include these provisions for consistency with the existing deed restrictions on properties in the North Clear Zone, which allow rebuilding of structures within their current footprint and height.

In all other instances, both the Miami County and Bunker Hill Zoning Ordinances require a nonconforming structure to be brought into compliance with all applicable code provisions if the structure is destroyed by more than 50% of the structure's value. Neither jurisdiction allows structural changes to a

“Notwithstanding section 2-11 [NCU Zoning Ordinance section], community-occupied structures in the Clear Zone on lands formerly part of Grissom Air Force Base, may be maintained within the footprint and heights as they existed on the effective date of this chapter. Therefore, these structures may be replaced, renovated, or repaired within those footprints and heights. However, in order to advance Clear Zone compatibility, if such a structure is destroyed by fifty percent (50%) or more, the owner must request purchase or relocation assistance from the Air Force and Miami County Economic Development Authority prior to submitting an application to replace or rebuild the structure. If no opportunity for assistance is presented and accepted by the owner within sixty (60) days of the property owner's request, the County will accept and process an application for replacing the destroyed building or structure within the original footprint and height.”

Miami County Grissom ARB Overlay District, Sec. 2-17-8

nonconforming structure, although both allow non-structural repairs. In addition, if a nonconforming use is discontinued for at least six months, neither Miami County nor Bunker Hill allow re-establishment of the use.

Cass County adopted its Grissom ARB Overlay District in 2015, following completion of Grissom ARB's Air Installation Compatible Use Zone Study in 2014. The overlay district limits land uses and height in the Clear Zone, Accident Potential Zones, and the inner and outer conical surfaces. The overlay district is generally, but not entirely, consistent with current federal safety guidance for Clear Zones. For example, structures and vegetation other than agricultural crops are allowed with special exception approval by the Cass County Board of Zoning Appeals. However, current federal safety guidance prohibits all structures in a Clear Zone.

The Cass County Grissom ARB Overlay District does not address nonconforming structures and uses, so the general Zoning Ordinance provisions apply. Section 703.02 of the Cass County Zoning Ordinance requires a structure damaged by more than 75% of its value to be brought into compliance with current zoning regulations.

Most of the South Clear Zone properties are located in Cass County. All but one are subject to USAF easements ([see Section 2: Existing Protections Around Grissom ARB](#)). There are no above-ground structures in the South Clear Zone, likely due to these existing easements. Thus, there was no need for Cass County to consider nonconformity provisions specific to the Grissom ARB Overlay District.

Miami County, the Town of Bunker Hill, and Cass County could consider changes to their existing Grissom ARB Overlay Districts to further advance Clear Zone compatibility.

Miami County and Bunker Hill could consider amending their ordinances to prohibit reconstruction of structures in the Clear Zone and/or to prohibit structural repairs or renovations. This potentially could shorten the length of time existing structures remain in the North Clear Zone.

Alternatively, Miami County and Bunker Hill could consider an amortization program for existing structures in the Clear Zone. Zoning amortization programs require the eventual conversion, by the property owner, of nonconforming uses to conforming uses. In the context of the North Clear Zone, Miami County and the Town of Bunker Hill would establish a fixed timeframe after

which any uses inconsistent with Grissom ARB Overlay District zoning would be prohibited. The objective with amortization is to advance the termination of nonconforming uses sooner than current nonconforming use provisions otherwise would.

In fact, both the Miami County and Bunker Hill Zoning Ordinances already use this technique. Sec. 2-11-1 amortizes nonconforming permanent and temporary billboards, requiring their removal within five years and ninety days, respectively, of the effective date of the ordinance.

Since both zoning ordinances are consistent with Air Force guidance, few uses are permitted in the Clear Zone. In fact, both jurisdictions permit only “general farm” uses in the Clear Zone. If amortization is used for existing uses and buildings in the Clear Zone, the timeframe for amortization must be sufficient to allow sufficient economic return to the property owners based on the remaining economically-viable uses for the properties. However, with the current developed state

of the properties and the proximity of industrial uses, agriculture may not be an economically viable use. Amortization is unlikely to be a legally-supportable approach if no economically-viable uses remain available under County or Town zoning at the end of an amortization period.

It was noted, however, during the Action Plan’s development that further restrictions on nonconforming uses or increased use of amortization clauses should be considered only after public input and consideration of impacts on private property rights and existing land uses.

Cass County should amend its Grissom ARB Overlay District for full consistency with federal safety guidance for Clear Zones. This was a high priority, short timeframe recommendation in the Grissom ARB JLUS. These revisions to the Cass County ordinance are underway as a component of the first JLUS Implementation project, of which this memorandum and the Action Plan are a part.

4.6.1 POTENTIAL FUNDING SOURCES FOR ZONING ORDINANCE AMENDMENTS

Establishment of military zoning overlay districts, and amendments thereto, are potentially eligible for funding through the Office of Economic Adjustment (OEA). In fact, OEA funded this JLUS Implementation project, which includes amendments to the Cass County Grissom ARB Overlay District. OEA funding of course is dependent upon availability and competing demands.

Amendments to nonconforming use provisions as they relate to the Grissom ARB Overlay Districts are potentially eligible for funding through the OEA. However, these amendments are fairly simple and could be prepared by local government staff in consultation with legal counsel.

4.7 OTHER POTENTIAL TOOLS IDENTIFIED DURING THE PROJECT

This section describes other funding opportunities that may be available for efforts to maintain compatibility in the Operational Areas and other areas around Grissom ARB, improve community infrastructure in the vicinity of Grissom ARB, and enhance the joint-use airfield and the Grissom Aeroplex.

4.7.1 INDOT OFFICE OF AVIATION AIRPORT CAPITAL IMPROVEMENT PROGRAM

“The Indiana Department of Transportation (INDOT) Office of Aviation is charged by Indiana Code § 8- 21-1, with developing and continuously updating a state airport system plan that will best serve the interests of the state and its political subdivisions, and be coordinated with the national airport system plan prepared by the Federal Aviation Administration (FAA). The FAA’s national airport system plan is known as the National Plan of Integrated Airport Systems (NPIAS). Generally, an airport must first be included in a state or metropolitan airport system plan to be included in the NPIAS...”⁵¹

The current (2012) State Aviation System Plan includes 69 airports, but not the Grissom joint-use airport (GUS). The plan does not recognize a current need to expand the state’s airport system, but allows inclusion of new airports on a case-by-case basis.

Adding GUS to the state airport system opens up funding opportunities through the INDOT Airport Capital Improvement Program. It also may help facilitate the inclusion of GUS in the National Plan of Integrated Airport Systems (NPIAS), which opens up significant funding opportunities under the FAA Airport Improvement Program (see 4.7.2 FAA Airport Improvement Program (AIP)).

⁵¹ 2012 *Indiana State Aviation System Plan*, Chapter 1: Introduction, available: <https://www.in.gov/indot/2395.htm>

4.7.2 FAA AIRPORT IMPROVEMENT PROGRAM (AIP)

For airports included in the NPIAS, the FAA's Airport Improvement Program (AIP) offers opportunities for funding that covers a significant portion of project costs. At the time of this writing, MCEDA was actively pursuing the inclusion of the joint-use airfield at Grissom ARB in the NPIAS.

The AIP funds 75% to 95% of eligible project costs, depending on the type of airport and type of project. "Eligible projects include those improvements related to enhancing airport safety, capacity, security, and environmental concerns. In general, sponsors can get AIP funds for most airfield capital improvements or rehabilitation projects and in some specific situations, for terminals, hangars, and non-aviation development."⁵²

Generally, AIP funds may only be used on airport property. However, the FAA expressly allows the use of AIP funds for removal of obstructions located off-airport property if adequate easements or other land use controls (e.g., zoning) are in place that would prohibit reestablishment of the obstruction.⁵³

In addition, AIP funding potentially could assist in bringing Taxiway G into compliance with Taxiway Clearance standards. The improvements recommended in [Appendix B](#), Section 1, are the responsibility of both MCEDA and the USAF. The USAF is responsible for maintenance and repair of the Jointly Used Flying Facilities, as defined in the original (2005) and revised (2017) Joint Use Agreement, which includes Taxiway G. MCEDA is responsible for maintenance of the civilian apron adjacent to Taxiway G.

⁵² FAA, *Overview: What is AIP?*, available: <https://www.faa.gov/airports/aip/overview/>

⁵³ FAA, *AIP Handbook*, Chapter 3, Section 4, Table 3-10, available: https://www.faa.gov/airports/aip/aip_handbook/?Chapter=0

4.7.3 FAA MILITARY AIRPORT PROGRAM (MAP)

A component of the AIP, the FAA's Military Airport Program (MAP) "provides financial assistance to the civilian sponsors who are converting, or have already converted, military airfields to civilian or joint military/civilian use."⁵⁴ Four percent of AIP discretionary funds are set aside annually for the MAP. Eligible costs are broader than those allowed under the AIP and may include, for example, construction of terminal buildings, parking lots, and hangars.

Projects funded by MAP must meet at least one of the following criteria. Pursuant to 49 USC § 47118(c), the project would:

1. Reduce delays at an airport with more than 20,000 hours of annual delays in commercial passenger aircraft takeoffs and landings;
2. Enhance airport and air traffic control system capacity in a metropolitan area or reduce current and projected flight delays; or
3. Preserve or enhance minimum airfield infrastructure facilities at former military airports to support emergency diversionary operations for transoceanic flights in locations-
 - » within United States jurisdiction or control; and
 - » where there is a demonstrable lack of diversionary airports within the distance or flight-time required by regulations governing transoceanic flights.

The FAA may designate up to fifteen airports each fiscal year to participate in the MAP. The term of designation for an individual airport may be for up to five years. Airports may apply for re-designation for subsequent terms.

"Designated airports may receive up to \$7 million per fiscal year for terminal building projects and up to \$7 million to preserve or enhance minimum airfield infrastructure or, construct parking lots, fuel farms, utilities, hangars, and air cargo terminals...MAP designated airport projects are not limited to MAP funding; they may also qualify for other AIP funding if all AIP associated project eligibility and justification requirements are met."⁵⁵

To be eligible for MAP funding, sponsors (i.e., funding recipients) must maintain an FAA-approved airport layout plan.⁵⁶ FAA policy also requires sponsors to have a five-year capital improvements program that includes all projects eligible for AIP/MAP funding.⁵⁷

The MAP offers a potential significant source of funding for protection of the Operational Areas. Land acquisition in the runway protection zones (i.e., Clear Zones) and other approach protection is eligible, as is obstruction removal (e.g., structures in a Clear Zone).

⁵⁴FAA, *Military Airport Program*, available: https://www.faa.gov/airports/aip/military_airport_program/

⁵⁵ Federal Register, *Notice of Opportunity: Criteria and Application Procedures for the Military Airport Program (MAP) for Fiscal Year 2019*, available: <https://www.govinfo.gov/content/pkg/FR-2019-03-18/pdf/2019-05001.pdf>

⁵⁶ 49 USC § 47107(a)(16)

⁵⁷ FAA *AIP Handbook*, Chapter 6, Section 3, Table 6-14, available: https://www.faa.gov/airports/aip/aip_handbook/?Chapter=0

4.7.4 OFFICE OF ECONOMIC ADJUSTMENT DEFENSE COMMUNITY INFRASTRUCTURE PILOT PROGRAM (DCIP)

Title 10 U.S. Code § 2391(d) authorizes the Secretary of Defense to provide grants to “address deficiencies in community infrastructure supportive of a military installation” through the Defense Community Infrastructure Pilot Program (DCIP). Congress authorized the DCIP for ten years following enactment of the National Defense Authorization Act for Fiscal Year 2019, but did not fund the program in FY2019. FY2020 marks the first time funding has been available for the DCIP.

“The Consolidated Appropriations Act for Fiscal Year 2020 (PL 116-93) provides \$50 million for the Office of Economic Adjustment (OEA) to obligate prior to September 30, 2020. On May 6, 2020, the Secretary of Defense approved OEA to implement this program with the eligibility criteria and grant process provided under this notice.”⁵⁸

The DCIP focuses on three priorities established by the Secretary of Defense:

1. Military family quality of life,
2. Military resilience, and
3. Military value.

The statute defines “community infrastructure” as a product or facility that is located off of a military installation and is owned by a state or local government or not-for-profit, member-owned utility service.⁵⁹ Thus, eligible applicants for DCIP funding include only state and local governments and not-for-profit, member-owned utility services.

The Final Federal Funding Opportunity (FFO) for the FY2020 DCIP identifies other eligibility and programmatic requirements, including those discussed below, which may or may not be the same in subsequent funding years.

Individual awards range from \$250,000 to \$25 million. Unless the project location is in a rural area or for national security reasons, grantees must provide a non-federal funding match totaling at least 50% of project costs (per the FFO). [Note 10 U.S.C. § 2391(d)(2) requires a minimum 30% match for

⁵⁸ DoD, *Announcement of Federal Funding Opportunity for the Defense Community Infrastructure Pilot Program*, May 2020, available: <https://oea.gov/sites/default/files/DCIP/2020-05-26%20DCIP-FFO%20Final.pdf>

⁵⁹ 10 U.S.C. § 2391(e)(4)

In September 2020, the DoD announced the first grants awarded through the Defense Community Infrastructure Pilot Program. These 16 grants, totaling approximately \$50 million, leverage an additional \$45 million in non-federal funds. Funded projects include recreational and sports complexes, educational facilities, emergency medical facilities, and utility infrastructure improvements.

In November 2020 the US Senate released its proposed FY2021 spending package, which proposes a \$100 million increase in funding for the DCIP.

non-rural projects.] The FFO defines “rural area” as a city, town, or unincorporated area with a population of 50,000 or less. An applicant proposing a project in a rural area must specifically request a waiver of the matching requirement.

The FFO defines eligible community infrastructure projects as “any complete and usable transportation project, school, hospital, police, fire, emergency response, or other community support facility; or water, wastewater, telecommunications, electric, gas, or other utility infrastructure project that:

- » support a military installation;
- » are owned by a state or local government or a not-for-profit, member owned utility service;
- » will enhance military family quality of life, resilience or military value at the supported military installation;
- » are endorsed by the local installation commander representing the installation benefitting from the proposed project; and
- » are construction-ready.”⁶⁰

Further, at least 50% of the beneficiaries of a project funded by the DCIP must be active duty military service members and their families.

Eligible costs include hard construction and renovation costs, project administration, contingencies, and capital equipment. Soft costs may be used as the required non-federal match, if such costs are incurred after August 13, 2018 (the date of original authorization of the DCIP).

The first step in the application process involves submittal of a proposal to OEA. A review panel ranks the proposals, and OEA invites the applicants with the highest ranked proposals to submit a full grant application.

A letter of endorsement from the local installation commander is a key element of the proposal and application process. If the applicant proposes a local match waiver based on national security reasons, the letter must address these reasons.

Another key requirement is that the proposed construction can begin within twelve months of the grant award. This requires “all necessary final design and planning, Federal and state/local environmental planning, and local permitting actions” to be “substantially complete.”⁶¹

⁶⁰ FFO, Section C.3., p. 3.

⁶¹ OEA, DCIP, *FFO Questions and Answers*, Part I, Section A, Questions 27 and 56; June 4, 2020; available: [https://oea.gov/sites/default/files/DCIP/20200604-DCIP%20FFO%20QAs%20-%20Part%201%20\(005\).pdf](https://oea.gov/sites/default/files/DCIP/20200604-DCIP%20FFO%20QAs%20-%20Part%201%20(005).pdf)

As with other Federal funding, compliance with the National Environmental Policy Act is required.

The DCIP may offer a funding opportunity for the road improvements recommended as a component of the Recommended Relocation Plan (see Appendix B, Section 3.4.1). These improvements near GARB's main gate will improve congestion management during periods of heavy gate traffic.

4.7.5 EDA PUBLIC WORKS AND ECONOMIC ADJUSTMENT ASSISTANCE PROGRAMS

The U.S. Department of Commerce Economic Development Administration (EDA) provides “strategic investments on a competitive merit basis to support economic development, foster job creation, and attract private investment in economically distressed areas of the United States. Under this [Notice of Funding Opportunity], EDA solicits applications from applicants in order to provide investments that support construction, non-construction, planning, technical assistance, and revolving loan fund projects.”⁶²

Programs that could help enhance the Aeroplex include the Public Works program and potentially the Economic Adjustment Assistance (EAA) program. Examples of prior investments in the Public Works program include water and sewer system improvements, industrial parks, and brownfield redevelopment. The EAA program supports a variety of construction and non-construction projects in regions experiencing adverse economic changes occurring suddenly or over time.⁶³

EDA's maximum investment rate for a project is based on the region's average per capita income or unemployment rate, and ranges from 50 to 80 percent. However, EDA considers Qualified Opportunity Zones (see 4.7.6 Indiana Opportunity Zones) as subject to a special need, which allows EDA to contribute up to 80 percent—regardless of income or unemployment.

⁶² EDA, FY 2020 Public Works and Economic Adjustment Assistance Notice of Funding Opportunity, p. 1, available: <https://www.grants.gov/web/grants/view-opportunity.html?oppld=321695>

⁶³ EDA, FY 2020 Public Works and Economic Adjustment Assistance Notice of Funding Opportunity, p. 1, available: <https://www.grants.gov/web/grants/view-opportunity.html?oppld=321695>

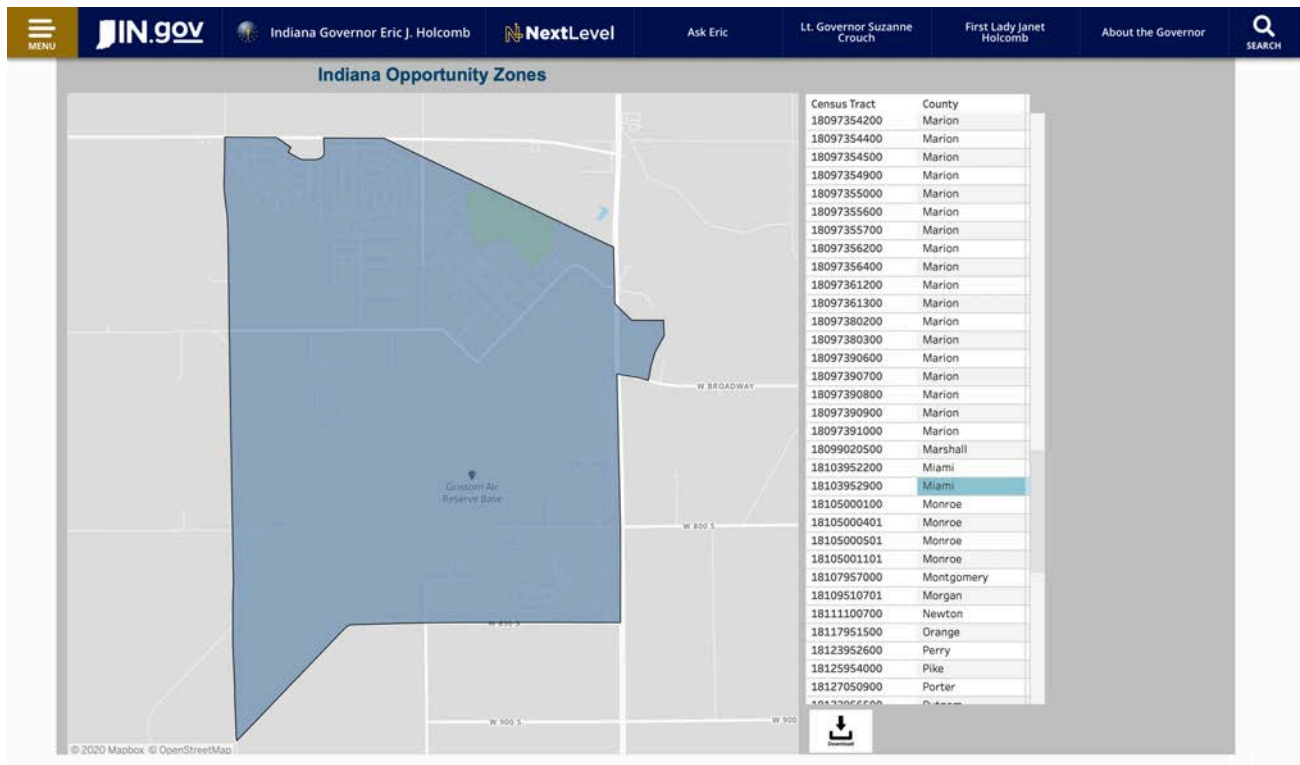
4.7.6 INDIANA OPPORTUNITY ZONES

The federal Tax Cuts and Jobs Act of 2017 created Qualified Opportunity Zones (QOZs). “A QOZ is an economically distressed community where new investments, under certain conditions, may be eligible for preferential tax treatment.”⁶⁴

In 2018, state governors began nominating Census tracts for designation by the US Department of the Treasury as QOZs. Indiana has 156 QOZs throughout the state including Census Tract 18103952900, which includes a portion of Grissom ARB and the Aeroplex (see Figure 10).

In collaboration with the Purdue University Center for Regional Development (PCRD), the Indiana Office of Rural and Community & Rural Affairs (OCRA) received a grant to identify and build capacity in rural QOZs. OCRA and PCRD identified 46 rural QOZs, including the Grissom QOZ, which are located in nonmetropolitan areas that have no town or city of 50,000 or more.⁶⁵ As part of the grant project, OCRA and PCRD developed a Rural Opportunity Zone Initiative (ROZI).

Figure 10. A portion of the Grissom Aeroplex is designated as a Qualified Opportunity Zone



⁶⁴Internal Revenue Service, *Opportunity Zones Frequently Asked Questions*, Q1, available: <https://www.irs.gov/credits-deductions/opportunity-zones-frequently-asked-questions>

⁶⁵PCRD, *Opportunity Zones: Building a Brighter Future for Rural Indiana*, available: <https://pcrd.purdue.edu/opportunity-zones-building-a-brighter-future-for-rural-indiana/>

The purpose of this ROZI “is to build the capacity of QOZs in rural Indiana to attract private, public and/or philanthropic sector investments that support locally-driven priorities. The 46 communities are eligible to apply and six will receive technical assistance and capacity-building support provided by a statewide team of university and agency professionals.”⁶⁶

Building on the success of the first phase, OCRA and PCRDA announced in November 2020 a second phase of the ROZI.⁶⁷ Up to six additional communities (to be selected in February 2021) will receive technical assistance during this phase. While this

initiative does not provide funding to QOZ communities, it offers a range of technical assistance to help communities develop an investment prospectus.

Another resource, the Opportunity Investment Consortium Indiana, connects investors with QOZ communities throughout the state.⁶⁸

The Opportunity Zones program offers a possible way to encourage investment in the Aeroplex, including real estate investment. It would be beneficial to further explore the potential for the QOZ program to contribute to MCEDA’s relocation plan (see [Appendix C](#)).

4.7.7 INDIANA’S STATE REDEVELOPMENT TAX CREDIT

Indiana’s State Redevelopment Tax Credit may offer a tax credit opportunity for demolition and construction components of the preferred relocation plan (see [Appendix B](#), Section 3.4.1). The tax credit is available for qualified redevelopment sites, as defined in [IC 6-3.1-34-6](#).

Selection criteria includes:

- » The economic development potential of the proposed project;
- » Evidence of redevelopment barriers, such as environmental contamination;
- » The level of commitment by the local government to assist in financing the project; and
- » The level of community support.⁶⁹

The local government must provide at least a 100% match, which may be in of variety of forms such as tax abatements and infrastructure improvements directly related to the project. Once complete, the project must be owned by a for-profit organization and primarily used for commercial or industrial purposes, or owned by a non-profit organization but primarily used for the benefit of for-profit organizations.⁷⁰

⁶⁶ OCRA, *Opportunity Zones*, available: <https://www.in.gov/ocra/additional-resources/opportunity-zones/>

⁶⁷ OCRA, *Opportunity Zones*, available: <https://www.in.gov/ocra/additional-resources/opportunity-zones/>

⁶⁸ Opportunity Investment Consortium Indiana, available: <https://www.opportunityinvestmentconsortium.com>

⁶⁹ [IC 6-3.1-34-16](#)

⁷⁰ Indiana Economic Development Corporation, *Redevelopment Tax Credit Program Policy*, available: <https://iedc.in.gov/incentives/>

SECTION 5: IMPLEMENTATION ACTIONS & TIMELINES

This section recommends specific actions and timelines to achieve compatibility in the Grissom ARB Operational Areas. Full implementation of this Action Plan will require significant funding and a long-term, coordinated, and phased effort between MCEDA, DoD, and other community partners. While the availability of funding may necessitate adjustments to the recommended timelines, the Action Plan anticipates a 20-year effort to achieve full implementation.

The recommended actions are organized into six central tasks. Each task includes a series of subtasks including, in some cases, preliminary steps that must be completed before other subtasks in the category. Some of these preliminary steps involve assessing the feasibility of certain subtasks, and the result of this determination may eliminate or modify the associated subtask(s) or necessitate the inclusion of new subtasks.

For example, Relocation & Construction Task 2-A.1 involves an assessment of the feasibility and cost of rehabilitating Building 28, the former Grissom ARB Base Operations facility, to temporarily or permanently accommodate the MCEDA administrative offices and the Grissom Airport's fixed-base operator (FBO). If rehabilitation is not feasible, other buildings must be identified and renovated for temporary relocation of these entities.

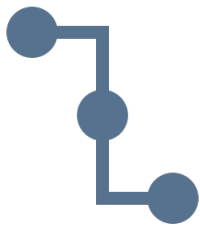
The recommended actions are organized into six central tasks:

Demolition
Relocation & Construction
Acquisitions
Land Swaps
Contractual Agreements
Zoning Ordinance Revisions

Other subtasks are iterative, requiring completion of one task before another can begin. For example, demolition of occupied buildings in the North Clear Zone cannot begin until the occupants are relocated to temporary or permanent facilities. Some subtasks appear under different central tasks but are highly interrelated, such as the removal and relocation of portions of the perimeter fence—which appear under the demolition and relocation tasks.

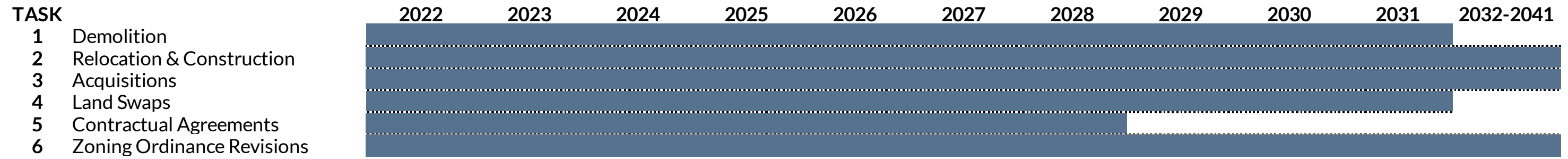
The recommended timelines are based on the most urgent safety need, which is to eliminate incompatible land uses (i.e., remove people and structures) from the North Clear Zone. Aside from the new construction associated with the Preferred Relocation Plan (see [Appendix C](#)), demolition of structures in the North Clear Zone is the costliest element of the Action Plan at approximately \$3.88 million (see [Appendix B](#)).

To complete this task and others, MCEDA will need to seek assistance from the DoD, other community partners, and/or funding organizations. As noted above, the recommended timelines may need to shift due to the availability of funding. When pursuing funding through grants, negotiation, or other mechanisms, advancement of compatibility in the North Clear Zone should remain the top priority.



The Action Plan anticipates a 20-year effort to achieve full implementation.

OVERALL TIMELINE



TASK 1: DEMOLITION

Task	Responsible Party(ies)	Estimated Cost(s)	Possible Funding Source(s) ¹	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-2041
1 DEMOLITION														
1-A PRELIMINARY STEPS														
1-A.1	Conduct assessment of Demolition Zones to determine presence and extent of asbestos and/or other hazardous substances.	MCEDA, GARB	environmental assessment	MCEDA, EPA Assessment Grants, EPA Targeted Brownfields Assessment Program, IBP Phase I Environmental Site Assessment Initiative										
1-A.2	Conduct Phase I ESA for Zone 5 to determine whether asbestos is present. This task could be accomplished in conjunction with Task 1-A.1.	MCEDA, GARB	environmental assessment	EPA Assessment Grants, EPA Targeted Brownfields Assessment Program, IBP Phase I Environmental Site Assessment Initiative										
1-A.3	Following acquisition, conduct Phase I ESA for Zone E (Building 32) if acquired by MCEDA to determine whether asbestos is present. This task could be accomplished in conjunction with Task 1-A.1, if the private property owner allows access to the property.	MCEDA, GARB	environmental assessment	EPA Assessment Grants, EPA Targeted Brownfields Assessment Program, IBP Phase I Environmental Site Assessment Initiative										
1-A.4	Monitor Status of Funding for Indiana OCRA Blight Clearance Program (currently suspended).	MCEDA	staff time											
1-B DEMOLITION														
<i>Within the North Clear Zone⁴</i>														
1-B.1	Zone A (Building 1)	TBD	\$602,552	DoD, MCEDA, EPA Cleanup Grant, EPA Multipurpose Grant, OCRA Blight Clearance Program, IBP Revolving Loan Fund Incentive, INDOT Airport Capital Improvement Program, ² AIP/MAP ³										
1-B.2	Zone B (Building 11 + fuel farm)	TBD	\$699,852	DoD, MCEDA, EPA Cleanup Grant, EPA Multipurpose Grant, OCRA Blight Clearance Program, IBP Revolving Loan Fund Incentive, INDOT Airport Capital Improvement Program, ² AIP/MAP ³										
1-B.3	Zone C (Building 20, vacant)	TBD	\$331,631	DoD, MCEDA, EPA Cleanup Grant, EPA Multipurpose Grant, OCRA Blight Clearance Program, IBP Revolving Loan Fund Incentive, INDOT Airport Capital Improvement Program, ² AIP/MAP ³										
1-B.4	Zone D (Building 22 + portion of perimeter fence)	TBD	\$443,656	DoD, MCEDA, EPA Cleanup Grant, EPA Multipurpose Grant, OCRA Blight Clearance Program, IBP Revolving Loan Fund Incentive, INDOT Airport Capital Improvement Program, ² AIP/MAP ³										
1-B.5	Zone E (Building 32, private)	TBD	\$396,249	DoD, MCEDA, EPA Cleanup Grant, EPA Multipurpose Grant, OCRA Blight Clearance Program, IBP Revolving Loan Fund Incentive (if assessment finds asbestos or other hazardous substances); INDOT Airport Capital Improvement Program, ² AIP/MAP ³										
1-B.6	Zone F (Building 33 + high voltage zone + utilities)	TBD	\$356,815	DoD, MCEDA, EPA Cleanup Grant, EPA Multipurpose Grant, OCRA Blight Clearance Program, IBP Revolving Loan Fund Incentive, INDOT Airport Capital Improvement Program, ² AIP/MAP ³										
1-B.7	Zone G (Building 37, private)	TBD	\$486,494	DoD, INDOT Airport Capital Improvement Program, ² AIP/MAP ³										

TASK 1: DEMOLITION (continued)

Task	Responsible Party(ies)	Estimated Cost(s)	Possible Funding Source(s) ¹	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-2041
1 DEMOLITION														
1-B DEMOLITION														
<i>Within the North Clear Zone⁴</i>														
1-B.7	Zone G (Building 37, private)	TBD	\$486,494	DoD, INDOT Airport Capital Improvement Program, ² AIP/MAP ³										
1-B.8	Zone H (Building 38)	TBD	\$225,457	DoD, MCEDA, INDOT Airport Capital Improvement Program, ² AIP/MAP ³										
1-B.9	Zone X (power poles + light poles + trees)	TBD	\$337,876	DoD, MCEDA, INDOT Airport Capital Improvement Program, ² AIP/MAP ³										
	Est. Cost		\$3,880,582											
<i>In Relocation Areas Outside the North Clear Zone⁵</i>														
1-B.10	Zone 5 (military-owned)	TBD	\$163,804	DoD, MCEDA, IBP Revolving Loan Fund Incentive; EPA Multipurpose Grant, OCRA Blight Clearance Program (if assessment finds asbestos or other hazardous substances)										
1-B.11	Zone 8 (Bldg 14, which is old air control tower, has asbestos)	TBD	\$411,521	MCEDA, EPA Multipurpose Grant, OCRA Blight Clearance Program, IBP Revolving Loan Fund Incentive										
1-B.12	Zone 9	MCEDA	\$98,029	MCEDA, EDA Public Works and Economic Adjustment Assistance Programs, OCRA Blight Clearance Program										
1-B.13	Zone 10	MCEDA	\$96,977	MCEDA, EDA Public Works and Economic Adjustment Assistance Programs, OCRA Blight Clearance Program										
1-B.14	Zone 11	MCEDA	\$140,016	MCEDA, EDA Public Works and Economic Adjustment Assistance Programs, OCRA Blight Clearance Program										
	Est. Cost		\$910,347											
1-C PERIMETER FENCE REMOVAL														
1-C.1	Seek waiver from DoD for the 4,810 feet of fencing within the primary surface (Fence Area 1).	GARB	staff time	DoD										
1-C.2	Remove the 1,395 feet of fencing located within the primary surface (Fence Area 2).	GARB	\$151.93 per sq ft (\$211,942) ⁶	DoD										
1-C.3	If feasible, remove the remaining 5,210 feet of fencing in Fence Area 2 that coincides with the southeastern edge of the primary surface.	MCEDA, GARB	\$151.93 per sq ft (\$791,555) ⁶	DoD, MCEDA, INDOT Airport Capital Improvement Program, ² AIP/MAP ³										

¹ Each funding source has unique program requirements and eligible project costs. Applicability of a particular funding source to tasks in this Action Plan should be verified with the funding organization prior to submittal of any application.

² INDOT Airport Capital Improvement Program funding is only available if GUS is added to the state's Aviation System Plan.

³ AIP & MAP funding is only available to airports in the NPIAS. The earliest this funding could be available is 2023. This assumes GARB is added to the NPIAS in 2022.

⁴ Decisions on how to prioritize North Clear Zone buildings for demolition will be made based on available funding and the most efficient and expedient use of these funds in terms of implementing the Action Plan at that time.

⁵ Demolition outside the CZ includes only what is necessary to clear the Runway 23 CZ and to replace the necessary structures. This includes Zones 5, 8, 9, 10, & 11 only.

⁶ The cost per linear foot includes both removal and replacement of the perimeter fence (see 2. Relocation).

TASK 2: RELOCATION

TASK	Responsible Party(ies)	Estimated Cost(s)	Possible Funding Source(s) ¹	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-2041
2	RELOCATION & CONSTRUCTION													
2-A	PRELIMINARY STEPS													
2-A.1	Assess the feasibility and cost of rehabilitating Building 28, the former Base Operations facility, to temporarily or permanently accommodate the FBO and MCEDA.	MCEDA, FBO	staff time											
2-A.2	Assess the feasibility and cost of temporarily or permanently relocating Building 38 occupant (MCEDA Lease to Indiana MENTOR) to Building 162.	MCEDA, Indiana MENTOR	staff time											
2-A.3	Identify whether there are suitable locations on MCEDA properties for relocation of North Clear Zone entities.	MCEDA	staff time											
2-A.4	Identify whether there are suitable (underutilized, but not excess property) locations on GARB/USAF properties for relocation of North Clear Zone entities.	GARB, MCEDA, North Clear Zone Entities	staff time											
2-A.5	If GARB or MCEDA properties are not available/suitable, identify suitable locations on privately-owned properties for relocation of North Clear Zone entities.	MCEDA, North Clear Zone Entities	staff time											
2-A.6	Verify zoning of properties proposed for entity relocation.	MCEDA, North Clear Zone Entities	staff time											
2-A.7	Execute lease agreement(s) for MCEDA property, if available and suitable for temporary relocation of North Clear Zone entities.	MCEDA, North Clear Zone Entities	legal costs, staff time											
2-A.8	Execute 2667 Outlease Agreement(s) on USAF property, if available and suitable for temporary relocation of North Clear Zone entities.	GARB, MCEDA, North Clear Zone Entities	legal costs, staff time											
2-A.9	Execute lease agreement(s) with private property owner for temporary relocation of North Clear Zone entities.	MCEDA, North Clear Zone Entities	legal costs, staff time											
2-A.10	Identify needed renovations to buildings for temporary relocation of North Clear Zone entities.	TBD	inspections, construction estimates											
2-B	ENTITY RELOCATION													
2-B.1	If the rehabilitation of Building 28 is feasible, complete needed renovations to temporarily or permanently accommodate MCEDA and the FBO.	MCEDA, FBO	construction costs, permitting fees	INDOT Airport Capital Improvement Program, ² AIP/MAP, ³ EDA Public Works and Economic Adjustment Assistance Programs, State Redevelopment Tax Credit										
2-B.2	Relocate Building 1 occupants/uses (MCEDA Admin + NCIRPC only), Building 11 (FBO & Fuel Farm), Building 33 (FBO) to renovated Building 28.	MCEDA		TBD										
2-B.3	If the rehabilitation of Building 162 is feasible, complete needed renovations to temporarily or permanently accommodate Building 38 occupant (MCEDA Lease to Indiana MENTOR).	MCEDA	construction costs, permitting fees	TBD										
2-B.4	Relocate Building 38 occupant (MCEDA Lease to Indiana MENTOR) to temporary site, possibly Building 162.	MCEDA		TBD										
2-B.5	If the rehabilitation of Building 28 and/or Building 162 is not feasible, complete needed renovations to other buildings for temporary relocation of North Clear Zone entities.	TBD	construction costs, permitting fees	TBD										
2-B.6	Building 37 (dental clinic) to new building													
2-C	RELOCATE PERIMETER FENCE OUTSIDE PRIMARY SURFACE													
2-C.1	Replace the 1,395 feet of fencing located within the primary surface (Fence Area 2).	GARB	\$151.93 per sq ft (\$211,942) ⁵	DoD										
2-C.2	If feasible, replace the remaining 5,210 feet of fencing in Fence Area 2 that coincides with the southeastern edge of the primary surface.	MCEDA, GARB	\$151.93 per sq ft (\$791,555) ⁵	DoD, MCEDA, INDOT Airport Capital Improvement Program, ² AIP/MAP ³										

TASK 2: RELOCATION (continued)

TASK	Responsible Party(ies)	Estimated Cost(s)	Possible Funding Source(s) ¹	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-2041
2	RELOCATION & CONSTRUCTION													
2-D	NEW CONSTRUCTION FOR RELOCATED ENTITIES⁴													
2-D.1	Building 6 (MCEDA & FBO)	MCEDA, FBO	construction costs, permitting fees	INDOT Airport Capital Improvement Program, ² AIP/MAP, ³ EDA Public Works and Economic Adjustment Assistance Programs, State Redevelopment Tax Credit										
2-D.2	Building 7 (box hangars)	MCEDA, FBO	construction costs, permitting fees	INDOT Airport Capital Improvement Program, ² AIP/MAP, ³ EDA Public Works and Economic Adjustment Assistance Programs, State Redevelopment Tax Credit										
2-D.3	Building 8 (airfield maintenance)	MCEDA, FBO	construction costs, permitting fees	INDOT Airport Capital Improvement Program, ² AIP/MAP, ³ EDA Public Works and Economic Adjustment Assistance Programs, State Redevelopment Tax Credit										
2-D.4	Building 9 (fuel farm)	MCEDA, FBO	construction costs, permitting fees	INDOT Airport Capital Improvement Program, ² AIP/MAP, ³ EDA Public Works and Economic Adjustment Assistance Programs, State Redevelopment Tax Credit										
2-D.5	Building 11 (Indiana MENTOR)	MCEDA, Indiana MENTOR	construction costs, permitting fees	EDA Public Works and Economic Adjustment Assistance Programs, State Redevelopment Tax Credit										

¹ Each funding source has unique program requirements and eligible project costs. Applicability of a particular funding source to tasks in this Action Plan should be verified with the funding organization prior to submittal of any application.

² INDOT Airport Capital Improvement Program funding is only available if GUS is added to the state's Aviation System Plan.

³ AIP & MAP funding is only available to airports in the NPIAS. The earliest this funding could be available is 2023. This assumes GARB is added to the NPIAS in 2022.

⁴ New construction includes only what is necessary to accommodate the relocated North Clear Zone entities, as specified in the preferred Relocation Plan (Concept 1-B).

⁵ The cost per linear foot includes both removal and replacement of the perimeter fence (see 1. Demolition).

TASK 3: ACQUISITIONS

TASK	Responsible Party(ies)	Estimated Cost(s)	Possible Funding Source(s) ¹	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-2041
3 ACQUISITION/TRANSFER OF LAND OR EASEMENTS														
3-A PRELIMINARY STEPS														
3-A.1 Determine feasibility of USAF acquisition of all NCZ parcels, including the two privately-owned parcels.	MCEDA, GARB	staff time												
3-A.2 If GARB is to pursue acquisition, confirm current USAF policy related to acquisition of new real estate holdings in a clear zone.	GARB	staff time												
3-A.3 If MCEDA is to pursue acquisition of Building 32, identify funding source(s).	MCEDA	staff time												
3-A.4 Determine whether MCEDA and/or GARB/USAF will undertake demolition activities.	MCEDA, GARB	staff time												
3-A.5 Confirm whether the easement between GARB and owner of Parcel 09-15-03-400-024.000-012 (Alt. Parcel No. 001-024) includes the entire portion of the South Clear Zone located thereon or needs to be expanded.	GARB	staff time												
3-B ACQUIRE PRIVATELY-OWNED PARCELS IN NORTH CLEAR ZONE		<i>Current Tax Value</i>												
3-B.1 Negotiate with owner of Building 32 to purchase parcel.	GARB or MCEDA	\$146,500	DoD, MCEDA, DoD, State of Indiana, Miami County, AIP/MAP ²											
3-B.2 Negotiate with owner Building 37 to purchase parcel.	GARB	\$638,100	DoD, MCEDA, DoD, State of Indiana, Miami County, AIP/MAP ²											
3-C REVISE EXISTING EASEMENT IN SOUTH CLEAR ZONE														
3-C.1 If needed per Task 3-A.5, revise existing easement between GARB and owner of Parcel 09-15-03-400-024.000-012 (Alt. Parcel No. 001-024) to slightly expand the easement area to incorporate the entire portion of the South Clear Zone located thereon.	GARB	easement cost, transaction costs (e.g., survey, appraisal, legal fees)	DoD, REPI, ACEP											
3-D ESTABLISH NEW EASEMENTS IN SOUTH CLEAR ZONE														
3-D.1 Establish new easements on Parcel 52-13-11-200-001.000-005 (Alt. Parcel No. 3202-00) and Parcel 52-13-11-200-004.000-005 (Alt. Parcel No. 3202-01). Both parcels have the same owner and portions are located in the South Clear Zone.	GARB	easement cost, transaction costs (e.g., survey, appraisal, legal fees)	DoD, REPI, ACEP											
3-D.2 Establish new easement on Parcel 09-15-10-400-003.001-012 to protect the portion of the parcel located in the South Clear Zone.	GARB	easement cost, transaction costs (e.g., survey, appraisal, legal fees)	DoD, REPI, ACEP											
3-D.3 Establish new easement on Parcel 52-13-02-400-001.002-005 to protect the portion of the parcel located in the 1000' VORTAC Standoff Area. It appears the edge of the primary surface crosses the very tip of the corner of this parcel, so the easement should address that operational area if needed.	GARB	easement cost, transaction costs (e.g., survey, appraisal, legal fees)	DoD, REPI, ACEP											
3-E CONSIDER NECESSARY PROTECTIONS FOR ROADS IN OPERATIONAL AREAS														
3-E.1 Continue to evaluate feasibility of road relocation, signage, traffic signals, and other protections for public roads located in Operational Areas. These include E CR 950S and S 500W in the South Clear Zone and W 850 S in the Primary Surface.	GARB, MCEDA, Miami County, Cass County	staff and community time												
3-F TRANSFER NORTH CLEAR ZONE PARCELS TO GARB/USAF														
3-F.1 Transfer parcels in North Clear Zone owned by MCEDA to GARB/USAF.	MCEDA, GARB	TBD, based on negotiation between MCEDA and GARB	DoD											

¹Each funding source has unique program requirements and eligible project costs. Applicability of a particular funding source to tasks in this Action Plan should be verified with the funding organization prior to submittal of any application.

²Note AIP & MAP funding is only available to airports in the NPIAS. The earliest this funding could be available is 2023. This assumes GARB is added to the NPIAS in 2022.

TASK 4: LAND SWAPS

TASK	Responsible Party(ies)	Estimated Cost(s)	Possible Funding Source(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-2041
4	LAND SWAPS													
4-A	PRELIMINARY STEPS													
4-A.1	Assess the feasibility of swapping Zone 5 (and other USAF-owned parcels) for MCEDA-owned land on the eastern side of the runway (that contains the perimeter fence and/or is located in the VORTAC Standoff Area).	MCEDA, GARB	staff time											
4-A.2	Identify and survey (if needed) MCEDA property on eastern side of runway (that contains the perimeter fence and/or is located within the VORTAC Standoff Area) to be swapped with GARB.	MCEDA	property survey	MCEDA										
4-A.3	Continue to identify potentially excess USAF land and MCEDA land suitable for land swap.	MCEDA, GARB	staff time											
4-B	CONDUCT LAND SWAPS													
4-B.1	Conduct land swap to exchange USAF-owned Zone 5 for MCEDA-owned land. This task could be combined with 4-B.2. This task is necessary to proceed with redevelopment of the site for the construction of the new MCEDA/FBO building.	MCEDA, GARB	property surveys, appraisals, legal fees and other transaction costs											
4-B.2	Conduct land swap to exchange MCEDA-owned land on the eastern side of the runway (that contains the perimeter fence and/or is located in the VORTAC Standoff Area) for GARB/USAF land comparable in size and value.	MCEDA, GARB	property surveys, appraisals, legal fees and other transaction costs											

TASK 5: CONTRACTUAL AGREEMENTS

TASK	Responsible Party(ies)	Estimated Cost(s)	Possible Funding Source(s)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-2041
5	CONTRACTUAL AGREEMENTS													
5-A	AMEND EXISTING AGREEMENT RELATED TO PERIMETER FENCE													
5-A.1	Amend the existing agreement between MCEDA and GARB, which allows GARB to maintain the perimeter fence on MCEDA's property, to include the necessary protections for the 1000' VORTAC standoff area.	MCEDA, GARB	legal fees	DoD, MCEDA										
5-B	ESTABLISH NEW AGREEMENTS IN NORTH CLEAR ZONE													
5-B.1	If MCEDA retains ownership of parcels in the North Clear Zone, establish agreement(s) for GARB maintenance of MCEDA-owned parcels.	MCEDA, GARB	legal fees	DoD, MCEDA										
5-B.2	Establish agreement to protect the small portion of the Grissom Air Museum parcel located in the North Clear Zone. This portion of the parcel is located along the edge of W. Hoosier Boulevard, and does not have trees or structures that need to be removed (see Appendix A, Section 2.3, Index-1, Demolition Plan (Overview)). The agreement would require this portion of the parcel to be maintained in its current condition.	GARB, Heritage Museum Foundation	property survey, legal fees	DoD										

TASK 6: ZONING ORDINANCE REVISIONS

TASK	Responsible Party	Estimated Costs	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032-2041
6	ZONING ORDINANCE REVISIONS												
6-A	Miami County & Bunker Hill Zoning Ordinance Revision												
6-A.1	Amend ordinances to prohibit reconstruction and/or prohibit structural repairs or renovations in the Clear Zone.	Miami County, Town of Bunker Hill	staff time										
6-B	Cass County Zoning Ordinance Revision												
6-B.1	Adopt Grissom ARB Overlay Districts for full consistency with federal safety guidance for Clear Zones.	Cass County	staff time										
6-C	Monitor USAF Guidance & GARB Operations												
6-C.1	Monitor changes to USAF guidance and GARB's operational footprint that may warrant changes to local zoning regulations.	GARB, MCEDA	staff time										
6-D	Amend Zoning Regulations in Response to Changes in USAF Guidance and/or GARB Operations												
6-D.1	Amend local zoning ordinances as needed for consistency with changes to USAF guidance and/or to GARB operational footprint.	Cass County, Miami County, Town of Bunker Hill	staff time										



SECTION 6: CONCLUSION

Removing incompatible land uses and buildings in the North Clear Zone is the top compatibility priority for this community, due to the urgent safety concerns, but doing so will have significant associated costs. Therefore, MCEDA will need to work closely and continuously with the DoD, community partners, and funding organizations to achieve the desired end state for properties in this area.

This Action Plan lays out a path to address incompatibilities and bring the Grissom ARB Operational Areas into long-term compliance with federal safety guidelines. The Plan anticipates a 20-year effort to achieve full implementation. Many tasks, like demolition and relocation, are complex and highly dependent on the availability of funding. Other tasks, like contractual agreements and zoning ordinance revisions, are relatively low cost and include subtasks that can be implemented in the short-term to quickly advance compatibility in one or more of the Operational Areas.

ACTION PLAN APPENDICES

APPENDIX A: ACTION PLAN OVERVIEW	A-1
APPENDIX B: GRISSOM ARB OPERATIONAL AREAS EXISTING CONDITIONS, DEMOLITION PLANS, RELOCATION PLAN, AND COST ESTIMATES.....	B-1
APPENDIX C: PREFERRED RELOCATION PLAN (CONCEPT 1-B)	C-1
APPENDIX D: NORTH CLEAR ZONE DEEDS.....	D-1
Parcels C-1 & D-1.....	D-2
Parcel D.....	D-20
Parcel E	D-30
APPENDIX E: EXISTING USAF EASEMENTS.....	E-1
Grissom ARB Easements Map.....	E-2
Tract A130E.....	E-4
Tract A132E.....	E-10
Tract A133E.....	E-12
Tracts A149E-1 and A149E-2	E-17
Tract A162E.....	E-24
Tract A163E.....	E-32
Tract A164E.....	E-40
Tract A165E.....	E-48
Tract A166E.....	E-56
Tracts A167E-1 and A167E-2	E-63

APPENDIX A: Operational Areas Parcel Summary



PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND				PROPERTY INFORMATION AND BACKGROUND		
	Alt. Parcel Number	Description	Owner	Acres (Total) ¹	Current Occupant/Use	Jurisdiction	Asbestos Present
52-10-25-300-001.043-017	--	Building 1	MCEDA	2.78	MCEDA, North Central Indiana Regional Planning Council, Xerox	Miami County/ Bunker Hill ETJ (partial)	•
52-10-36-200-001.003-017	--	Building 11	MCEDA	17.95	FBO & fuel farm	Miami County/ Bunker Hill ETJ	•
		Building 22	MCEDA		Storage facility for MCEDA & FBO	Miami County/ Bunker Hill ETJ (partial)	•
52-10-36-200-001.006-017	--	Building 20	MCEDA	16.094		Miami County	•
52-10-25-300-001.044-017	--	Building 32	Ladd (private)	2.15	Unknown	Miami County/ Bunker Hill ETJ (partial)	unknown
52-10-25-300-033.555-017	--	Building 33	MCEDA	1.27	MCEDA equipment storage	Miami County	•
52-10-25-300-001.005-017	016-12812-30	Building 37	L&L Prop. Mgmt. (private)	4.476	Dental office, partially unoccupied	Miami County/ Bunker Hill ETJ	
52-10-36-200-038.555-017	016-55500-38	Building 38	MCEDA	1.34	Indiana MENTOR Day Services	Miami County	
52-10-36-200-001.002-017	--		USA	0.23	.23 ac parcel over portion of Building 11 and parking	Miami County	
52-10-36-200-001.009-017	--		Peru Utility Service Board	0.26	Water pump station and high voltage zone	Miami County/ Bunker Hill ETJ	
52-10-25-300-001.013-017 ⁴	016-12812-13		Heritage Museum Foundation	13.646	Grassed/edge of W. Hoosier Blvd.	Miami County	
52-10-25-300-001.000-017	016-12812-00		USA	50.284		Miami County/ Bunker Hill ETJ	
52-10-36-100-002.000-017	016-17601-03	Fence Area #2	USA	123.325	Airfield; perimeter fence located within primary surface	Miami County/ Bunker Hill ETJ	
52-11-31-200-006.000-017	016-41601-00		USA	14.323	Vacant (NE corner of North Clear Zone)	Miami County/ Bunker Hill ETJ	
52-10-36-400-002.000-017	016-17601-08	Fence Area #2	MCEDA	169.679	Vacant; perimeter fence located on primary surface boundary	Miami County	
52-10-36-200-001.000-017	016-17601-02		USA	36.21	Airfield/Taxiway G	Miami County	
52-13-11-200-001.000-005	03202-00		Rush, Eunice M.	55.34	Vacant/undeveloped	Miami County	

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND				PROPERTY INFORMATION AND BACKGROUND		
	Alt. Parcel Number	Description	Owner	Acres (Total) ¹	Current Occupant/Use	Jurisdiction	Asbestos Present
52-13-11-200-004.000-005	03202-01		Rush, Eunice M.	100	Farm	Miami County	
52-13-11-200-003.000-005	3202-02		Rush, Eunice M.	0.77	Vacant/undeveloped	Miami County	
09-15-03-300-009.000-012	001-009		Pullen, Marion C & Janet L	76.627	Farm	Cass County	
09-15-03-400-016.000-012	001-016		Pines, Joyce Lynn Etal	5.11	Vacant/undeveloped	Cass County	
09-15-03-400-019.000-012	001-019		USA	82.2	n/a	Cass County	
09-15-03-400-024.000-012	001-024		Brittany Farms, LLC	14	Vacant/undeveloped	Cass County	
09-15-10-200-002.000-012	010-002		Ladd Family Rev Tr	79.57	Vacant/undeveloped and partially forested	Cass County	
09-15-10-100-009.000-012	010-009		Pines, Joyce Lynn Etal (Richard & Nancy Obermeyer)	26.71	Vacant/undeveloped	Cass County	
09-15-10-100-011.000-012	010-011		Pines, Joyce Lynn Etal (Richard & Nancy Obermeyer)	1.74	Vacant/undeveloped	Cass County	
09-15-10-200-015.000-012	010-015	Fence Area #1	USA	54.64	Airfield (southern end of runway)	Cass County	
09-15-10-100-016.000-012	010-016		Ladd Family Rev Tr	35.493	Vacant/undeveloped	Cass County	
09-15-10-100-017.000-012	010-017		Ladd, John R	40	Vacant/undeveloped	Cass County	
09-15-10-100-019.000-012	010-019		Lieberman, Nicholas J & Smith, Gary Lee II	1.837	Vacant/undeveloped	Cass County	
09-15-10-400-003.001-012	010-023		Willson, Donald E & Patricia A	108.119	Vacant/undeveloped	Cass County	
Roads (E. CR. 950 S.; S. 500 W.)	--		public	n/a	Public roads		
52-13-02-100-001.001-005	--	Fence Area #2	Grissom Redev Auth (MCEDA)	43.06	Airfield/vacant; perimeter fence located on primary surface boundary	Miami County	
52-13-02-100-001.000-005	--	Fence Area #1	USA	109.085	Airfield	Miami County	

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND				PROPERTY INFORMATION AND BACKGROUND		
	Alt. Parcel Number	Description	Owner	Acres (Total) ¹	Current Occupant/Use	Jurisdiction	Asbestos Present
52-13-02-400-001.002-005	--		Ladd JB	56.531	Vacant	Miami County	
Road (W. 850 S.)	--		public	n/a	Public road		
52-10-36-200-002.000-017	--		USA	23.92	Airfield/Taxiway G	Miami County	
09-15-10-200-015.000-012	--	Fence Area #1	USA			Cass County	
52-13-11-200-002.000-005	--	Fence Area #1	USA	3.89	Airfield	Miami County	
52-13-02-300-005.000-005	--	Fence Area #1	USA	0.68	Airfield	Miami County	
52-13-02-300-004.000-005	--	Fence Area #1	USA	26.31	Airfield	Miami County	
52-13-02-300-001.000-005	--	Fence Area #1	USA	41	Airfield	Miami County	
52-13-02-100-001.000-005	--	Fence Area #1	USA	109.085	Airfield	Miami County	
52-13-02-100-001.001-005	--	Fence Area #2	MCEDA	43.06	Airfield/vacant	Miami County	
52-13-01-200-001.001-005	--	Fence Area #2	MCEDA	95.275	Airfield/vacant; perimeter fence located on primary surface boundary	Miami County	
52-10-36-300-001.001-017	--	Fence Area #2	MCEDA	17.314	Airfield/vacant; perimeter fence located on primary surface boundary	Miami County	
52-10-36-400-003.000-017	--	Fence Area #2	USA	4	Airfield; perimeter fence located within primary surface	Miami County	
52-10-36-100-002.000-017	--	Fence Area #2	USA	123.325		Miami County	
52-13-02-400-001.002-005	--	New Fence Area #2	Ladd Jb	56.531	Vacant	Miami County	

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND			OPERATIONAL AREA					
	Alt. Parcel Number	Description	Owner	North Clear Zone	South Clear Zone	500' VORTAC Standoff Area	1000' VORTAC Standoff Area	Taxiway Clearances	Primary Surface
52-10-25-300-001.043-017	--	Building 1	MCEDA	•					
52-10-36-200-001.003-017	--	Building 11	MCEDA	•					
		Building 22	MCEDA	•					
52-10-36-200-001.006-017	--	Building 20	MCEDA	•					• ³
52-10-25-300-001.044-017	--	Building 32	Ladd (private)	•					
52-10-25-300-033.555-017	--	Building 33	MCEDA	•					
52-10-25-300-001.005-017	016-12812-30	Building 37	L&L Prop. Mgmt. (private)	•					
52-10-36-200-038.555-017	016-55500-38	Building 38	MCEDA	•					
52-10-36-200-001.002-017	--		USA	•					
52-10-36-200-001.009-017	--		Peru Utility Service Board	•					
52-10-25-300-001.013-017 ⁴	016-12812-13		Heritage Museum Foundation	•					
52-10-25-300-001.000-017	016-12812-00		USA	•					
52-10-36-100-002.000-017	016-17601-03	Fence Area #2	USA	•					•
52-11-31-200-006.000-017	016-41601-00		USA	•					
52-10-36-400-002.000-017	016-17601-08	Fence Area #2	MCEDA	•					•
52-10-36-200-001.000-017	016-17601-02		USA	•				•	
52-13-11-200-001.000-005	03202-00		Rush, Eunice M.		•				

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND			OPERATIONAL AREA					
	Alt. Parcel Number	Description	Owner	North Clear Zone	South Clear Zone	500' VORTAC Standoff Area	1000' VORTAC Standoff Area	Taxiway Clearances	Primary Surface
52-13-11-200-004.000-005	03202-01		Rush, Eunice M.		•				
52-13-11-200-003.000-005	3202-02		Rush, Eunice M.		•				
09-15-03-300-009.000-012	001-009		Pullen, Marion C & Janet L		•				
09-15-03-400-016.000-012	001-016		Pines, Joyce Lynn Etal		•				
09-15-03-400-019.000-012	001-019		USA		•				
09-15-03-400-024.000-012	001-024		Brittany Farms, LLC		•				
09-15-10-200-002.000-012	010-002		Ladd Family Rev Tr		•				
09-15-10-100-009.000-012	010-009		Pines, Joyce Lynn Etal (Richard & Nancy Obermeyer)		•				
09-15-10-100-011.000-012	010-011		Pines, Joyce Lynn Etal (Richard & Nancy Obermeyer)		•				
09-15-10-200-015.000-012	010-015	Fence Area #1	USA		•				•
09-15-10-100-016.000-012	010-016		Ladd Family Rev Tr		•				
09-15-10-100-017.000-012	010-017		Ladd, John R		•				
09-15-10-100-019.000-012	010-019		Lieberman, Nicholas J & Smith, Gary Lee II		•				
09-15-10-400-003.001-012	010-023		Willson, Donald E & Patricia A		•				
Roads (E. CR. 950 S.; S. 500 W.)	--		public		•				
52-13-02-100-001.001-005	--	Fence Area #2	Grissom Redev Auth (MCEDA)			•	•		•
52-13-02-100-001.000-005	--	Fence Area #1	USA			•	•		•

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND			OPERATIONAL AREA					
	Alt. Parcel Number	Description	Owner	North Clear Zone	South Clear Zone	500' VORTAC Standoff Area	1000' VORTAC Standoff Area	Taxiway Clearances	Primary Surface
52-13-02-400-001.002-005	--		Ladd JB				•		• ⁷
Road (W. 850 S.)	--		public						•
52-10-36-200-002.000-017	--		USA					•	
09-15-10-200-015.000-012		Fence Area #1	USA						•
52-13-11-200-002.000-005	--	Fence Area #1	USA						•
52-13-02-300-005.000-005	--	Fence Area #1	USA						•
52-13-02-300-004.000-005	--	Fence Area #1	USA						•
52-13-02-300-001.000-005	--	Fence Area #1	USA						•
52-13-02-100-001.000-005	--	Fence Area #1	USA						•
52-13-02-100-001.001-005	--	Fence Area #2	MCEDA						•
52-13-01-200-001.001-005	--	Fence Area #2	MCEDA						•
52-10-36-300-001.001-017	--	Fence Area #2	MCEDA						•
52-10-36-400-003.000-017	--	Fence Area #2	USA						•
52-10-36-100-002.000-017	--	Fence Area #2	USA						•
52-13-02-400-001.002-005		New Fence Area #2	Ladd Jb						•

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND			EXISTING PROTECTIONS				
	Alt. Parcel Number	Description	Owner	Easement	Deed Restriction	Interlocal Agreement	USAF Ownership	Zoning Overlay District
52-10-25-300-001.043-017	--	Building 1	MCEDA		•			•
52-10-36-200-001.003-017	--	Building 11	MCEDA		• ²			•
		Building 22	MCEDA		• ²			•
52-10-36-200-001.006-017	--	Building 20	MCEDA		• ²			•
52-10-25-300-001.044-017	--	Building 32	Ladd (private)		•			•
52-10-25-300-033.555-017	--	Building 33	MCEDA		• ²			•
52-10-25-300-001.005-017	016-12812-30	Building 37	L&L Prop. Mgmt. (private)		•			•
52-10-36-200-038.555-017	016-55500-38	Building 38	MCEDA		• ²			•
52-10-36-200-001.002-017	--		USA				•	
52-10-36-200-001.009-017	--		Peru Utility Service Board					•
52-10-25-300-001.013-017 ⁴	016-12812-13		Heritage Museum Foundation					•
52-10-25-300-001.000-017	016-12812-00		USA				•	
52-10-36-100-002.000-017	016-17601-03	Fence Area #2	USA				•	
52-11-31-200-006.000-017	016-41601-00		USA				•	
52-10-36-400-002.000-017	016-17601-08	Fence Area #2	MCEDA			•		•
52-10-36-200-001.000-017	016-17601-02		USA				•	
52-13-11-200-001.000-005	03202-00		Rush, Eunice M.					•

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND			EXISTING PROTECTIONS				
	Alt. Parcel Number	Description	Owner	Easement	Deed Restriction	Interlocal Agreement	USAF Ownership	Zoning Overlay District
52-13-11-200-004.000-005	03202-01		Rush, Eunice M.					•
52-13-11-200-003.000-005	3202-02		Rush, Eunice M.		•			•
09-15-03-300-009.000-012	001-009		Pullen, Marion C & Janet L	•				•
09-15-03-400-016.000-012	001-016		Pines, Joyce Lynn Etal	•				•
09-15-03-400-019.000-012	001-019		USA				•	
09-15-03-400-024.000-012	001-024		Brittany Farms, LLC	• ⁵				•
09-15-10-200-002.000-012	010-002		Ladd Family Rev Tr	•				•
09-15-10-100-009.000-012	010-009		Pines, Joyce Lynn Etal (Richard & Nancy Obermeyer)	•				•
09-15-10-100-011.000-012	010-011		Pines, Joyce Lynn Etal (Richard & Nancy Obermeyer)	•				•
09-15-10-200-015.000-012	010-015	Fence Area #1	USA				•	
09-15-10-100-016.000-012	010-016		Ladd Family Rev Tr	•				•
09-15-10-100-017.000-012	010-017		Ladd, John R	•				•
09-15-10-100-019.000-012	010-019		Lieberman, Nicholas J & Smith, Gary Lee II	•				•
09-15-10-400-003.001-012	010-023		Willson, Donald E & Patricia A					•
Roads (E. CR. 950 S.; S. 500 W.)	--		public					
52-13-02-100-001.001-005	--	Fence Area #2	Grissom Redev Auth (MCEDA)			•		• ⁶
52-13-02-100-001.000-005	--	Fence Area #1	USA				•	

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND			EXISTING PROTECTIONS				
	Alt. Parcel Number	Description	Owner	Easement	Deed Restriction	Interlocal Agreement	USAF Ownership	Zoning Overlay District
52-13-02-400-001.002-005	--		Ladd JB					• ⁶
Road (W. 850 S.)	--		public					
52-10-36-200-002.000-017	--		USA				•	
09-15-10-200-015.000-012		Fence Area #1	USA				•	
52-13-11-200-002.000-005	--	Fence Area #1	USA				•	
52-13-02-300-005.000-005	--	Fence Area #1	USA				•	
52-13-02-300-004.000-005	--	Fence Area #1	USA				•	
52-13-02-300-001.000-005	--	Fence Area #1	USA				•	
52-13-02-100-001.000-005	--	Fence Area #1	USA				•	
52-13-02-100-001.001-005	--	Fence Area #2	MCEDA					
52-13-01-200-001.001-005	--	Fence Area #2	MCEDA			•		•
52-10-36-300-001.001-017	--	Fence Area #2	MCEDA			•		•
52-10-36-400-003.000-017	--	Fence Area #2	USA				•	
52-10-36-100-002.000-017	--	Fence Area #2	USA				•	
52-13-02-400-001.002-005		New Fence Area #2	Ladd Jb					

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND			REMOVAL, CLEARANCE, OR RELOCATION ACTIONS					
	Alt. Parcel Number	Description	Owner	Building or Infrastructure Demolition	Building Reconstruction Outside CZ	Business Relocation	Tree and/or Utility Removal	Perimeter Fence Waiver	Perimeter Fence Removal
52-10-25-300-001.043-017	--	Building 1	MCEDA	•	•	•	•		
52-10-36-200-001.003-017	--	Building 11	MCEDA	•	•	•	•		
		Building 22	MCEDA	•			•		
52-10-36-200-001.006-017	--	Building 20	MCEDA	•					
52-10-25-300-001.044-017	--	Building 32	Ladd (private)	•		unknown	•		
52-10-25-300-033.555-017	--	Building 33	MCEDA	•	•		•		
52-10-25-300-001.005-017	016-12812-30	Building 37	L&L Prop. Mgmt. (private)	•	•	•	•		
52-10-36-200-038.555-017	016-55500-38	Building 38	MCEDA	•	•	•	•		
52-10-36-200-001.002-017	--		USA						
52-10-36-200-001.009-017	--		Peru Utility Service Board				•		
52-10-25-300-001.013-017 ⁴	016-12812-13		Heritage Museum Foundation						
52-10-25-300-001.000-017	016-12812-00		USA				•		
52-10-36-100-002.000-017	016-17601-03	Fence Area #2	USA						•
52-11-31-200-006.000-017	016-41601-00		USA						
52-10-36-400-002.000-017	016-17601-08	Fence Area #2	MCEDA						•
52-10-36-200-001.000-017	016-17601-02		USA	•					

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND			REMOVAL, CLEARANCE, OR RELOCATION ACTIONS					
	Alt. Parcel Number	Description	Owner	Building or Infrastructure Demolition	Building Reconstruction Outside CZ	Business Relocation	Tree and/or Utility Removal	Perimeter Fence Waiver	Perimeter Fence Removal
52-13-11-200-001.000-005	03202-00		Rush, Eunice M.						
52-13-11-200-004.000-005	03202-01		Rush, Eunice M.				•		
52-13-11-200-003.000-005	3202-02		Rush, Eunice M.						
09-15-03-300-009.000-012	001-009		Pullen, Marion C & Janet L						
09-15-03-400-016.000-012	001-016		Pines, Joyce Lynn Etal						
09-15-03-400-019.000-012	001-019		USA						
09-15-03-400-024.000-012	001-024		Brittany Farms, LLC						
09-15-10-200-002.000-012	010-002		Ladd Family Rev Tr				•		
09-15-10-100-009.000-012	010-009		Pines, Joyce Lynn Etal (Richard & Nancy Obermeyer)						
09-15-10-100-011.000-012	010-011		Pines, Joyce Lynn Etal (Richard & Nancy Obermeyer)						
09-15-10-200-015.000-012	010-015	Fence Area #1	USA					•	
09-15-10-100-016.000-012	010-016		Ladd Family Rev Tr						
09-15-10-100-017.000-012	010-017		Ladd, John R						
09-15-10-100-019.000-012	010-019		Lieberman, Nicholas J & Smith, Gary Lee II						
09-15-10-400-003.001-012	010-023		Willson, Donald E & Patricia A						
Roads (E. CR. 950 S.; S. 500 W.)	--		public						

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND			REMOVAL, CLEARANCE, OR RELOCATION ACTIONS					
	Alt. Parcel Number	Description	Owner	Building or Infrastructure Demolition	Building Reconstruction Outside CZ	Business Relocation	Tree and/or Utility Removal	Perimeter Fence Waiver	Perimeter Fence Removal
52-13-02-100-001.001-005	--	Fence Area #2	Grissom Redev Auth (MCEDA)						•
52-13-02-100-001.000-005	--	Fence Area #1	USA					•	
52-13-02-400-001.002-005	--		Ladd JB						
Road (W. 850 S.)	--		public						
52-10-36-200-002.000-017	--		USA	•					
09-15-10-200-015.000-012		Fence Area #1	USA					•	
52-13-11-200-002.000-005	--	Fence Area #1	USA					•	
52-13-02-300-005.000-005	--	Fence Area #1	USA					•	
52-13-02-300-004.000-005	--	Fence Area #1	USA					•	
52-13-02-300-001.000-005	--	Fence Area #1	USA					•	
52-13-02-100-001.000-005	--	Fence Area #1	USA					•	
52-13-02-100-001.001-005	--	Fence Area #2	MCEDA						•
52-13-01-200-001.001-005	--	Fence Area #2	MCEDA						•
52-10-36-300-001.001-017	--	Fence Area #2	MCEDA						•
52-10-36-400-003.000-017	--	Fence Area #2	USA						•
52-10-36-100-002.000-017	--	Fence Area #2	USA						•

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND			POTENTIAL TOOLS FOR LONG-TERM PROTECTION				
	Alt. Parcel Number	Description	Owner	Easement	Purchase/ Voluntary Sale	Land Swap	Contractual Agreement	Zoning
52-10-25-300-001.043-017	--	Building 1	MCEDA		•	•	•	•
52-10-36-200-001.003-017	--	Building 11	MCEDA		•	•	•	•
		Building 22	MCEDA		•	•	•	•
52-10-36-200-001.006-017	--	Building 20	MCEDA		•	•	•	•
52-10-25-300-001.044-017	--	Building 32	Ladd (private)		•	•		•
52-10-25-300-033.555-017	--	Building 33	MCEDA		•	•	•	•
52-10-25-300-001.005-017	016-12812-30	Building 37	L&L Prop. Mgmt. (private)		•	•		•
52-10-36-200-038.555-017	016-55500-38	Building 38	MCEDA		•	•	•	•
52-10-36-200-001.002-017	--		USA					
52-10-36-200-001.009-017	--		Peru Utility Service Board	•	•	•	•	•
52-10-25-300-001.013-017 ⁴	016-12812-13		Heritage Museum Foundation	•	•	•	•	•
52-10-25-300-001.000-017	016-12812-00		USA					
52-10-36-100-002.000-017	016-17601-03	Fence Area #2	USA					
52-11-31-200-006.000-017	016-41601-00		USA					
52-10-36-400-002.000-017	016-17601-08	Fence Area #2	MCEDA	•	•	•	•	
52-10-36-200-001.000-017	016-17601-02		USA					
52-13-11-200-001.000-005	03202-00		Rush, Eunice M.	•	•	•		•

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND			POTENTIAL TOOLS FOR LONG-TERM PROTECTION				
	Alt. Parcel Number	Description	Owner	Easement	Purchase/ Voluntary Sale	Land Swap	Contractual Agreement	Zoning
52-13-11-200-004.000-005	03202-01		Rush, Eunice M.	•	•	•		•
52-13-11-200-003.000-005	3202-02		Rush, Eunice M.	•				•
09-15-03-300-009.000-012	001-009		Pullen, Marion C & Janet L					•
09-15-03-400-016.000-012	001-016		Pines, Joyce Lynn Etal					•
09-15-03-400-019.000-012	001-019		USA					
09-15-03-400-024.000-012	001-024		Brittany Farms, LLC					•
09-15-10-200-002.000-012	010-002		Ladd Family Rev Tr					•
09-15-10-100-009.000-012	010-009		Pines, Joyce Lynn Etal (Richard & Nancy Obermeyer)	•	•	•		•
09-15-10-100-011.000-012	010-011		Pines, Joyce Lynn Etal (Richard & Nancy Obermeyer)					•
09-15-10-200-015.000-012	010-015	Fence Area #1	USA					
09-15-10-100-016.000-012	010-016		Ladd Family Rev Tr					•
09-15-10-100-017.000-012	010-017		Ladd, John R					•
09-15-10-100-019.000-012	010-019		Lieberman, Nicholas J & Smith, Gary Lee II					•
09-15-10-400-003.001-012	010-023		Willson, Donald E & Patricia A	•	•	•		•
Roads (E. CR. 950 S.; S. 500 W.)	--		public	<i>Further evaluation and study required.</i>				
52-13-02-100-001.001-005	--	Fence Area #2	Grissom Redev Auth (MCEDA)	•	•	•	•	
52-13-02-100-001.000-005	--	Fence Area #1	USA					

PARCEL NUMBER	PROPERTY INFORMATION AND BACKGROUND			POTENTIAL TOOLS FOR LONG-TERM PROTECTION				
	Alt. Parcel Number	Description	Owner	Easement	Purchase/ Voluntary Sale	Land Swap	Contractual Agreement	Zoning
52-13-02-400-001.002-005	--		Ladd JB	•	•	•		
Road (W. 850 S.)	--		public					
52-10-36-200-002.000-017	--		USA					
09-15-10-200-015.000-012		Fence Area #1	USA					
52-13-11-200-002.000-005	--	Fence Area #1	USA					
52-13-02-300-005.000-005	--	Fence Area #1	USA					
52-13-02-300-004.000-005	--	Fence Area #1	USA					
52-13-02-300-001.000-005	--	Fence Area #1	USA					
52-13-02-100-001.000-005	--	Fence Area #1	USA					
52-13-02-100-001.001-005	--	Fence Area #2	MCEDA					
52-13-01-200-001.001-005	--	Fence Area #2	MCEDA	•	•	•	•	
52-10-36-300-001.001-017	--	Fence Area #2	MCEDA	•	•	•	•	
52-10-36-400-003.000-017	--	Fence Area #2	USA					
52-10-36-100-002.000-017	--	Fence Area #2	USA					
52-13-02-400-001.002-005		New Fence Area #2	Ladd Jb	•	•	•		

Operational Areas Parcel Summary Footnotes

¹ The figures in this column specify total parcel acreage (based on Miami or Cass County tax records). For parcels located in the Clear Zones, Figures 3 and 4 in Section 2: Existing Protections Around Grissom ARB identify the acreage located within the Clear Zone for each parcel.

² While the deed for this parcel does not provide explicit restrictions related to the Clear Zone, MCEDA has, in practice, applied these restrictions to all properties it owns in the North Clear Zone.

³ A portion of this parcel is within the Primary Surface. However, Building 20 is not located within the Primary Surface.

⁴ A very small portion of this parcel is located in the North Clear Zone. This portion of the parcel is located along the edge of W. Hoosier Boulevard, and does not have trees or structures that need to be removed. See Figure 3 in Section 2: Existing Protections Around Grissom ARB. While the museum itself is not located in the CZ, it is located within APZ-I and considered an incompatible land use under current DoD and Air Force guidance (see Grissom ARB JLUS, Figure 3-32, p. 112).

⁵ Existing easement appears to exclude a small portion of the Clear Zone.

⁶ These parcels are included in the Miami County Grissom ARB Overlay District; however, the overlay district does not explicitly protect the VORTAC Standoff Areas.

⁷ It appears the edge of the primary surface crosses the very tip of the corner of this parcel.

APPENDIX B: Grissom ARB Operational Areas Existing Conditions, Demolition Plans, Relocation Plan, and Cost Estimates

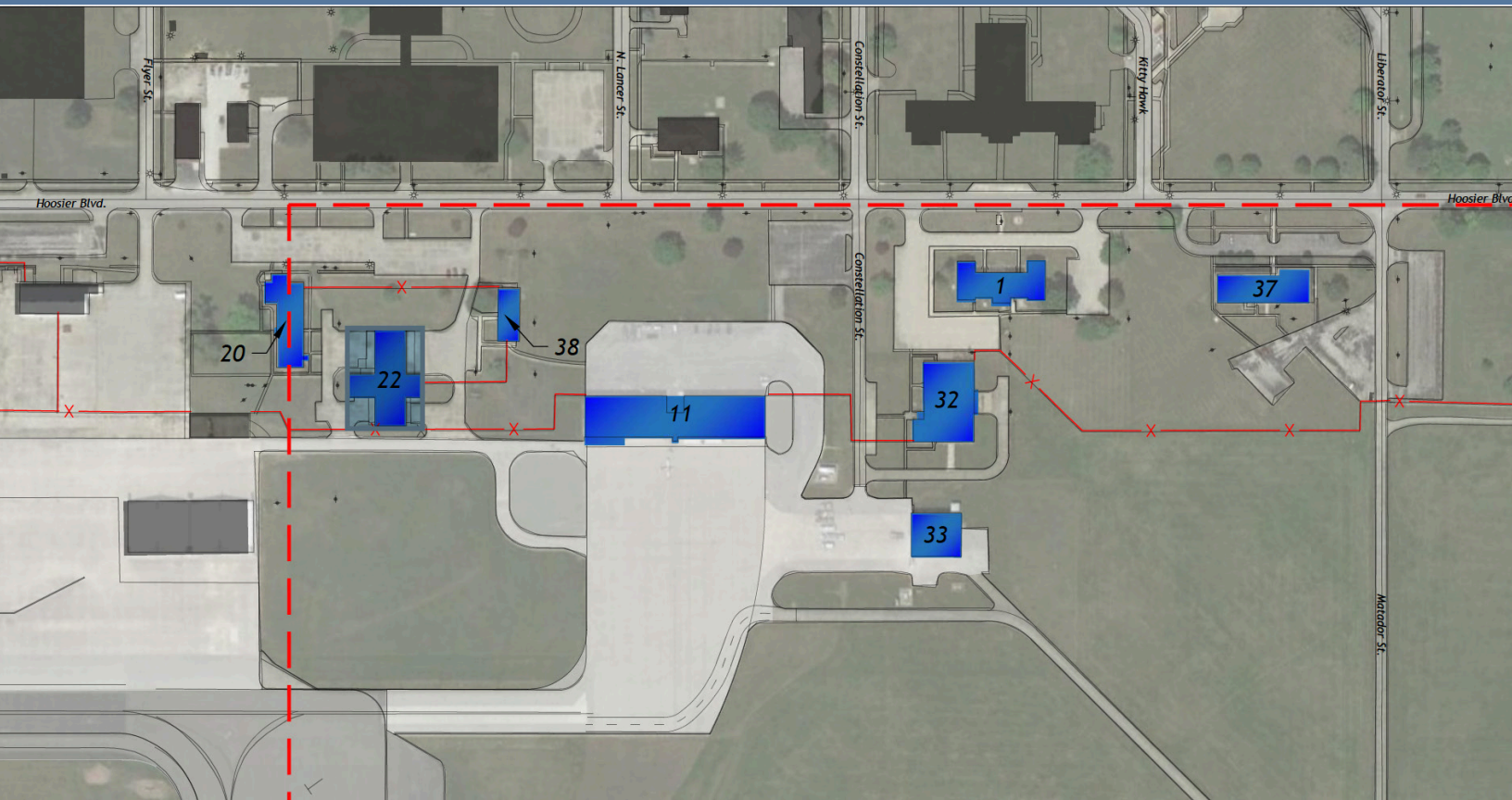


TABLE OF CONTENTS

1 INTRODUCTION	B-1
1.1 Grissom ARB Operational Areas Existing Conditions, Demolition Plans, Relocation Plan, and Cost Estimates	B-2
1.1.1 Runway Clear Zones	B-2
1.1.2 VORTAC Standoff Area	B-10
1.1.3 Taxiway Clearance Standards	B-13
1.1.4 Imaginary Surfaces	B-16
2 NORTH CLEAR ZONE DEMO PLAN & COST ESTIMATES	B-21
2.1 Northeast Clear Zone Development Guidance Criteria	B-21
2.2 Runway 23 (Northeast) Clear Zone	B-22
2.3 Demolition Plans	B-23
2.3.1 Rough Order-of-Magnitude Cost Estimate Components	B-26
2.3.2 Demolition Zone A	B-27
2.3.3 Demolition Zone B	B-31
2.3.4 Demolition Zone C	B-35
2.3.5 Demolition Zone D	B-39
2.3.6 Demolition Zone E	B-43
2.3.7 Demolition Zone F	B-47
2.3.8 Demolition Zone G	B-51
2.3.9 Demolition Zone H	B-55
2.3.10 Demolition Zone X	B-59
3 RELOCATION RECOMMENDATIONS & COST ESTIMATES	B-62
3.1 Preparation of Relocation Sites & Cost Estimates	B-62
3.1.1 Demolition Plan	B-62
3.2 Recommended Relocation Sites	B-75
3.2.1 Relocation Concept 1A: Separate Facilities	B-75
3.2.2 Relocation Concept 1B: Consolidated FBO and MCEDA Offices ...	B-76
3.2.3 Relocation Concept 2: Separate Facilities and Business Plaza	B-76
3.3 Cost Estimates	B-80
3.4 Operational Areas Action Plan Recommendations	B-80

3.4.1 Recommended Relocation Plan, A Phased Approach B-81

APPENDIX A – PERIMETER FENCE REPLACEMENT COSTSB-84

APPENDIX B – COST ESTIMATESB-85

APPENDIX C – RELOCATION COST ESTIMATES B-106

LIST OF FIGURES

Figure 1-1 – Runway 5/23 Clear ZonesB-3

Figure 1-2 – Runway 23 (Northeast) Clear ZoneB-7

Figure 1-3 – Runway 5 (Southwest) Clear ZoneB-9

Figure 1-4 – VORTAC Standoff Areas B-12

Figure 1-5 – Taxiway ‘G’ Apron Removal B-14

Figure 1-6 – Taxiway ‘G’ Potential Layout..... B-15

Figure 1-7 – UFC 3-260-01 Imaginary Surfaces B-16

Figure 1-8 – Runway 5/23 Approach-Departure, and Transitional Surfaces B-19

Figure 1-9 – Primary Surface & Perimeter Fence..... B-20

Figure 2-1 – GUS Runway 23 (Northeast) Clear Zone and Graded Area B-23

Figure 2-2 – Index-1: Demolition Plan (Overview)..... B-24

Figure 2-3 – Index-2: Remaining (Overview) B-25

Figure 2-4 – Exhibit A-1: Demolition Plan B-29

Figure 2-5 – Exhibit A-2: Remaining B-30

Figure 2-6 – Exhibit B-1: Demolition Plan B-33

Figure 2-7 – Exhibit B-2: Remaining B-34

Figure 2-8 – Exhibit C-1: Demolition Plan B-37

Figure 2-9 – Exhibit C-2: Remaining B-38

Figure 2-10 – Exhibit D-1: Demolition Plan B-41

Figure 2-11 – Exhibit D-2: Remaining..... B-42

Figure 2-12 – Exhibit E-1: Demolition Plan B-45

Figure 2-13 – Exhibit E-2: Remaining B-46

Figure 2-14 – Exhibit F-1: Demolition Plan B-49

Figure 2-15 – Exhibit F-2: Remaining B-50

Figure 2-16 – Exhibit G-1: Demolition Plan B-53

Figure 2-17 – Exhibit G-2: Remaining B-54

Figure 2-18 – Exhibit H-1: Demolition Plan B-57

Figure 2-19 – Exhibit H-2: Remaining..... B-58

Figure 2-20 – Exhibit X-1: Demolition Plan B-60

Figure 2-21 – Exhibit X-2: Remaining B-61

Figure 3-1 – Overview of Demolition Zones for Preparation of Relocation B-63

Figure 3-2 – Zone 1 B-64

Figure 3-3 – Zone 2 B-65

Figure 3-4 – Zone 3 B-66

Figure 3-5 – Zone 4 B-67

Figure 3-6 – Zone 5 B-68

Figure 3-7 – Zones 6 & 7 B-69

Figure 3-8 – Zone 8 B-70

Figure 3-9 – Zones 9 & 10 B-72

Figure 3-10 – Zone 11 B-73

Figure 3-11 – Zone 12 B-74

Figure 3-12 – Relocation Concept 1A: Separate Facilities B-77

Figure 3-13 – Relocation Concept 1B: Consolidated FBO and MCEDA Offices B-78

Figure 3-14 – Relocation Concept 2: Separate Facilities and Business Plaza B-79

Figure 3-15 – Recommended Relocation Plan B-83

LIST OF TABLES

Table 1-1 – Runway Classification by Aircraft TypeB-2

Table 1-2 – Clear Zone Uses (AFI 32-7063)B-4

Table 1-3 – Runway 23 (Northeast) Clear Zone StructuresB-6

Table 1-4 – Runway 5 (Southwest) Clear ZoneB-8

Table 1-5 – VORTAC Standoff Area Requirements B-10

Table 1-6 – Land within the VORTAC Standoff Area B-11

Table 1-7 – Parcels Within the Primary Surface Containing Perimeter Fencing B-17

Table 1-8 – Perimeter Fence Replacement Costs B-18

Table 2-1 – Runway 23 (Northeast) Clear Zone Structures B-23

Table 2-2 – Demolition Zone A B-28

Table 2-3 – Demolition Zone B B-32

Table 2-4 – Demolition Zone C B-36

Table 2-5 – Demolition Zone D B-40

Table 2-6 – Demolition Zone E B-44

Table 2-7 – Demolition Zone F B-48

Table 2-8 – Demolition Zone G B-52

Table 2-9 – Demolition Zone H B-56

Table 2-10 – Demolition Zone X B-59

Table 3-1 – Runway 23 (Northeast) Clear Zone Structures	B-62
Table 3-2 – Zone 1	B-64
Table 3-3 – Zone 2	B-65
Table 3-4 – Zone 3	B-66
Table 3-5 – Zone 4	B-67
Table 3-6 – Zone 5	B-68
Table 3-7 – Zones 6 & 7	B-69
Table 3-8 – Zone 8	B-70
Table 3-9 – Zones 9 & 10	B-71
Table 3-10 – Zone 11	B-73
Table 3-11 – Zone 12	B-74
Table 3-12 – Total Programmatic Costs for Relocation	B-82

1 INTRODUCTION

In 2018, a Joint Land Use Study (JLUS) was completed for the Grissom Air Reserve Base (GARB or GUS) to evaluate compatibility between military and civilian operations and local governments within the Miami and Cass County, Indiana areas. As a product of the GARB JLUS, several identified conflicts were evaluated and strategies to provide conflict resolution were developed based upon a conflict and compatibility analysis.

To enhance the Airport's land use compatibility with the military and civilian components of the airfield, the GARB JLUS presented an Implementation Plan as a mechanism to initiate resolution strategies designed to mitigate conflicts between military and civilian operations. Included within the Implementation Plan were several "operational areas" related to the GARB 434th Air Refueling Wing's operations including:

- Runway clear zone standards
- VORTAC standoff areas
- Taxiway clearance standards
- Primary airspace surface requirements related to perimeter fencing

The following sections discuss existing facilities and infrastructures within the listed operational areas. Each facet of the operational area is then evaluated against federal airfield design standards, including:

- Department of Defense (DoD) Unified Facilities Criteria (UFC) 3-260-01, *Airfield & Heliport Planning and Design*: Provides requirements for evaluating, planning, programming, and designing Army, Navy, and Air Force airfields and heliports
- Air Force Instruction (AFI) 32-7063, *Air Installations Compatible Use Zones (AICUZ) Program*: Covers policies and guidelines to identify incompatible uses at military installations
- Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5300-13A, *Airport Design*: Contains the FAA's standards and recommendations for airport design
- Title 14 Code of Federal Regulations (CFR) Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*: Standards used to determine obstructions to air navigation and navigational communication facilities

As a result of the analyses, an operational recommendation is provided, including a plan for the demolition and relocation/reconstruction of structures where applicable.

1.1 GRISSOM ARB OPERATIONAL AREAS EXISTING CONDITIONS, DEMOLITION PLANS, RELOCATION PLAN, AND COST ESTIMATES

1.1.1 Runway Clear Zones

According to Unified Facilities Criteria (UFC) 3-260-01, *Airfield and Heliport Planning and Design*, a runway clear zone is defined as, “an area on the ground, located at the ends of each runway. They possess a high potential for accidents, and their use is restricted to be compatible with aircraft operations.”

The dimensional standards for each clear zone vary by military branch and runway type. Although both the Marine Corps and Army Reserve maintain a presence at GUS, the facility is one of only five Air Force Reserve Command bases within the United States with the primary mission of supporting the 434th Air Refueling Wing; which operates KC-135R Stratotanker aircraft. As such, per UFC 3-260-01 and in accordance with Air Force standards, Runway 5/23 at GUS is designated as a Class B runway supporting high-performance and large, heavy aircraft. **Table 1-1** lists Class A and B runway classifications by individual military aircraft type.

Table 1-1 – Runway Classification by Aircraft Type

Class A Runway Aircraft		Class B Runway Aircraft		
C-1	OV-10	A-4	E-3	P-3
C-2	T-3	A-6	E-4	P-8
C-12	T-6 (Navy)	EA-6B	E-6	RQ-4
C-20	T-28	A-10	E-8	RQ-9
C-21	T-34	AV-8	EA-18	MQ-4
C-22	T-41	B-1	R/F-4	S-3
C-23	T-44	B-2	F-5	T-1
C-26	U-21	B-52	F-15	T-2
C-37	UC-35	C-5	F-16	T-6 (Air Force)
C-38	UV-18	C-9	E/F/A-18	T-38
E-1	V-22	KC-10	F-22	T-43
E-2	DASH-7	KC-135*	F-35	T-45
MQ-1	DASH-8	KC-46		TR-1
		C-17		U-2
		C-27J		VC-25
		C-32		
		C-40		
		C-130		
		C-135		
		C-137		

*KC-135R is utilized by the GARB 434th Air Refueling wing

Source: UFC 3-260-01, CHA, 2019.

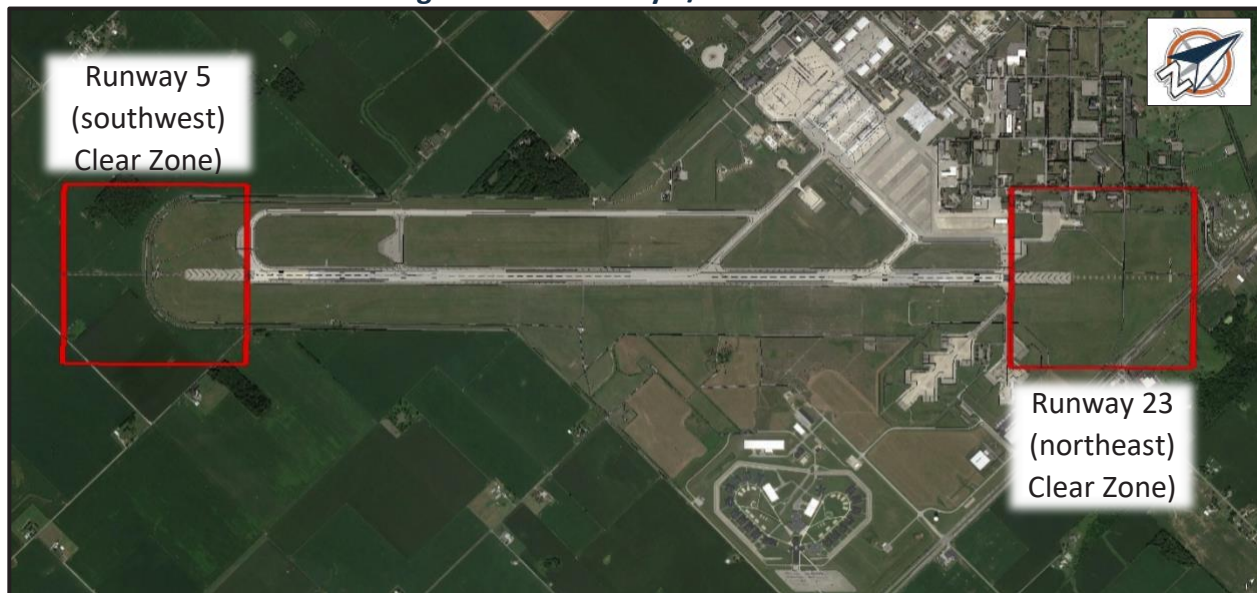
According to UFC 3-260-01 standards, an Air Force Class B runway clear zone (CZ) begins at each runway threshold and extends 3,000 feet in length by 3,000 feet in width. As such, there are two military clear zones at GUS [Runway 23 (northeast) CZ and Runway 5 (southwest) CZ]. Per UFC 3-260-01, the area within each CZ should be owned or protected under long-term lease.

In addition, each Air Force CZ contains a:

- Graded Area, which is 1,000 feet in length by 2,000 feet in width beginning at each runway threshold. Per UFC 3-260-01, the graded area of each CZ, *“is to be cleared and grubbed of stumps and free of abrupt surface irregularities, ditches, and ponding areas. No aboveground structures, objects, or roadways (except air traffic control-controlled service roads to arresting gear or NAVAIDs) are permitted in the area to be graded...”*. Perimeter fencing is allowed within the area of the CZ; however, it must be located outside of that which is graded. UFC 3-260-01 further states that gentle swales, subsurface drainage, covered culverts and underground structures are permissible within the graded area.
- Mandatory Frangibility Zone (MFZ), which begins at each runway threshold and extends at a width of 500 feet to the end of the CZ if on property owned or controlled by the Air Force, or to the base boundary if an aviation easement does not exist. Per UFC 3-260-01, *“items that must be sited there [i.e., the MFZ] due to their function must be made frangible, semi-frangible or low impact resistant to the maximum extent possible. Items that cannot be made frangible (such as highway guard rails) but must be located within this area for urgent and compelling reasons must be waived by the MAJCOM or USAASA.”*

Figure 1-1 depicts both the Runway 5 (i.e., southwest) and Runway 23 (i.e., northeast) CZs at GUS.

Figure 1-1 – Runway 5/23 Clear Zones



Source: CHA, 2019, Google Maps

Regulations pertaining to military CZs at Air Force airfields are further detailed in Air Force Instruction (AFI) 32-7063, Air Installations Compatible Use Zones Program, which outlines prohibited and allowable uses (see **Table 1-2**).

Table 1-2 – Clear Zone Uses (AFI 32-7063)

Allowable	Exceptions
Navigational Aids	Depending on function (approval required)
Agriculture	Orchards/trees, grains, or other crops/vegetation that may unnecessarily attract birds or other wildlife
Livestock grazing	Feed and dairy lots
Permanent open space	-
Existing water areas	Water areas that attract birds or other wildlife that may increase the risk of an aircraft strike
Right-of-Ways (i.e., single track railroads, fenced two-lane roads without sidewalks, and bicycle trails)	Ways violating obstacle clearance criteria or the graded portion within the clear zone
Right-of-Ways (i.e., communications and utilities)	Facilities and equipment above-grade / above-ground
Prohibited	
A use that releases any substance into the air that would impair visibility or otherwise interfere with operating aircraft, such as, but not limited to steam, dust, and smoke.	
A use that produces electrical emissions which would interfere with aircraft and Air Force communications equipment, navigational aid systems, radar, weapons systems, or aircraft navigational equipment.	
A use that produces light emissions, either direct or indirect (reflections, glare, etc.), which might interfere with a pilot's or air traffic control personnel's vision.	
A use that would unnecessarily attract birds, waterfowl, or other animals, such as, but not limited to, operation of sanitary landfills, maintenance of feeding stations, or growing certain types of crops or vegetation.	
Explosives facilities or activities as described in AFMAN 91-201, Explosive Safety Standards.	

Source: AFI 32-7063, CHA, 2019.

Runway 23 (Northeast) Clear Zone

Within the Runway 23 CZ (**Figure 1-2**) are eight buildings and associated facilities; each being owned and operated by either the Miami County Economic Development Authority (MCEDA) or by private individuals. The following provides a brief overview of each building:

- **Building 1:** This building was constructed in 1942 and is owned and operated by MCEDA. The building is a two-story structure consisting of 12,700 square feet with office space and conference rooms used for MCEDA, several tenants, and public meeting space. The building is primarily occupied by MCEDA for use as their operational headquarters; however, as MCEDA does not require the entire building footprint some office space is leased by Xerox and the North Central Indiana Regional Planning Council. In 1993, an investigation was conducted regarding hazardous materials within the building. At the conclusion of the investigation, findings reported the presence of asbestos inside the building, as well as within the exterior siding and shingles.
- **Building 11:** This building was constructed in 1956 and is currently used for civilian aviation Fixed Base Operator (FBO) operations. Both ownership of the FBO and operation of the building and its activities are maintained by MCEDA. It is important to note that an asbestos survey conducted in 1995 indicated the presence of the hazardous material

around the air handling unit on the second-floor of the main building; however, corrective actions may have occurred since the initial study, thus eliminating or containing the asbestos.

Building 11 consists of 22,174 square feet with two hangar units, each providing two bays (i.e., four hangar units total). Three of the hangar bays are used for based civilian aircraft storage and MCEDA operations, while one bay is leased and occupied by the American Huey 369 (helicopter) Museum. An asbestos survey conducted in 1995 indicated the presence of the hazardous material around the air handling unit on the second-floor of the main building; however, corrective actions may have occurred since the initial study, thus eliminating or containing the asbestos.

Additionally, it is important to note that two 2,000-gallon fuel storage tanks (storing Jet-A and 100LL fuel) are located east of and adjacent to Building 11. This fuel farm is owned and operated by MCEDA and used for civilian aircraft refueling.

- **Building 20:** This building was constructed in 1956 and is owned and operated by MCEDA. The building is a two-story structure consisting of 15,870 square feet of space that was formerly used for office space. The building is currently vacant. In 1993, an investigation was conducted that indicated the presence of asbestos material throughout the interior of the building. Asbestos was found within the mechanical room, in water lines above the plaster ceiling, in numerous insulation materials, in numerous floor tiles (some which were under carpeting), and within the plaster and drywall materials. The investigation further indicated that asbestos is likely within other areas of the building as well.
- **Building 22:** This building was constructed in 1956 and is owned and operated by MCEDA. The building consists of 10,471 square feet. The space was formerly used for office space but is now used by MCEDA and the FBO for airfield-related storage (e.g., airfield maintenance equipment, FBO operational equipment, landscape maintenance machinery, etc.). A hazardous material survey conducted in 1995 indicated the presence of asbestos within the piping insulation and in various areas within the building's mechanical rooms.
- **Building 32:** This building was constructed in 1961 and is currently privately owned and operated. The building consists of 12,966 square feet and is partially outfitted for private aircraft storage. At the time of this Study, information was not available regarding whether asbestos or other hazardous materials are present within Building 32.
- **Building 33:** This building was constructed in 1961 and is owned and operated by MCEDA. The building was constructed as a box hangar and encompasses approximately 6,637 square feet with small office space at the northeast and southwest corners. In 1993, a report indicated that the building contains asbestos within numerous fittings (i.e., pipe fittings [elbows]), floor tiles, and window caulking; however, corrective or containment measures may have been taken since the initial report.

Currently, MCEDA utilizes the building for equipment (e.g., snow removal, aircraft de-icing, etc.) storage and is at maximum capacity. A high-pressure water pump station is located south of and adjacent to the building.

- **Building 37:** This building was constructed in 1973 and is privately owned and operated. A study conducted in 1995 regrading hazardous material indicated that no asbestos content is within the building materials utilized in the construction of Building 37. The building is a two-story structure consisting of 25,689 square feet. Although the building is used partially as a dental clinic, most of the building remains unoccupied.
- **Building 38:** The year of construction for this building is unknown; however, based upon adjacent structures, it is likely that it was constructed between 1950 and the early 1960s. A study in 1995 indicated that no asbestos-containing materials were utilized in the construction of Building 38. The building consists of approximately 3,000 square feet and is owned by MCEDA; however, Indiana MENTOR Day Services currently occupies this building.

Table 1-3 summarizes the structures within the Runway 23 CZ, and **Figure 1-2** depicts the area.

Table 1-3 – Runway 23 (Northeast) Clear Zone Structures

Building Number/Facility	Owner	Dedicated Use	Year of Construction	Parcel Acreage		Building Size (SF)	Parcel Number
				Within CZ	Total		
1	MCEDA	Administration	1942	2.78	2.78	12,700	52-10-25-300-001.043-017
11	MCEDA	FBO & Fuel Farm	1956	17.95*	17.95*	22,174	52-10-36-200-001.003-017
20	MCEDA	Administration	1956	0.87	16.1	15,870	52-10-36-200-001.006-017
22	MCEDA	Administration	1956	17.95	17.95	10,471	52-10-36-200-001.003-017
32	Ladd, Franklin W. & Deborah E.	Private	1961	2.15	2.15	12,966	52-10-25-300-001.044-017
33	MCEDA	FBO	1961	1.27*	1.27*	6,637	52-10-25-300-033.555-017
37	L & L Property Management Llc.	Office/Medical	1973	4.48	4.48	25,689	52-10-25-300-001.005-017
38	MCEDA	Lease/Educational	Unknown	1.34	1.34	3,000	52-10-36-200-038.555-017

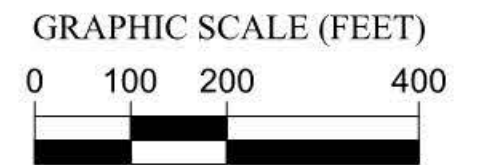
Source: Miami County GIS Tax & Property Information, MCEDA, CHA, 2019.

Operational Compliance Recommendation



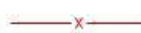


To meet UFC 3-260-01 CZ standards, it is recommended that all buildings within the Runway 23 CZ are removed. In addition to the buildings listed in **Table 1-3**, it is important to note that all non-frangible structures should be removed, including but not limited to: trees and vegetation, above-ground utilities structures (e.g., power-poles), and perimeter/security fencing. Costs associated with the demolition of each structure, as well as potential relocation options (where applicable) will be evaluated in **Chapter 2**.

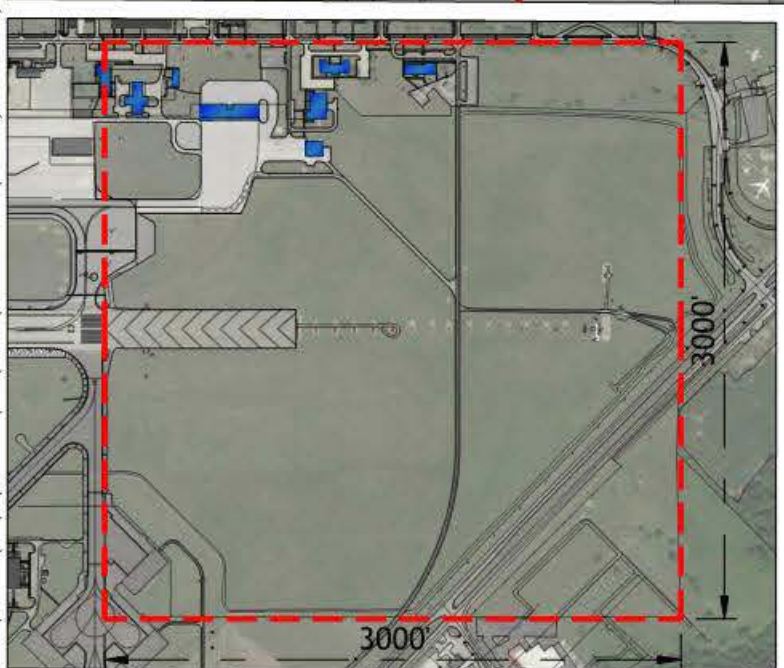
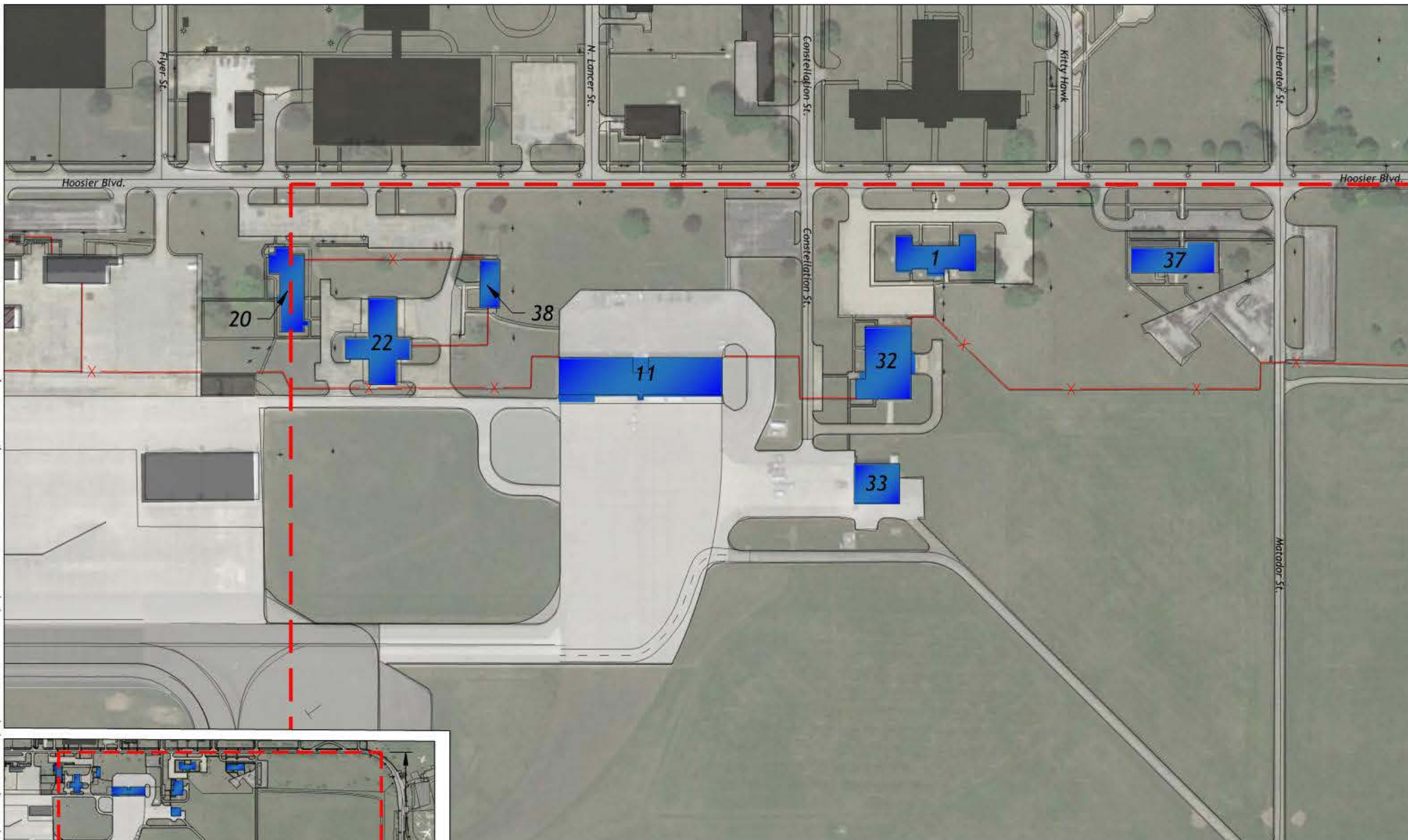


**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION



LEGEND

-  Building Demolition
-  Clear Zone
-  Perimeter Fence
-  Power Pole
-  Light Pole



Building	Owner	Use	Parcel Acreage		Building Size (SF)	Parcel Number	Age of Structure
			Within CZ	Total			
1	MCEDA	Administration	2.78	2.78	12,700	52-10-25-300-001.043-017	1942
11	MCEDA	FBO & Fuel Farm	17.95	17.95	22,174	52-10-36-200-001.003-017	1956
20	MCEDA	Administration	0.87	16.1	15,870	52-10-36-200-001.006-017	1956
22	MCEDA	Administration	17.95	17.95	10,471	52-10-36-200-001.003-017	1956
32	Ladd, Franklin W. & Deborah E.	Private	2.15	2.15	12,966	52-10-25-300-001.044-017	1961
33	MCEDA	FBO	1.27	1.27	6,637	52-10-25-300-033.555-017	1961
37	L & L Property Management Ll.	Office/Medical	4.48	4.48	25,689	52-10-25-300-001.005-017	1973
38	MCEDA	Lease/Educational	1.34	1.34	3,000	52-10-36-200-038.555-017	Unknown

Source: Miami County GIS Tax & Property Information, & MCEDA

Figure 1-2
Runway 23 (Northeast) Clear Zone
Building Demolition

Runway 5 (Southwest) Clear Zone

Presently, with the exception of Air Force owned and operated runway lighting and security/perimeter fencing, there are no fixed structures located within the Runway 5 (southwest) CZ. The CZ encompasses a total of 15 property parcels, either partially or fully located within the area. Of the 15 parcels, 13 are privately owned (i.e., not under GUS or military ownership and jurisdiction) and are either forested or used for agricultural operations. **Table 1-4** lists each parcel within the Runway 5 CZ along with its respective attribute information. As shown in **Figure 1-3**, the CZ is intersected near the southern corner by East County Road 150 South and South 500 West. Furthermore, near the Runway 5 end, GUS is partially divided between Miami and Cass Counties.

Table 1-4 – Runway 5 (Southwest) Clear Zone

County	Parcel Number	Ownership	Parcel Acreage	
			Within CZ	Total
Miami County	52-13-11-200-001.000-005	Private	2.50	57.15
Miami County	52-13-11-200-004.000-005	Private	0.68	99.28
Miami County	52-13-11-200-003.000-005	Private	0.10	0.75
Cass County	09-15-03-400-016.000-012	Private	3.37	3.66
Cass County	09-15-03-400-024.000-012	Private	3.84	14.43
Cass County	09-15-03-400-019.000-012	USA	28.31	84.62
Cass County	09-15-10-200-002.000-012	Private	32.65	80.30
Cass County	09-15-10-100-011.000-012	Private	1.54	1.54
Cass County	09-15-10-200-015.000-012	USA	51.45	53.93
Cass County	09-15-10-100-016.000-012	Private	31.07	34.89
Cass County	09-15-10-100-019.000-012	Private	2.00	2.01
Cass County	09-15-10-100-009.000-012	Private	28.14	28.31
Cass County	09-15-10-100-017.000-012	Private	16.94	39.39
Cass County	09-15-03-300-009.000-012	Private	1.57	75.80
Cass County	09-15-10-400-003.001-012	Private	2.10	107.68

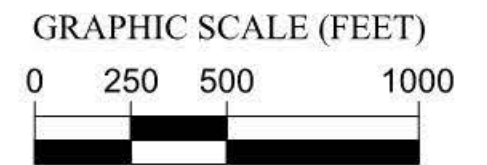
Source: Miami County GIS Tax & Property Information, CHA, 2019.

Operational Compliance Recommendation

To ensure that the Runway 5 CZ is compatible with both the airport and local community, it is recommended that all non-airport owned property is protected through land acquisition or under long-term lease agreements. This can be achieved through easements or overlay zones established within the area, ensuring land use compatibility. Furthermore, based on UFC requirements, it is recommended that all forested area within the CZ is acquired and removed to provide maximum frangibility within the area, or obtain a waiver incorporating non-owned property to remain with the implementation of aviation easements and/or overlays. Since the two previously described roadways are public roadways rather than access points to air traffic control-controlled service roads to arresting gear or NAVAIDs, their location within the CZ is prohibited; therefore, further evaluation and studies are necessary to determine corrective measures.

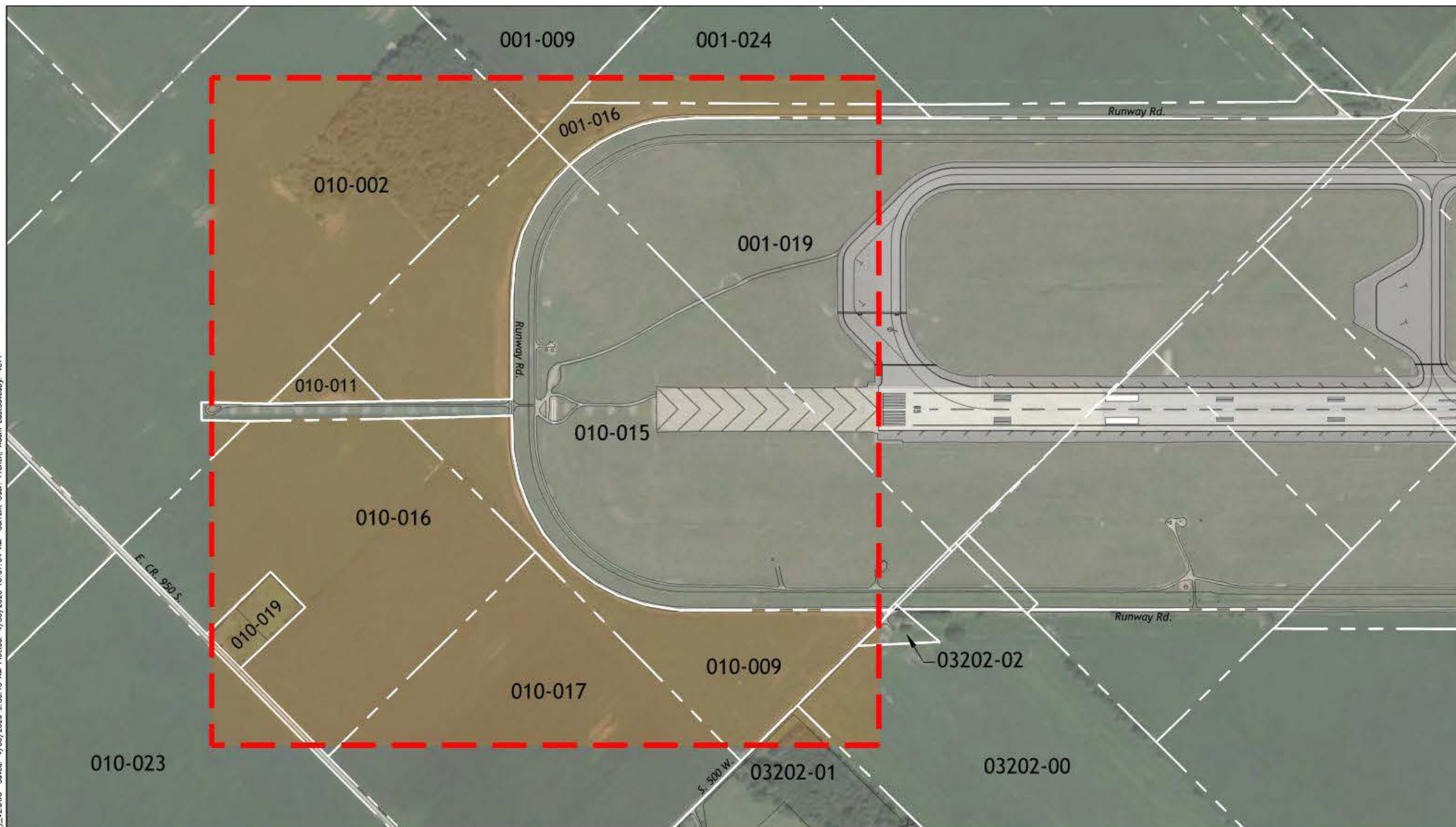


**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION



LEGEND

- Clear Zone
- Property Parcels/Boundaries
- Privately Owned Property



Alt. Parcel Number	Parcel Number	Owner	Ownership	County	Property Class	Parcel Acreage	
						Within CZ	Total (GIS)
03202-00	52-13-11-200-001.000-005	Rush, Eunice M	Private	Miami	Vacant Land	2.50	57.15
03202-01	52-13-11-200-004.000-005	Rush, Eunice M	Private	Miami	Cash Grain/general Farm	0.68	99.28
03202-02	52-13-11-200-003.000-005	Rush, Eunice M	Private	Miami	Vacant Land	0.10	0.75
001-009	09-15-03-300-009.000-012	Pullen, Marion C & Janet L	Private	Cass	Cash Grain/general Farm	1.57	75.80
001-016	09-15-03-400-016.000-012	Pines, Joyce Lynn Etal	Private	Cass	Vacant Land	3.37	3.66
001-019	09-15-03-400-019.000-012	USA	USA	Cass	Exempt, State Of Indiana	28.31	84.62
001-024	09-15-03-400-024.000-012	Brittany Farms, Llc.	Private	Cass	Vacant Land	3.84	14.43
010-002	09-15-10-200-002.000-012	Ladd Family Rev Tr	Private	Cass	Vacant Land	32.65	80.30
010-009	09-15-10-100-009.000-012	Pines, Joyce Lynn Etal	Private	Cass	Vacant Land	28.14	28.31
010-011	09-15-10-100-011.000-012	Pines, Joyce Lynn Etal	Private	Cass	Vacant Land	1.54	1.54
010-015	09-15-10-200-015.000-012	USA	USA	Cass	Exempt, State Of Indiana	51.45	53.93
010-016	09-15-10-100-016.000-012	Ladd Family Rev Tr	Private	Cass	Vacant Land	31.07	34.89
010-017	09-15-10-100-017.000-012	Ladd, John R	Private	Cass	Vacant Land	16.94	39.39
010-019	09-15-10-100-019.000-012	Lieberman, Nicholas J & Smith, Gary Lee li	Private	Cass	Vacant - Platted Lot	2.00	2.01
010-023	09-15-10-400-003.001-012	Willson, Donald E & Patricia A	Private	Cass	Vacant Land	2.10	107.68

NOTES

1. Parcel data taken from Cass and Miami County GIS tax & property database
2. Parcel acreages are approximate based upon GIS measurements and intended for planning purposes only

Figure 1-3
Runway 5 (Southwest) Clear Zone
Property Parcels

1.1.2 VORTAC Standoff Area

Several different navigational systems, and in some cases a combination of systems, are available at airports for aircraft operators. GUS has a very high frequency omnidirectional range (VOR) system/tactical air navigation (TACAN) system in place. VORs are often used by civilian operators, whereas TACAN systems primarily support military operators. When co-located, such as at GUS, the combined system is known as a “VORTAC” and is capable of providing both omnidirectional azimuth and distance information to pilots.

The DoD and FAA have requirements in place regarding minimum distance setbacks/standoffs between VORTAC and airfield infrastructures. According to UFC 3-260-01, the edge of the VORTAC is not permitted to be closer than 500 feet to any runway centerline. In addition, the elevation of the antenna cannot exceed 50 feet above the highest point of the adjacent runway centerline.

Similar to regulations set forth within UFC 3-260-01, FAA Order 6820.10, *VOR, VOR/DME, and VORTAC Siting Criteria*, states that a VORTAC, “*should not be closer than 500 feet to the centerline of any runway or 250 feet to the centerline of a taxiway, with no part of the navigational facility penetrating any surface defined within Title 14 CFR Parts 77.25, 77.28, or 77.29.*” In addition, power and control line extensions should be installed underground for a minimum distance of 600 feet from the antenna, while overhead power and control lines should be a minimum of 1,200 feet above the antenna (with few exceptions). It is permissible by FAA regulations for the land to be used for agricultural purposes, such as crop raising and livestock grazing, as long as grazing does not occur in the vicinity of the VORTAC system’s monitor detectors. **Table 1-5** lists additional VORTAC criteria per FAA Order 6820.10 as it relates to the 500 foot and 1,000-foot standoff areas.

Table 1-5 – VORTAC Standoff Area Requirements

Object	500 FT Standoff Area	1,000 FT Standoff Area
Farm-Type Fencing	Farm-type wire fence that is 4’ or less is permitted, but it must be located 200’ or further from the VORTAC.	Permitted
Chain-Link Fencing (6’ or Higher)	Not Permitted	Permitted
Trees & Forestry	Not Permitted	Single trees no more than 30-feet in height permitted
All Other Objects	Not Permitted (unless otherwise specified by the FAA or FAA Order 6820.10)	

Source: FAA Order 6820.10, CHA, 2019

Objects Surrounding the VORTAC

The GUS VORTAC is located approximately 870 feet south of the Runway 5/23 centerline and approximately 1,930 feet from the Taxiway ‘F’ centerline, both of which are sufficient separation distances according to both FAA and UFC standards.

A portion of the Airport’s chain-type perimeter fence (approximately 2,810 linear feet) is located approximately 530 feet at its closest location to the VORTAC. Approximately 35 feet of this span is located on military owned and controlled property (Parcel Number 52-13-02-100-001.000-005) while the remaining portion is located on MCEDA-owned property (Parcel Number 52-13-02-100-001.001-005).

Lastly, while not a vertical object, approximately 1,245 feet of W. 850 S. is located within the 1,000-foot standoff area on MCEDA-owned property (Parcel Number 52-13-02-100-001.001-005); however, the roadway is outside the 500-foot standoff area.

Figure 1-4 depicts the VORTAC standoff areas at GUS.

VORTAC Property Parcels

The 500-foot VORTAC standoff area encompasses two property parcels: one owned by the military and the other by MCEDA. In addition to the two parcels within the 500-foot standoff area, the 1,000-foot standoff area contains a third, privately-owned property parcel. Table 1-6 lists the property parcels within each standoff area, and Figure 1-4 depicts the area along with the associated parcels. The parcels owned by the military and by MCEDA are not utilized and remain vacant; however, a portion of the private property is used for agricultural purposes outside the vicinity of the VORTAC system’s monitor detectors.

Table 1-6 – Land within the VORTAC Standoff Area

Parcel Number	Ownership	Standoff Area Parcel Acreage	
		500’ R	1,000’ R
52-13-02-400-001.002-005	Ladd Jb	-	4.1
52-13-02-100-001.001-005	MCEDA	7.1	28.1
52-13-02-100-001.000-005	USA	10.9	39.8

Source: Miami County GIS Tax & Property Information, CHA, 2019.

Operational Compliance Recommendation

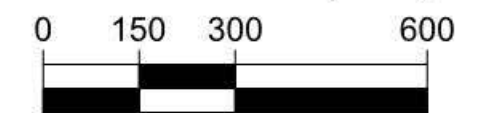
To ensure the areas beyond the non-airport owned property boundary remain compatible with each VORTAC standoff area, it is recommended that an agreement between the Air Force and MCEDA is established to ensure the land within the 500- and 1,000-foot standoff areas is maintained with its current compatible land use and that no objects of interference are located within the area. This can be accomplished through implementing easements or designating overlay zones over the parcels and the portion of W. 850 S. within the standoff areas, thus limiting uses of the lands. Land uses can also be maintained via land acquisitions and land swaps, thus providing several options for maintainability.



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GRAPHIC SCALE (FEET)

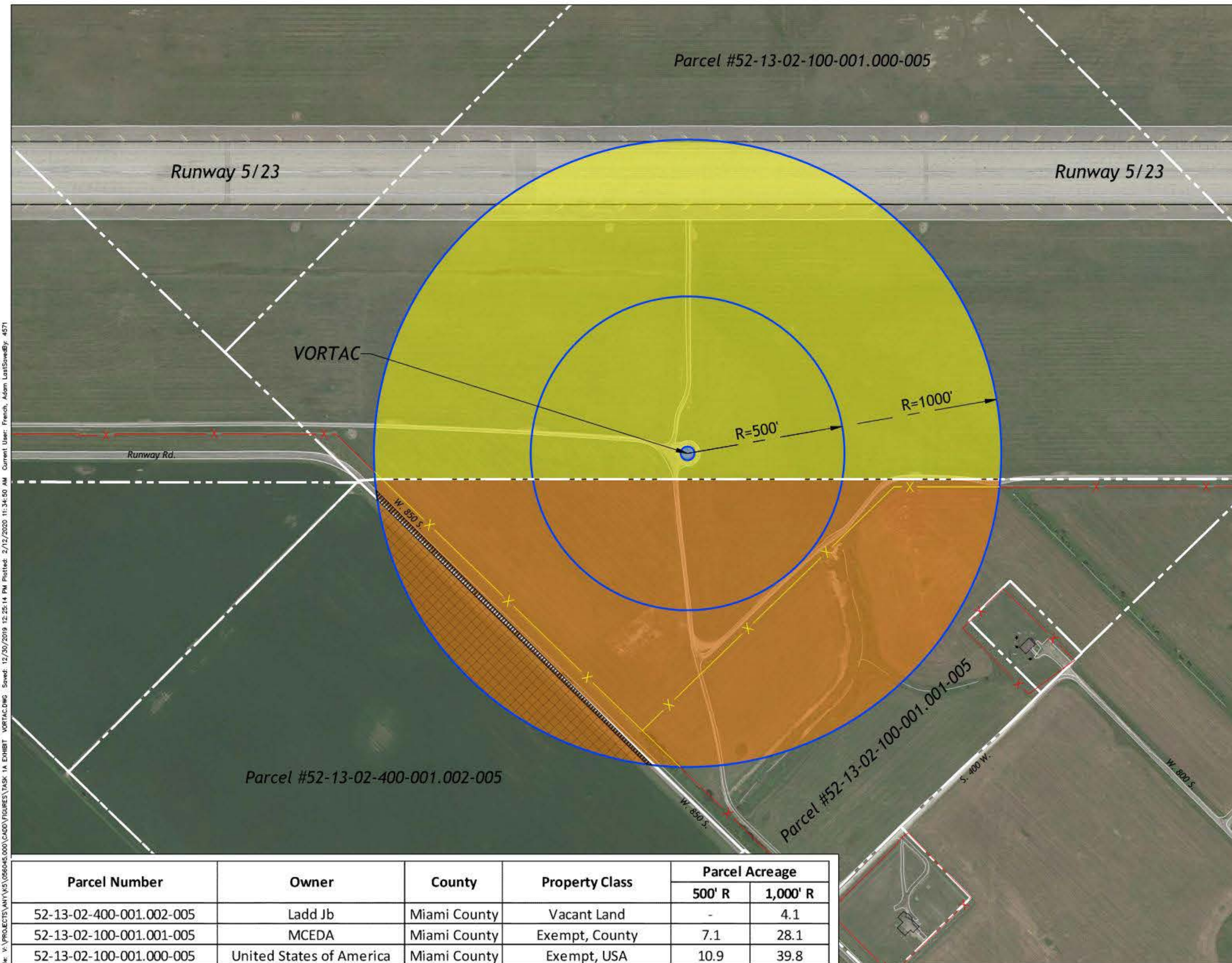


LEGEND

- VORTAC Standoff Area
- Property Parcels/Boundaries
- Perimeter Fence
- Perimeter Fence (within Standoff Area)
- Road within Standoff Area
- Property in Standoff Area (Military Owned & Operated)
- Property in Standoff Area (MCEDA Owned)
- Property in Standoff Area (Privately Owned)

**Figure 1-4
VORTAC Standoff Areas**
500' Standoff Area
1,000' Standoff Area

File: V:\PROJECTS\MIAMI\0586045.000\CADD\FIGURES\TASK 1A EXHIBIT VORTAC.DWG Saved: 12/30/2019 12:25:14 PM Plotted: 2/12/2020 11:34:50 AM Current User: French, Adam LastSaveBy: 4571



Parcel #52-13-02-100-001.000-005

Runway 5/23

Runway 5/23

VORTAC

R=500'

R=1000'

Runway Rd.

Parcel #52-13-02-400-001.002-005

Parcel #52-13-02-100-001.001-005

Parcel Number	Owner	County	Property Class	Parcel Acreage	
				500' R	1,000' R
52-13-02-400-001.002-005	Ladd Jb	Miami County	Vacant Land	-	4.1
52-13-02-100-001.001-005	MCEDA	Miami County	Exempt, County	7.1	28.1
52-13-02-100-001.000-005	United States of America	Miami County	Exempt, USA	10.9	39.8

1.1.3 Taxiway Clearance Standards

Military regulations and standards for taxiway clearances vary depending on the runway classification and whether the taxiway primarily serves fixed-wing or rotor aircraft. As indicated in **Section 1.1.1**, Runway 5/23 at GUS is designated as a Class B runway and is mainly intended for high-performance and large, heavy aircraft, such as the KC-135R. Furthermore, the taxiways at GUS are built to accommodate fixed-wing users; therefore, according to UFC 3-260-01, a clearance of 200 feet is required from the taxiway centerline to fixed or mobile obstacles at airfields supporting Air Force activities. Regulations further recommend the removal of pavement between taxiway edges and clearance areas.

At GUS, two partial-length parallel taxiways (e.g., Taxiways 'F' and 'G') provide ingress and egress between Runway 5/23 and the apron areas, while the remainder of the taxiway system (e.g., Taxiways 'A', 'B', 'C', 'D', 'E', and 'H') provide connectivity to the partial-parallel taxiways or other aprons. Over the decades, several portions of taxiway pavement have undergone rehabilitation and repair ranging from simple patchwork to complete full-depth reclamation. Areas of pavement used less frequently have deteriorated and, in some cases, are producing foreign object debris (FOD), which can pose an extreme hazard to aircraft.

Operational Compliance Recommendation

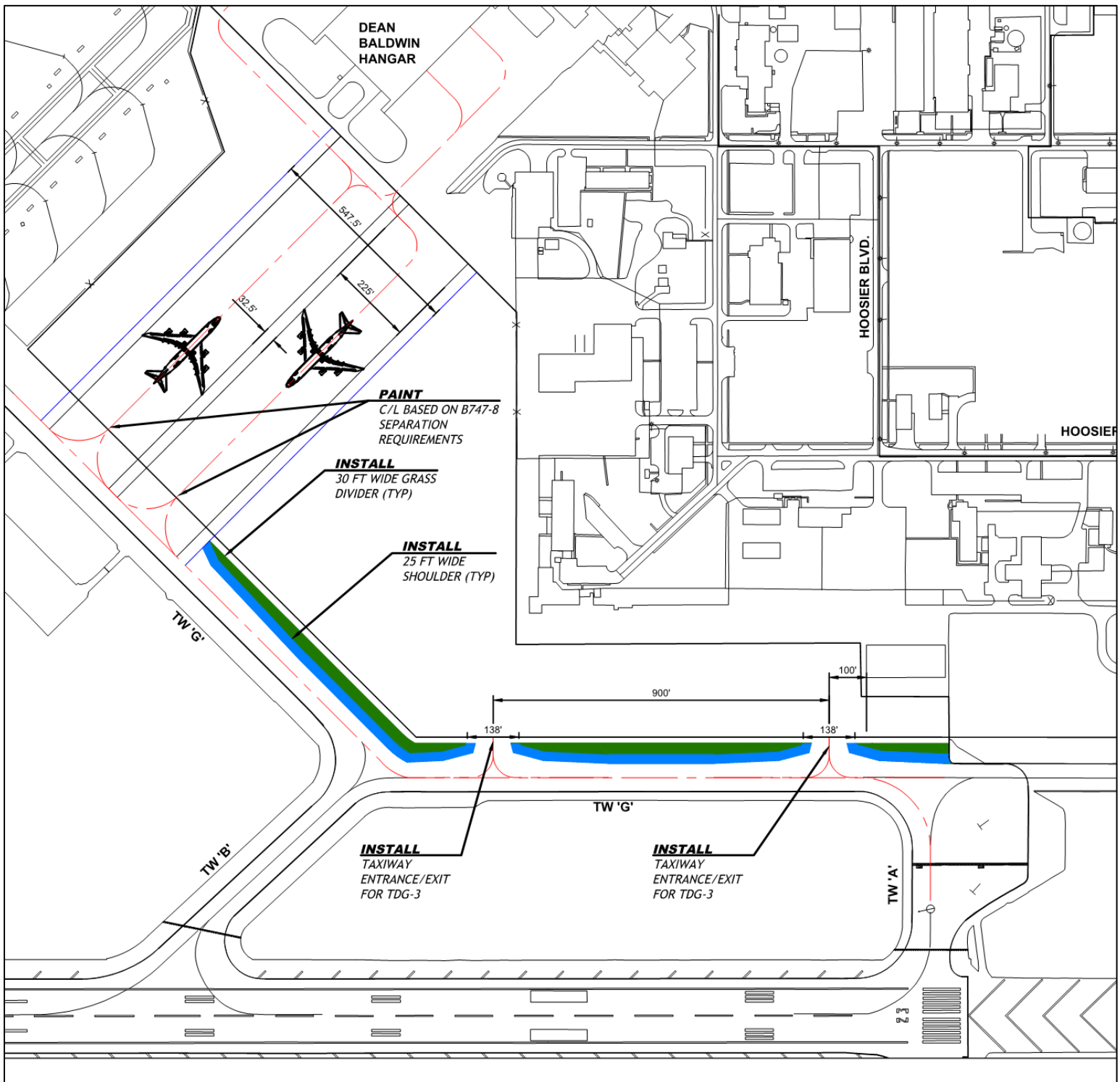
As shown in **Figure 1-5**, the civilian apron along the northern portion of Taxiway 'G' has been identified for removal within the 200-foot taxiway clearance area due its deteriorated state and potential to produce FOD. Although removal of the identified pavement adjacent to Taxiway 'G' would reduce the potential for FOD along the taxiway, ingress/egress to the civilian apron area and Taxiway 'B' would be significantly impacted.

Figure 1-5 – Taxiway ‘G’ Apron Removal

Source: CHA, 2019.

Coordination efforts between MCEDA and the USAF have been ongoing. To maintain access to the civilian component of the airfield, while adhering to and encompassing the interests of both parties, an alternative concept was developed for Taxiway ‘G’ that maintains civilian access to Taxiway ‘G’ and Taxiway ‘B’ while still decreasing the risks of FOD being ingested in aircraft engines. As shown in **Figure 1-6**, it is recommended that grass islands (depicted in green) be planted and taxiway shoulders be constructed (depicted in blue) in a manner that provides two points for ingress and egress between Taxiway ‘G’ and the civilian apron.

Figure 1-6 – Taxiway ‘G’ Potential Layout



Source: CHA, 2019.

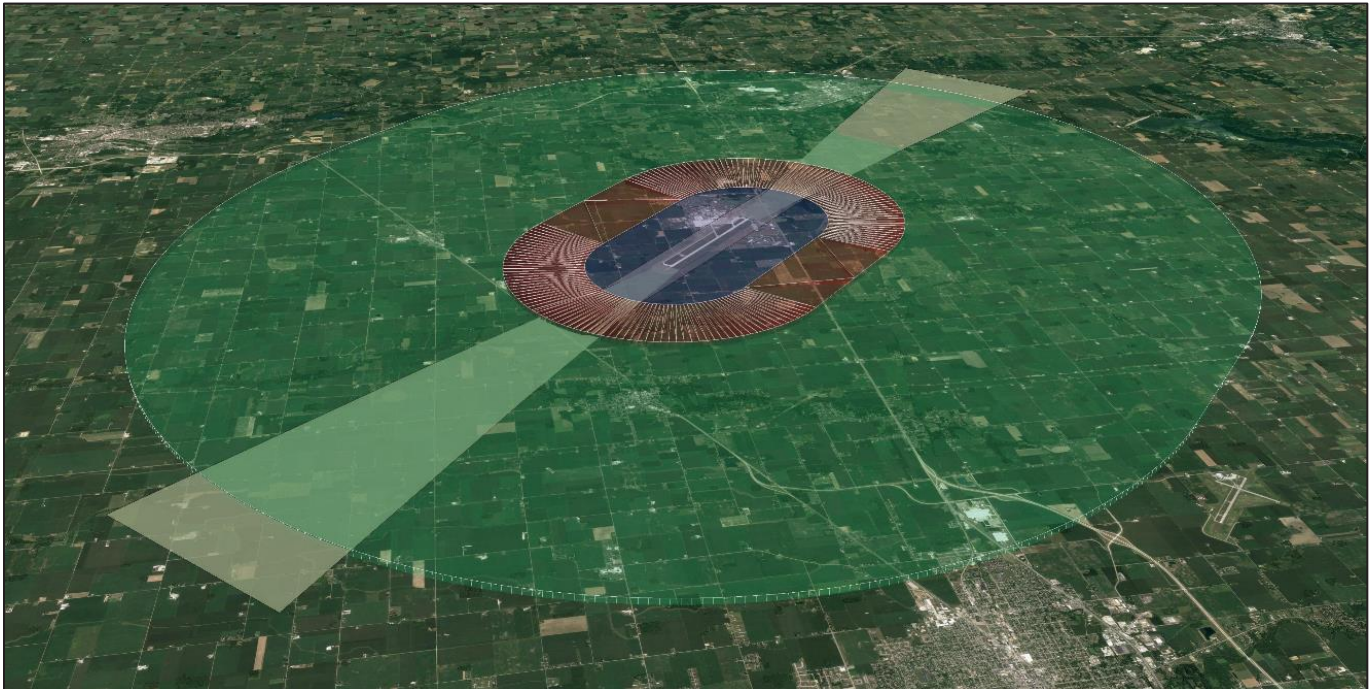
1.1.4 Imaginary Surfaces

As defined in UFC 3-260-01, imaginary surfaces are the areas surrounding a runway that must be kept clear of objects, both natural and manmade, which have the potential to damage aircraft. When an object projects above an imaginary surface, it is considered an obstruction.

The imaginary surfaces at GUS are depicted within **Figure 1-7** and include the following:

- ✈ Primary Surface
- ✈ Approach-Departure Surface
- ✈ Inner Horizontal Surface
- ✈ Conical Surface
- ✈ Outer Horizontal Surface
- ✈ Transitional Surface

Figure 1-7 – UFC 3-260-01 Imaginary Surfaces



Source: Federal Aviation Administration, CHA 2019

For the purposes of this analysis, each imaginary surface was evaluated using UFC 3-260-01 standards. While each surface is defined with its own siting criteria, focus within the subsequent sections involve discussion of the primary, approach-departure, and transitional surfaces as these surfaces are nearest to the ground and have the highest potential for land use compatibility impacts with nearby development.

Primary Surface

The primary surface is centered about the runway and maintains the same elevation as the runway centerline. The primary surface extends 1,000 feet laterally from each side of the runway centerline (for a total width of 2,000 feet) at Air Force airfields, as well as 200 feet beyond each runway end. No fencing may penetrate the primary surface, including the perimeter fence, unless a waiver is obtained.

Figure 1-9 depicts the Runway 5/23 primary surface. As shown, there are two areas of Airport perimeter fencing located within the Runway 5/23 primary surface, both of which are located along the southeastern edge of the runway:

- Fence Area 1: Approximately 4,810 linear feet
- Fence Area 2: Approximately 6,605 linear feet

It is important to note that approximately 4,405 linear feet of fencing within Fence Area 2 coincides with the southeastern edge of the primary surface.

Table 1-7 lists the individual property parcels associated with the location of the fencing areas.

Table 1-7 – Parcels Within the Primary Surface Containing Perimeter Fencing

Internal Reference Number	County	Parcel Number	Owner	Fencing within Parcel (Approximate Feet)
Fence Area 1				
1	Cass	09-15-10-200-015.000-012	USA	320
2	Miami	52-13-11-200-002.000-005	USA	450
3	Miami	52-13-02-300-005.000-005	USA	95
4	Miami	52-13-02-300-004.000-005	USA	1,260
5	Miami	52-13-02-300-001.000-005	USA	2,365
6	Miami	52-13-02-100-001.000-005	USA	320
Fence Area 2				
7	Miami	52-13-02-100-001.001-005	MCEDA	1,145
8	Miami	52-13-01-200-001.001-005	MCEDA	775
9	Miami	52-10-36-300-001.001-017	MCEDA	1,710
10	Miami	52-10-35-100-001.000-017	MCEDA	1,610
11	Miami	52-10-36-400-003.000-017	USA	440
12	Miami	52-10-36-100-002.000-017	USA	925

Note: Internal reference number is specific to and used only for reference to Figure 1-8

Source: CHA, 2019.

Operational Compliance Recommendation

To conform with UFC 3-260-01 standards, it is recommended that:

- Fence Area 1: A waiver is obtained for the 4,810 feet of fencing within the primary surface as the closure or relocation of Runway Road and a portion of S. 500 W. would be required to provide sufficient area for fence relocation outside of the primary surface within this area.

- Fence Area 2: At a minimum, the 1,395 feet of fencing located within the primary surface should be relocated south. If feasible, the 6,605 feet of fencing that coincides with the southeastern edge of the primary surface should also be relocated south.

As mentioned above, approximately 11,400 linear feet of perimeter fence is within or obstructing the primary surface of Runway 5-23. As such, it is recommended that the fence be relocated to resolve any conflicts with UFC requirements per DOD. However, as the location of the relocation sites would potentially require additional land acquisition and relocation of roadway infrastructure, the costs associated with the relocation may not be feasible for such a project. The table below outlines the relocation costs of the perimeter road, broken down by linear foot unit costs. A detailed breakdown of the costs associated with the fence relocation is provided in **Appendix A**. The unit costs provided below do not include roadway relocation.

Table 1-8 – Perimeter Fence Replacement Costs

Total Length to be Relocated	Unit Price (LFT)	Total Cost
Fence Area 1		
4,810 Linear Feet	\$151.93	\$730,783.30
Fence Area 2		
6,605 Linear Feet	\$151.93	\$1,003,497.65

Approach-Departure Surface

The approach-departure surface begins 200 feet beyond each runway end, coincident with the ends of the primary surface. For Runway 5/23 at GUS, the approach-departure surface extends 9,000 feet at a 50:1 slope where it then flattens and extends an additional 16,000 feet with an ending width of 16,000 feet. The approach-departure surface corridor facilitates aircraft approaching and departing the runway. **Figure 1-8** depicts the Runway 5/23 approach-departure surfaces.

Operational Compliance Recommendation

As shown in **Figure 1-8**, the approach-departure surface is currently clear of structures and should remain clear of all obstructions, including perimeter fencing.

Transitional Surface

The transitional surface is located parallel and adjacent to the primary surface and connects to each approach-departure surface at a 7:1 slope (see **Figure 1-8**). Per UFC 3-260-01, the “vertical height of vegetation and other fixed or mobile obstacles and/or structures will not penetrate the transitional surface.” However, taxiing aircraft and air traffic control towers are exempt from this requirement, provided other runway citing criteria are not impacted. Furthermore, penetrations to the 7:1 are allowed without a waiver for base boundary (property line) fence, providing the fence does not impact existing or planned instrument procedures.

Figure 1-8 – Runway 5/23 Approach-Departure, and Transitional Surfaces



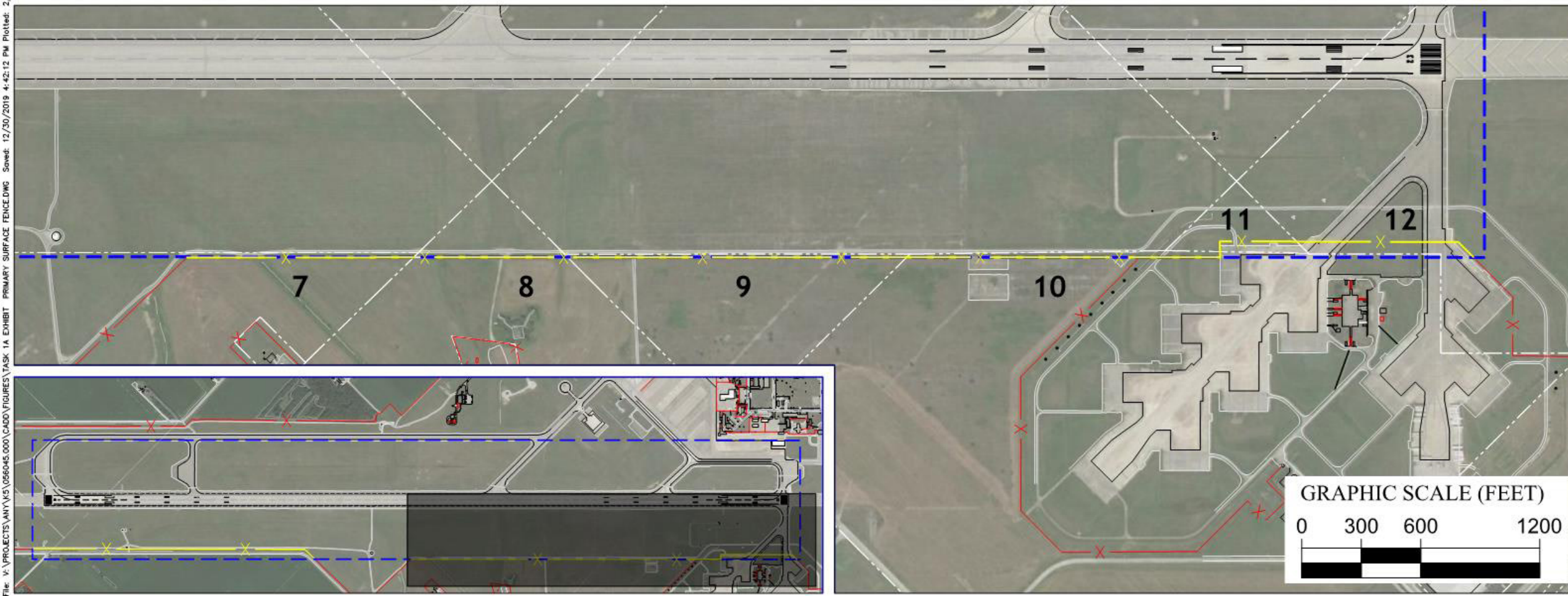
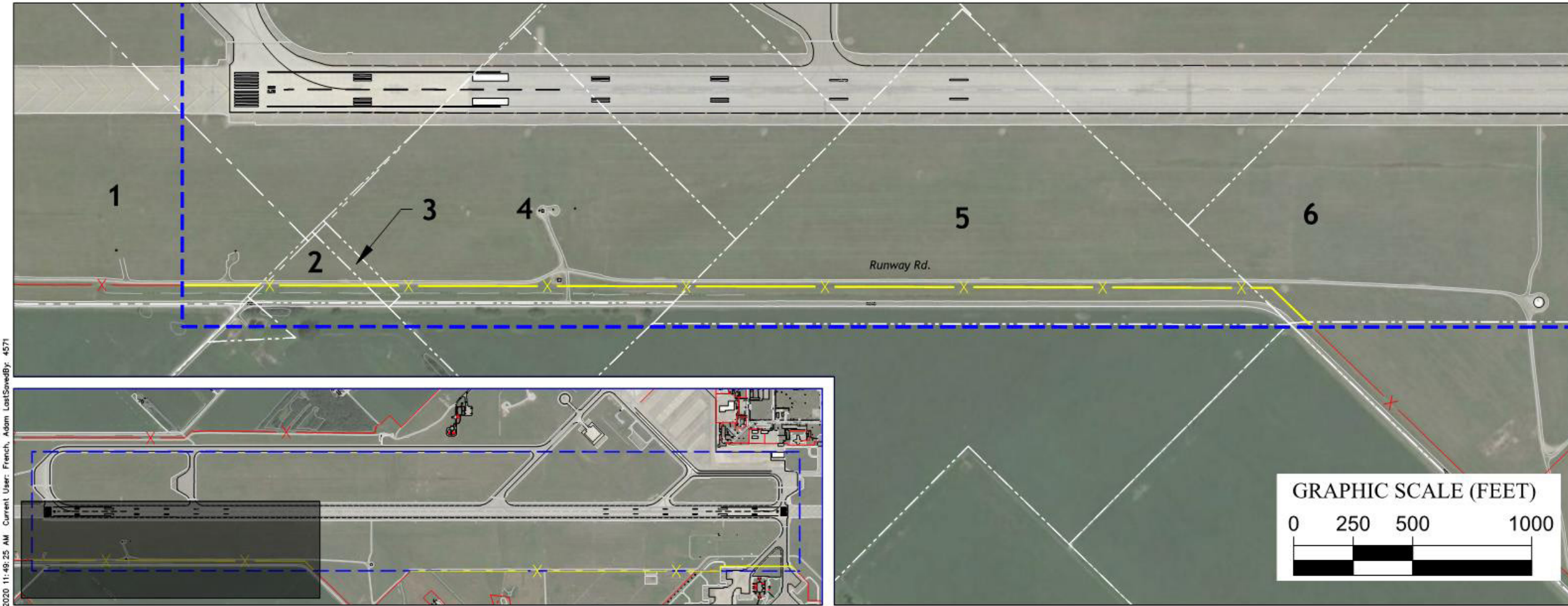
Source: GoogleEarth, CHA, 2019.

Operational Compliance Recommendation

All areas within the transitional surface currently adhere to standards and should continue to be maintained.



**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION



LEGEND

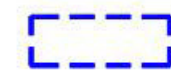
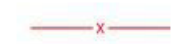


-  Primary Surface Boundary
-  Perimeter Fence
-  Perimeter Fence
(Inside Primary Surface)
-  Property Parcel

Figure 1-9
Primary Surface & Perimeter Fence

File: V:\PROJECTS\MIY\056045.000\CADD\FIGURES\TASK 1A EXHIBIT PRIMARY SURFACE FENCE.DWG Saved: 12/30/2019 4:42:12 PM Plotted: 2/12/2020 11:49:25 AM Current User: French, Adam Last Saved By: 4571

2 NORTH CLEAR ZONE DEMO PLAN & COST ESTIMATES

The purpose of the Airport Joint Land Use Study Implementation Plan is to enhance Grissom Air Reserve Base's (GARB or GUS) land use compatibility with the military and civilian components of the airfield. **Chapter 1** evaluated four operational areas (e.g., Runway 5/23 Clear Zones, VORTAC standoff areas/setbacks, taxiway clearance requirements, and airspace considerations related to airport permitted fencing). Federal guidance criteria for both military and civilian airfields was used to identify potential issues within each operational area along with preliminary recommendations, including the presence and demolition of buildings within the Runway 23 (i.e., northeast) clear zone (CZ).

Whereas **Chapter 1** provides preliminary recommendations to rectify issues related to each operational area, **Chapter 2** focuses on the Runway 23 CZ and the recommended clearing of this area in order to conform with military airfield planning criteria. As such, the following sections provide a summary of the CZ requirements and discuss each building within the area along with rough order-of-magnitudes costs for demolition and site preparation.

2.1 NORTHEAST CLEAR ZONE DEVELOPMENT GUIDANCE CRITERIA

For the purposes of this Study, the development guidance criteria set forth in UFC 3-260-01, *Airfield & Heliport Planning and Design* and in Air Force Instruction (AFI) 32-7063, *Air Installations Compatible Use Zones Program* were thoroughly reviewed with regard to their application to the Runway 23 (northeast) CZ at GUS.

According to UFC 3-260-01, runway clear zones are the areas where there is a high potential for accidents to occur; therefore, the uses of these areas are restricted to ensure compatibility with aircraft operations at the Airport. Due to the type of aircraft that GUS accommodates (e.g., KC-135R Stratotanker), GUS is designated as an Air Force Class B airfield. Resultantly, the north CZ dimensions are 3,000 feet in length (beginning at the runway threshold) and 3,000 feet in width (centered on the runway centerline). The areas within the CZ should be owned by the Airport or military or protected under a long-term lease agreement. Prohibited and allowable land uses within the clear zone were further evaluated. Uses specifically prohibited within the clear zone, as indicated in AFI 32-7063, are as follows:

- “A use that releases any substance into the air that would impair visibility or otherwise interfere with operating aircraft, such as, but not limited to steam, dust, and smoke.
- A use that produces electrical emissions which would interfere with aircraft and Air Force communications equipment, navigational aid systems, radar, weapons systems, or aircraft navigational equipment.
- A use that produces light emissions, either direct or indirect (reflections, glare, etc.), which might interfere with a pilot's or air traffic control personnel's vision.

- A use that would unnecessarily attract birds, waterfowl, or other animals, such as, but not limited to, operation of sanitary landfills, maintenance of feeding stations, or growing certain types of crops or vegetation.
- Explosives facilities or activities as described in AFMAN 91-201, Explosive Safety Standards.”

Further evaluation (reference AFI 32-7063) indicated that navigational aids may be an exception to having to be relocated due their function; however, approval is required. Additional acceptable land uses within the CZ include agriculture (with the exception of orchards/trees, grains, or other crops/vegetation that may unnecessarily attracts birds or other wildlife), livestock grazing (with the exception of feed and dairy lots), permanent open space, existing water areas (assuming they do not attract birds or other wildlife that may increase the risk of an aircraft strike), and rights-of-way [(i.e., single track railroads, fenced two-lane roads without sidewalks, bicycle trails - assuming they do not violate obstacle clearance criteria or the graded portion within the clear zone); (communications and utilities – assuming all facilities and equipment are at-grade or underground)].

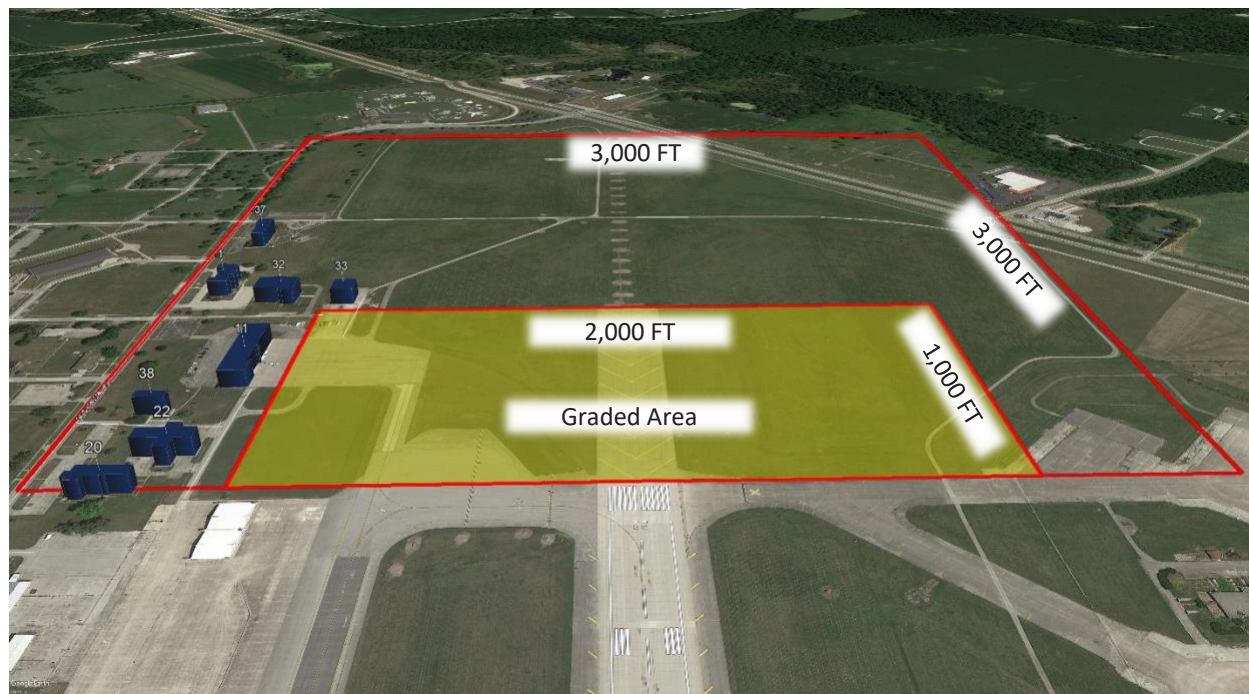
Within the CZ is a graded area measuring 1,000 feet in length and 2,000 feet in width, with only gentle swales, subsurface drainage, covered culverts and underground structures being allowed.

2.2 RUNWAY 23 (NORTHEAST) CLEAR ZONE

Within the Runway 23 CZ are eight buildings and associated facilities; each owned and operated by either the Miami County Economic Development Authority (MCEDA) or private individuals.

Figure 2-1 depicts the Runway 23 CZ and buildings within, and **Table 1-3** summarizes each building’s attributes.

Figure 2-1 – GUS Runway 23 (Northeast) Clear Zone and Graded Area



Source: CHA, Google Earth, 2020

Table 2-1 – Runway 23 (Northeast) Clear Zone Structures

Building Number/Facility	Owner	Dedicated Use	Year of Construction	Parcel Acreage		Building Size (SF)	Parcel Number
				Within CZ	Total		
1	MCEDA	Administration	1942	2.78	2.78	12,700	52-10-25-300-001.043-017
11	MCEDA	FBO & Fuel Farm	1956	17.95*	17.95*	22,174	52-10-36-200-001.003-017
20	MCEDA	Administration	1956	0.87	16.1	15,870	52-10-36-200-001.006-017
22	MCEDA	Administration	1956	17.95	17.95	10,471	52-10-36-200-001.003-017
32	Ladd, Franklin W. & Deborah E.	Private	1961	2.15	2.15	12,966	52-10-25-300-001.044-017
33	MCEDA	FBO	1961	1.27*	1.27*	6,637	52-10-25-300-033.555-017
37	L & L Property Management Llc.	Office/Medical	1973	4.48	4.48	25,689	52-10-25-300-001.005-017
38	MCEDA	Lease/Educational	Unknown	1.34	1.34	3,000	52-10-36-200-038.555-017

Source: Miami County GIS Tax & Property Information, MCEDA, CHA, 2020

2.3 DEMOLITION PLANS

To generate a plan for the proposed demolition of the buildings and structures within the Runway 23 (northeast) CZ, nine Demolition Zones (e.g., A, B, C, D, E, F, G, H, and X) were developed along with a Demolition Plan discussing the building history, known hazardous material studies and remediation (if any), rough order-of-magnitude costs for both building demolition and site preparation, and pre- and post-demolition site plan exhibits.

Figure 2-2 and Figure 2-3 present an overview (both pre- and post-demolition) of the nine Demolition Zones.

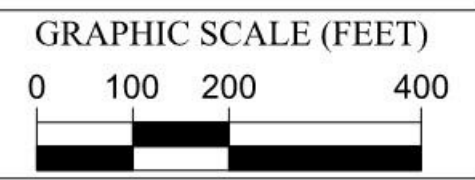


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LEGEND

- Clear Zone
- Perimeter Fence
- Tree
- Power Pole
- Light Pole
- Pavement
- Demolition Site



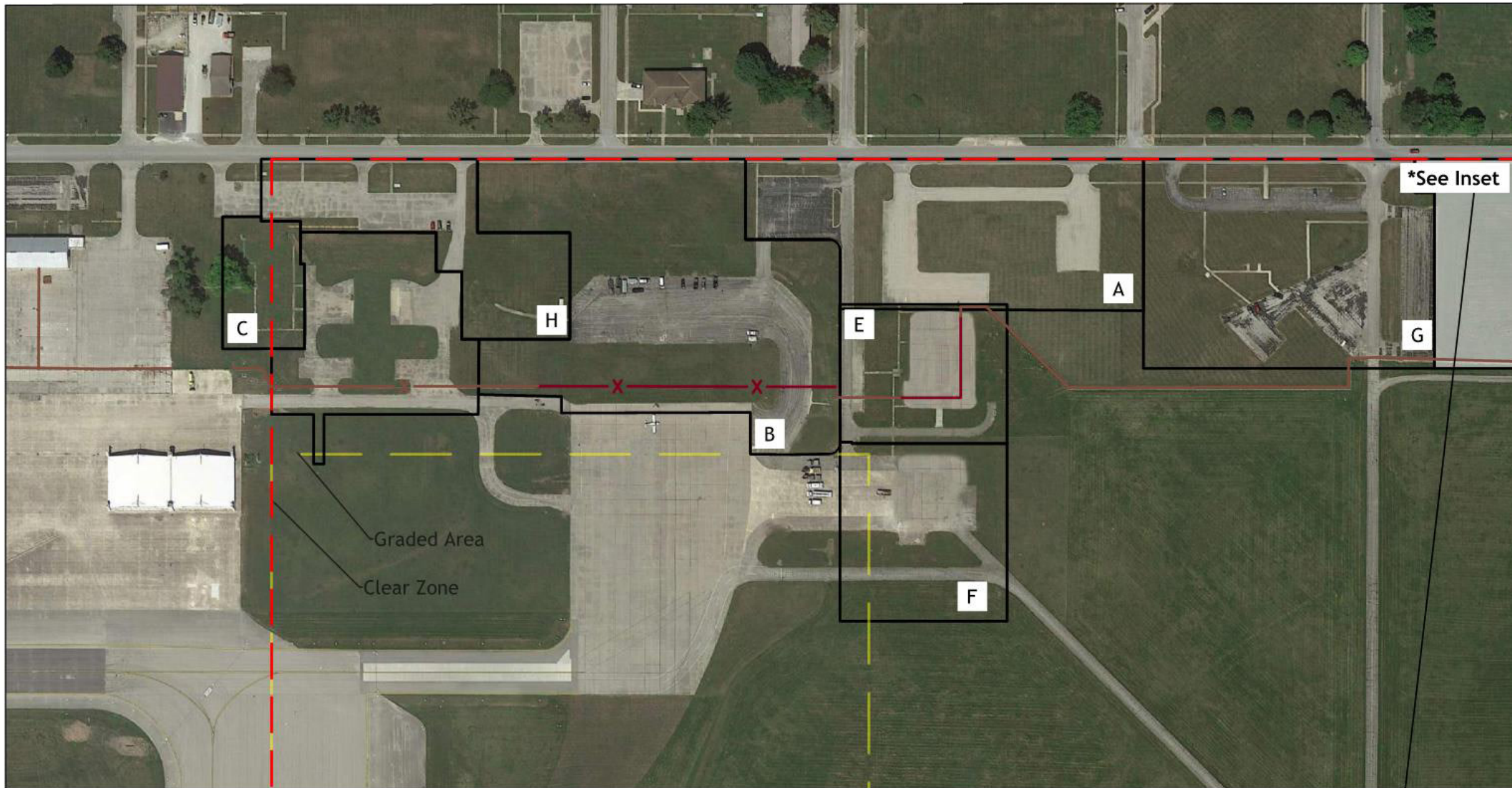
Index-1
Demolition Plan (Overview)



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- Clear Zone
- Post Demolition Site
- Existing Perimeter Fence
- New Perimeter Fence



GRAPHIC SCALE (FEET)



Index-2
Remaining (Overview)

2.3.1 Rough Order-of-Magnitude Cost Estimate Components

As mentioned, each Demolition Plan provides rough order-of-magnitude costs for building demolition and site preparation. The following categories define the various components used to formulate each cost estimate. It is important to note that site-specific cost estimates were generated for each Demolition Zone. That is, only the items specific each Demolition Zone are included within their respective cost estimate. Additionally, the listed costs are in 2019 dollars. Future costs are subject to increases based on economic changes that typically result in annual average adjustments due to inflation. Refer to **Appendix B** for a comprehensive listing of the components for each Demolition Zone.

- **Existing Conditions**
 - Hazardous Material Removal & Disposal
 - Building/Structure Demolition/Removal
- **Earthwork**
 - Tree Removal
 - Fencing Removal
 - Curb & Sidewalk Removal
 - Parking Lot Pavement Removal
 - Overhead Utility Line Removal
 - Wooden Power Pole Removal
 - Water Hydrant Removal
 - Installation of Thrust Blocking Prior To Cutting Water
 - Cap & Abandon Sanitary/Sewer Connection
 - Cap & Abandon Natural Gas Utility Connection
 - Crawl Space Backfill
 - Area Re-Grading
- **Exterior Improvements**
 - Temporary Perimeter Fencing/Gates
 - Installation of New Chain-Link Fencing
 - Planting/Seed Distribution Areas
- **General Requirements**
 - Design Contingency
 - Construction Contingency
 - Design/Engineering Fees
 - Staffing & General Conditions
 - Construction Manager Fee
 - Permitting Allowance
 - Inspections Allowance
 - 3rd Party Testing Allowance
 - General Insurance
 - Performance Bond

2.3.2 Demolition Zone A

Demolition Zone A includes Building 1, which is owned by MCDEA and is used by airport personnel for administrative purposes. Building 1 is two stories and is approximately 12,700 square feet (SF). Beneath the building is a crawlspace (below grade) that is equal to the building's footprint (approximately 8,500 SF). An electrical vault is located at the southern side of the building. The parking lot associated with Building 1 is at-grade; however, the curbs around the entirety of the parking lot and the sidewalks leading from the parking area to the building are above-grade. Underground utilities leading to the building include sanitary/sewer, water, and gas lines. Several trees and nine power poles (two to the southwest, two to the northeast, three to the north, and two to the east) are also located within the vicinity of Building 1.

Recommended:

To adhere to military standards, Building 1 is recommended to be razed at-grade with filling of the crawlspace. During an inspection conducted in 1993, asbestos was detected within the siding and shingles, as well as throughout the building. Prior to demolition, contractors must be made aware of hazardous materials within the construction area; therefore, it is recommended that further evaluation be conducted regarding the presence of hazardous materials, as corrective actions may have been undertaken since the initial inspection was conducted.

Prior to demolition, the underground utilities (e.g., sanitary/sewer, water, and gas) leading to the building should be capped and abandoned in place. The trees and surrounding power lines should also be removed and the power lines rerouted; however, further evaluation will be needed regarding the location of the rerouted power lines, as it is not included within this Study. Measures should also be taken to safely remove the electrical vault on the southern side of the building. Furthermore, grading is recommended to level the above-grade curbs surrounding the parking lot and the sidewalks associated with Building 1.

Table 1-1 summarizes the building attributes and provides the estimated cost for demolition. **Figure 2-4** and **Figure 2-5** shows the Pre- and Post-Demolition Plans, respectively, for Demolition Zone A.

Table 2-2 – Demolition Zone A

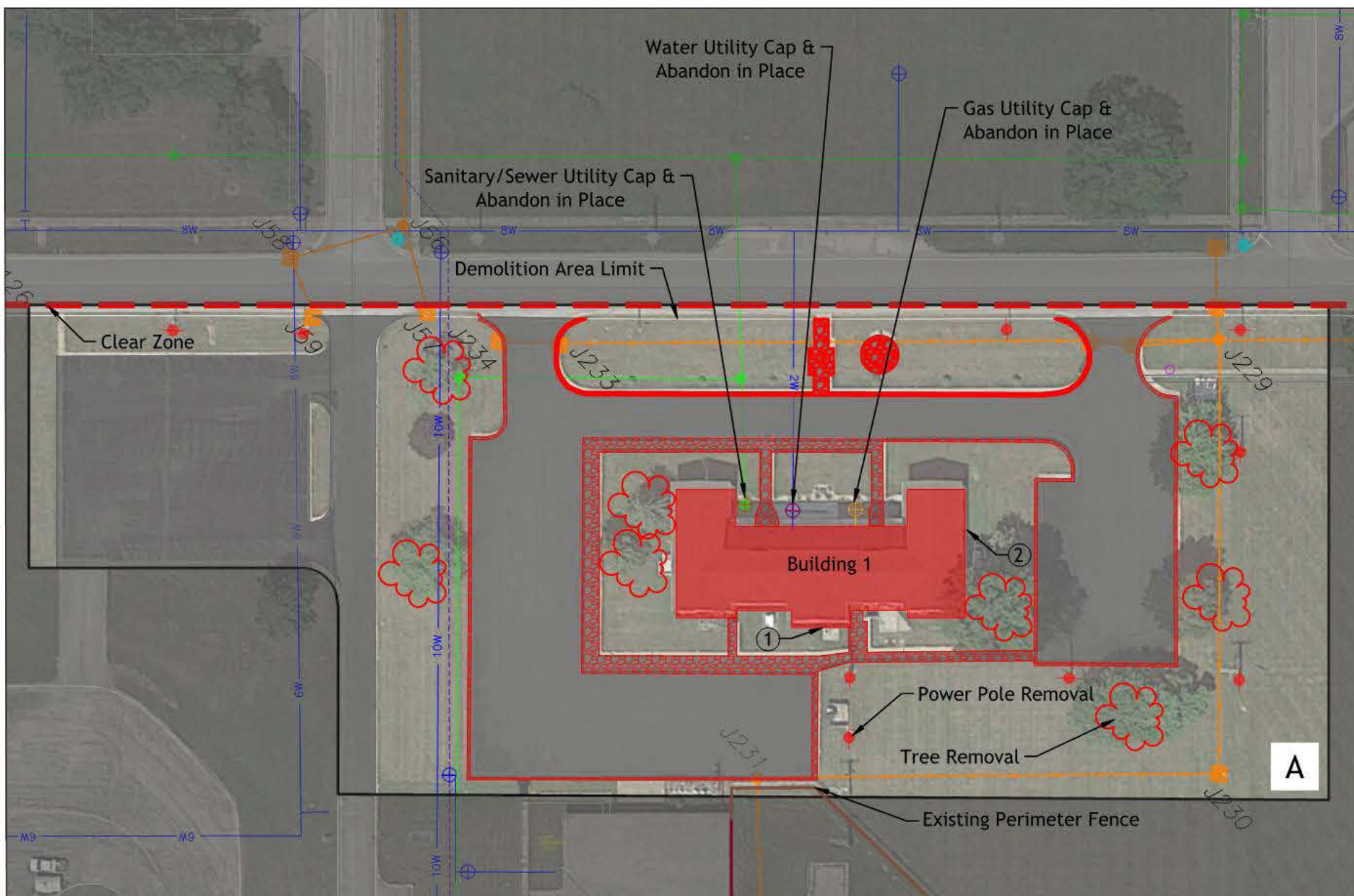
Demolition Zone Identifier:	A
Facility within Area:	Building 1
Facility Owner/Operator:	MCEDA
Current Facility Uses:	Airport Administration
Year of Construction:	1942
Facility Square Footage:	Approximately 12,700 Square Feet
Building Hazard Report:	Building 1 Asbestos Report (Date Inspected: 08/06/93) - Contract # F12617-93-C004
Building Hazards Report Findings:	Asbestos was detected in the transite siding (asbestos shingles), air cell insulation on abandoned stream lines, mud fittings on fiberglass insulated lines and wool felt on domestic water lines located in the crawl space, magnesia pipe insulation, mud fittings located in mechanical room, mud fittings located above the suspended ceiling tiles on the first floor, wool felt insulation on domestic water lines located above suspended ceilings of the first floor, 9"x9" floor tile located on the first floor (beneath carpeting and 12"x12" floor tile) and second floor, and 12"x12" floor tile located on the first floor. It is also highly probable that asbestos is present within areas that were inaccessible at the time of the report (i.e. enclosures, chases, abandoned steam lines in perimeter walls).
Utilities Present:	Sanitary/Sewer, Stormwater, Water, Water Raw, Gas
Demolition Plan:	Figure 2-4 – Exhibit A-1: Demolition Plan
Post Demolition:	Figure 2-5 – Exhibit A-2: Remaining
Order-of Magnitude Cost	
Existing Conditions:	\$159,324
Earthwork:	\$95,374
Exterior Improvements:	\$48,457
General Requirements:	<u>\$299,396</u>
<i>Demolition Zone A Total</i>	\$602,552

Source: MCEDA, CHA, Shiel Sexton, 2020

Note: Costs are in 2019 dollars.



**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION



EXISTING LEGEND

- Clear Zone
- Perimeter Fence
- Tree
- Power Pole
- Light Pole
- Water Hydrant
- Sanitary/Sewer
- Sanitary
- Stormwater
- Water
- Water Raw
- Gas Line
- Pavement
- Demolition Site

DEMOLITION LEGEND

- Building Demolition
- Pavement Removal
- Tree Removal
- Power Pole Removal
- Cap Utility & Abandon in Place

NOTES

1. Electrical Vault
2. Crawl Space

GRAPHIC SCALE (FEET)



Key-Notes

- All underground utilities shall be capped and abandoned in place.
 - All structures shall be removed and the area graded.
 - All above-ground utilities shall be removed and the area graded.
 - All non-frangible structures shall be removed and the area graded.
 - Building 1 crawl space is equal in size to the building footprint. The crawl space shall be filled when Building 1 is demolished.
- *Gas lines were not provided; Gas to be capped and abandoned in place no less than five feet from buildings.






Exhibit A-1
Demolition Plan



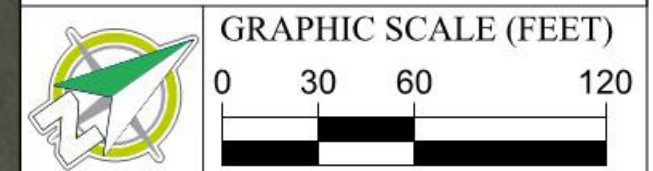
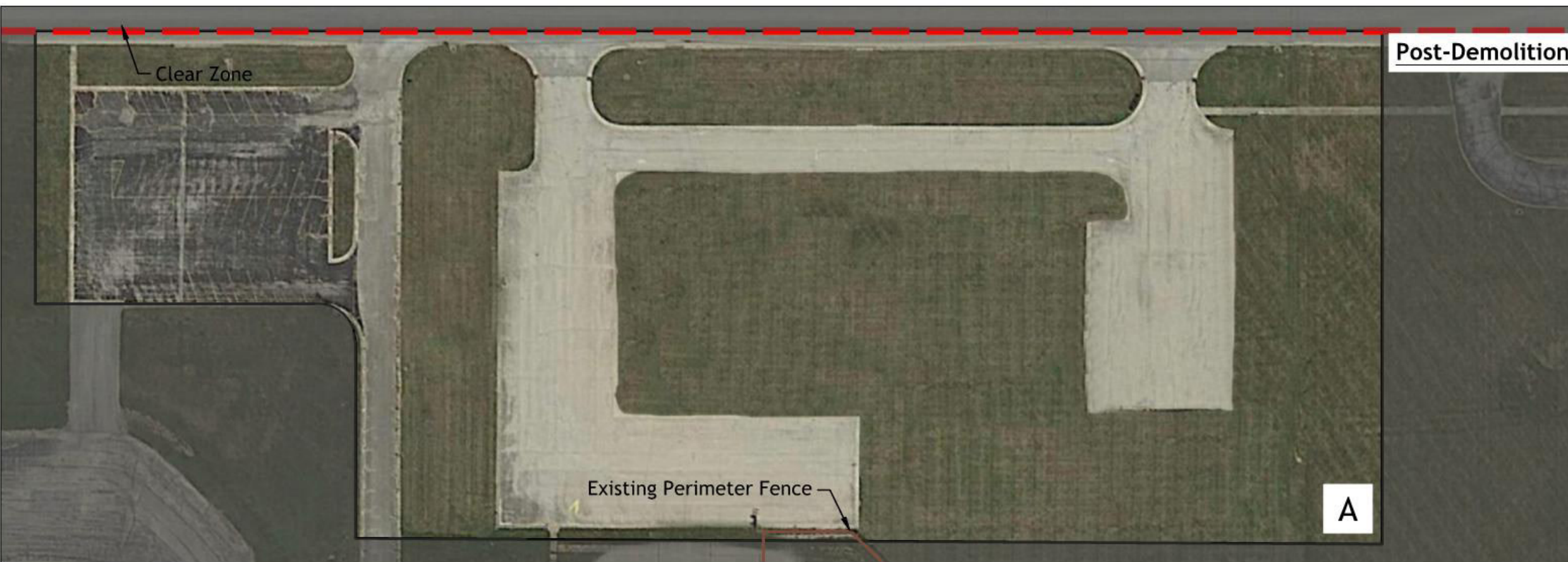
**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION

LEGEND

-  Clear Zone
-  Post Demolition Site
-  Existing Perimeter Fence



Key-Notes
- Phasing for the removal of trees and utilities (above- and below-ground) will require further evaluation.



2.3.3 Demolition Zone B

MCEDA owns two facilities within Demolition Zone B: Building 11 and a fuel farm. Building 11 was built in 1956, with many areas consisting of elevated concrete, and is approximately 22,174 SF. The building is currently leased to Miami County Aviation for Fixed Base Operator (FBO) services. The building consists of office space for FBO personnel, a pilot lounge, and two aircraft hangar units (with each hangar unit providing two aircraft parking bays). One of the four hangar bays is leased by the American Huey Museum, while the remaining three hangar bays are used for based civilian aircraft storage and MCEDA operations.

To serve personnel utilizing the facilities, a parking lot is available on the north side of Building 11. Underground utilities, such as sanitary/sewer, water, and gas lines, lead to the building, as well as to the hangar units. Six power poles and a water hydrant system are located in the vicinity of Building 11, along with several trees spread throughout the Area.

The civilian-use fuel farm is located east of and adjacent to Building 11 and consists of two 2,000-gallon Jet-A and 100LL fuel storage tanks.

Recommended:

To adhere to military standards, Building 11 is recommended to be razed at-grade and the fuel farm relocated. Prior to demolition, the underground utilities (e.g., sanitary/sewer, water, and gas) leading to the building should be capped and abandoned in place. The water hydrant system, trees, and power poles in Demolition Zone B should also be removed, with the power lines rerouted.

In addition, special care should be taken during the demolition process to safely manage asbestos within the building. In 1995, pipe and pipe fitting insulation, as well as tank insulation, were surveyed for asbestos. The report indicated that all asbestos containing materials were in good condition with the expectation of a 10 square foot area of debris around an air handling unit on the second floor of Building 11; however, it is important to note that no additional samples were taken, thus, additional asbestos containing material may be present in the building. Furthermore, prior to demolition, a licensed asbestos abatement contractor should verify that protective measures have been taken to alleviate the possibility of contractors coming into contact with hazardous materials.

Following building demolition and removal of all other structures within Zone B, the area should be filled and covered with topsoil, followed by overseed. It is important to note that the demolition process will result in a break within the current perimeter fencing. As Building 11 currently serves as part of the Airport's security barrier separating landside and airfield operations, the perimeter fence will require realignment to conjoin and maintain security of the airfield.

Table 2-3 summarizes the building attributes and provides the estimated cost for demolition. **Figure 2-6** and **Figure 2-7** shows the Pre- and Post-Demolition Plans, respectively, for Zone B.

Table 2-3 – Demolition Zone B

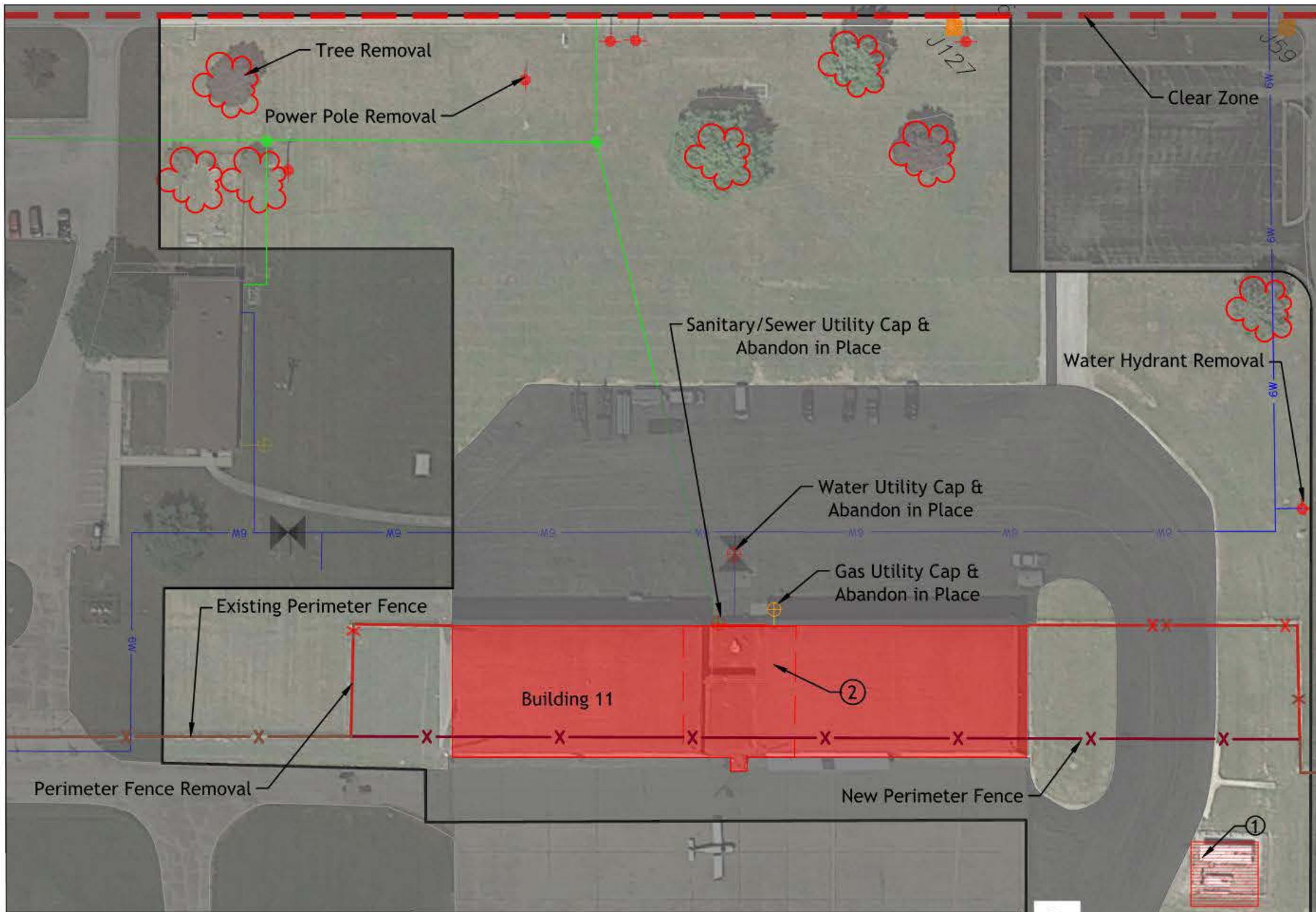
Demolition Zone Identifier:	B
Facilities within Area:	Building 11 & Fuel Farm
Facilities Owner/Operator:	MCEDA
Current Facilities Uses:	Fixed Base Operator, Aircraft Storage, Museum, Fuel Farm
Year of Construction:	1956
Facilities Square Footage:	Approximately 22,174 Square Feet
Building Hazard Report:	Building 11 Asbestos Survey Data (Survey Date: 07/25/95; Report Date: 09/01/95)
Building Hazards Report Findings:	Asbestos found within 10 SF of debris around the second-floor air handling unit.
Utilities Present:	Sanitary/Sewer, Stormwater, Water, Gas
Demolition Plan:	Figure 2-6 – Exhibit B-1: Demolition Plan
Remaining:	Figure 2-7 – Exhibit B-2: Remaining
Order-of Magnitude Cost	
Existing Conditions:	\$124,090
Earthwork:	\$142,998
Exterior Improvements:	\$86,511
General Requirements:	<u>\$346,254</u>
<i>Demolition Zone B Total</i>	\$699,852

Source: MCEDA, CHA, Shiel Sexton, 2020

Note: Costs are in 2019 dollars.



**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION



EXISTING LEGEND	DEMOLITION LEGEND
Clear Zone	Building Demolition
Perimeter Fence	Unclassified Excavation
Sanitary/Sewer	Perimeter Fence Removal
Sanitary	Tree Removal
Stormwater	Power Pole Removal
Water	Water Hydrant Removal
Gas Line	Cap Utility & Abandon in Place
Pavement	
Demolition Site	

***CONSTRUCTION	NOTES
New Perimeter Fence	1. Fuel Farm 2. Elevated / Concrete

Key-Notes

- All underground utilities shall be capped and abandoned in place.
- All structures shall be removed and the area graded.
- All above-ground utilities systems shall be removed and the area graded.
- All non-frangible structures shall be removed and the area graded.

*Gas lines were not provided; Gas to be capped and abandoned in place no less than five feet from buildings.

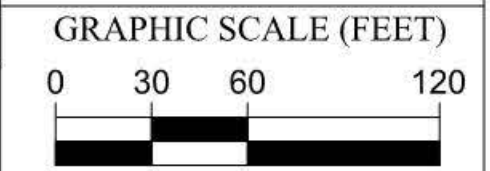


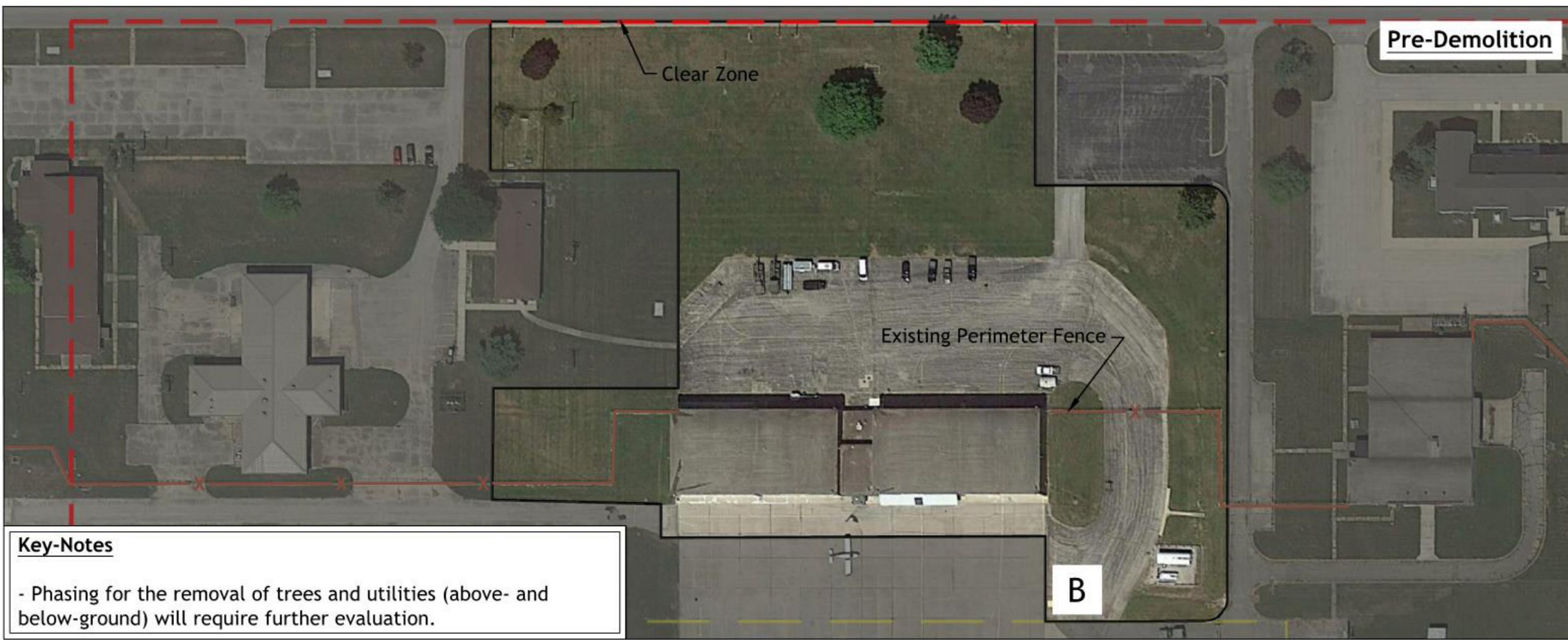
Exhibit B-1
Demolition Plan



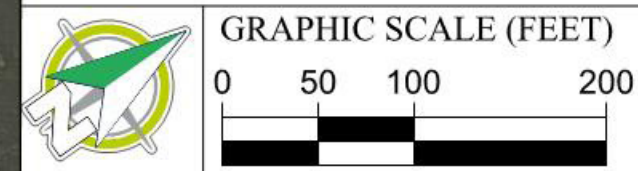
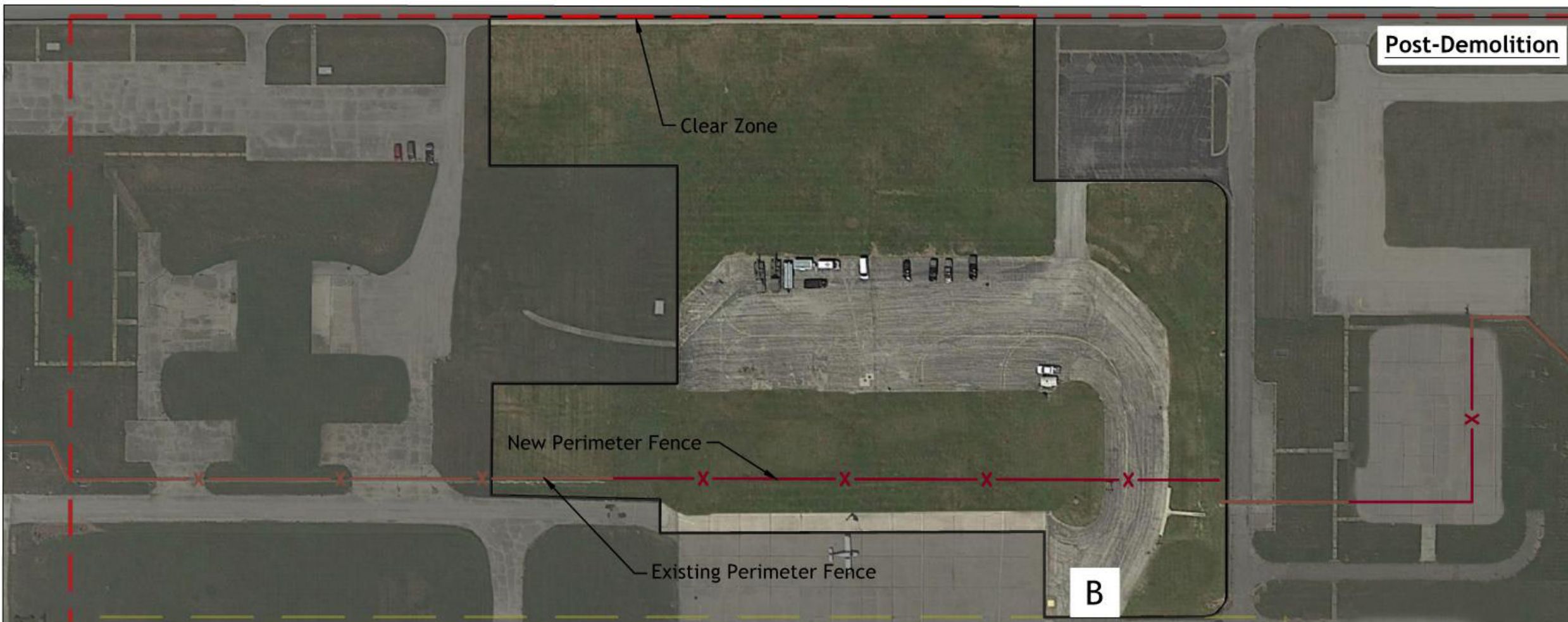
MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY
**GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION**

LEGEND

- Clear Zone
- Post Demolition Site
- Existing Perimeter Fence
- New Perimeter Fence



Key-Notes
- Phasing for the removal of trees and utilities (above- and below-ground) will require further evaluation.



2.3.4 Demolition Zone C

Demolition Zone C includes Building 20, which is owned by MCEDA. The building measures approximately 15,870 SF and is currently vacant. During previous building usage, parking to the north would be shared with those utilizing Building 38 (see **Figure 2-18**). From the parking area, at-grade sidewalks lead to the north, east, south, and west sides of the building. Underground utilities (sanitary/sewer, water, and gas) also lead to and connect to the building.

In addition to Building 20, an area designated as a high voltage zone is within Demolition Zone C, northeast of the building.

As shown in **Figure 2-8** the Runway 23 CZ intersects Zone C. For the purpose of this Study, only the portion of the Demolition Zone within the CZ was evaluated.

Recommended:

Although only a portion of Building 20 is located within the CZ, it is recommended that the entire facility be razed. Prior to demolition, further evaluation should be conducted regarding the presence of asbestos. In 1993, an inspection was conducted of Building 20 which detected asbestos in multiple areas throughout the building. In addition, the inspection concluded that it was probable that asbestos would be located within enclosed areas. It is unknown what measures were taken after the investigation to safeguard individuals from coming into contact with the hazardous material. Further investigation is recommendation prior to demolition.

Prior to the demolition process, it is also necessary to cap and abandon in place the underground sanitary/sewer, water, and gas lines leading to the building. Furthermore, careful measures should be taken to remove the high voltage zone and relocate, if necessary.

Table 2-4 summarizes the building attributes and provides the estimated cost for demolition. **Figure 2-8** and **Figure 2-9** shows the Pre- and Post-Demolition Plans, respectively, for Zone C.

Table 2-4 – Demolition Zone C

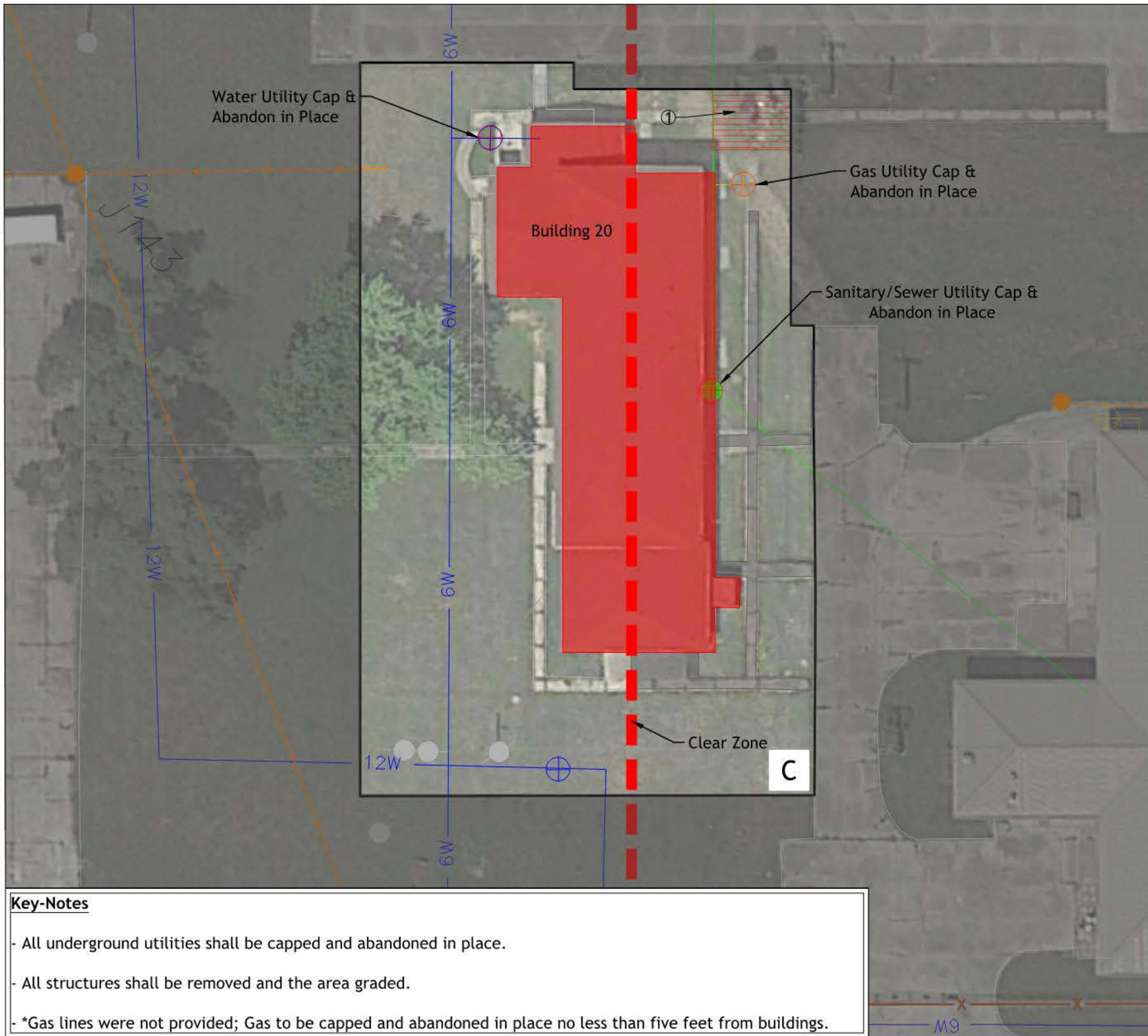
Demolition Zone Identifier:	C
Facility within Area:	Building 20
Facility Owner/Operator:	MCEDA
Current Facility Uses:	Vacant
Year of Construction:	1956
Facility Square Footage:	Approximately 15,870 Square Feet
Building Hazard Report:	Building 20 Asbestos Report (Date Inspected: 09/09/93) - Contract # F12617-93-C004
Building Hazards Report Findings:	Asbestos was detected in the magnesia insulation on the hot water heat converter located in the large mechanical room, wool felt insulation on domestic water lines (some visible, some above plaster ceiling), mud fitting insulation on low pressure steam, hot water heat and chilled water lines located in both mechanical rooms, air cell insulation on abandoned steam lines (some visible, some above plaster ceiling), 9"x9" floor tile on the first floor (under carpeting and 12"x12" floor tile), 12"x12" floor tiles on the first floor, acoustical plaster located in the briefing room, 9"x9" floor tile on the second floor, and the drywall spackling utilized on the second floor. It is also highly probable that asbestos is present within areas that were inaccessible at the time of the report (i.e. enclosures, chases, abandoned steam lines in perimeter walls).
Utilities Present:	Sanitary/Sewer, Stormwater, Water, Gas
Demolition Plan:	Figure 2-8 – Exhibit C-1: Demolition Plan
Remaining:	Figure 2-9 – Exhibit C-2: Remaining
Order-of Magnitude Cost	
Existing Conditions:	\$133,920
Earthwork:	\$13,212
Exterior Improvements:	\$15,573
General Requirements:	<u>\$168,927</u>
<i>Demolition Zone C Total</i>	\$331,631

Source: MCEDA, CHA, Shiel Sexton, 2020

Note: Costs are in 2019 dollars.



**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION



EXISTING LEGEND	DEMOLITION LEGEND
Clear Zone	Building Demolition
Perimeter Fence	Cap Utility & Abandon in Place
Tree	
Power Pole	
Light Pole	
Sanitary/Sewer	
Stormwater	
Water	
Gas Line	
Pavement	
Demolition Site	
	NOTES
	1. High Voltage Zone
	GRAPHIC SCALE (FEET)
	0 15 30 60

Key-Notes

- All underground utilities shall be capped and abandoned in place.
- All structures shall be removed and the area graded.
- *Gas lines were not provided; Gas to be capped and abandoned in place no less than five feet from buildings.

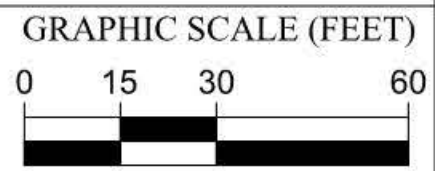
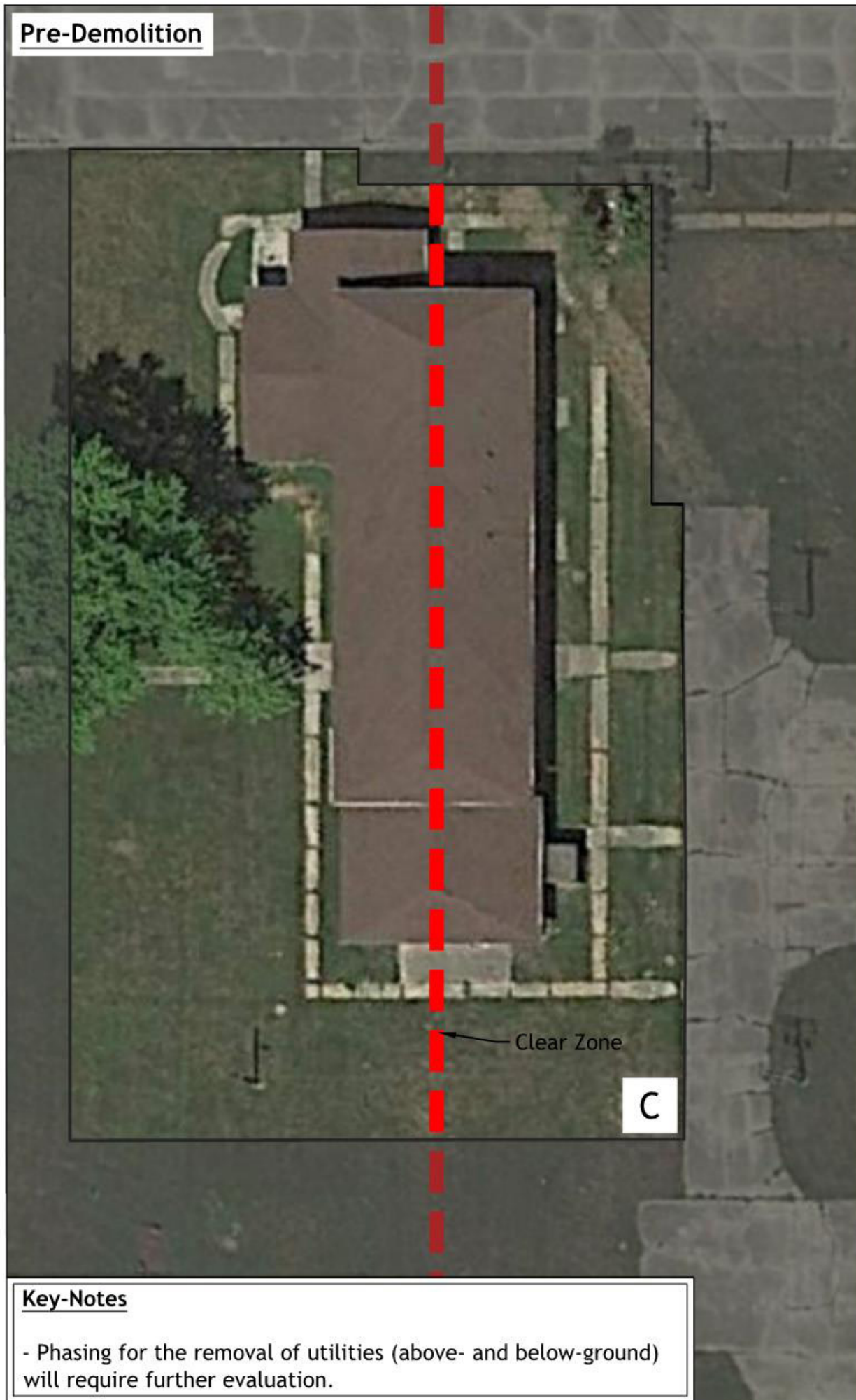


Exhibit C-1
Demolition Plan

Pre-Demolition



Post-Demolition



MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY

**GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION**

LEGEND

--- Clear Zone

□ Post Demolition Site

Key-Notes

- Phasing for the removal of utilities (above- and below-ground) will require further evaluation.



GRAPHIC SCALE (FEET)



Exhibit C-2
Remaining

2.3.5 Demolition Zone D

Demolition Zone D includes Building 22 and a portion of the Airport perimeter fence. Building 22 measures approximately 10,471 SF and was constructed in 1956 with many sections of the building consisting of elevated concrete. A loading dock is attached to the northeast edge of the building. The building is owned by MCEDA and is utilized by MCEDA and the FBO for airfield-related storage (i.e., airfield maintenance equipment, FBO operational equipment, landscape maintenance machinery, etc.). To the north of Building 22 is an at-grade parking area, which is accessible via roadway to the south of Building 38 (see **Figure 2-18**). Additional at-grade pavement is located south of Building 38, which is used when maneuvering the previously described equipment.

As shown in **Figure 2-10**, a portion of the perimeter fence is located to the east of Building 22. In addition to the building and perimeter fence, there are multiple trees, a water hydrant (south of Building 22), a well (south of Building 22 along the edge of the CZ), three power poles (one to southwest, one to the west, and one to the north of Building 22), and underground utilities (i.e., sanitary/sewer, stormwater, water, and gas) located within Demolition Zone D.

Recommended:

It is recommended that Building 22 and the building's loading dock be removed and leveled at-grade. In 1995 an investigation was conducted that confirmed the presence of asbestos within the building's magnesium pipe insulation and presumably in the mechanical room; therefore, prior to demolition, additional measures should be taken to ensure corrective actions were taken since the findings in 1995 and that no asbestos remains in the structure.

Since the building is to be demolished, sanitary/sewer, water, and gas lines can be capped and abandoned in place and the water hydrant system removed. Construction within Demolition Zone D should also include the removal of all trees within the Area, as well as removal of the well and removal of the three power poles, with power being rerouted as needed.

Table 2-5 summarizes the building attributes and provides the estimated cost for demolition. **Figure 2-10** and **Figure 2-11** shows the Pre- and Post-Demolition Plans, respectively, for Zone D.

Table 2-5 – Demolition Zone D

Demolition Zone Identifier:	D
Facility within Area:	Building 22
Facility Owner/Operator:	MCEDA
Current Facility Uses:	Airfield-related storage (i.e., airfield maintenance equipment, FBO operational equipment, landscape maintenance machinery, etc.)
Year of Construction:	1956
Facility Square Footage:	Approximately 10,471 Square Feet
Building Hazard Report:	Building 22 Asbestos Survey Data (Survey Date: 07/25/95; Report Date: 09/01/95)
Building Hazards Report Findings:	Asbestos content was confirmed in the magnesium pipe insulation. Asbestos is presumably within the mechanical room (which was inaccessible during the inspection), including within the pipe and fitting insulation and the two heat exchangers within the mechanical room.
Utilities Present:	Sanitary/Sewer, Stormwater, Water, Gas
Demolition Plan:	Figure 2-10 – Exhibit D-1: Demolition Plan
Remaining:	Figure 2-11 – Exhibit D-2: Remaining
Order-of Magnitude Cost	
Existing Conditions:	\$101,133
Earthwork:	\$84,227
Exterior Improvements:	\$35,421
General Requirements:	<u>\$221,875</u>
<i>Demolition Zone C Total</i>	\$443,656

Source: MCEDA, CHA, Shiel Sexton, 2020

Note: Costs are in 2019 dollars.



**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION



EXISTING LEGEND	DEMOLITION LEGEND
Clear Zone	Building Demolition
Perimeter Fence	Unclassified Excavation
Tree	Tree Removal
Power Pole	Power Pole Removal
Light Pole	Water Hydrant Removal
Water Hydrant	Cap Utility & Abandon in Place
Sanitary/Sewer	
Stormwater	
Water	
Gas Line	
Pavement	
Demolition Site	

- NOTES**
1. Loading Dock
 2. Elevated / Concrete
 3. Well

Key-Notes

- All underground utilities shall be capped and abandoned in place.
- All structures shall be removed and the area graded.
- All above-ground utilities shall be removed and the area graded.
- All non-frangible structures shall be removed and the area graded.
- Loading dock is included within building demolition.

*Gas lines were not provided; Gas to be capped and abandoned in place no less than five feet from buildings.

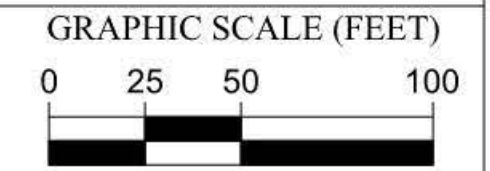
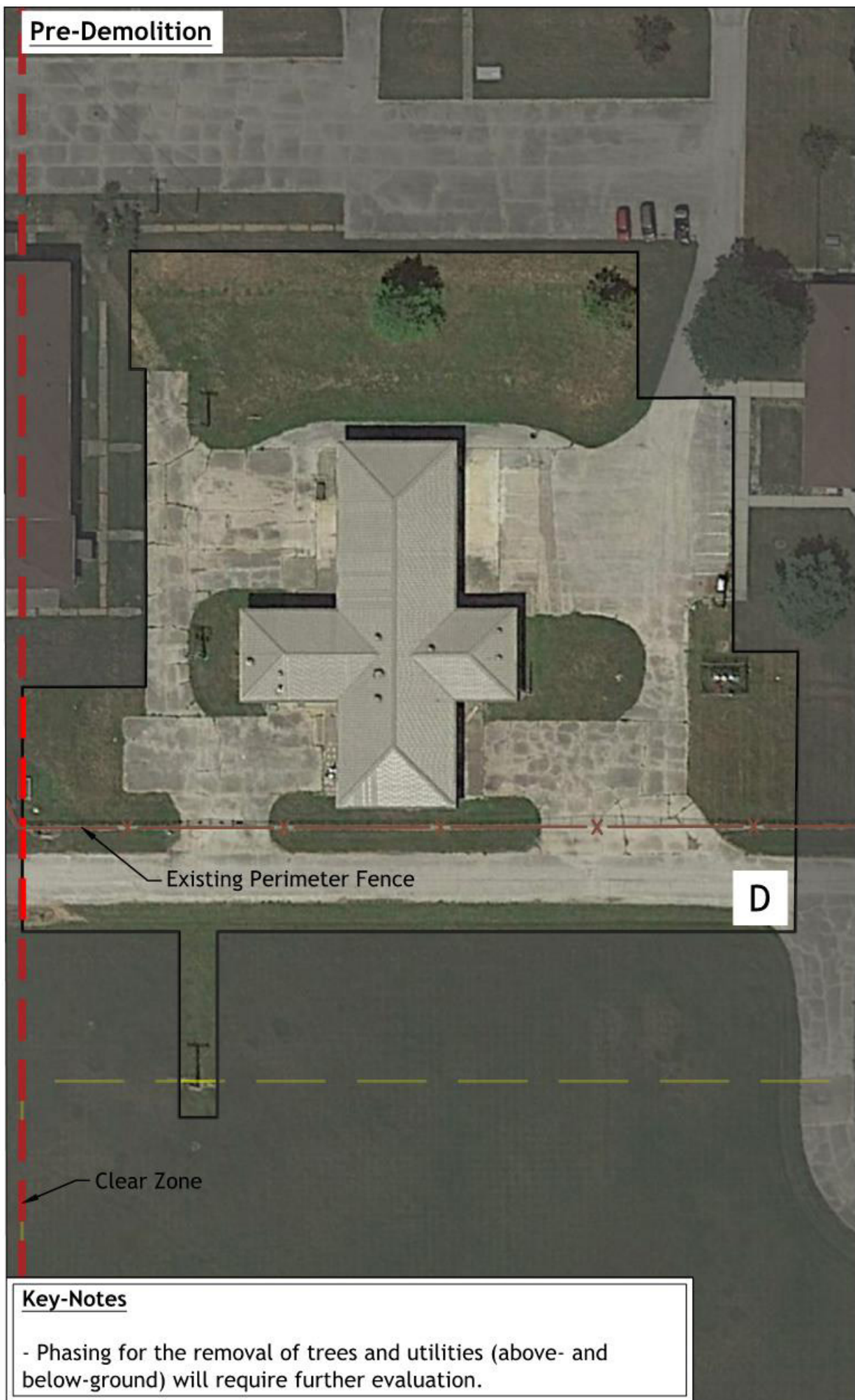
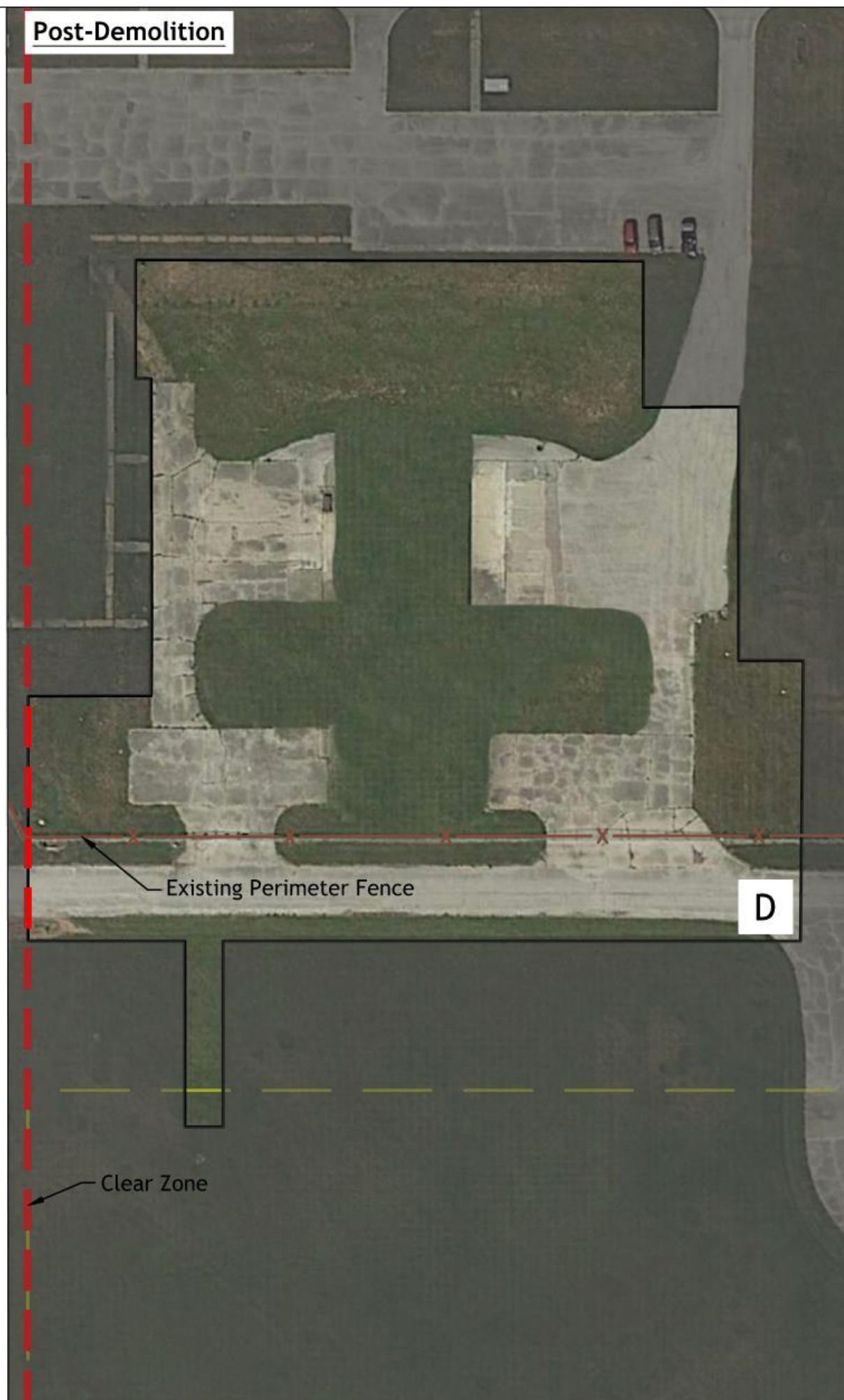


Exhibit D-1
Demolition Plan

Pre-Demolition






Post-Demolition



MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY

**GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION**

LEGEND

-  Clear Zone
-  Post Demolition Site
-  Existing Perimeter Fence

Key-Notes

- Phasing for the removal of trees and utilities (above- and below-ground) will require further evaluation.



GRAPHIC SCALE (FEET)

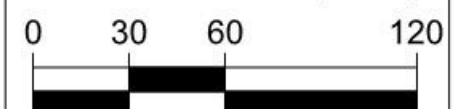


Exhibit D-2
Remaining

2.3.6 Demolition Zone E

Demolition Zone E includes a privately-owned building, Building 32, measuring approximately 12,966 SF. The building is partially outfitted for private aircraft storage, while the remainder of the building is vacant. Parking for Building 32 is available to the north and is shared with Building 1 in Demolition Zone A (see **Figure 2-4**). Several at-grade sidewalks provide access around Building 32.

A loading dock is attached to the central east side of the building, with a drive leading from the loading dock area to an intersection with an airfield gate (built into the perimeter fence) to the north and Building 33 to the south. Several utility lines, including sanitary/sewer, stormwater, water, raw water, and gas, are also located within Demolition Zone E, along with a water hydrant system located to the east of the drive at the southwest corner of Demolition Zone E. Three power poles are also in the vicinity of Building 32, with one to the north, and two to the northwest.

Recommended:

To adhere to military standards, Building 32 is recommended to be razed; however, demolition is only necessary to the at-grade foundation. Removal of the loading docks, as well as the raised portion of the drive associated with the loading dock (see **Figure 2-12**) should be included in the demolition process. Although only a portion of the drive requires removal to meet standards, all of the raised curbs on the outer edges of the drive require removal at-grade. Once demolished, the areas where the loading dock and drive have been removed should be filled and covered with topsoil, followed by overseed.

Upon building demolition, new perimeter fencing must be installed to connect the fence and re-secure the airfield, as shown in **Figure 2-12** and **Figure 2-13**. Furthermore, the sanitary/sewer, water, and gas lines leading to Building 32 should be capped and abandoned in place. The water hydrant and power poles should also be removed.

Table 2-6 summarizes the building attributes and provides the estimated cost for demolition. **Figure 2-12** and **Figure 2-13** shows the Pre- and Post-Demolition Plans, respectively, for Zone E.

Table 2-6 – Demolition Zone E

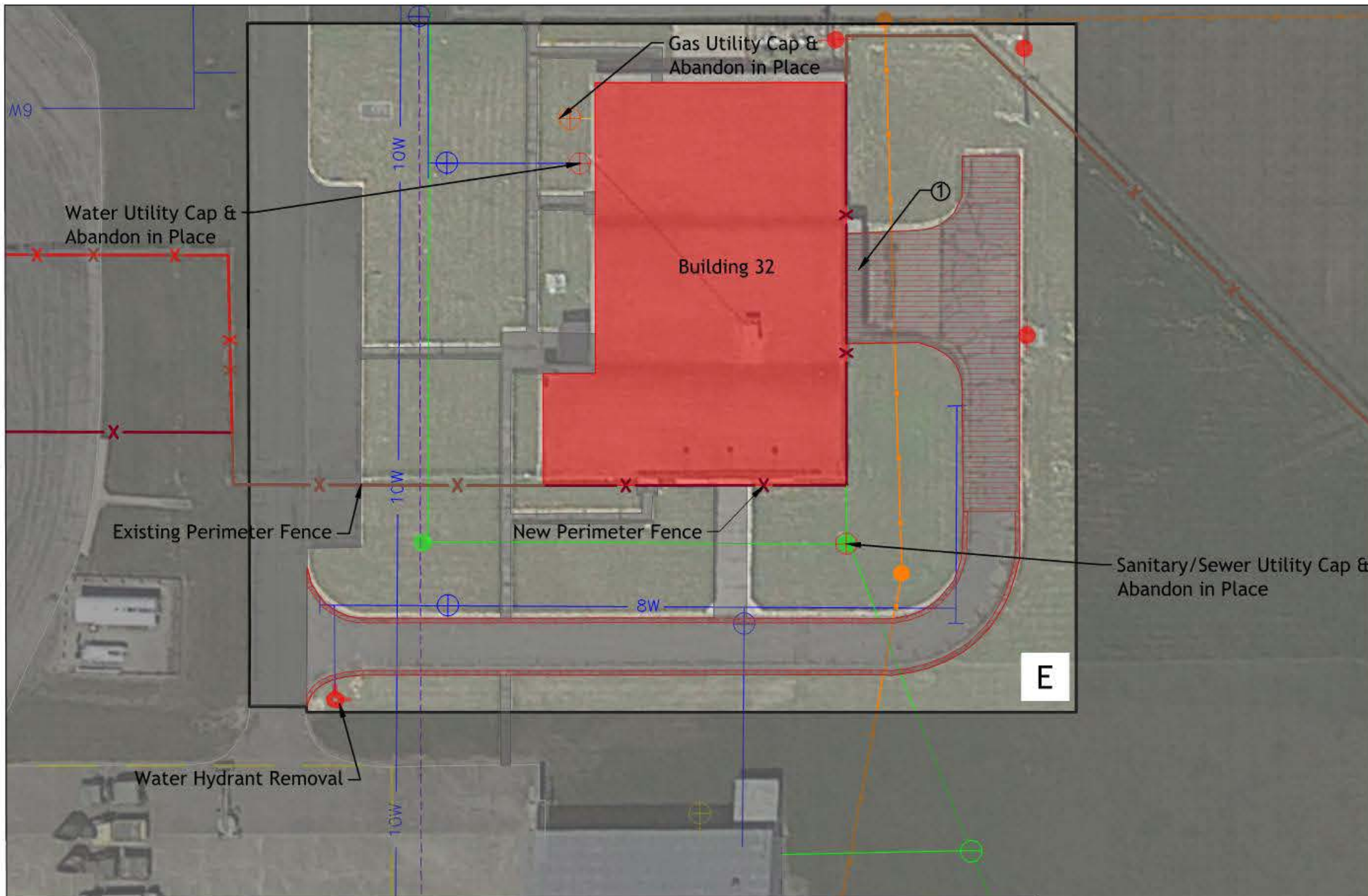
Demolition Zone Identifier:	E
Facility within Area:	Building 32
Facility Owner/Operator:	Private Ownership
Current Facility Uses:	Partially used for private aircraft storage; Partially vacant.
Year of Construction:	1961
Facility Square Footage:	Approximately 12,966 Square Feet
Building Hazard Report:	Unavailable
Building Hazards Report Findings:	Unavailable
Utilities Present:	Sanitary/Sewer, Stormwater, Water, Water Raw, Gas
Demolition Plan:	Figure 2-12 – Exhibit E-1: Demolition Plan
Remaining:	Figure 2-13 – Exhibit E-2: Remaining
Order-of Magnitude Cost	
Existing Conditions:	\$89,210
Earthwork:	\$72,786
Exterior Improvements:	\$34,208
General Requirements:	<u>\$200,045</u>
<i>Demolition Zone E Total</i>	\$396,249

Source: MCEDA, CHA, Shiel Sexton, 2020

Note: Costs are in 2019 dollars.



**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION



EXISTING LEGEND	DEMOLITION LEGEND
Perimeter Fence	Building Demolition
Sanitary/Sewer	Pavement Removal
Stormwater	Unclassified Excavation
Water	Power Pole Removal
Water Raw	Water Hydrant Removal
Gas Line	Cap Utility & Abandon in Place
Pavement	Perimeter Fence Removal
Demolition Site	

***CONSTRUCTION	NOTES
New Perimeter Fence	1. Loading Dock

Key-Notes

- All underground utilities shall be capped and abandoned in place.
- All structures shall be removed and the area graded.
- All above-ground utilities shall be removed and the area graded.
- All non-frangible structures shall be removed and the area graded.
- Loading dock is included within building demolition.

*Gas lines were not provided; Gas to be capped and abandoned in place no less than five feet from buildings.

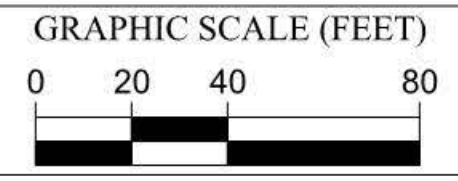


Exhibit E-1
Demolition Plan

Pre-Demolition



Key-Notes

- Phasing for the removal of utilities (above- and below-ground) will require further evaluation.



**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**

**GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION**

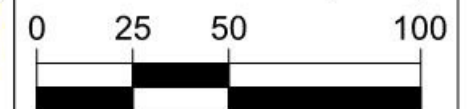
LEGEND

-  Post Demolition Site
-  Existing Perimeter Fence
-  New Perimeter Fence

Post-Demolition



GRAPHIC SCALE (FEET)



**Exhibit E-2
Remaining**

2.3.7 Demolition Zone F

Within Demolition Zone F are Building 33, a water pump station, a high voltage zone (located south of Building 33), underground utilities (i.e., sanitary/stormwater, sanitary, stormwater, water, water raw, and gas), and a water hydrant. Building 33 (measuring approximately 6,637 SF) is owned and operated by MCEDA and used for equipment storage such as snow removal and aircraft de-icing equipment. A high-pressure water pump station is located west of the building and managed by Peru Utilities. The water pump station supplies water to areas and facilities not owned by or associated with MCEDA or the Air Force.

Recommended:

It is recommended that Building 33 be demolished to the foundation. As indicated in the Asbestos Report from 1993, asbestos was detected within the STM elbows, 12"x12" grey floor tiles (which were covered by carpet), 12"x12" brown floor tiles, and the window caulking. Further evaluation should be conducted prior to demolition to verify the hazards that have been corrected and those still present. At the time of the inspection, state regulations considered window caulking as a non-regulated material, thus, not requiring special measures be taken during demolition; therefore, state regulations should be referenced to indicate what measures must be taken prior to demolishing Building 33, as standards and regulations may have changed since the 1993 investigation and report.

The sanitary/sewer, water, and gas utilities leading to Building 33 can be capped and abandoned in place. Careful measures must also be taken to remove the high voltage zone and to relocate it outside of the CZ if replacement is necessary. In addition, coordination efforts will be made between MCEDA and Peru Utilities to remove and relocate the water pump station outside of the clear zone, preferably off MCEDA- or Air Force-owned property.

Table 2-7 summarizes the building attributes and provides the estimated cost for demolition. **Figure 2-14** and **Figure 2-15** shows the Pre- and Post-Demolition Plans, respectively, for Area F.

Table 2-7 – Demolition Zone F

Demolition Zone Identifier:	F
Facility within Area:	Building 33
Facility Owner/Operator:	MCEDA
Current Facility Uses:	Equipment storage (i.e., snow removal, aircraft de-icing, etc.)
Year of Construction:	1961
Facility Square Footage:	Approximately 6,637 Square Feet
Building Hazard Report:	Building 33 Asbestos Report (Date Inspected: 09/16/93) - Contract # F12617-93-C004;
Building Hazards Report Findings:	Asbestos was found to be present within the STM elbows, 12"x12" grey floor tiles (covered by carpet), 12"x12" brown floor tiles, and window caulking. At the time of the inspection, floor tiles were in good condition. The report also indicated that the majority of the elbows were in good condition, with only two of the 42 inspected being damaged.
Utilities Present:	Sanitary/Sewer, Stormwater, Water, Water Raw, Gas
Demolition Plan:	Figure 2-14 – Exhibit F-1: Demolition Plan
Remaining:	Figure 2-15 – Exhibit F-2: Remaining
Order-of Magnitude Cost	
Existing Conditions:	\$97,427
Earthwork:	\$48,886
Exterior Improvements:	\$29,447
General Requirements:	<u>\$181,055</u>
<i>Demolition Zone F Total</i>	\$356,815

Source: MCEDA, CHA, Shiel Sexton, 2020

Note: Costs are in 2019 dollars.



**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION



EXISTING LEGEND

- Sanitary/Sewer
- Sanitary
- Stormwater
- Water
- Water Raw
- Gas Line
- Pavement
- Demolition Site

DEMOLITION LEGEND

- Building Demolition
- Unclassified Excavation
- Water Hydrant Removal
- Cap Utility & Abandon in Place

NOTES

1. Water Pump Station
2. High Voltage Zone

GRAPHIC SCALE (FEET)

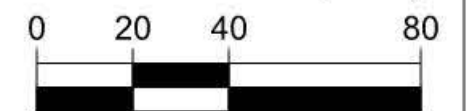


Exhibit F-1
Demolition Plan

Key-Notes

- All underground utilities shall be capped and abandoned in place.
 - All structures shall be removed and the area graded.
 - All above-ground utilities shall be removed and the area graded.
 - All non-frangible structures shall be removed and the area graded.
- *Gas lines were not provided; Gas to be capped and abandoned in place no less than five feet from buildings.

Pre-Demolition

Post-Demolition



MIAMI COUNTY ECONOMIC DEVELOPMENT AUTHORITY

GRISSOM ARB JOINT LAND USE STUDY IMPLEMENTATION

LEGEND

Post Demolition Site



Key-Notes
- Phasing for the removal of trees and utilities (above- and below-ground) will require further evaluation.



GRAPHIC SCALE (FEET)

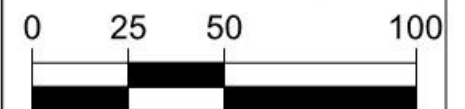


Exhibit F-2
Remaining

2.3.8 Demolition Zone G

The privately-owned building (Building 37) within Demolition Zone G is approximately 25,689 SF and is partially utilized as a dental clinic, with the remainder of the building vacant. A parking lot with 16 parking spaces (two handicap-accessible and 14 universal parking spaces) is located directly north of Building 37, with a vehicular drive (running northeast and southwest) passing through the lot. An additional drive is located to the north of the building, with additional expanses of pavement on either side. The pavement located north of the drive and of Building 37 is not currently in use; however, the pavement south of the drive/east of Building 37 is utilized for additional vehicular parking. Several at-grade sidewalks lead between the primary and secondary parking areas and Building 37.

The underground utilities leading to Building 37 include sanitary/sewer, water, and gas. Additional underground utilities within Demolition Zone G that do not lead directly to Building 37 include stormwater and additional water lines (raw water). A single tree is located to the southwest of Building 37 and two trees have grown to the north of the building, with trees/shrubbery also located along the sidewalk directly west of the building. Nine power poles (one to the southwest, one to the west, one to the northwest, two to the north, one to the northeast, two to the east, and one to the southeast of Building 37) and one light pole (north of Building 37) are also present. A portion of the perimeter fence (as shown in **Figure 2-16**) passes through the northeast corner of Demolition Zone G.

Recommended:

To adhere to military standards, Building 37 is recommended to be razed with the area being filled and then covered with topsoil and overseed. A survey was conducted in 1995 of the building, which reported no findings of materials containing asbestos. The underground sanitary/sewer, water, and gas utilities leading to the building should be capped and abandoned in place. The light and power poles should also be removed, followed by relocation to outside of the CZ if relocation is necessary. In addition, the trees and shrubbery in the vicinity of Building 37 should also be removed.

Table 2-8 summarizes the building attributes and provides the estimated cost for demolition. **Figure 2-16** and **Figure 2-17** shows the Pre- and Post-Demolition Plans, respectively, for Area G.

Table 2-8 – Demolition Zone G

Demolition Zone Identifier:	G
Facility within Area:	Building 37
Facility Owner/Operator:	Private Ownership
Current Facility Uses:	Partially used as a dental clinic; Partially vacant.
Year of Construction:	1973
Facility Square Footage:	Approximately 25,689 Square Feet
Building Hazard Report:	Building 37 Asbestos Survey Data (Survey Date: 07/27/95; Report Date: 09/01/95)
Building Hazards Report Findings:	None
Utilities Present:	Sanitary/Sewer, Stormwater, Water, Raw Water, Gas
Demolition Plan:	Figure 2-16 – Exhibit G-1: Demolition Plan
Remaining:	Figure 2-17 – Exhibit G-2: Remaining
Order-of Magnitude Cost	
Existing Conditions:	\$98,903
Earthwork:	\$95,790
Exterior Improvements:	\$48,296
General Requirements:	<u>\$243,505</u>
<i>Demolition Zone F Total</i>	\$486,494

Source: MCEDA, CHA, Shiel Sexton, 2020

Note: Costs are in 2019 dollars.



**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION



EXISTING LEGEND	DEMOLITION LEGEND
Clear Zone	Building Demolition
Perimeter Fence	Tree Removal
Sanitary/Sewer	Power Pole Removal
Stormwater	Light Pole Removal
Water	Cap Utility & Abandon in Place
Water Out	
Gas Line	
Pavement	
Demolition Site	

Key-Notes

- All underground utilities shall be capped and abandoned in place.
- All structures shall be removed and the area graded.
- All above-ground utilities shall be removed and the area graded.
- All non-frangible structures shall be removed and the area graded.

*Gas lines were not provided; Gas to be capped and abandoned in place no less than five feet from buildings.

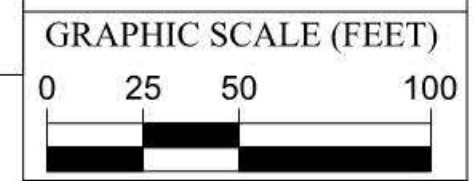
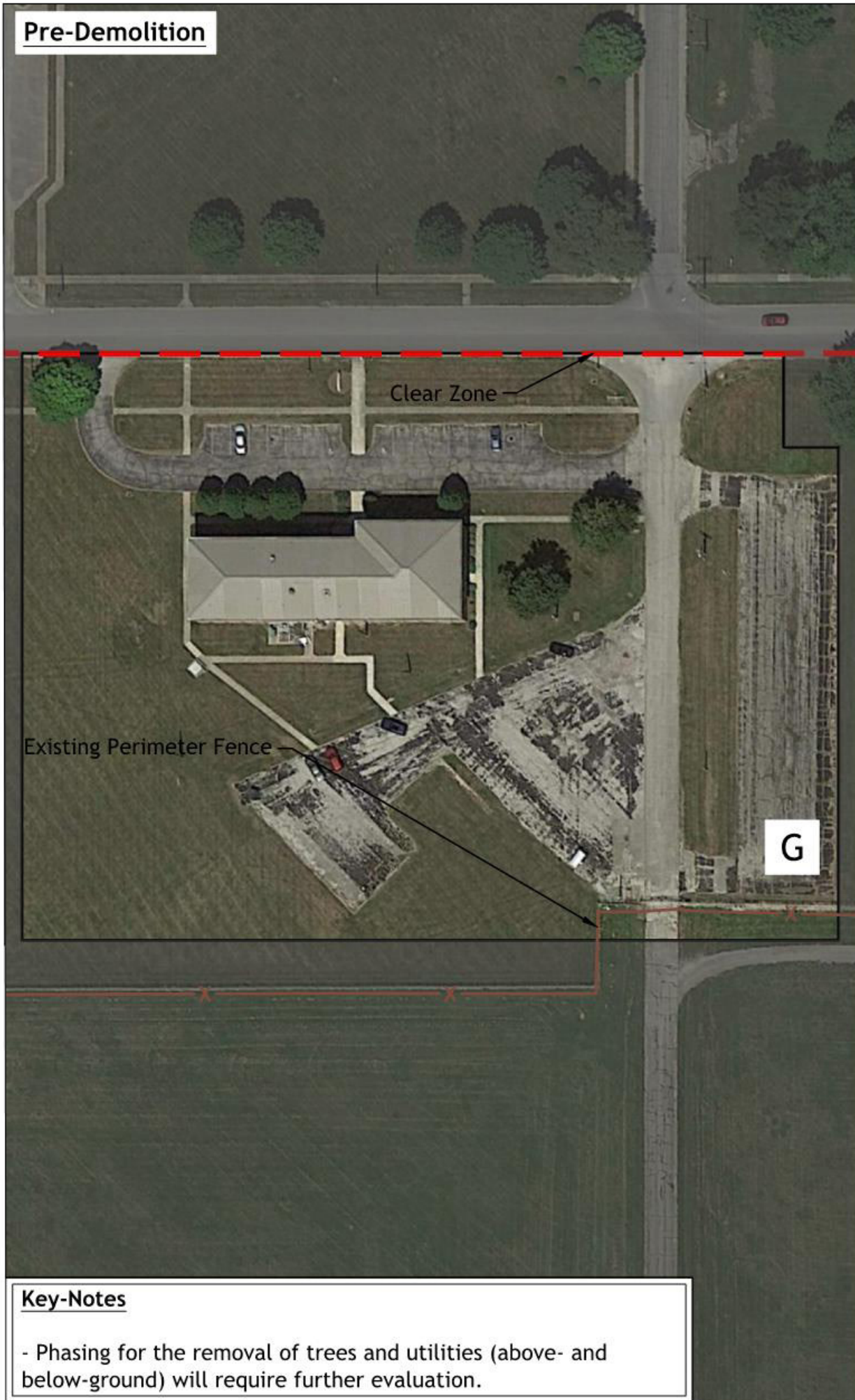


Exhibit G-1
Demolition Plan

Pre-Demolition






Post-Demolition



**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**

**GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION**

LEGEND

-  Clear Zone
-  Post Demolition Site
-  Existing Perimeter Fence

Key-Notes

- Phasing for the removal of trees and utilities (above- and below-ground) will require further evaluation.



GRAPHIC SCALE (FEET)

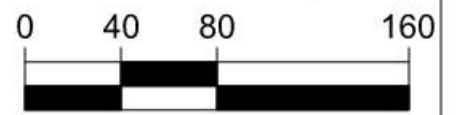


Exhibit G-2
Remaining

2.3.9 Demolition Zone H

Demolition Zone H includes Building 38, a one-story facility measuring approximately 3,000 SF that has underground sanitary/sewer, water, and gas lines leading to the building. The building is owned by MCEDA and is leased to MENTOR Day Services for office and administrative use. Parking for employees and visitors is located to the northwest of Building 38 and was previously shared with Building 20 when it was occupied. The parking lot is accessible via three entrances, with one of the drives passing in front of the southern side of Building 38 and leading to Building 22. The entire parking lot, as well as the east side of the drive, have elevated curbs. All sidewalks leading from the parking/drive to the building are also elevated.

A tree is located directly west of the parking lot and two trees are located alongside Building 38 (one to the south and one to the east). Five power poles, one light pole, and a water hydrant are also located within Demolition Zone H. Three of the power poles and the light pole are located in the vicinity of the parking lot, while the remaining two power poles and water hydrant are located in the vicinity of Building 38.

Recommended:

To adhere to military standards, Building 38 is recommended to be razed. In 1995, an investigation was conducted to determine if the building contained asbestos. The final report found no evidence of the hazardous material within the building.

Prior to demolition it is necessary that the sanitary/sewer, water, and gas lines located underground be capped and abandoned in place and the water hydrant removed.

As mentioned previously, the curbs around the parking area and along the vehicular drive, as well as the sidewalks adjacent to Building 38 should be level to grade. Furthermore, all trees, power poles, and the light pole within Demolition Zone H should also be removed, with the power lines and light pole being relocated if necessary.

Table 2-9 summarizes the building attributes and provides the estimated cost for demolition. **Figure 2-18** and **Figure 2-19** shows the Pre- and Post-Demolition Plans, respectively, for Area H.

Table 2-9 – Demolition Zone H

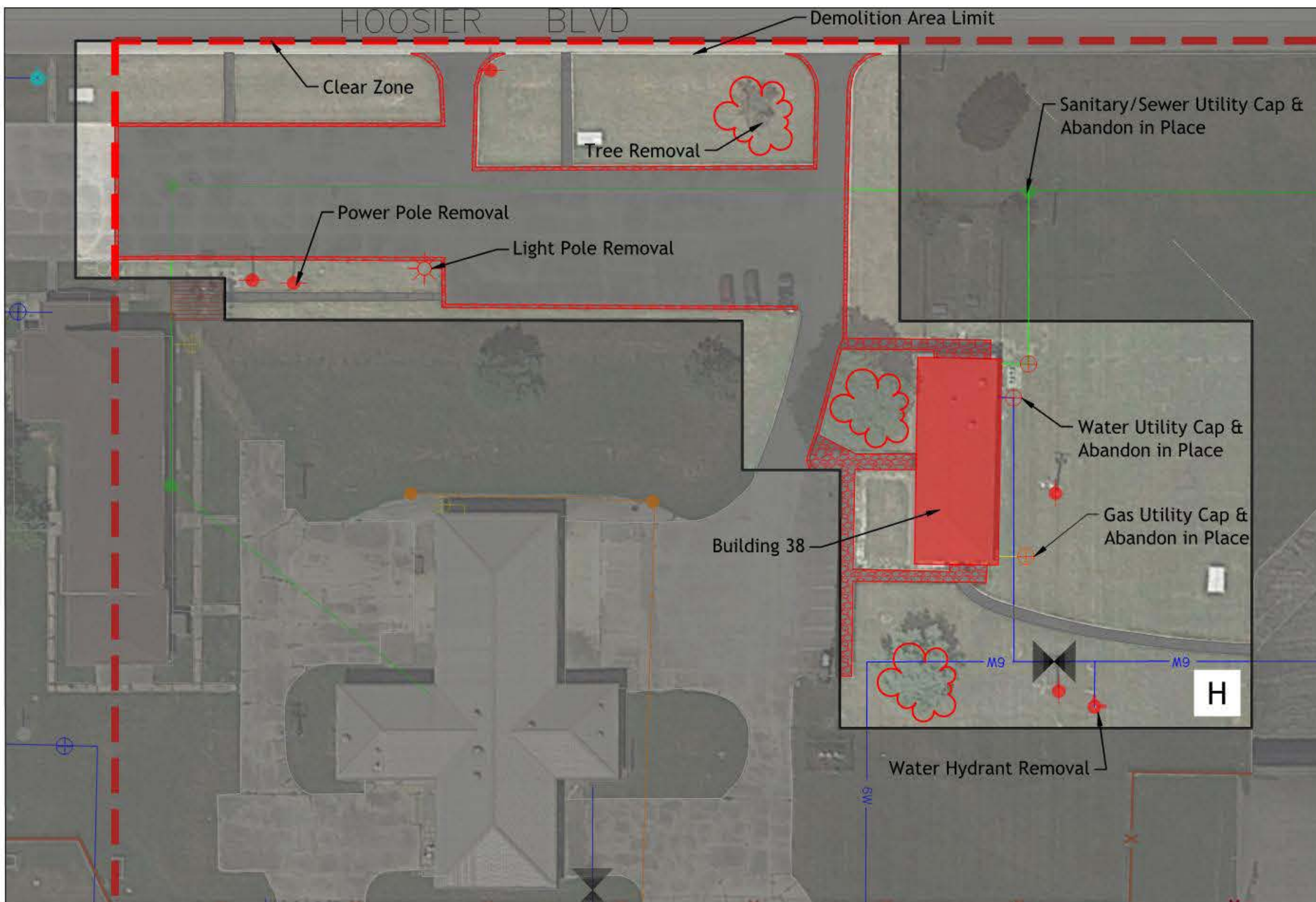
Demolition Zone Identifier:	H
Facility within Area:	Building 38
Facility Owner/Operator:	MCEDA
Current Facility Uses:	Leased for office use
Year of Construction:	Between 1950 and 1960s
Facility Square Footage:	Approximately 3,000 Square Feet
Building Hazard Report:	Building 38 Asbestos Survey Data (Survey Date: 07/25/95; Report Date: 09/01/95)
Building Hazards Report Findings:	None
Utilities Present:	Sanitary/Sewer, Stormwater, Water, Water Raw, Gas
Demolition Plan:	Figure 2-18 – Exhibit H-1: Demolition Plan
Remaining:	Figure 2-19 – Exhibit H-2: Remaining
Order-of Magnitude Cost	
Existing Conditions:	\$19,800
Earthwork:	\$51,120
Exterior Improvements:	\$36,740
General Requirements:	<u>\$117,797</u>
<i>Demolition Zone H Total</i>	\$225,457

Source: MCEDA, CHA, Shiel Sexton, 2020

Note: Costs are in 2019 dollars.



**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION



EXISTING LEGEND	DEMOLITION LEGEND
Clear Zone	Building Demolition
Perimeter Fence	Pavement Removal
Tree	Tree Removal
Power Pole	Power Pole Removal
Light Pole	Light Pole Removal
Sanitary/Sewer	Water Hydrant Removal
Stormwater	Cap Utility & Abandon in Place
Water	
Gas Line	
Pavement	
Demolition Site	

Key-Notes

- All underground utilities shall be capped and abandoned in place.
- All structures shall be removed and the area graded.
- All above-ground utilities shall be removed and the area graded.
- All non-frangible structures shall be removed and the area graded.

*Gas lines were not provided; Gas to be capped and abandoned in place no less than five feet from buildings.

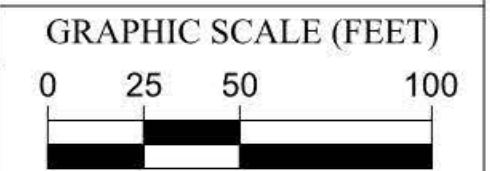




Exhibit H-1
Demolition Plan



MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY

**GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION**

LEGEND

-  Clear Zone
-  Post Demolition Site



Key-Notes
- Phasing for the removal of trees and utilities (above- and below-ground) will require further evaluation.

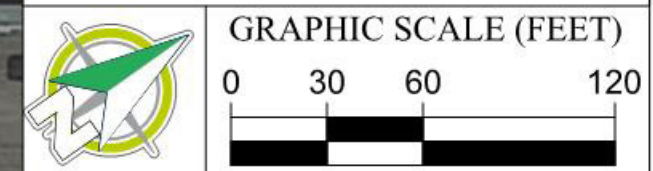


Exhibit H-2
Remaining

2.3.10 Demolition Zone X

Demolition Zone X, located at the northwest corner of the Runway 23 clear zone, does not contain any buildings or facilities; however, one power pole, one light pole, and numerous trees are located within the area. Trees are intermittently located along the east side of Demolition Zone X, and a tree line is located across the west edge of the area. A portion of Hoosier Boulevard (see **Figure 2-20**) intersects the northwest corner of Demolition Zone X/ Runway 23 CZ.

Recommended:

In order to keep the CZ free of obstructions, it is recommended that all trees and poles (power and light) be removed, with the power poles and light pole being relocated if needed. With regard to Hoosier Boulevard, consideration is being vetted for the proposed realignment of the roadway outside of the clear zone; however, further discussions and studies will be necessary before determinations can be made.

Table 2-10 summarizes the building attributes and provides the estimated cost for demolition. **Figure 2-20** and **Figure 2-21** shows the Pre- and post-demolition Plans, respectively, for Area A.

Table 2-10 – Demolition Zone X

Demolition Zone Identifier:	X
Facility within Area:	None
Facility Owner/Operator:	N/A
Current Facility Uses:	N/A
Year of Construction:	N/A
Facility Square Footage:	N/A
Building Hazard Report:	N/A
Building Hazards Report Findings:	N/A
Utilities Present:	None
Demolition Plan:	Figure 2-20 – Exhibit X-1: Demolition Plan
Remaining:	Figure 2-21 – Exhibit X-2: Remaining
Order-of Magnitude Cost	
Earthwork:	\$73,040
Exterior Improvements:	\$92,901
General Requirements:	<u>\$171,935</u>
Demolition Zone X Total	\$337,876

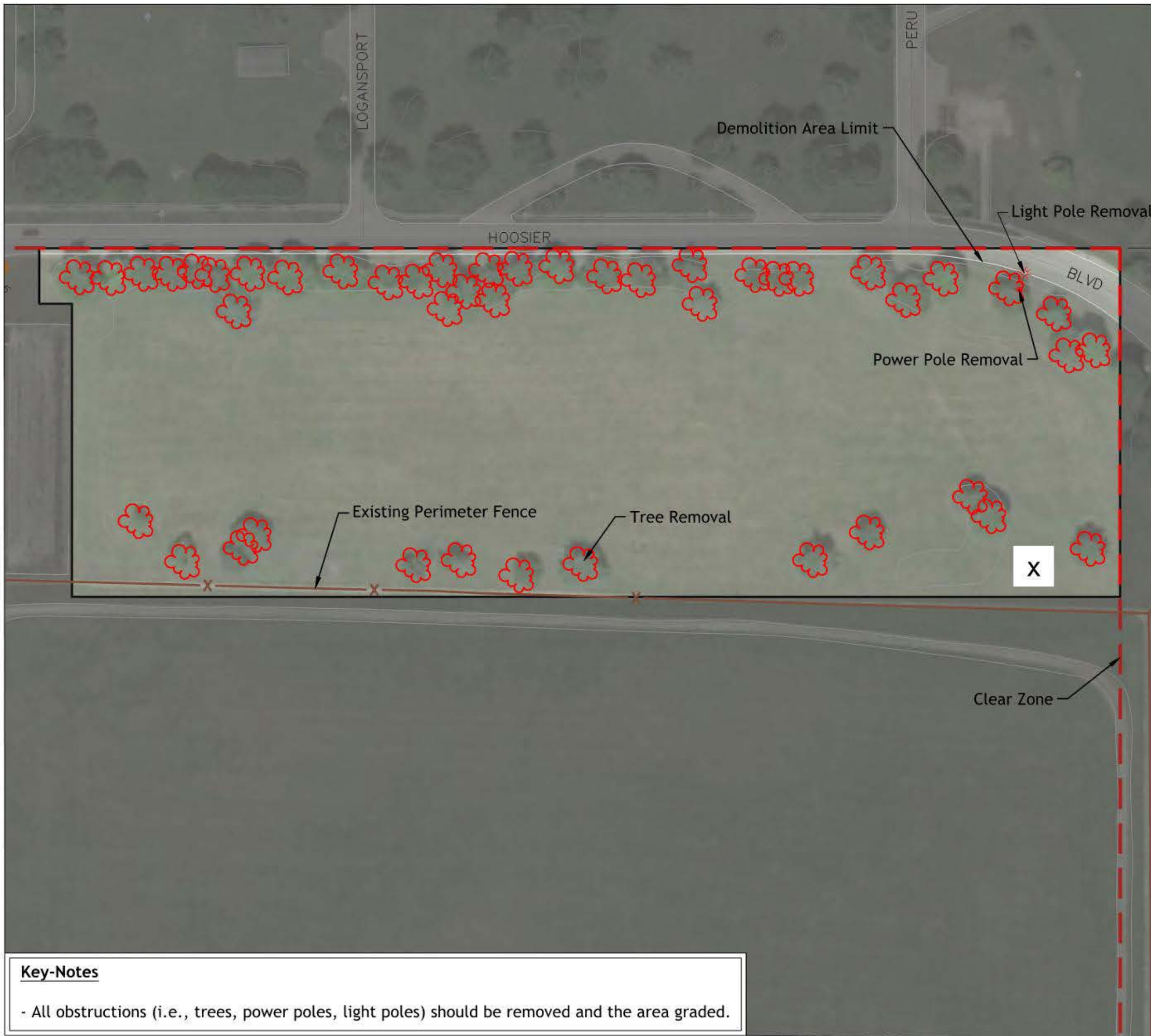
Source: MCEDA, CHA, Shiel Sexton, 2020

Note: Costs are in 2019 dollars.



MIAMI COUNTY ECONOMIC DEVELOPMENT AUTHORITY

GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION



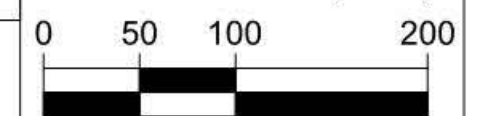
EXISTING LEGEND

- Clear Zone
- Perimeter Fence
- Tree
- Power Pole
- Light Pole
- Demolition Site

DEMOLITION LEGEND

- Tree Removal
- Power Pole Removal
- Light Pole Removal

GRAPHIC SCALE (FEET)



Key-Notes




- All obstructions (i.e., trees, power poles, light poles) should be removed and the area graded.

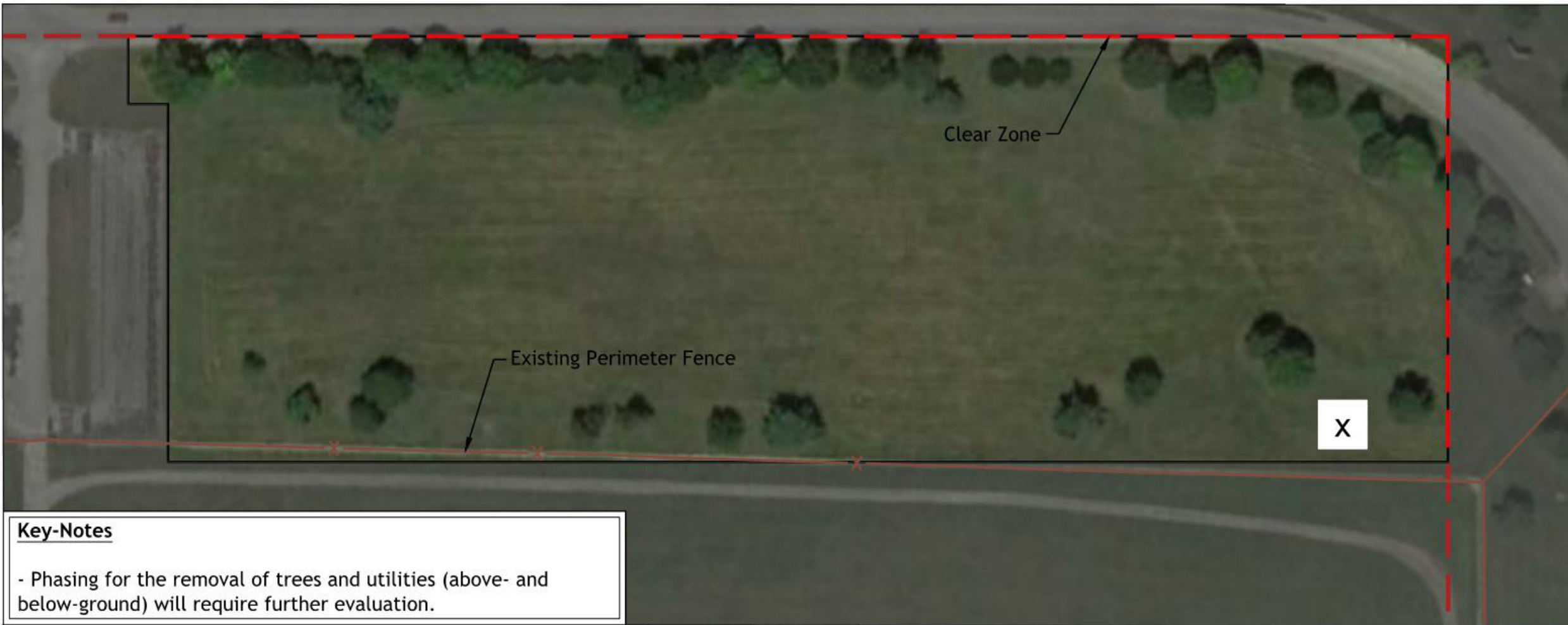
Exhibit X-1
Demolition Plan



**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION

LEGEND

-  Clear Zone
-  Post Demolition Site
-  Existing Perimeter Fence



Key-Notes
- Phasing for the removal of trees and utilities (above- and below-ground) will require further evaluation.

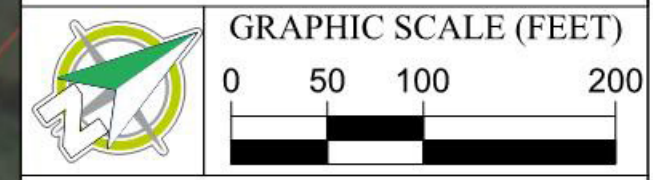
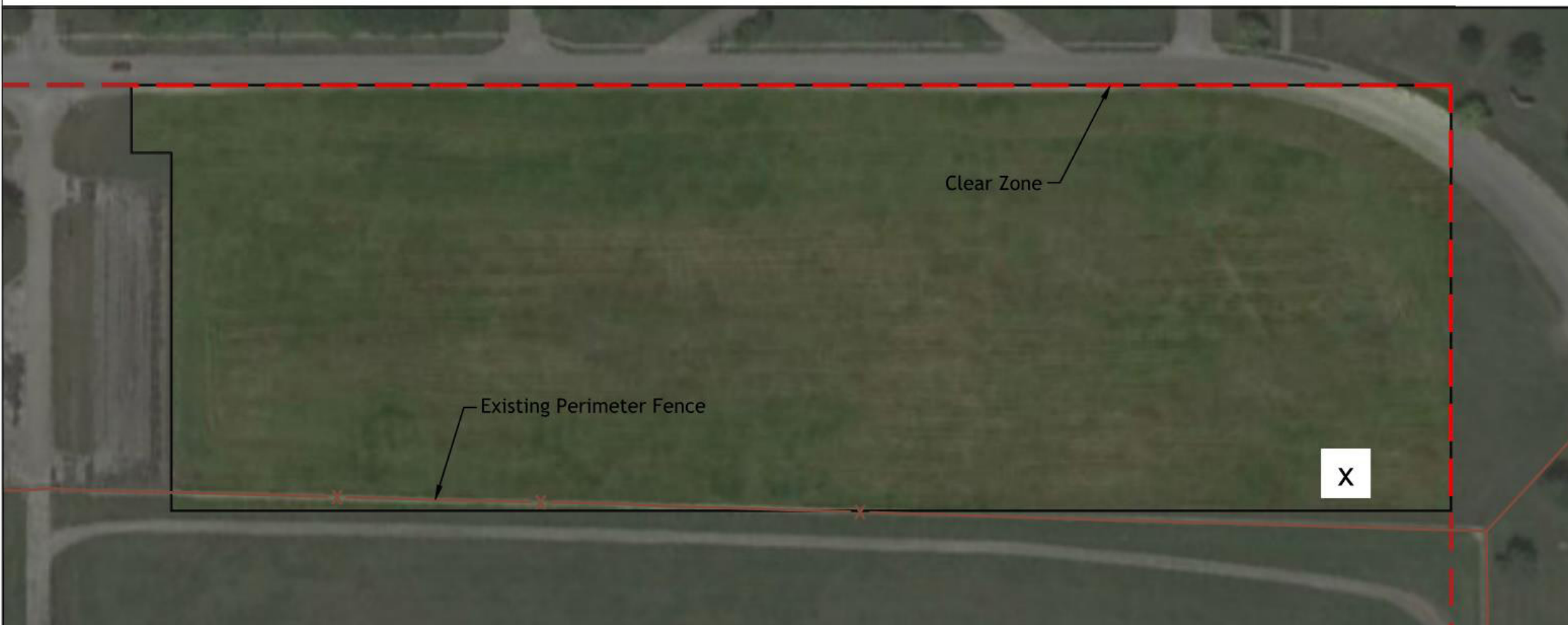


Exhibit X-2
Remaining

3 RELOCATION RECOMMENDATIONS & COST ESTIMATES

Chapter 2 outlined a demolition plan for the buildings and structures located within the Runway 23 (Northeast) Clear Zone at the Grissom Air Reserve Base (GARB or GUS). The purpose of **Chapter 3** is to identify potential buildings and/or developable areas within the Grissom Aeroplex owned by the Miami County Economic Development Authority (MCEDA) capable of supporting relocation of certain buildings discussed within **Chapter 2**.

As a summary, **Table 1-3** lists the buildings within the Runway 23 Clear Zone (CZ). Of the eight buildings listed, the five buildings noted below are proposed to be relocated into either existing or future buildings.

Table 3-1 – Runway 23 (Northeast) Clear Zone Structures

Building Number/Facility	Owner	Dedicated Use	Year of Construction	Building Relocation
1	MCEDA	Administration	1942	Y
11	MCEDA	FBO & Fuel Farm	1956	Y
20	MCEDA	Administration	1956	N
22	MCEDA	Administration	1956	N
32	Ladd, Franklin W. & Deborah E.	Private	1961	N
33	MCEDA	FBO	1961	Y
37	L & L Property Management Llc.	Office/Medical	1973	Y
38	MCEDA	Lease/Educational	Unknown	Y

Source: Miami County GIS Tax & Property Information, MCEDA, CHA, 2020.

3.1 PREPARATION OF RELOCATION SITES & COST ESTIMATES

Prior to evaluating sites for relocation, areas within the Grissom Aeroplex capable of supporting future development were identified with input from MCEDA. These areas include space for both future aeronautical and non-aeronautical development outside of the Runway 23 CZ.

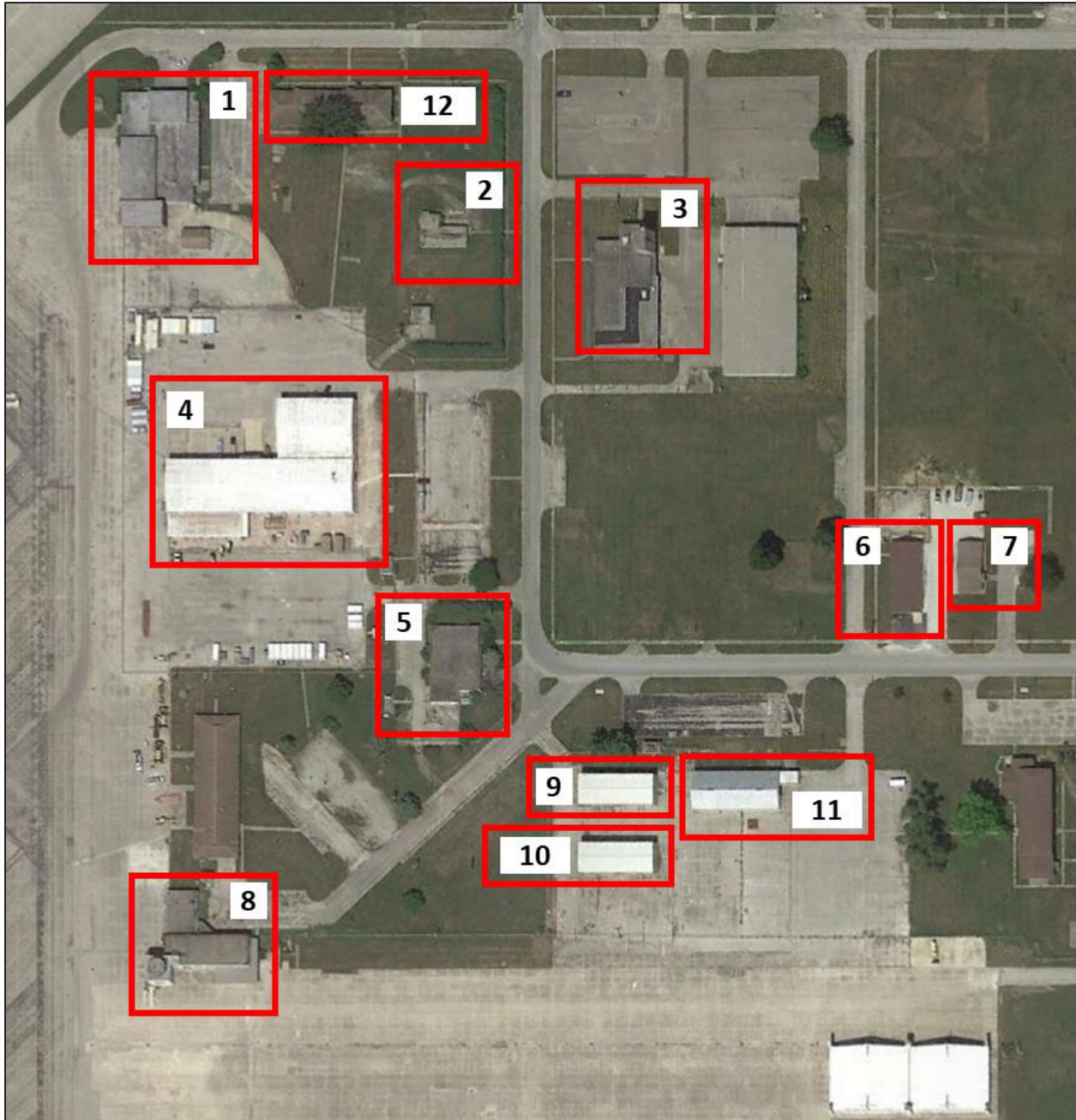
To that end, MCEDA owns several parcels within the Grissom Aeroplex that are either vacant or contain former military buildings. It is important to note that the majority of the vacant MCEDA-owned buildings are beyond their useful life and would require significant investment and renovation prior to housing office space.

3.1.1 Demolition Plan

To accommodate the facilities that are to be relocated, three military-owned and eight MCEDA-owned buildings within the relocation areas are recommended to be demolished. A Demolition Plan was developed that identified 11 initial zones (Zones 1 through 11) and one additional building [Building 410 (Zone 12)], followed by a detailed evaluation listing the parcels on which the structures are located, the uses of the buildings, the building materials, and the building footprints. The demolition zones are depicted in **Figure 3-1**.

The rough order-of-magnitude cost estimates associated with the demolition of the identified buildings are detailed within **Section 3.3** and **Appendix C**. As discussed previously, presented cost estimates are in 2019 dollars. Future costs are subject to change based on inflation.

Figure 3-1 – Overview of Demolition Zones for Preparation of Relocation Sites



Note: Figure not indicating true north.
 Source: Google Earth, CHA, 2020.

Zone 1

Demolition Zone 1 includes a military-owned facility whose use is undisclosed. The building is made of brick and measures approximately 16,380 square feet (SF). The total estimated cost associated with demolishing this site is \$296,074.

Table 3-2 – Zone 1

Demolition Zone Identifier:	1
Facility within Area:	Undisclosed – Military Use
Facility Owner/Operator:	United States of America
Current Facility Uses:	Undisclosed – Military Use
Building Material:	Wood Frame
Year of Construction:	N/A
Facility Square Footage:	Approximately 16,380 SF
Building Location’s Parcel #:	52-10-36-200-002.000-017
Figure:	Figure 3-2 – Zone 1
Order-of Magnitude Cost	
Existing Conditions:	\$98,280
Earthwork:	\$14,359
Exterior Improvements:	\$31,631
General Requirements:	<u>\$151,804</u>
Demolition Zone 1 Total	\$296,074

Source: Miami County GIS Tax & Property Information, MCEDA, CHA, Shiel Sexton, 2020.

Note: Costs are in 2019 dollars.

Figure 3-2 – Zone 1



Source: Miami County GIS Tax & Property Information, 2020.

Zone 2

Demolition Zone 2 contains a 2,055 SF building/vault made of heavy metal and concrete. The structure is owned by the Air Force. The total estimated cost associated with demolishing this site is \$75,528.

Table 3-3 – Zone 2

Demolition Zone Identifier:	2
Facility within Area:	Undisclosed – Military Use
Facility Owner/Operator:	United States of America
Current Facility Uses:	Vault
Building Material:	Heavy Metal & Concrete
Year of Construction:	N/A
Facility Square Footage:	Approximately 2,055 SF
Building Location’s Parcel #:	52-10-36-200-002.000-017
Figure:	Figure 3-3 – Zone 2
Order-of Magnitude Cost	
Existing Conditions:	\$12,330
Earthwork:	\$9,385
Exterior Improvements:	\$8,218
General Requirements:	\$45,595
Demolition Zone 2 Total	\$75,528

Source: Miami County GIS Tax & Property Information, MCEDA, CHA, Shiel Sexton, 2020.

Note: Costs are in 2019 dollars.

Figure 3-3 – Zone 2



Source: Miami County GIS Tax & Property Information, 2020.

Zone 3

Building 109, which is owned by MCEDA, is located within Zone 3. The building is approximately 13,800 SF, constructed of brick and block and is currently vacant. The total estimated cost associated with demolishing this site is \$282,364.

Table 3-4 – Zone 3

Demolition Zone Identifier:	3
Facility within Area:	Building 109
Facility Owner/Operator:	MCEDA
Current Facility Uses:	Vacant
Building Material:	Brick / Block
Year of Construction:	1942
Facility Square Footage:	Approximately 13,800 SF
Building Location's Parcel #:	52-10-36-200-002.001-017
Figure:	Figure 3-4 – Zone 3
Order-of Magnitude Cost	
Existing Conditions:	\$110,400
Earthwork:	\$11,037
Exterior Improvements:	\$15,725
General Requirements:	<u>\$145,202</u>
<i>Demolition Zone 3 Total</i>	<u>\$282,364</u>

Source: Miami County GIS Tax & Property Information, MCEDA, CHA, Shiel Sexton, 2020.

Note: Costs are in 2019 dollars.

Figure 3-4 – Zone 3



Source: CHA, 2020.

Zone 4

Building 190, located within Demolition Zone 4, is owned by MCEDA and is used for equipment storage. Resultantly, upon razing the 28,540 SF facility, MCEDA will be in need of a replacement storage facility. The total estimated cost associated with demolishing this site is \$555,990.

Table 3-5 – Zone 4

Demolition Zone Identifier:	4
Facility within Area:	Building 190
Facility Owner/Operator:	MCEDA
Current Facility Uses:	Equipment Storage
Building Material:	Metal
Year of Construction:	1969
Facility Square Footage:	Approximately 28,540 SF
Building Location's Parcel #:	52-10-36-200-190.555-017
Figure:	Figure 3-5 – Zone 4
Order-of Magnitude Cost	
Existing Conditions:	\$228,320
Earthwork:	\$38,764
Exterior Improvements:	\$11,887
General Requirements:	<u>\$276,929</u>
<i>Demolition Zone 4 Total</i>	\$555,900

Source: Miami County GIS Tax & Property Information, MCEDA, CHA, Shiel Sexton, 2020.

Note: Costs are in 2019 dollars.

Figure 3-5 – Zone 4



Source: CHA, 2020.

Zone 5

Similar to Demolition Zone 1, Zone 5 contains a building owned and operated by the Air Force. The building is approximately 6,145 SF and is constructed of cinder block and wood. Demolition of this site is estimated at \$163,804.

Table 3-6 – Zone 5

Demolition Zone Identifier:	5
Facility within Area:	N/A
Facility Owner/Operator:	United States of America
Current Facility Uses:	Undisclosed – Military Use
Building Material:	Cinder Block / Wood
Year of Construction:	N/A
Facility Square Footage:	Approximately 6,145 SF
Building Location’s Parcel #:	52-10-36-200-001.008-017
Figure:	Figure 3-6 – Zone 5
Order-of Magnitude Cost	
Existing Conditions:	\$36,870
Earthwork:	\$19,385
Exterior Improvements:	\$19,442
General Requirements:	<u>\$88,107</u>
<i>Demolition Zone 5 Total</i>	\$163,804

Source: Miami County GIS Tax & Property Information, MCEDA, CHA, Shiel Sexton, 2020.

Note: Costs are in 2019 dollars.

Figure 3-6 – Zone 5



Source: CHA, 2020.

Zone 6 & Zone 7

Building 139 and Building 135 are privately owned and located within Demolition Zones 6 and Zone 7, respectively. Building 139 is a metal pole barn measuring approximately 3,680 SF. Recent tax forms list the building as office space. Building 135, also privately owned, is constructed of wood and measures approximately 1,920 SF. The combined estimated cost to demolish both site is \$198,525 (\$107,539 for Building 139 and \$90,986 for Building 135).

Table 3-7 – Zones 6 & 7

Demolition Zone Identifier:	6	7
Facility within Area:	Building 139	Building 135
Facility Owner/Operator:	Jedd Properties, LLC	Jedd Properties, LLC
Current Facility Uses:	Pole Barn (Per Tax Forms – Office Building)	Private Use
Building Material:	Metal	Wood
Year of Construction:	1942	1960
Facility Square Footage:	Approximately 3,680	Approximately 1,920
Building Location’s Parcel #:	52-10-25-300-001.049-017	52-10-25-300-001.049-017
Figure:	Figure 3-7 – Zones 6 & 7	Figure 3-7 – Zones 6 & 7
Order-of Magnitude Cost		
Existing Conditions:	\$29,440	\$15,360
Earthwork:	\$6,884	\$10,664
Exterior Improvements:	\$10,204	\$11,922
General Requirements:	<u>\$61,011</u>	<u>\$53,040</u>
Demolition Zone Total	\$107,539	\$90,986

Source: Miami County GIS Tax & Property Information, MCEDA, CHA, Shiel Sexton, 2020.

Note: Costs are in 2019 dollars.

Figure 3-7 – Zones 6 & 7



Note: Building 139 (Left); Building 135 (Right).

Source: CHA, 2020.

Zone 8

Demolition Zone 8 contains the Airport’s former Air Traffic Control Tower (Building 14). The multi-level structure (which includes a basement) is comprised of approximately 17,180 SF and is made of wood, cement, asphalt, and concrete. It is important to note that the structure, which was built in 1942 during World War II as a Navy installation, contains asbestos material; therefore, additional measures will be necessary during the demolition process. The estimated cost for demolish of Building 14 is approximately \$411,521.

Table 3-8 – Zone 8

Demolition Zone Identifier:	8
Facility within Area:	Building 14
Facility Owner/Operator:	MCEDA
Current Facility Uses:	Vacant – Previous Air Traffic Control Tower
Building Material:	Wood / Cement / Asphalt / Concrete (Contains Asbestos Material)
Year of Construction:	1942
Facility Square Footage:	Approximately 17,180 SF Footprint (Multiple Levels)
Building Location’s Parcel #:	52-10-36-200-002.006-017
Figure:	Figure 3-8 – Zone 8
Order-of Magnitude Cost	
Existing Conditions:	\$137,440
Earthwork:	\$42,680
Exterior Improvements:	\$24,002
General Requirements:	<u>\$207,399</u>
<i>Demolition Zone 8 Total</i>	\$411,521

Source: Miami County GIS Tax & Property Information, MCEDA, CHA, Shiel Sexton, 2020.

Note: Costs are in 2019 dollars.

Figure 3-8 – Zone 8



Source: CHA, 2020.

Zone 9 & Zone 10

Demolition Zones 9 and 10 contain identical 4,000 SF metal hangars (Building 48 and Building 49, respectively), both of which are owned by MCEDA and are used for aircraft storage; however, the costs to demolish the structures slightly differ. The estimated cost for MCEDA to demolish Building 48 is \$98,029, while the estimated cost to demolish Building 49 is \$96,977.

The reasons behind the differences in costs vary. Demolition Zone 9 requires tree removal, while Zone 10 does not. In addition, Zone 9 will require more re-grading of the demolition area, removal of existing fencing and installation of temporary perimeter fencing/gates, and planting of seed in all disturbed areas than is necessary in Zone 10, thus resulting in higher costs. Additional items that have higher costs in Zone 9 include design and construction contingencies, design and engineering fees, staffing and general conditions, general requirements, construction manager fees, general insurance, and performance bonds.

Table 3-9 – Zones 9 & 10

Demolition Zone Identifier:	9	10
Facility within Area:	Building 48	Building 49
Facility Owner/Operator:	MCEDA	MCEDA
Current Facility Uses:	Hangar / Storage	Hangar / Storage
Building Material:	Metal	Metal
Year of Construction:	1991	1991
Facility Square Footage:	4,000 SF	4,000 SF
Building Location's Parcel #:	52-10-36-200-048.555-017	52-10-36-200-048.555-017
Figure:	Figure 3-9 – Zones 9 & 10	Figure 3-9 – Zones 9 & 10
Order-of Magnitude Cost		
Existing Conditions:	\$24,000	\$24,000
Earthwork:	\$7,393	\$7,075
Exterior Improvements:	\$10,205	\$9,978
General Requirements:	<u>\$56,431</u>	<u>\$55,924</u>
<i>Demolition Zone Total</i>	\$98,029	\$96,977

Source: Miami County GIS Tax & Property Information, MCEDA, CHA, Shiel Sexton, 2020.

Note: Costs are in 2019 dollars.

Figure 3-9 – Zones 9 & 10



Note: Buildings 48 & 49
Source: Google Earth, 2019.

Zone 11

Building 26 is a 6,008 SF metal structure owned by MCEDA used for storage. The estimated cost for demolish is \$140,016.

Table 3-10 – Zone 11

Demolition Zone Identifier:	11
Facility within Area:	Building 26
Facility Owner/Operator:	MCEDA
Current Facility Uses:	Hangar / Storage
Building Material:	Metal
Year of Construction:	1960
Facility Square Footage:	6,008 SF
Building Location's Parcel #:	52-10-36-200-001.006-17
Figure:	Figure 3-10 – Zone 11
Order-of Magnitude Cost	
Existing Conditions:	\$36,048
Earthwork:	\$16,569
Exterior Improvements:	\$10,748
General Requirements:	\$76,651
Demolition Zone 11 Total	\$140,016

Source: Miami County GIS Tax & Property Information, MCEDA, CHA, Shiel Sexton, 2020.

Note: Costs are in 2019 dollars.

Figure 3-10 – Zone 11



Source: Google Earth, 2019.

Zone 12

Building 410, which is owned by MCEDA, is currently vacant. The estimated cost for demolishing the 7,959 SF brick structure is \$162,686.

Table 3-11 – Zone 12

Demolition Zone Identifier:	12
Facility within Area:	Building 410
Facility Owner/Operator:	MCEDA
Current Facility Uses:	Vacant
Building Material:	Brick
Year of Construction:	Unknown
Facility Square Footage:	7,959 SF
Building Location’s Parcel #:	52-10-36-200-002.004-017
Figure:	Figure 3-11 – Zone 12
Order-of Magnitude Cost	
Existing Conditions:	\$47,754
Earthwork:	\$13,947
Exterior Improvements:	\$13,417
General Requirements:	\$87,568
Demolition Zone 12 Total	\$162,686

Source: Miami County GIS Tax & Property Information, MCEDA, CHA, Shiel Sexton, 2020.

Note: Costs are in 2019 dollars.

Figure 3-11 – Zone 12



Source: CHA, 2019.

3.2 RECOMMENDED RELOCATION SITES

The following presents three potential concepts for future building development. Each concept provides options for both privately-owned relocation and MCEDA operations (e.g., MCEDA headquarters and aviation-related operations).

Within each concept, a proposed realignment of Hoosier Boulevard is depicted between North Lancer Street and Foreman Drive. Such a realignment has the potential to enhance the frontage of the Grissom Aeroplex and provide separation from aeronautical and non-aeronautical related development.

Additionally, the majority of development within each concept is located beneath the transitional airspace surface. As discussed within **Chapter 1**, the transitional surface is located parallel and adjacent to the primary surface and connects to each approach-departure. The beginning height of the transitional surface coincides with the primary surface and increases at a 7:1 slope to its maximum height of 150 feet above ground level. Resultantly, the maximum allowable height of a structure decreases with increasing proximity to the runway (i.e., start of transitional surface). For reference, each concept depicts a 35- and 50-foot Building Restriction Line (BRL). It important to note that each BRL can be calculated by dividing the distance from the primary surface/start of transitional surface by seven (i.e., 7:1 slope).

3.2.1 Relocation Concept 1A: Separate Facilities

This concept presents an option for separate or standalone relocation facilities. That is, future buildings for the Ladd Dental Clinic and Indiana Mentor Network are depicted along the north side of Hoosier Boulevard within a MCEDA-owned parcel. Additionally, a future MCEDA office building is depicted near the intersection of Flyer Street and Hoosier Boulevard. The areas north of the relocated MCEDA, dental clinic, and Indiana Mentor Network building are noted for future mixed-use development.

South of Hoosier Boulevard, the existing aircraft apron is shown to be extended northward to accommodate aircraft movement and staging along with a future Fixed Base Operator (FBO) building and associated civilian airport landside facilities. A fuel farm and an airfield maintenance facility are depicted at the northern edge of the extended aircraft apron.

It is important to note that although the majority of the former military buildings are beyond their useful life, MCEDA has designated Building 28 as capable of serving as a short-term FBO. Building 28, which was constructed in 1988, is a single-story, 8,951 SF facility that previously served as the Airport's Base Operations Facility.

To the west of the FBO and along the north side of existing civilian apron are two proposed aircraft Maintenance, Repair, and Overhaul (MRO) hangars along with a proposed addition to Dean Baldwin Hangar.

Figure 3-12 depicts the Concept 1A option.

3.2.2 Relocation Concept 1B: Consolidated FBO and MCEDA Offices

Concept 1B provides an alternative to the standalone development depicted within Concept 1A. Specifically, this concept depicts a consolidated FBO/MCEDA building near the future civilian aircraft apron area. This concept would provide for minimal development of MCEDA-owned structures by constructing a facility capable of housing both FBO and MCEDA operations.

Like Concept 1A, the dental clinic and Indiana Mentor Network buildings would be constructed within the MCEDA-owned parcel along the north side of Hoosier Boulevard.

Figure 3-13 depicts the Concept 1B option.

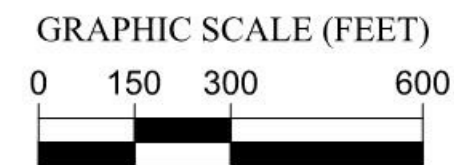
3.2.3 Relocation Concept 2: Separate Facilities and Business Plaza

Concept 2 combines elements from both Concepts 1A and 1B. Specifically, Concept 2 depicts a standalone FBO and civilian aircraft area with an option for a future Taxiway Design Group II taxilane between the FBO and MRO hangars. Additionally, this concept depicts an option for the construction of a mixed-use business plaza between North Lancer Street and the relocated Hoosier Boulevard. The business plaza is based on the concept of a shell building capable of accommodating multiple business suites. This option would provide a consolidated approach that has the potential to reduce the need for both building footprint and preserve developable land within the Grissom Aeroplex.

Figure 3-14 depicts the Concept 2 option.

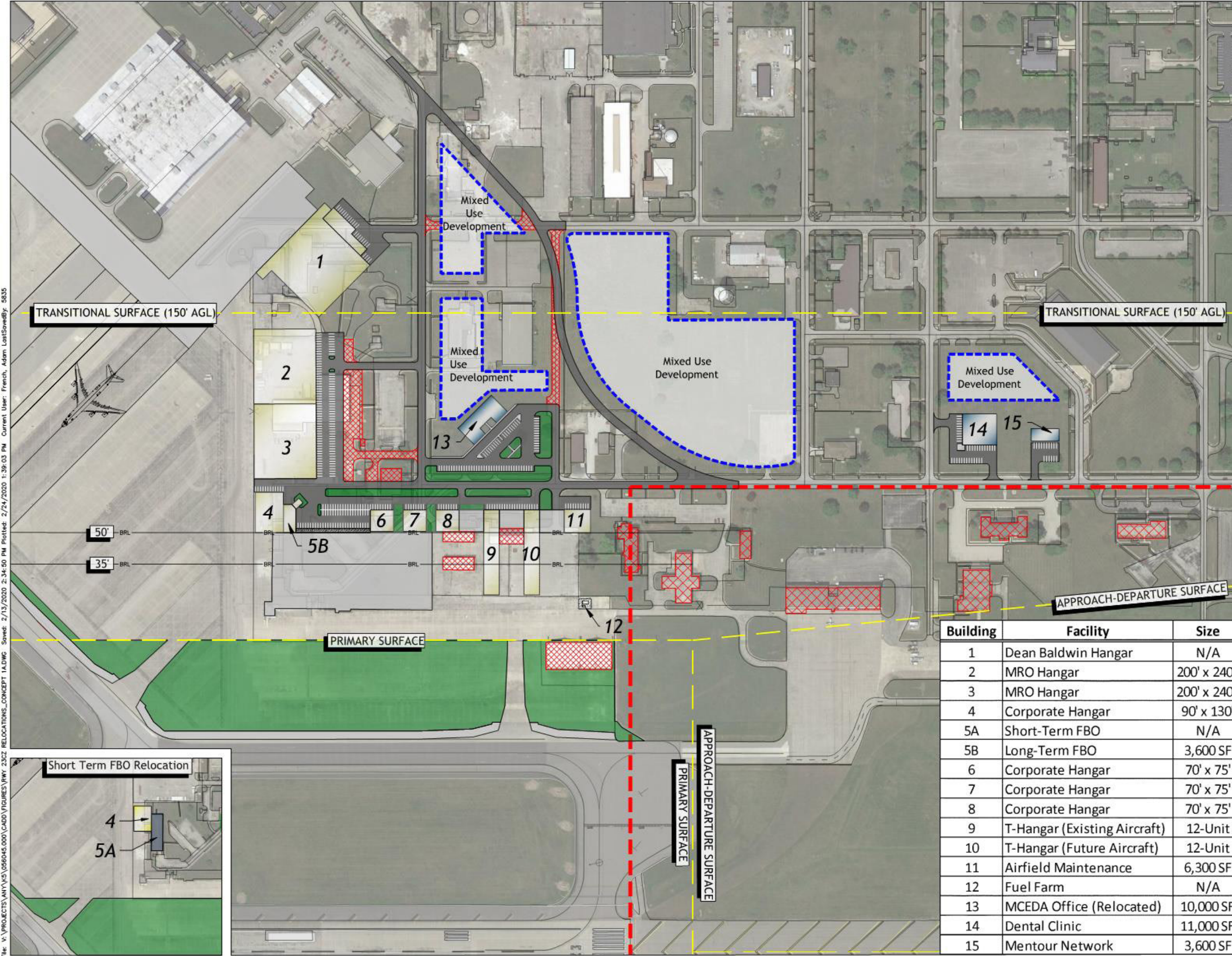


**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
**GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION**



LEGEND

- Clear Zone
- Airspace Surface
- BRL — Building Restriction Line
- Future Building Relocation
- Future Airfield Building
- Future Airfield Pavement
- Future Roadway
- Clear Zone Building Demolition
- Pavement/Building Removal



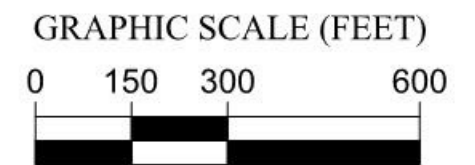
Building	Facility	Size
1	Dean Baldwin Hangar	N/A
2	MRO Hangar	200' x 240'
3	MRO Hangar	200' x 240'
4	Corporate Hangar	90' x 130'
5A	Short-Term FBO	N/A
5B	Long-Term FBO	3,600 SF
6	Corporate Hangar	70' x 75'
7	Corporate Hangar	70' x 75'
8	Corporate Hangar	70' x 75'
9	T-Hangar (Existing Aircraft)	12-Unit
10	T-Hangar (Future Aircraft)	12-Unit
11	Airfield Maintenance	6,300 SF
12	Fuel Farm	N/A
13	MCEDA Office (Relocated)	10,000 SF
14	Dental Clinic	11,000 SF
15	Mentour Network	3,600 SF

Figure 3-12
Concept 1A
Separate Facilities

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**MIAMI COUNTY ECONOMIC
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**GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION**



LEGEND

- Clear Zone
- Airspace Surface
- Building Restriction Line
- Future Building Relocation
- Future Airfield Building
- Future Airfield Pavement
- Future Roadway
- Clear Zone Building Demolition
- Pavement/Building Removal

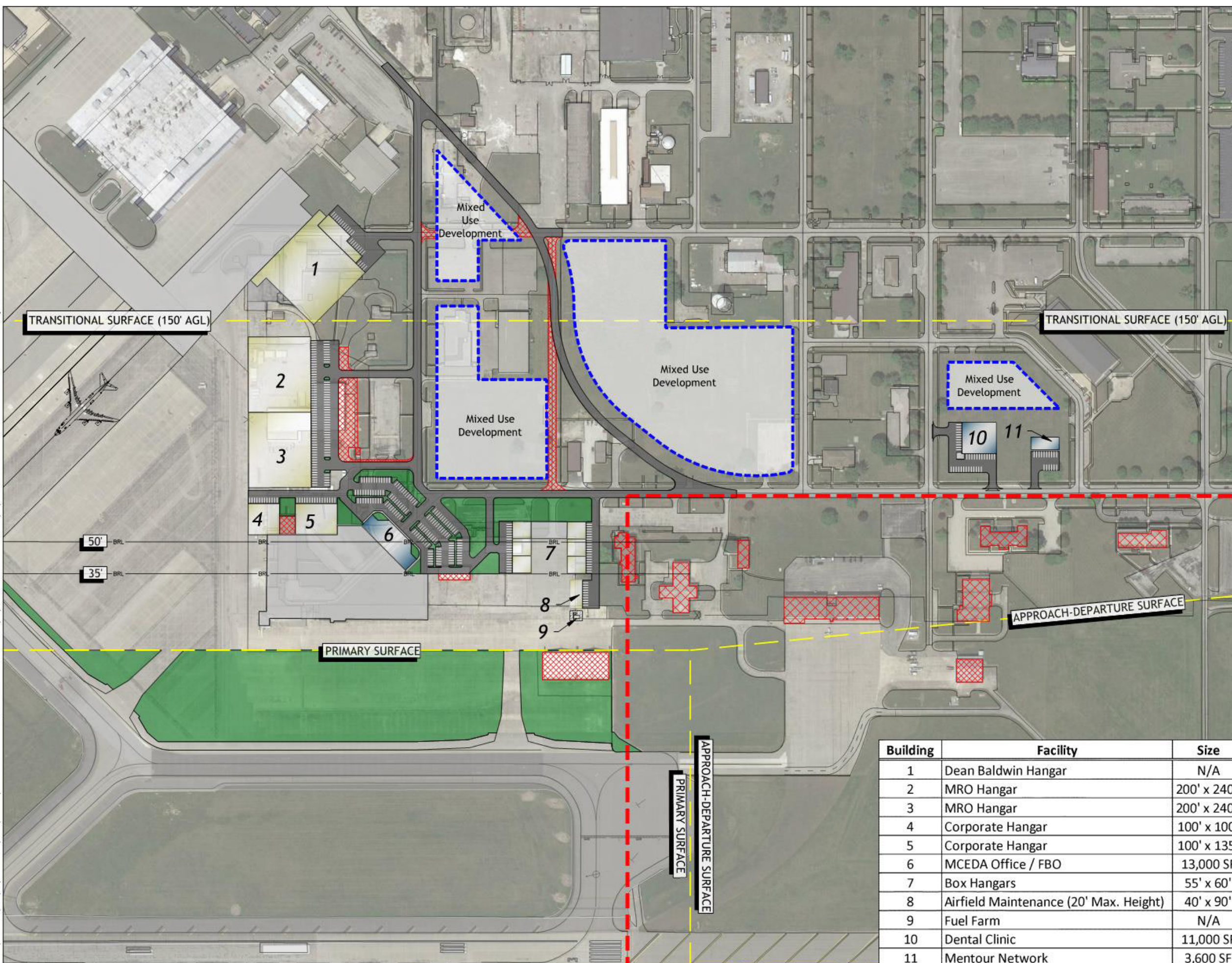
Building	Facility	Size
1	Dean Baldwin Hangar	N/A
2	MRO Hangar	200' x 240'
3	MRO Hangar	200' x 240'
4	Corporate Hangar	100' x 100'
5	Corporate Hangar	100' x 135'
6	MCEDA Office / FBO	13,000 SF
7	Box Hangars	55' x 60'
8	Airfield Maintenance (20' Max. Height)	40' x 90'
9	Fuel Farm	N/A
10	Dental Clinic	11,000 SF
11	Mentour Network	3,600 SF

Figure 3-13

Concept 1B

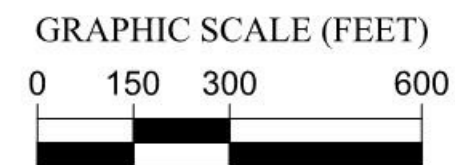
Consolidated FBO & MCEDA Office

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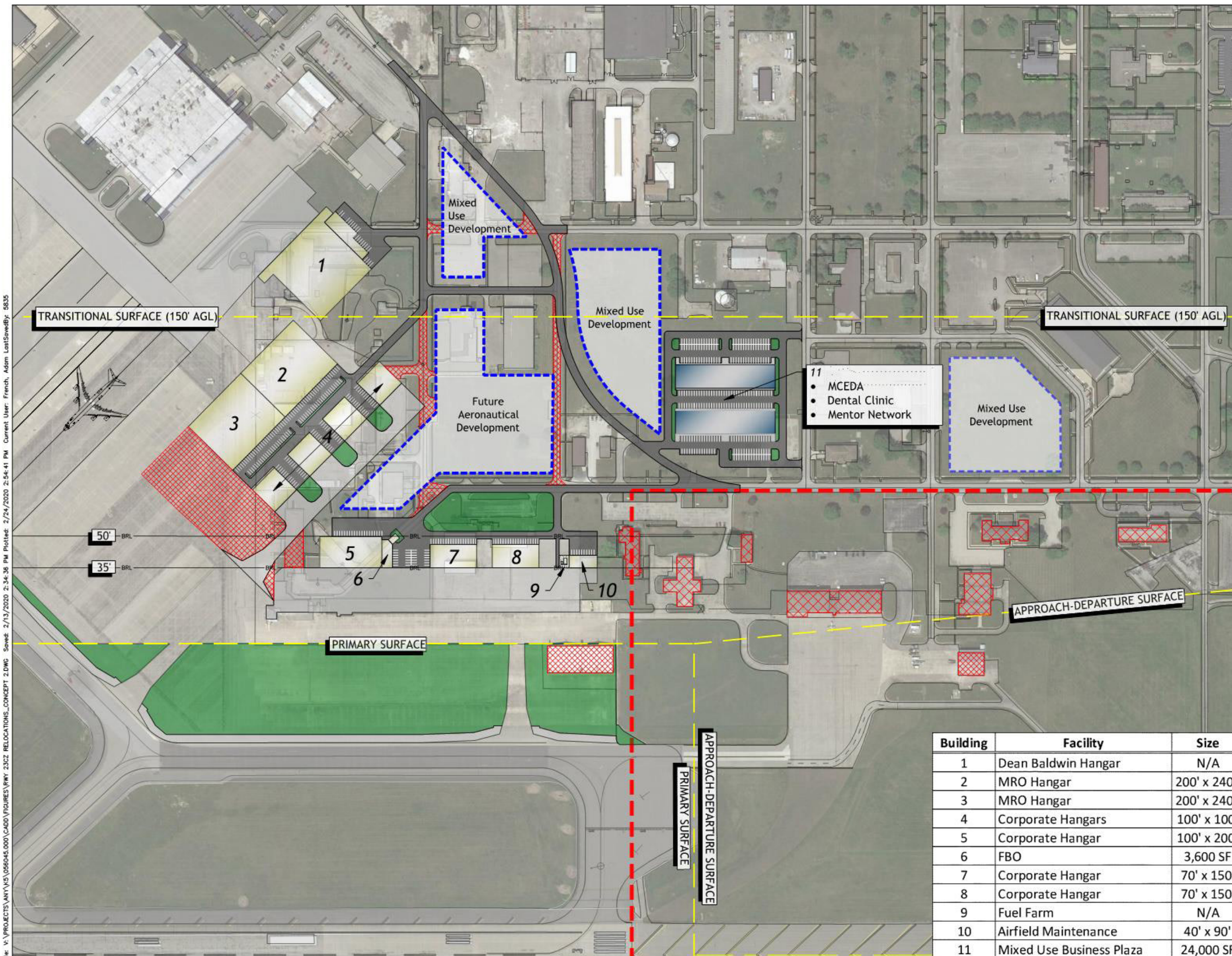


LEGEND

- Clear Zone
- Airspace Surface
- BRL — Building Restriction Line
- Future Building Relocation
- Future Airfield Building
- Future Airfield Pavement
- Future Roadway
- Clear Zone Building Demolition
- Pavement/Building Removal

Building	Facility	Size
1	Dean Baldwin Hangar	N/A
2	MRO Hangar	200' x 240'
3	MRO Hangar	200' x 240'
4	Corporate Hangars	100' x 100'
5	Corporate Hangar	100' x 200'
6	FBO	3,600 SF
7	Corporate Hangar	70' x 150'
8	Corporate Hangar	70' x 150'
9	Fuel Farm	N/A
10	Airfield Maintenance	40' x 90'
11	Mixed Use Business Plaza	24,000 SF

Figure 3-14
Concept 2
Separate Facilities and Business Plaza



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3.3 COST ESTIMATES

To provide a reasonably reliable and accurate overview of the costs associated with each relocation recommendation and the preparation of these sites, rough order-of-magnitude costs and overall feasibility were evaluated based on current (i.e., 2019) industry prices and other applicable considerations. Future costs may be different due to annual inflation.

The overall rough order-of-magnitude cost estimate is \$49,314,343 and reflects the type of construction to be undertaken, proposed land use (when applicable), needed site preparation activities, size of structure or building being constructed, and the handling and disposing of construction debris. However, this total cost includes all buildings in all scenarios, and does not reflect a recommended development plan that includes ancillary costs associated with new roadway, apron, taxiway, and parking lot improvements or new construction. For further detail and cost estimates associated with the recommended plan that includes ancillary and enabling project costs, see **Section 3.4**.

Prior or existing estimates (provided by MCEDA) for new or relocated business were also incorporated. Furthermore, cost estimates for each site also account for any special considerations regarding access to the new site, as well as known environmental pollutants¹. See **Appendix C** for details associated with reaching the final preliminary cost estimate.

3.4 OPERATIONAL AREAS ACTION PLAN RECOMMENDATIONS

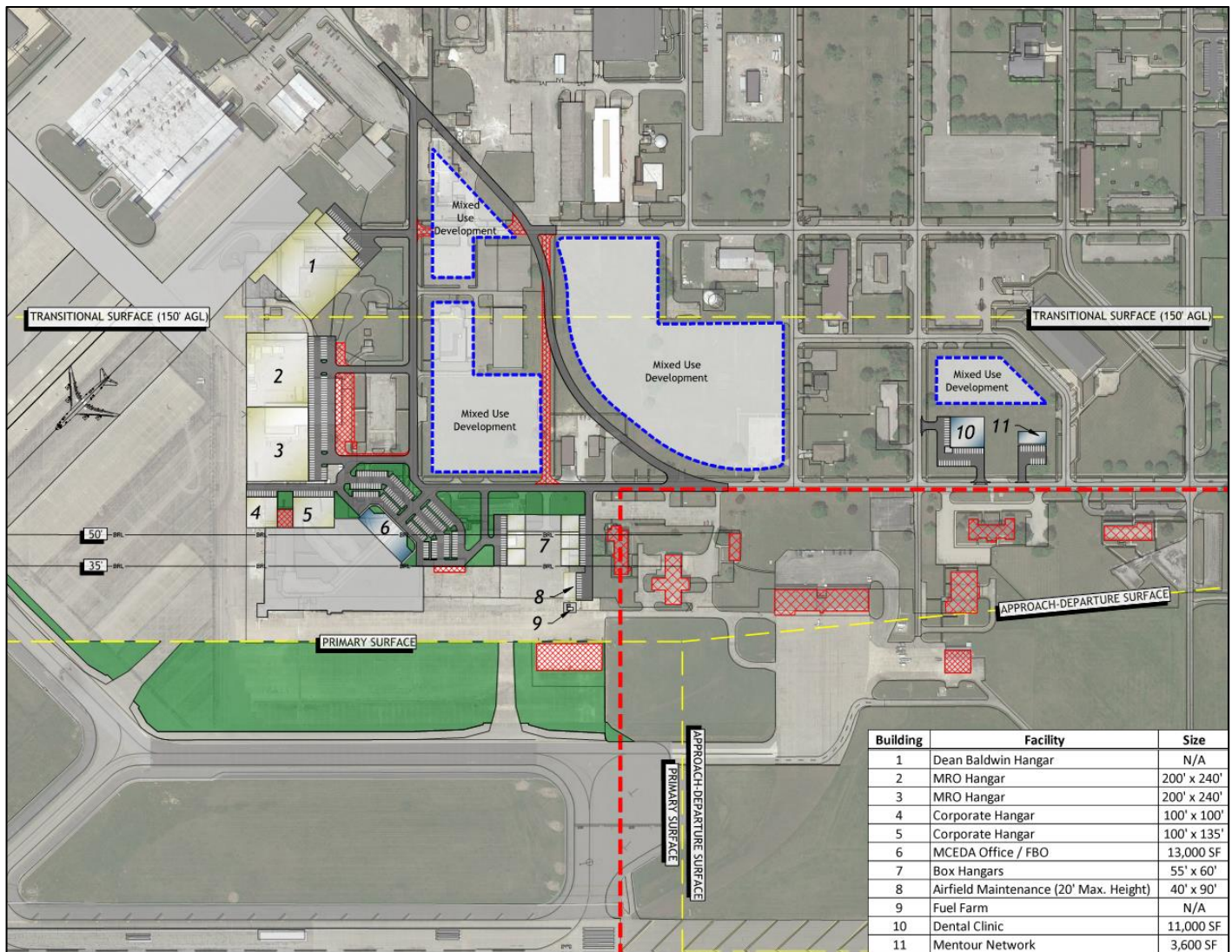
Based on the review of MCEDA's goals and objectives, a recommended plan has been developed for executing the JLUS Implementation Plan. This plan enhances the Airport's land use compatibility with the military and civilian components of the airfield, while also improving the safety, operational efficiency, and functionality of the airfield. It should be emphasized that this is a long-term plan with multiple phases and that some desired improvements may not be financially or environmentally feasible.

As discussed in **Chapter 2**, the eight buildings and the civilian fuel farm that are currently located within the Runway 25 (Northeast) Clear Zone (CZ) must be demolished to adhere to military criteria regarding operational areas as set forth in UFC 3-260-01, *Airfield & Heliport Planning and Design* and in Air Force Installation (AFI) 32-7063, *Air Installations Compatible Use Zones Program*. The structures to be demolished are shown below and in **Figure 3-15**.

Based on discussions with the Technical Advisory Committee, MCEDA, and Airport Management, the Recommended Plan for the Airport has been identified as **Alternative 1B**. The Recommended Relocation Plan accounts for the demolition of the eight structures in the Runway 23 CZ, as well as the relocation of five buildings' functions and relocation of the fuel farm.

¹ Known environmental pollutants are based on existing estimates provided by MCEDA.

It is important to note that it will not be feasible to remove all structures at once. Furthermore, the buildings containing functions that must be relocated cannot be demolished until a relocation site is made available for the continuation of operations. In other words, some buildings can be removed from the CZ without recourse, while other buildings will first require alternate sites outside the clear zone to be prepared for construction, followed by new facilities being built on the sites, before the current structures can be demolished; therefore, a phased approach must be taken when implementing the long-term Recommended Relocation Plan.



Source: CHA, 2020.

3.4.1 Recommended Relocation Plan, A Phased Approach

Based on discussions with MCEDA and the Recommended Relocation Plan, the overall rough order-of-magnitude costs were further evaluated and narrowed to include only what is necessary to clear the Runway 23 CZ and to replace the necessary structures. The refined costs total approximately \$50,067,304 and reflect the type of construction to be undertaken, needed site preparation activities, size of structure or building being constructed, and the handling and

disposing of construction debris. **Figure 3-15** depicts only necessary relocation facilities, demolition facilities, and new roadway, taxiway, apron, and infrastructure improvements (including enabling projects) to remove conflicts in the 23 Clear Zone and replace those facilities at the Airport.

It is important to note that the cost estimates shown in **Table 3-12** are programmatic in nature and the schedule and timeline of relocation is based on a linear progression of events, as well as on financial feasibility.

Table 3-12 – Total Programmatic Costs for Relocation

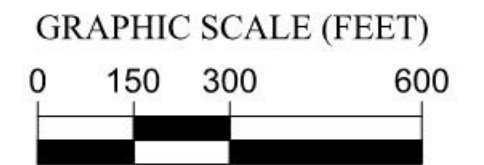
Action Plan	Unit Costs	Total Area	Total Cost
23 Clear Zone Demolition			
Building 1	\$47.45	12,700 SF	\$602,552
Building 11	\$31.56	22,174 SF	\$ 699,852
Building 20	\$20.90	15,870 SF	\$331,631
Building 22	\$42.37	10,471 SF	\$443,656
Building 32	\$30.56	12,966 SF	\$396,249
Building 33	\$53.76	6,637 SF	\$356,815
Building 37	\$18.94	25,689 SF	\$486,494
Building 38	\$75.15	3,000 SF	\$225,457
Misc. (Vacant Land)	-	-	\$337,876
Subtotal			\$3,880,582
Relocation			
Zone 5 (Undisclosed - Military)	\$26.66	6,145 SF	\$163,804
Zone 8 (Building 14)	\$23.95	17,180 SF	\$411,521
Zone 9 (Building 48)	\$24.51	4,000 SF	\$98,029
Zone 10 (Building 49)	\$24.24	4,000 SF	\$96,977
Zone 11 (Building 26)	\$23.30	6,008 SF	\$140,016
Multi-Use Civil Aviation Terminal (Building 6)	\$329.95	13,000 SF	\$4,289,404
Corporate Hangar (Building 4)	\$426.16	11,250 SF	\$4,794,284
Corporate Hangar (Building 5)	\$426.16	13,500 SF	\$5,753,140
Maintenance Facility (Building 8)	\$275.94	3,600 SF	\$993,400
Fuel Farm (Facility 9)	\$210.94	1,280 SF	\$270,000
Multi-Use Commercial Facility	\$211.81	24,000SF	\$5,083,397
Surface Lots	\$11.55	8,558 SY	\$1,067,750
Roads (New)	\$617.00	600 LF	\$370,000
Roads (Rehabilitation)	\$305.00	2300 LF	\$700,000
Apron (New)	\$350.00	14,077 SY	\$4,930,000
Apron (Rehabilitation)	\$325.00	27,447 SY	\$8,925,000
Apron (Demolition)	\$170.00	47,459 SY	\$8,100,000
Subtotal			\$46,186,722
TOTAL DEMOLITION & RELOCATION COSTS			\$50,067,304

Source: Shiel Sexton, CHA, 2020.

Note: Costs are in 2019 dollars.

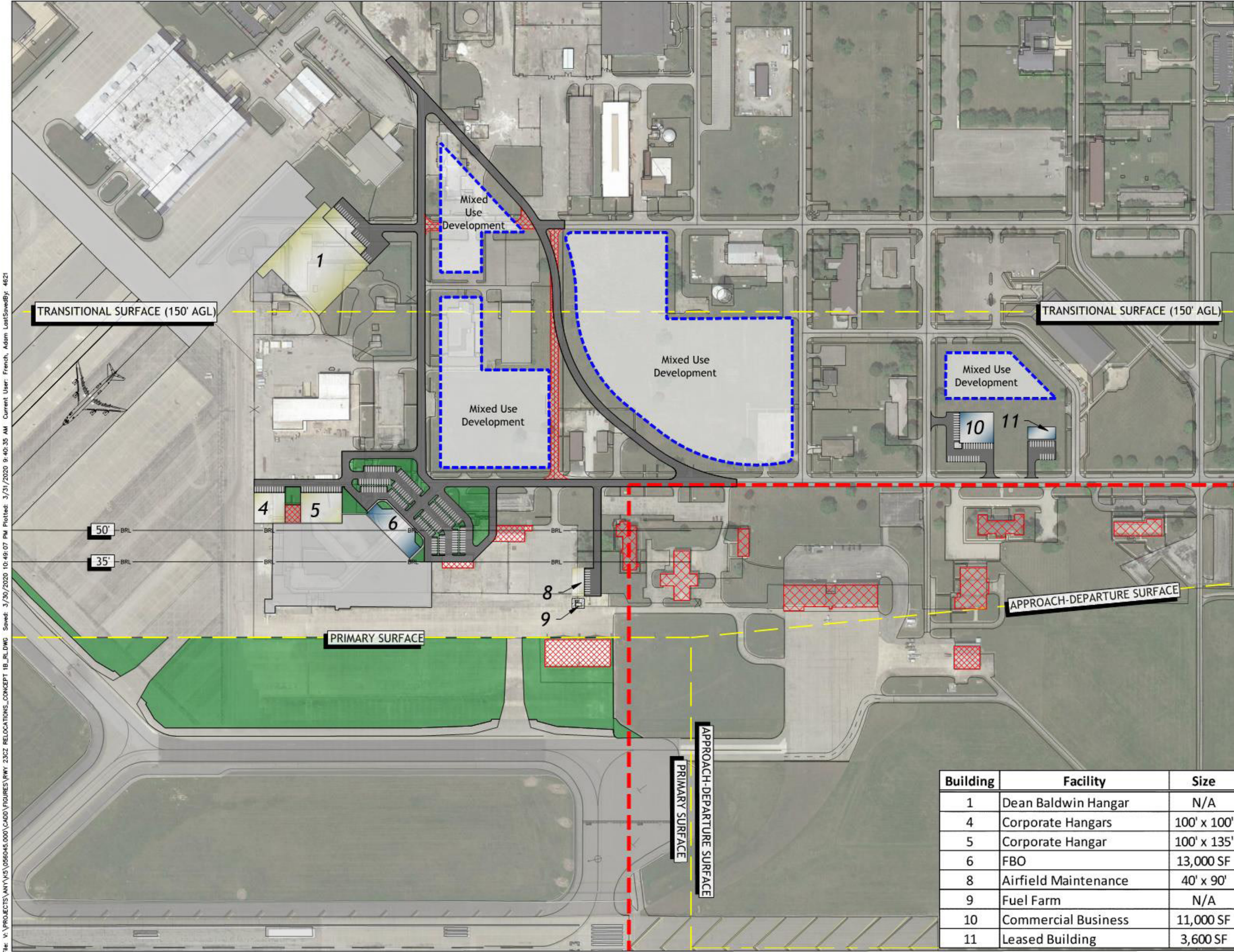


**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION



LEGEND

- Clear Zone
- Airspace Surface
- Building Restriction Line
- Future Building Relocation
- Future Airfield Building
- Future Airfield Pavement
- Future Roadway
- Clear Zone Building Demolition
- Pavement/Building Removal



Building	Facility	Size
1	Dean Baldwin Hangar	N/A
4	Corporate Hangars	100' x 100'
5	Corporate Hangar	100' x 135'
6	FBO	13,000 SF
8	Airfield Maintenance	40' x 90'
9	Fuel Farm	N/A
10	Commercial Business	11,000 SF
11	Leased Building	3,600 SF

Figure 3-15
Recommended Relocation Plan

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APPENDIX A – PERIMETER FENCE REPLACEMENT COSTS

ITEM No.	SPEC.	DESCRIPTION	QTY.	UNIT	COST
1	P-152	Borrow Excavation	1	LSUM	\$110,022.91
2	P-156	Drop Inlet Protection	15	EACH	\$3,401.28
3	P-156	End Section Protection	28	EACH	\$5,587.14
4	F-162	10' Chain-Link Security Fence with Barbed Wire	6,605	LFT	\$180,601.64
13	F-162	Spare Parts	1	LSUM	\$9,536.11
14	D-701	12 Inch RCP Class III	137	LFT	\$12,223.33
15	D-701	18 Inch RCP Class III	20	LFT	\$1,962.94
16	D-701	24 Inch RCP Class III	105	LFT	\$12,178.90
17	D-705	6" Infiltration Trench	800	LFT	\$28,551.52
18	D-752	Precast Concrete Flared End Section - 12" RCP	3	EACH	\$2,141.35
19	D-752	Precast Concrete Flared End Section - 18" RCP	1	EACH	\$785.16
20	D-752	Precast Concrete Flared End Section - 18" RCP w/ Debris Grate	1	EACH	\$1,722.02
21	D-752	Precast Concrete Flared End Section - 24" RCP	1	EACH	\$892.23
22	D-752	Precast Concrete Flared End Section - 24" RCP w/ Debris Grate	2	EACH	\$3,927.50
24	D-752	Remove and Replace Casting	1	EACH	\$1,071.52
25	T-901	Mulch Seeding	210	KSF	\$25,570.72
26	MST-01	Field Office	1	LSUM	\$19,903.62
27	MST-02	Maintenance of Traffic	1	LSUM	\$223,666.87
28	MST-03	Construction Engineering	1	LSUM	\$33,915.57
29	MST-04	Project Security	1	LSUM	\$113,012.02
30	MST-05	Mobilization/Demobilization	1	LSUM	\$176,230.38
31	MST-06	INDOT 402 Bituminous Surface Course	33	TON	\$7,656.70
32	MST-06	INDOT 702 Concrete Class A	20	CYD	\$17,844.61
34	MST-07	Removal of Existing Chain-Link Security Fence	6,605	LFT	\$11,088.33
BASE BID TOTAL:					\$1,003,494.34
UNIT COST PER LFT					\$151.93

Note: Costs are in 2019 dollars.



APPENDIX B – COST ESTIMATES



MIAMI COUNTY ECONOMIC DEVELOPMENT AUTHORITY

Grissom ARB Joint Land Use Study Implementation

TASK 1B ESTIMATES

December 20, 2019



WE BUILD FOR PEOPLE WHO EXPECT MORE ⊕



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Submitted to: **Michael J. DeVoy, P.E.**
 Senior Vice President - Aviation
 Market Leader, CHA
 Union Station
 300 S. Meridian Street
 Indianapolis, IN 46225

TABLE OF CONTENTS



A *Aerial Views*

B *Scopes of Work*

C *Budget Summary*

D *Budget Detail*

E *Schedules*

SHIEL SEXTON  EXPECT MORE



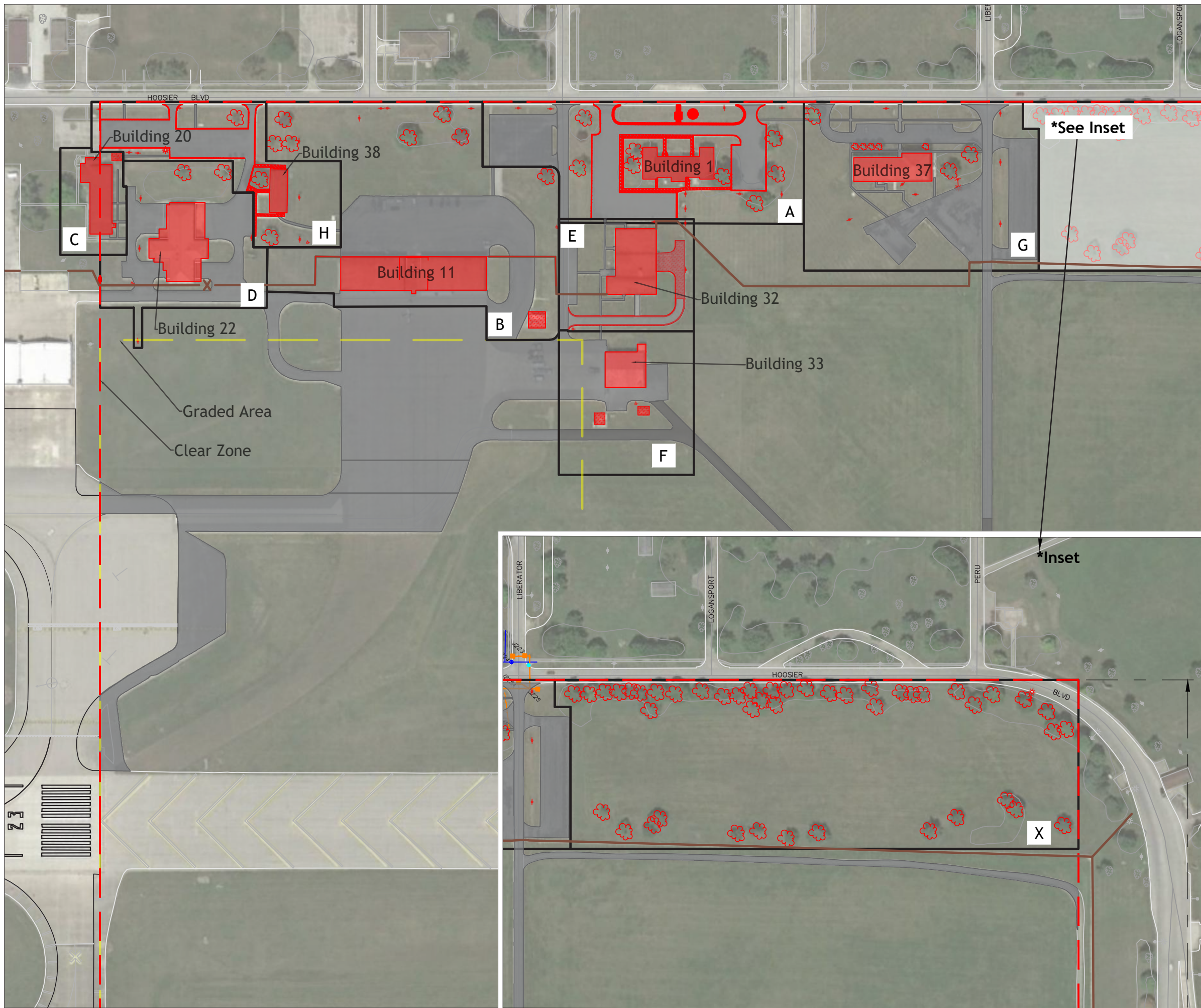
SHIEL SEXTON

SHIEL SEXTON  EXPECT MORE



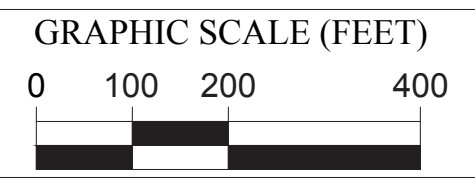
**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**

**GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION**



LEGEND

- Clear Zone
- Perimeter Fence
- Tree
- Power Pole
- Light Pole
- Pavement
- Demolition Site

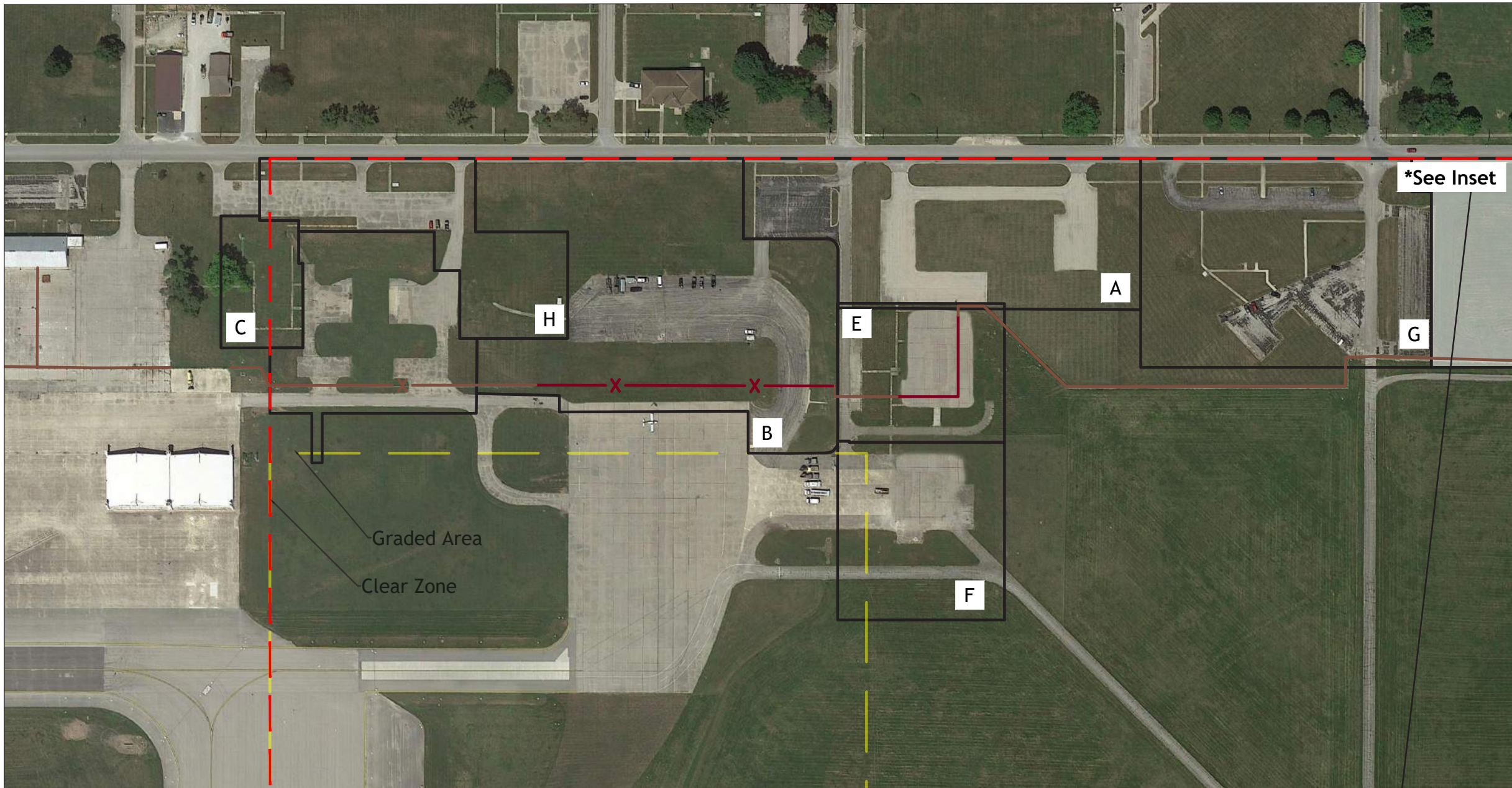






Index-1
Demolition Plan (Overview)



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DEVELOPMENT AUTHORITY

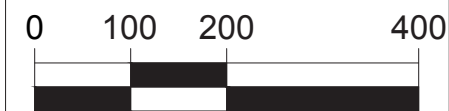
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IMPLEMENTATION**



-  Clear Zone
-  Post Demolition Site
-  Existing Perimeter Fence
-  New Perimeter Fence



GRAPHIC SCALE (FEET)



Index-2
Remaining (Overview)

Tab B **SCOPES OF WORK** 



SHIEL SEXTON  EXPECT MORE

Grissom ARB Joint Land Use Study - Task 1B Estimate - Scopes of Work Clarifications**Trade Work Clarifications**

- A The basis for these estimates are the following:
 - 1 Site visits
 - 2 Grissom ARB Joint Land Use Study Implementation - site plans provided by CHA
 - 3 Asbestos reports for each building provided by MCEDA
 - 4 Existing building plans provided by MCEDA for buildings 1, 11, 14, 20, 22, and 33
 - 5 Quantification of items done by Shiel Sexton
 - 6 Unit pricing for trade work based on current market rates by Shiel Sexton and specific trade subcontractor's input
 - 7 Davis Bacon wages have been factored in all trade work market rates based on anticipated federal funding
 - 8 The budget detail section provides trade work line items, quantities, and unit pricing for each zone and building
 - 9 The budget detail section provides general and administrative line items applied to each zone and building
 - 10 It is intended for each zone and building total to represent a stand alone project
 - 11 Combining zones (stand alone projects) could result in providing economies in general and administrative line items
 - 12 Economies for these potential zone combinations can be determined later
 - 13 Escalation can be applied at 4% per year for work beyond 2020

General and Administrative Clarifications

- A The basis for these line items is based on a percentage of the trade costs of work
 - 1 Design services and design contingency - 20%
 - 2 General contractor or construction manager's staffing and general conditions - 10%
 - 3 Jobsite general requirements and temporary facilities - 10%
 - 4 General contractor or construction manager's overhead and profit - 8%
 - 5 State and local permitting costs - Allowance has been identified
 - 6 State and local agency inspection costs - Allowance has been identified
 - 7 Independent testing costs - Allowance has been identified
 - 8 Builder's risk insurance - Excluded
 - 9 General contractor or construction manager's general liability insurance - included at .80%
 - 10 General contractor or construction manager's performance and payment bond premium - included at .85%
 - 11 Escalation can be applied at 4% per year for work beyond 2020

Budget Summary

- A Provides a total summary of all zones
 - 1 Each zone can be determined as a stand alone budget
 - 2 Budgets for combinations of zones can be determined
 - 3 A summary of general and administrative services is listed

Budget Detail

- A Provides trade work, general and administrative costs per zone
 - 1 Line item descriptions can be used to get a better understand of the scope of trade work included with each zone
 - 2 Asbestos contaminated materials - removal and disposal - are identified per zone
 - 3 Building and site demilition - removal and disposal - are identified per zone
 - 4 General and administrative costs are identified per zone
 - 5 The costs to relocate the water booster station in zone F is not included in this estimate

Schedules For Each Zone

- A A schedule of activities is provided to give a general order of time frame for each zone
 - 1 Design and regulatory activities are identified per project
 - 2 Construction activities are identified per project
 - 3 Design and regulatory activites for combinations of zones would generally fall within the same time frame as a single zone
 - 4 Construction activities for combinations of zones can be detmined by adding the durations per zone together

Tab C 
BUDGET SUMMARY



SHIEL SEXTON  EXPECT MORE



**Grissom ARB Joint Land Use Study Task 1B Estimate
Grissom ARB**



December 20, 2019

Construction Trade Costs					20-Dec-19
Trade Cost by Area					Amount
01	Zone A - Building 1	12,700	sf	\$	602,552
02	Zone B - Building 11	22,174	sf	\$	699,852
03	Zone C - Building 20	15,870	sf	\$	331,631
04	Zone D - Building 22	10,471	sf	\$	443,656
05	Zone E - Building 32	12,966	sf	\$	396,249
06	Zone F - Building 33	6,637	sf	\$	356,815
07	Zone G - Building 37	25,689	sf	\$	486,494
08	Zone H - Building 38	3,000	sf	\$	225,457
09	Zone X		sf	\$	337,876
10	Subtotal Trade Cost	109,507	gsf	\$	3,880,582
General and Administrative					
11	Design Services	20.00%			Included
12	Staffing and General Conditions	10.00%			Included
13	General Requirements	10.00%			Included
14	Construction Manager Fee	8.00%			Included
15	Preconstruction Services				Excluded
16	Permitting - Allowance	\$ 5,000	ea		Included
17	Inspections - Allowance	\$ 2,500	ea		Included
18	3rd Party Testing - Allowance	\$ 10,000	ea		Included
19	Builder's Risk Insurance				By Owner
20	Sub Bonding				Excluded
21	General Insurance	0.80%			Included
22	Payment and Performance Bond	0.85%			Included
23	State Gross Revenue Tax				N/A
24	Liquidated Damages Premium				Excluded
25	Subtotal General and Administrative	109,507	gsf	\$	-
26	Construction Total	109,507	gsf	\$	3,880,582

Escalation Per Year: 4.00%
(not included in above numbers)

Tab D
BUDGET DETAIL



SHIEL SEXTON ⊕ EXPECT MORE



Grissom ARB Joint Land Use Study Task 1B Estimate Grissom ARB



December 20, 2019

TRADE COSTS CSI DIVISION DETAIL				109,507 square feet
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
Zone A - Building 1				\$ 602,552
Division 02 – Existing Conditions				\$ 159,324
Hazardous Components - removal / disposal	1	ls	\$ 75,504.00	\$ 75,504
Building Demolition - demolish and remove Building 1	12,700	gsf	\$ 6.60	\$ 83,820
Division 31 – Earthwork				\$ 95,374
Earthwork - remove trees	8	ea	\$ 82.50	\$ 660
Earthwork - remove fencing	-	lf	\$ -	\$ -
Earthwork - remove curbs	1,730	lf	\$ 5.50	\$ 9,515
Earthwork - remove sidewalks	5,090	sf	\$ 1.38	\$ 6,999
Earthwork - remove parking lot pavement	56,639	sf	NIC	\$ -
Earthwork - overhead utility lines from power poles	960	lf	\$ 11.00	\$ 10,560
Earthwork - remove wood power poles	9	ea	\$ 550.00	\$ 4,950
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,100.00	\$ 1,100
Earthwork - install thrust blocking prior to cutting water	1	ls	\$ 1,100.00	\$ 1,100
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,100.00	\$ 1,100
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 550.00	\$ 550
Earthwork - backfill crawl space	1,442	cy	\$ 22.00	\$ 31,720
Earthwork - re-grade demolition area	16,437	sy	\$ 1.65	\$ 27,121
Division 32 – Exterior Improvements				\$ 48,457
Fences & Gates - temporary perimeter fencing / gates	1,841	lf	\$ 16. 6.5150	\$ 30,377
Fences & Gates - install new chain link fencing	-	lf	\$ -	\$ -
Planting - seed all disturbed areas	16,437	sy	\$ 1.10	\$ 18,081
Division 01 General Requirements				\$ 299,396
Design Contingency	303,156	\$	\$ 0.10	\$ 30,316
Construction Contingency	333,472	\$	\$ 0.10	\$ 33,347
Design / Engineering Fees	366,819	\$	\$ 0.20	\$ 73,364
Staffing and General Conditions	440,183	\$	\$ 0.10	\$ 44,018
General Requirements	484,201	\$	\$ 0.10	\$ 48,420
Construction Manager Fee	532,621	\$	\$ 0.08	\$ 42,610
Permitting - Allowance	1	ls	\$ 5,000.00	\$ 5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$ 2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$ 10,000
General Insurance	592,731	\$	\$ 0.01	\$ 4,742
Performance Bond	597,473	\$	\$ 0.01	\$ 5,079
Zone B - Building 11				\$ 699,852
Division 02 – Existing Conditions				\$ 124,090
Hazardous Components - removal / disposal	1	ls	\$ 38,720.00	\$ 38,720
Building Demolition - demolish and remove Building 11	22,174	gsf	\$ 3.85	\$ 85,370
Building Demolition - demolish fuel farm	1	ls	in above	\$ -
Division 31 – Earthwork				\$ 142,998
Earthwork - remove trees	7	ea	\$ 82.50	\$ 578
Earthwork - remove fencing	620	lf	\$ 2.75	\$ 1,705
Earthwork - remove curbs	-	lf	\$ -	\$ -
Earthwork - remove sidewalks	277	sf	\$ 1.37	\$ 381
Earthwork - remove parking lot pavement	69,352	sf	NIC	\$ -
Earthwork - overhead utility lines from power poles	402	lf	\$ 11.00	\$ 4,422
Earthwork - remove wood power poles	4	ea	\$ 550.00	\$ 2,200
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,100.00	\$ 1,100
Earthwork - install thrust blocking prior to cutting water	2	ea	\$ 1,100.00	\$ 2,200
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,100.00	\$ 1,100
Earthwork - remove water hydrants	1	ea	\$ 2,750.00	\$ 2,750
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 550.00	\$ 550
Earthwork - backfill crawl space	3,942	cy	\$ 22.00	\$ 86,725
Earthwork - re-grade demolition area	23,811	sy	\$ 1.65	\$ 39,288
Division 32 – Exterior Improvements				\$ 86,511
Fences & Gates - temporary perimeter fencing / gates	2,489	lf	\$ 16.50	\$ 41,069
Fences & Gates - install new chain link fencing	500	lf	\$ 38.50	\$ 19,250
Planting - seed all disturbed areas	23,811	sy	\$ 1.10	\$ 26,192



Grissom ARB Joint Land Use Study Task 1B Estimate Grissom ARB



December 20, 2019

TRADE COSTS CSI DIVISION DETAIL				109,507	square feet
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT	
Division 01 General Requirements					\$ 346,254
Design Contingency	353,598	\$	0.10	\$	35,360
Construction Contingency	388,958	\$	0.10	\$	38,896
Design / Engineering Fees	427,854	\$	0.20	\$	85,571
Staffing and General Conditions	513,425	\$	0.10	\$	51,343
General Requirements	564,768	\$	0.10	\$	56,477
Construction Manager Fee	621,245	\$	0.08	\$	49,700
Permitting - Allowance	1	ls	5,000.00	\$	5,000
Inspections - Allowance	1	ls	2,500.00	\$	2,500
3rd Party Testing - Allowance	1	ls	10,000.00	\$	10,000
General Insurance	688,445	\$	0.01	\$	5,508
Performance Bond	693,953	\$	0.01	\$	5,899
Zone C - Building 20					\$ 331,631
Division 02 – Existing Conditions					\$ 133,920
Hazardous Components - removal / disposal	1	ls	64,570.00	\$	64,570
Building Demolition - demolish and remove Building 20	15,870	gsf	3.85	\$	61,100
Building Demolition - demolish high voltage generator	1	ls	8,250.00	\$	8,250
Division 31 – Earthwork					\$ 13,212
Earthwork - remove sidewalks	2,816	sf	1.38	\$	3,872
Earthwork - cap and abandon sanitary sewer connection	1	ea	1,100.00	\$	1,100
Earthwork - install thrust blocking prior to cutting water	1	ls	1,100.00	\$	1,100
Earthwork - cap and abandon water utility connection	1	ea	1,100.00	\$	1,100
Earthwork - cap and abandon natural gas utility connection	1	ea	550.00	\$	550
Earthwork - re-grade demolition area	3,327	sy	1.65	\$	5,490
Division 32 – Exterior Improvements					\$ 15,573
Fences & Gates - temporary perimeter fencing / gates	722	lf	16.50	\$	11,913
Planting - seed all disturbed areas	3,327	sy	1.10	\$	3,660
Division 01 General Requirements					\$ 168,927
Design Contingency	162,704	\$	0.10	\$	16,270
Construction Contingency	178,974	\$	0.10	\$	17,897
Design / Engineering Fees	196,871	\$	0.20	\$	39,374
Staffing and General Conditions	236,245	\$	0.10	\$	23,625
General Requirements	259,870	\$	0.10	\$	25,987
Construction Manager Fee	285,857	\$	0.08	\$	22,869
Permitting - Allowance	1	ls	5,000.00	\$	5,000
Inspections - Allowance	1	ls	2,500.00	\$	2,500
3rd Party Testing - Allowance	1	ls	10,000.00	\$	10,000
General Insurance	326,226	\$	0.01	\$	2,610
Performance Bond	328,836	\$	0.01	\$	2,795
Zone D - Building 22					\$ 443,656
Division 02 – Existing Conditions					\$ 101,133
Hazardous Components - removal / disposal	1	ls	25,410.00	\$	25,410
Building Demolition - demolish and remove Building 22	10,471	gsf	6.60	\$	69,109
Building Demolition - demolish existing loading dock	1,718	sf	3.85	\$	6,614
Division 31 – Earthwork					\$ 84,227
Earthwork - remove trees	2	ea	82.50	\$	165
Earthwork - remove curbs	1,578	lf	5.50	\$	8,679
Earthwork - remove sidewalks	2,467	sf	1.38	\$	3,392
Earthwork - remove parking lot pavement	33,552	sf	NIC	\$	-
Earthwork - overhead utility lines from power poles	368	lf	11.00	\$	4,048
Earthwork - remove wood power poles	4	ea	550.00	\$	2,200
Earthwork - cap and abandon sanitary sewer connection	1	ea	1,100.00	\$	1,100
Earthwork - install thrust blocking prior to cutting water	2	ea	1,100.00	\$	2,200
Earthwork - cap and abandon water utility connection	1	ea	1,100.00	\$	1,100
Earthwork - remove water hydrants	1	ea	2,750.00	\$	2,750
Earthwork - cap and abandon natural gas utility connection	1	ea	550.00	\$	550
Earthwork - backfill crawl space	1,396	cy	22.00	\$	30,715
Earthwork - re-grade demolition area	9,896	sy	1.65	\$	16,327
Earthwork - remove and abandon existing well	1	ea	11,000.00	\$	11,000



**Grissom ARB Joint Land Use Study Task 1B Estimate
Grissom ARB**



December 20, 2019

TRADE COSTS CSI DIVISION DETAIL				109,507	square feet
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT	
Division 32 – Exterior Improvements					\$ 35,421
Fences & Gates - temporary perimeter fencing / gates	1,487	lf	\$ 16.50	\$	24,536
Planting - seed all disturbed areas	9,896	sy	\$ 1.10	\$	10,886
Division 01 General Requirements					\$ 222,875
Design Contingency	220,781	\$	\$ 0.10	\$	22,078
Construction Contingency	242,859	\$	\$ 0.10	\$	24,286
Design / Engineering Fees	267,145	\$	\$ 0.20	\$	53,429
Staffing and General Conditions	320,574	\$	\$ 0.10	\$	32,057
General Requirements	352,631	\$	\$ 0.10	\$	35,263
Construction Manager Fee	387,894	\$	\$ 0.08	\$	31,032
Permitting - Allowance	1	ls	\$ 5,000.00	\$	5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$	2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$	10,000
General Insurance	436,426	\$	\$ 0.01	\$	3,491
Performance Bond	439,917	\$	\$ 0.01	\$	3,739
Zone E - Building 32					\$ 396,249
Division 02 – Existing Conditions					\$ 89,210
Hazardous Components - removal / disposal	1	ls	\$ 9,790.00	\$	9,790
Building Demolition - demolish and remove Building 32	12,966	gsf	\$ 4.95	\$	64,182
Building Demolition - demolish existing loading dock	3,958	sf	\$ 3.85	\$	15,238
Division 31 – Earthwork					\$ 72,786
Earthwork - remove curbs	839	lf	\$ 5.50	\$	4,615
Earthwork - remove sidewalks	3,136	sf	\$ 1.38	\$	4,312
Earthwork - remove parking lot pavement	11,857	sf	NIC	\$	-
Earthwork - overhead utility lines from power poles	409	lf	\$ 11.00	\$	4,499
Earthwork - remove wood power poles	3	ea	\$ 550.00	\$	1,650
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,100.00	\$	1,100
Earthwork - install thrust blocking prior to cutting water	2	ea	\$ 1,100.00	\$	2,200
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,100.00	\$	1,100
Earthwork - remove water hydrants	1	ea	\$ 2,750.00	\$	2,750
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 550.00	\$	550
Earthwork - backfill crawl space	1,729	cy	\$ 22.00	\$	38,034
Earthwork - re-grade demolition area	7,258	sy	\$ 1.65	\$	11,977
Division 32 – Exterior Improvements					\$ 34,208
Fences & Gates - temporary perimeter fencing / gates	1,027	lf	\$ 16.50	\$	16,946
Fences & Gates - install new chain link fencing	241	lf	\$ 38.50	\$	9,279
Planting - seed all disturbed areas	7,258	sy	\$ 1.10	\$	7,984
Division 01 General Requirements					\$ 200,045
Design Contingency	196,204	\$	\$ 0.10	\$	19,620
Construction Contingency	215,824	\$	\$ 0.10	\$	21,582
Design / Engineering Fees	237,406	\$	\$ 0.20	\$	47,481
Staffing and General Conditions	284,887	\$	\$ 0.10	\$	28,489
General Requirements	313,376	\$	\$ 0.10	\$	31,338
Construction Manager Fee	344,714	\$	\$ 0.08	\$	27,577
Permitting - Allowance	1	ls	\$ 5,000.00	\$	5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$	2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$	10,000
General Insurance	389,791	\$	\$ 0.01	\$	3,118
Performance Bond	392,909	\$	\$ 0.01	\$	3,340
Zone F - Building 33					\$ 356,815
Division 02 – Existing Conditions					\$ 97,427
Hazardous Components - removal / disposal	1	ls	\$ 11,374.00	\$	11,374
Building Demolition - demolish and remove Building 33	6,637	gsf	\$ 3.85	\$	25,553
Building Demolition - demolish and remove generator	1	ls	\$ 22,000.00	\$	22,000
Building Demolition - demolish and remove water pumping station	1	ls	\$ 38,500.00	\$	38,500
Division 31 – Earthwork					\$ 48,886
Earthwork - remove fencing	-	lf	\$ -	\$	-



**Grissom ARB Joint Land Use Study Task 1B Estimate
Grissom ARB**



December 20, 2019

TRADE COSTS CSI DIVISION DETAIL				109,507	square feet
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT	
Earthwork - remove curbs	1,142	lf	\$ 5.50	\$	6,281
Earthwork - remove sidewalks	-	sf	\$ -	\$	-
Earthwork - remove parking lot pavement	27,513	sf	NIC	\$	-
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,100.00	\$	1,100
Earthwork - install thrust blocking prior to cutting water	2	ea	\$ 1,100.00	\$	2,200
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,100.00	\$	1,100
Earthwork - remove water hydrants	1	ea	\$ 2,750.00	\$	2,750
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 550.00	\$	550
Earthwork - backfill crawl space	885	cy	\$ 22.00	\$	19,469
Earthwork - re-grade demolition area	9,355	sy	\$ 1.65	\$	15,436
Division 32 – Exterior Improvements				\$	29,447
Fences & Gates - temporary perimeter fencing / gates	1,161	lf	\$ 16.50	\$	19,157
Fences & Gates - install new chain link fencing	-	lf	\$ -	\$	-
Planting - seed all disturbed areas	9,355	sy	\$ 1.10	\$	10,291
Division 01 General Requirements				\$	181,055
Design Contingency	175,760	\$	\$ 0.10	\$	17,576
Construction Contingency	193,336	\$	\$ 0.10	\$	19,334
Design / Engineering Fees	212,670	\$	\$ 0.20	\$	42,534
Staffing and General Conditions	255,204	\$	\$ 0.10	\$	25,520
General Requirements	280,724	\$	\$ 0.10	\$	28,072
Construction Manager Fee	308,796	\$	\$ 0.08	\$	24,704
Permitting - Allowance	1	ls	\$ 5,000.00	\$	5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$	2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$	10,000
General Insurance	351,000	\$	\$ 0.01	\$	2,808
Performance Bond	353,808	\$	\$ 0.01	\$	3,007
Zone G - Building 37				\$	486,494
Division 02 – Existing Conditions				\$	98,903
Hazardous Components - removal / disposal	1	ls	\$ -	\$	-
Building Demolition - demolish and remove Building 37	25,689	gsf	\$ 3.85	\$	98,903
Division 31 – Earthwork				\$	95,790
Earthwork - remove trees	8	ea	\$ 82.50	\$	660
Earthwork - remove fencing	-	lf	\$ -	\$	-
Earthwork - remove curbs	2,644	lf	\$ 5.50	\$	14,542
Earthwork - remove sidewalks	4,605	sf	\$ 1.37	\$	6,332
Earthwork - remove parking lot pavement	61,218	sf	NIC	\$	-
Earthwork - overhead utility lines from power poles	850	lf	\$ 11.00	\$	9,350
Earthwork - remove wood power poles	9	ea	\$ 550.00	\$	4,950
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,100.00	\$	1,100
Earthwork - install thrust blocking prior to cutting water	1	ls	\$ 1,100.00	\$	1,100
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,100.00	\$	1,100
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 550.00	\$	550
Earthwork - backfill crawl space	1,142	cy	\$ 22.00	\$	25,119
Earthwork - re-grade demolition area	18,780	sy	\$ 1.65	\$	30,988
Division 32 – Exterior Improvements				\$	48,296
Fences & Gates - temporary perimeter fencing / gates	1,675	lf	\$ 16.50	\$	27,638
Fences & Gates - install new chain link fencing	-	lf	\$ -	\$	-
Planting - seed all disturbed areas	18,780	sy	\$ 1.10	\$	20,658
Division 01 General Requirements				\$	243,505
Design Contingency	242,989	\$	\$ 0.10	\$	24,299
Construction Contingency	267,288	\$	\$ 0.10	\$	26,729
Design / Engineering Fees	294,017	\$	\$ 0.20	\$	58,803
Staffing and General Conditions	352,820	\$	\$ 0.10	\$	35,282
General Requirements	388,102	\$	\$ 0.10	\$	38,810
Construction Manager Fee	426,912	\$	\$ 0.08	\$	34,153
Permitting - Allowance	1	ls	\$ 5,000.00	\$	5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$	2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$	10,000
General Insurance	478,565	\$	\$ 0.01	\$	3,829



**Grissom ARB Joint Land Use Study Task 1B Estimate
Grissom ARB**



December 20, 2019

TRADE COSTS CSI DIVISION DETAIL				109,507 square feet	
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT	
Performance Bond	482,394	\$	\$ 0.01	\$ 4,100	
Zone H - Building 38				\$ 225,457	
Division 02 – Existing Conditions				\$ 19,800	
Hazardous Components - removal / disposal	1	ls	\$ -	\$ -	
Building Demolition - demolish and remove Building 38	3,000	gsf	\$ 6.60	\$ 19,800	
Division 31 – Earthwork				\$ 51,120	
Earthwork - remove trees	3	ea	\$ 82.50	\$ 248	
Earthwork - remove curbs	1,211	lf	\$ 5.50	\$ 6,661	
Earthwork - remove sidewalks	3,684	sf	\$ 1.38	\$ 5,066	
Earthwork - remove parking lot pavement	23,176	sf	NIC	\$ -	
Earthwork - overhead utility lines from power poles	450	lf	\$ 11.00	\$ 4,950	
Earthwork - remove wood power poles	6	ea	\$ 550.00	\$ 3,300	
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,100.00	\$ 1,100	
Earthwork - install thrust blocking prior to cutting water	2	ea	\$ 1,100.00	\$ 2,200	
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,100.00	\$ 1,100	
Earthwork - remove water hydrants	1	ea	\$ 2,750.00	\$ 2,750	
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 550.00	\$ 550	
Earthwork - backfill crawl space	400	cy	\$ 22.00	\$ 8,800	
Earthwork - re-grade demolition area	8,725	sy	\$ 1.65	\$ 14,397	
Division 32 – Exterior Improvements				\$ 36,740	
Fences & Gates - temporary perimeter fencing / gates	1,645	lf	\$ 16.50	\$ 27,143	
Planting - seed all disturbed areas	8,725	sy	\$ 1.10	\$ 9,598	
Division 01 General Requirements				\$ 117,797	
Design Contingency	107,660	\$	\$ 0.10	\$ 10,766	
Construction Contingency	118,426	\$	\$ 0.10	\$ 11,843	
Design / Engineering Fees	130,269	\$	\$ 0.20	\$ 26,054	
Staffing and General Conditions	156,323	\$	\$ 0.10	\$ 15,632	
General Requirements	171,955	\$	\$ 0.10	\$ 17,196	
Construction Manager Fee	189,151	\$	\$ 0.08	\$ 15,132	
Permitting - Allowance	1	ls	\$ 5,000.00	\$ 5,000	
Inspections - Allowance	1	ls	\$ 2,500.00	\$ 2,500	
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$ 10,000	
General Insurance	221,783	\$	\$ 0.01	\$ 1,774	
Performance Bond	223,557	\$	\$ 0.01	\$ 1,900	
Zone X				\$ 337,876	
Division 31 – Earthwork				\$ 73,040	
Earthwork - remove trees	46	ea	\$ 82.50	\$ 3,795	
Earthwork - remove wood power poles	2	ea	\$ 550.00	\$ 1,100	
Earthwork - re-grade demolition area	41,300	sy	\$ 1.65	\$ 68,145	
Division 32 – Exterior Improvements				\$ 92,901	
Fences & Gates - temporary perimeter fencing / gates	2,877	lf	\$ 16.50	\$ 47,471	
Planting - seed all disturbed areas	41,300	sy	\$ 1.10	\$ 45,430	
Division 01 General Requirements				\$ 171,935	
Design Contingency	165,941	\$	\$ 0.10	\$ 16,594	
Construction Contingency	182,535	\$	\$ 0.10	\$ 18,253	
Design / Engineering Fees	200,788	\$	\$ 0.20	\$ 40,158	
Staffing and General Conditions	240,946	\$	\$ 0.10	\$ 24,095	
General Requirements	265,041	\$	\$ 0.10	\$ 26,504	
Construction Manager Fee	291,545	\$	\$ 0.08	\$ 23,324	
Permitting - Allowance	1	ls	\$ 5,000.00	\$ 5,000	
Inspections - Allowance	1	ls	\$ 2,500.00	\$ 2,500	
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$ 10,000	
General Insurance	332,369	\$	\$ 0.01	\$ 2,659	
Performance Bond	335,028	\$	\$ 0.01	\$ 2,848	
Building Trade Cost Total:				\$ 3,880,582	

Tab E
SCHEDULES 



SHIEL SEXTON  EXPECT MORE

Line	Act. ID	Activity Name	Dur.	Start	Finish	2020														2021
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1 Zone A																				
2 Design & Regulatory																				
3	1200	Procure & Contract for Design Services	60d	02Jan20	25Mar20	Procure & Contract for Design Services														
4	1210	Designer Prepares Bid Documents	4d	26Mar20	31Mar20	Designer Prepares Bid Documents														
5	1220	State - Rule 5 / NOI IDEM	5d	01Apr20	07Apr20	State - Rule 5 / NOI IDEM														
6	1230	Bid & Award Contract for Demolition	50d	08Apr20	17Jun20	Bid & Award Contract for Demolition														
7	1240	Utility Service Retirements - By Owner	5d	18Jun20	24Jun20	Utility Service Retirements - By Owner														
8 Construction																				
9	1250	Site Perimeter Temp Fencing / Signage	5d	25Jun20	01Jul20	Site Perimeter Temp Fencing / Signage														
10	1260	Utility Disconnects	5d	02Jul20	09Jul20	Utility Disconnects														
11	1270	Hazardous Components - Removal & Disposal	20d	10Jul20	06Aug20	Hazardous Components - Removal & Disposal														
12	1280	IDEM Notification Period	10d	07Aug20	20Aug20	IDEM Notification Period														
13	1290	Obtain Wrecking Permit	5d	21Aug20	27Aug20	Obtain Wrecking Permit														
14	1300	Building #1 & Site Demolition	10d	28Aug20	11Sep20	Building #1 & Site Demolition														
15	1310	Final Grading & Seeding	5d	14Sep20	18Sep20	Final Grading & Seeding														
16	1320	Site Improvements	5d	21Sep20	25Sep20	Site Improvements														
17 Zone B																				
18 Design & Regulatory																				
19	1350	Procure & Contract for Design Services	60d	02Jan20	25Mar20	Procure & Contract for Design Services														
20	1360	Designer Prepares Bid Documents	40d	26Mar20	20May20	Designer Prepares Bid Documents														
21	1370	State - Rule 5 / NOI IDEM	5d	21May20	28May20	State - Rule 5 / NOI IDEM														
22	1380	Bid & Award Contract for Demolition	50d	29May20	07Aug20	Bid & Award Contract for Demolition														
23	1390	Utility Service Retirements - By Owner	5d	10Aug20	14Aug20	Utility Service Retirements - By Owner														
24 Construction																				
25	1400	Site Perimeter Temp Fencing / Signage	5d	17Aug20	21Aug20	Site Perimeter Temp Fencing / Signage														
26	1410	Utility Disconnects	5d	24Aug20	28Aug20	Utility Disconnects														
27	1420	Hazardous Components - Removal & Disposal	20d	31Aug20	28Sep20	Hazardous Components - Removal & Disposal														
28	1430	IDEM Notification Period	10d	29Sep20	12Oct20	IDEM Notification Period														
29	1440	Obtain Wrecking Permit	5d	13Oct20	19Oct20	Obtain Wrecking Permit														
30	1450	Building #11 & Site Demolition	15d	20Oct20	09Nov20	Building #11 & Site Demolition														
31	1460	Final Grading & Seeding	5d	10Nov20	16Nov20	Final Grading & Seeding														
32	1470	Site Improvements	10d	17Nov20	01Dec20	Site Improvements														
33 Zone C																				
34 Design & Regulatory																				
35	1500	Procure & Contract for Design Services	60d	02Jan20	25Mar20	Procure & Contract for Design Services														
36	1510	Designer Prepares Bid Documents	40d	26Mar20	20May20	Designer Prepares Bid Documents														
37	1520	State - Rule 5 / NOI IDEM	5d	21May20	28May20	State - Rule 5 / NOI IDEM														
38	1530	Bid & Award Contract for Demolition	50d	29May20	07Aug20	Bid & Award Contract for Demolition														
39	1540	Utility Service Retirements - By Owner	5d	10Aug20	14Aug20	Utility Service Retirements - By Owner														



Grissom ARB Joint Land Use Study

Task 1B - Demolition

Project Schedule

Run Date: 12/19/2019
Progress Date: 1/1/2020

Line	Act. ID	Activity Name	Dur.	Start	Finish	2020														2021
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	
40 Construction																				
41	1550	Site Perimeter Temp Fencing / Signage	5d	17Aug20	21Aug20															█ Site Perimeter Temp Fencing / Signage
42	1560	Utility Disconnects	5d	24Aug20	28Aug20															█ Utility Disconnects
43	1570	Hazardous Components - Removal & Disposal	20d	31Aug20	28Sep20															█ Hazardous Components - Removal & Disposal
44	1580	IDEM Notification Period	10d	29Sep20	12Oct20															█ IDEM Notification Period
45	1590	Obtain Wrecking Permit	5d	13Oct20	19Oct20															█ Obtain Wrecking Permit
46	1600	Building #20 & Site Demolition	10d	20Oct20	02Nov20															█ Building #20 & Site Demolition
47	1610	Final Grading & Seeding	5d	03Nov20	09Nov20															█ Final Grading & Seeding
48	1620	Site Improvements	5d	10Nov20	16Nov20															█ Site Improvements
49 Zone D																				
50 Design & Regulatory																				
51	1650	Procure & Contract for Design Services	60d	02Jan20	25Mar20	█ Procure & Contract for Design Services														
52	1660	Designer Prepares Bid Documents	40d	26Mar20	20May20	█ Designer Prepares Bid Documents														
53	1670	State - Rule 5 / NOI IDEM	5d	21May20	28May20	█ State - Rule 5 / NOI IDEM														
54	1680	Bid & Award Contract for Demolition	50d	29May20	07Aug20	█ Bid & Award Contract for Demolition														
55	1690	Utility Service Retirements - By Owner	5d	10Aug20	14Aug20	█ Utility Service Retirements - By Owner														
56 Construction																				
57	1700	Site Perimeter Temp Fencing / Signage	5d	17Aug20	21Aug20															█ Site Perimeter Temp Fencing / Signage
58	1710	Utility Disconnects	5d	24Aug20	28Aug20															█ Utility Disconnects
59	1720	Hazardous Components - Removal & Disposal	10d	31Aug20	14Sep20															█ Hazardous Components - Removal & Disposal
60	1730	IDEM Notification Period	10d	15Sep20	28Sep20															█ IDEM Notification Period
61	1740	Obtain Wrecking Permit	5d	29Sep20	05Oct20															█ Obtain Wrecking Permit
62	1750	Building #22 & Site Demolition	15d	06Oct20	26Oct20															█ Building #22 & Site Demolition
63	1760	Final Grading & Seeding	5d	27Oct20	02Nov20															█ Final Grading & Seeding
64	1770	Site Improvements	5d	03Nov20	09Nov20															█ Site Improvements
65 Zone E																				
66 Design & Regulatory																				
67	1800	Procure & Contract for Design Services	60d	02Jan20	25Mar20	█ Procure & Contract for Design Services														
68	1810	Designer Prepares Bid Documents	40d	26Mar20	20May20	█ Designer Prepares Bid Documents														
69	1820	State - Rule 5 / NOI IDEM	5d	21May20	28May20	█ State - Rule 5 / NOI IDEM														
70	1830	Bid & Award Contract for Demolition	50d	29May20	07Aug20	█ Bid & Award Contract for Demolition														
71	1840	Utility Service Retirements - By Owner	5d	10Aug20	14Aug20	█ Utility Service Retirements - By Owner														
72 Construction																				
73	1850	Site Perimeter Temp Fencing / Signage	5d	17Aug20	21Aug20															█ Site Perimeter Temp Fencing / Signage
74	1860	Utility Disconnects	5d	24Aug20	28Aug20															█ Utility Disconnects
75	1870	Hazardous Components - Removal & Disposal	5d	31Aug20	04Sep20															█ Hazardous Components - Removal & Disposal
76	1880	IDEM Notification Period	10d	08Sep20	21Sep20															█ IDEM Notification Period
77	1890	Obtain Wrecking Permit	5d	22Sep20	28Sep20															█ Obtain Wrecking Permit
78	1900	Building #32 & Site Demolition	10d	29Sep20	12Oct20															█ Building #32 & Site Demolition



Grissom ARB Joint Land Use Study

Task 1B - Demolition

Project Schedule

Run Date: 12/19/2019
Progress Date: 1/1/2020

APPENDIX C – RELOCATION COST ESTIMATES





Task 1C Estimate

February 7, 2020

Budget Totals					
Budget Total per Area					Amount
01	Zone 1	16,380	sf	\$	296,074
02	Zone 2	2,055	sf	\$	75,528
03	Zone 3	13,800	sf	\$	282,364
04	Zone 4	28,540	sf	\$	555,900
05	Zone 5	6,145	sf	\$	163,804
06	Zone 6	3,680	sf	\$	107,539
07	Zone 7	1,920	sf	\$	90,986
08	Zone 8	17,180	sf	\$	411,521
09	Zone 9	4,000	sf	\$	98,029
10	Zone 10	4,000	sf	\$	96,977
11	Zone 11	6,008	sf	\$	140,016
12	Building 410	7,959	sf	\$	162,686
13	Dental Clinic	11,000	sf	\$	4,706,309
14	MCEDA Office (Non-FBO)	10,000	sf	\$	3,299,541
15	Indiana Mentor Network	3,600	sf	\$	1,187,834
16	Airfield Maintenance / Storage (75' x 85')	6,375	sf	\$	1,759,147
17	Airfield Maintenance / Storage (40' x 90')	3,600	sf	\$	993,400
18	Fuel Farm	1	ls	\$	269,408
19	Corporate Hangar (75 x 150)	11,250	sf	\$	4,794,284
20	Corporate Hangar (100 x 117)	11,700	sf	\$	4,986,053
21	Corporate Hangar (100 x 135)	13,500	sf	\$	5,753,140
22	Corporate Hangar (100 x 200)	20,000	sf	\$	8,523,168
23	FBO Office / Operations	3,600	sf	\$	1,187,834
24	FBO / MCEDA Office and 3 Tenants	13,000	sf	\$	4,289,404
25	Mixed Use - Building 1	24,000	sf	\$	5,083,397
26	Grand Total			\$	49,314,343

Escalation Per Year: 4.00%
(not included in above numbers)



Grissom ARB Joint Land Use Study



Task 1C Estimate

February 7, 2020

BUDGET COSTS CSI DIVISION DETAIL				
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
Zone 1				\$ 296,074
Division 02 – Existing Conditions				\$ 98,280
Building Demolition - demolish and remove Building - figure 2	16,380	gsf	\$ 6.00	\$ 98,280
Division 31 – Earthwork				\$ 14,359
Earthwork - remove trees	3	ea	\$ 75.00	\$ 225
Earthwork - remove fencing	50	lf	\$ 2.50	\$ 125
Earthwork - overhead utility lines from power poles	340	lf	\$ 10.00	\$ 3,400
Earthwork - remove wood power poles	4	ea	\$ 500.00	\$ 2,000
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - install thrust blocking prior to cutting water	1	ls	\$ 1,000.00	\$ 1,000
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 500.00	\$ 500
Earthwork - re-grade demolition area	3,406	sy	\$ 1.50	\$ 5,109
Division 32 – Exterior Improvements				\$ 31,631
Fences & Gates - temporary perimeter fencing / gates	323	lf	\$ 15.00	\$ 4,845
Fences & Gates - install new chain link fencing	668	lf	\$ 35.00	\$ 23,380
Planting - seed all disturbed areas	3,406	sy	\$ 1.00	\$ 3,406
Division 01 General Requirements				\$ 151,804
Design Contingency	144,270		\$ 10.00%	\$ 14,427
Construction Contingency	158,697		\$ 10.00%	\$ 15,870
Design / Engineering Fees	174,567		\$ 20.00%	\$ 34,913
Staffing and General Conditions	209,480		\$ 10.00%	\$ 20,948
General Requirements	230,428		\$ 10.00%	\$ 23,043
Construction Manager Fee	253,471		\$ 8.00%	\$ 20,278
Permitting - Allowance	1	ls	\$ 5,000.00	\$ 5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$ 2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$ 10,000
General Insurance	291,249		\$ 0.80%	\$ 2,330
Performance Bond	293,579		\$ 0.85%	\$ 2,495
Zone 2				\$ 75,528
Division 02 – Existing Conditions				\$ 12,330
Building Demolition - demolish and remove Building - figure 3	2,055	gsf	\$ 6.00	\$ 12,330
Division 31 – Earthwork				\$ 9,385
Earthwork - remove fencing	50	lf	\$ 2.50	\$ 125
Earthwork - overhead utility lines from power poles	259	lf	\$ 10.00	\$ 2,590
Earthwork - remove wood power poles	3	ea	\$ 500.00	\$ 1,500
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - install thrust blocking prior to cutting water	1	ls	\$ 1,000.00	\$ 1,000
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 500.00	\$ 500
Earthwork - re-grade demolition area	1,113	sy	\$ 1.50	\$ 1,670
Division 32 – Exterior Improvements				\$ 8,218
Fences & Gates - temporary perimeter fencing / gates	357	lf	\$ 15.00	\$ 5,355
Fences & Gates - install new chain link fencing	50	lf	\$ 35.00	\$ 1,750
Planting - seed all disturbed areas	1,113	sy	\$ 1.00	\$ 1,113
Division 01 General Requirements				\$ 45,595
Design Contingency	29,933		\$ 10.00%	\$ 2,993
Construction Contingency	32,926		\$ 10.00%	\$ 3,293
Design / Engineering Fees	36,219		\$ 20.00%	\$ 7,244
Staffing and General Conditions	43,463		\$ 10.00%	\$ 4,346
General Requirements	47,809		\$ 10.00%	\$ 4,781
Construction Manager Fee	52,590		\$ 8.00%	\$ 4,207
Permitting - Allowance	1	ls	\$ 5,000.00	\$ 5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$ 2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$ 10,000
General Insurance	74,297		\$ 0.80%	\$ 594
Performance Bond	74,891		\$ 0.85%	\$ 637
Zone 3				\$ 282,364
Division 02 – Existing Conditions				\$ 110,400



Grissom ARB Joint Land Use Study

Task 1C Estimate



February 7, 2020

BUDGET COSTS CSI DIVISION DETAIL					
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT	
Building Demolition - demolish and remove Building - bldg 109	13,800	gsf	\$ 6.00	\$	82,800
Hazardous Components - removal / disposal - bldg 109	13,800	gsf	\$ 2.00	\$	27,600
Division 31 – Earthwork				\$	11,037
Earthwork - overhead utility lines from power poles	59	lf	\$ 10.00	\$	590
Earthwork - remove wood power poles	2	ea	\$ 500.00	\$	1,000
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,000.00	\$	1,000
Earthwork - install thrust blocking prior to cutting water	1	ls	\$ 1,000.00	\$	1,000
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,000.00	\$	1,000
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 500.00	\$	500
Earthwork - re-grade demolition area	3,965	sy	\$ 1.50	\$	5,947
Division 32 – Exterior Improvements				\$	15,725
Fences & Gates - temporary perimeter fencing / gates	784	lf	\$ 15.00	\$	11,760
Planting - seed all disturbed areas	3,965	sy	\$ 1.00	\$	3,965
Division 01 General Requirements				\$	145,202
Design Contingency	137,162	\$	10.00%	\$	13,716
Construction Contingency	150,878	\$	10.00%	\$	15,088
Design / Engineering Fees	165,966	\$	20.00%	\$	33,193
Staffing and General Conditions	199,159	\$	10.00%	\$	19,916
General Requirements	219,075	\$	10.00%	\$	21,908
Construction Manager Fee	240,983	\$	8.00%	\$	19,279
Permitting - Allowance	1	ls	\$ 5,000.00	\$	5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$	2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$	10,000
General Insurance	277,762	\$	0.80%	\$	2,222
Performance Bond	279,984	\$	0.85%	\$	2,380
Zone 4				\$	555,900
Division 02 – Existing Conditions				\$	228,320
Building Demolition - demolish and remove Building - bldg 190	28,540	gsf	\$ 6.00	\$	171,240
Hazardous Components - removal / disposal - bldg 190	28,540	gsf	\$ 2.00	\$	57,080
Division 31 – Earthwork				\$	38,764
Earthwork - remove fencing	697	lf	\$ 2.50	\$	1,743
Earthwork - overhead utility lines from power poles	644	lf	\$ 10.00	\$	6,440
Earthwork - remove wood power poles	12	ea	\$ 500.00	\$	6,000
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,000.00	\$	1,000
Earthwork - install thrust blocking prior to cutting water	3	ls	\$ 1,000.00	\$	3,000
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,000.00	\$	1,000
Earthwork - remove water hydrants	2	ea	\$ 2,500.00	\$	5,000
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 500.00	\$	500
Earthwork - re-grade demolition area	9,387	sy	\$ 1.50	\$	14,081
Division 32 – Exterior Improvements				\$	11,887
Fences & Gates - temporary perimeter fencing / gates	50	lf	\$ 15.00	\$	750
Fences & Gates - install new chain link fencing	50	lf	\$ 35.00	\$	1,750
Planting - seed all disturbed areas	9,387	sy	\$ 1.00	\$	9,387
Division 01 General Requirements				\$	276,929
Design Contingency	278,971	\$	10.00%	\$	27,897
Construction Contingency	306,868	\$	10.00%	\$	30,687
Design / Engineering Fees	337,555	\$	20.00%	\$	67,511
Staffing and General Conditions	405,066	\$	10.00%	\$	40,507
General Requirements	445,573	\$	10.00%	\$	44,557
Construction Manager Fee	490,130	\$	8.00%	\$	39,210
Permitting - Allowance	1	ls	\$ 5,000.00	\$	5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$	2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$	10,000
General Insurance	546,840	\$	0.80%	\$	4,375
Performance Bond	551,215	\$	0.85%	\$	4,685
Zone 5				\$	163,804
Division 02 – Existing Conditions				\$	36,870
Building Demolition - demolish and remove Building - figure 6	6,145	gsf	\$ 6.00	\$	36,870



Grissom ARB Joint Land Use Study



Task 1C Estimate

February 7, 2020

BUDGET COSTS CSI DIVISION DETAIL				
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
Division 31 – Earthwork				\$ 19,385
Earthwork - remove trees	5	ea	\$ 75.00	\$ 375
Earthwork - remove fencing	706	lf	\$ 2.50	\$ 1,765
Earthwork - overhead utility lines from power poles	248	lf	\$ 10.00	\$ 2,480
Earthwork - remove wood power poles	3	ea	\$ 500.00	\$ 1,500
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - install thrust blocking prior to cutting water	1	ls	\$ 1,000.00	\$ 1,000
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 500.00	\$ 500
Earthwork - re-grade demolition area	3,177	sy	\$ 1.50	\$ 4,765
Earthwork - remove 60' tall small frame radio tower	1	ea	\$ 5,000.00	\$ 5,000
Division 32 – Exterior Improvements				\$ 19,442
Fences & Gates - temporary perimeter fencing / gates	683	lf	\$ 15.00	\$ 10,245
Fences & Gates - install new chain link fencing	172	lf	\$ 35.00	\$ 6,020
Planting - seed all disturbed areas	3,177	sy	\$ 1.00	\$ 3,177
Division 01 General Requirements				\$ 88,107
Design Contingency	75,697	\$	10.00%	\$ 7,570
Construction Contingency	83,267	\$	10.00%	\$ 8,327
Design / Engineering Fees	91,594	\$	20.00%	\$ 18,319
Staffing and General Conditions	109,913	\$	10.00%	\$ 10,991
General Requirements	120,904	\$	10.00%	\$ 12,090
Construction Manager Fee	132,994	\$	8.00%	\$ 10,640
Permitting - Allowance	1	ls	\$ 5,000.00	\$ 5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$ 2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$ 10,000
General Insurance	161,134	\$	0.80%	\$ 1,289
Performance Bond	162,423	\$	0.85%	\$ 1,381
Zone 6				\$ 107,539
Division 02 – Existing Conditions				\$ 29,440
Hazardous Components - removal / disposal - bldg 139	3,680	gsf	\$ 2.00	\$ 7,360
Building Demolition - demolish and remove Building - bldg 139	3,680	gsf	\$ 6.00	\$ 22,080
Division 31 – Earthwork				\$ 6,884
Earthwork - remove trees	2	ea	\$ 75.00	\$ 150
Earthwork - remove fencing	238	lf	\$ 2.50	\$ 595
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - install thrust blocking prior to cutting water	1	ls	\$ 1,000.00	\$ 1,000
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 500.00	\$ 500
Earthwork - re-grade demolition area	1,759	sy	\$ 1.50	\$ 2,639
Division 32 – Exterior Improvements				\$ 10,204
Fences & Gates - temporary perimeter fencing / gates	563	lf	\$ 15.00	\$ 8,445
Planting - seed all disturbed areas	1,759	sy	\$ 1.00	\$ 1,759
Division 01 General Requirements				\$ 61,011
Design Contingency	46,528	\$	10.00%	\$ 4,653
Construction Contingency	51,181	\$	10.00%	\$ 5,118
Design / Engineering Fees	56,299	\$	20.00%	\$ 11,260
Staffing and General Conditions	67,559	\$	10.00%	\$ 6,756
General Requirements	74,315	\$	10.00%	\$ 7,432
Construction Manager Fee	81,747	\$	8.00%	\$ 6,540
Permitting - Allowance	1	ls	\$ 5,000.00	\$ 5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$ 2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$ 10,000
General Insurance	105,787	\$	0.80%	\$ 846
Performance Bond	106,633	\$	0.85%	\$ 906
Zone 7				\$ 90,986
Division 02 – Existing Conditions				\$ 15,360
Building Demolition - demolish and remove Building - bldg 135	1,920	gsf	\$ 6.00	\$ 11,520
Hazardous Components - removal / disposal - bldg 135	1,920	gsf	\$ 2.00	\$ 3,840
Division 31 – Earthwork				\$ 10,664



Grissom ARB Joint Land Use Study



Task 1C Estimate

February 7, 2020

BUDGET COSTS CSI DIVISION DETAIL					
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT	
Earthwork - remove trees	1	ea	\$ 75.00	\$	75
Earthwork - remove curbs	359	lf	\$ 5.00	\$	1,795
Earthwork - overhead utility lines from power poles	86	lf	\$ 10.00	\$	860
Earthwork - remove wood power poles	1	ea	\$ 500.00	\$	500
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,000.00	\$	1,000
Earthwork - install thrust blocking prior to cutting water	1	ls	\$ 1,000.00	\$	1,000
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,000.00	\$	1,000
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 500.00	\$	500
Earthwork - re-grade demolition area	2,622	sy	\$ 1.50	\$	3,934
Division 32 – Exterior Improvements				\$	11,922
Fences & Gates - temporary perimeter fencing / gates	620	lf	\$ 15.00	\$	9,300
Planting - seed all disturbed areas	2,622	sy	\$ 1.00	\$	2,622
Division 01 General Requirements				\$	53,040
Design Contingency	37,946		\$ 10.00%	\$	3,795
Construction Contingency	41,741		\$ 10.00%	\$	4,174
Design / Engineering Fees	45,915		\$ 20.00%	\$	9,183
Staffing and General Conditions	55,098		\$ 10.00%	\$	5,510
General Requirements	60,608		\$ 10.00%	\$	6,061
Construction Manager Fee	66,669		\$ 8.00%	\$	5,334
Permitting - Allowance	1	ls	\$ 5,000.00	\$	5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$	2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$	10,000
General Insurance	89,503		\$ 0.80%	\$	716
Performance Bond	90,219		\$ 0.85%	\$	767
Zone 8				\$	411,521
Division 02 – Existing Conditions				\$	137,440
Building Demolition - demolish and remove Building - bldg 14	17,180	gsf	\$ 6.00	\$	103,080
Hazardous Components - removal / disposal - bldg 14	17,180	gsf	\$ 2.00	\$	34,360
Division 31 – Earthwork				\$	42,680
Earthwork - remove trees	2	ea	\$ 75.00	\$	150
Earthwork - remove fencing	188	lf	\$ 2.50	\$	470
Earthwork - overhead utility lines from power poles	288	lf	\$ 10.00	\$	2,880
Earthwork - remove wood power poles	6	ea	\$ 500.00	\$	3,000
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,000.00	\$	1,000
Earthwork - install thrust blocking prior to cutting water	2	ls	\$ 1,000.00	\$	2,000
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,000.00	\$	1,000
Earthwork - remove water hydrants	1	ea	\$ 2,500.00	\$	2,500
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 500.00	\$	500
Earthwork - re-grade demolition area	4,627	sy	\$ 1.50	\$	6,940
Earthwork - backfill basement	1,112	cy	\$ 20.00	\$	22,240
Division 32 – Exterior Improvements				\$	24,002
Fences & Gates - temporary perimeter fencing / gates	825	lf	\$ 15.00	\$	12,375
Fences & Gates - install new chain link fencing	200	lf	\$ 35.00	\$	7,000
Planting - seed all disturbed areas	4,627	sy	\$ 1.00	\$	4,627
Division 01 General Requirements				\$	207,399
Design Contingency	204,122		\$ 10.00%	\$	20,412
Construction Contingency	224,534		\$ 10.00%	\$	22,453
Design / Engineering Fees	246,987		\$ 20.00%	\$	49,397
Staffing and General Conditions	296,384		\$ 10.00%	\$	29,638
General Requirements	326,022		\$ 10.00%	\$	32,602
Construction Manager Fee	358,624		\$ 8.00%	\$	28,690
Permitting - Allowance	1	ls	\$ 5,000.00	\$	5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$	2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$	10,000
General Insurance	404,814		\$ 0.80%	\$	3,239
Performance Bond	408,053		\$ 0.85%	\$	3,468
Zone 9				\$	98,029
Division 02 – Existing Conditions				\$	24,000
Building Demolition - demolish and remove Building - bldg 48	4,000	gsf	\$ 6.00	\$	24,000



Grissom ARB Joint Land Use Study



Task 1C Estimate

February 7, 2020

BUDGET COSTS CSI DIVISION DETAIL				
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
Division 31 – Earthwork				\$ 7,393
Earthwork - remove trees	2	ea	\$ 75.00	\$ 150
Earthwork - remove fencing	297	lf	\$ 2.50	\$ 743
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - install thrust blocking prior to cutting water	1	ls	\$ 1,000.00	\$ 1,000
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 500.00	\$ 500
Earthwork - re-grade demolition area	2,000	sy	\$ 1.50	\$ 3,000
Division 32 – Exterior Improvements				\$ 10,205
Fences & Gates - temporary perimeter fencing / gates	547	lf	\$ 15.00	\$ 8,205
Planting - seed all disturbed areas	2,000	sy	\$ 1.00	\$ 2,000
Division 01 General Requirements				\$ 56,431
Design Contingency	41,598	\$	10.00%	\$ 4,160
Construction Contingency	45,758	\$	10.00%	\$ 4,576
Design / Engineering Fees	50,334	\$	20.00%	\$ 10,067
Staffing and General Conditions	60,401	\$	10.00%	\$ 6,040
General Requirements	66,441	\$	10.00%	\$ 6,644
Construction Manager Fee	73,085	\$	8.00%	\$ 5,847
Permitting - Allowance	1	ls	\$ 5,000.00	\$ 5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$ 2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$ 10,000
General Insurance	96,432	\$	0.80%	\$ 771
Performance Bond	97,203	\$	0.85%	\$ 826
Zone 10				\$ 96,977
Division 02 – Existing Conditions				\$ 24,000
Building Demolition - demolish and remove Building - bldg 49	4,000	gsf	\$ 6.00	\$ 24,000
Division 31 – Earthwork				\$ 7,075
Earthwork - remove fencing	294	lf	\$ 2.50	\$ 735
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - install thrust blocking prior to cutting water	1	ls	\$ 1,000.00	\$ 1,000
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 500.00	\$ 500
Earthwork - re-grade demolition area	1,893	sy	\$ 1.50	\$ 2,840
Division 32 – Exterior Improvements				\$ 9,978
Fences & Gates - temporary perimeter fencing / gates	539	lf	\$ 15.00	\$ 8,085
Planting - seed all disturbed areas	1,893	sy	\$ 1.00	\$ 1,893
Division 01 General Requirements				\$ 55,924
Design Contingency	41,053	\$	10.00%	\$ 4,105
Construction Contingency	45,158	\$	10.00%	\$ 4,516
Design / Engineering Fees	49,674	\$	20.00%	\$ 9,935
Staffing and General Conditions	59,609	\$	10.00%	\$ 5,961
General Requirements	65,570	\$	10.00%	\$ 6,557
Construction Manager Fee	72,127	\$	8.00%	\$ 5,770
Permitting - Allowance	1	ls	\$ 5,000.00	\$ 5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$ 2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$ 10,000
General Insurance	95,397	\$	0.80%	\$ 763
Performance Bond	96,160	\$	0.85%	\$ 817
Zone 11				\$ 140,016
Division 02 – Existing Conditions				\$ 36,048
Building Demolition - demolish and remove Building - bldg 26	6,008	gsf	\$ 6.00	\$ 36,048
Division 31 – Earthwork				\$ 16,569
Earthwork - remove fencing	258	lf	\$ 2.50	\$ 645
Earthwork - overhead utility lines from power poles	324	lf	\$ 10.00	\$ 3,240
Earthwork - remove wood power poles	5	ea	\$ 500.00	\$ 2,500
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - install thrust blocking prior to cutting water	2	ls	\$ 1,000.00	\$ 2,000
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - remove water hydrants	1	ea	\$ 2,500.00	\$ 2,500



Grissom ARB Joint Land Use Study



Task 1C Estimate

February 7, 2020

BUDGET COSTS CSI DIVISION DETAIL				
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 500.00	\$ 500
Earthwork - re-grade demolition area	2,123	sy	\$ 1.50	\$ 3,184
Division 32 – Exterior Improvements				\$ 10,748
Fences & Gates - temporary perimeter fencing / gates	575	lf	\$ 15.00	\$ 8,625
Planting - seed all disturbed areas	2,123	sy	\$ 1.00	\$ 2,123
Division 01 General Requirements				\$ 76,651
Design Contingency	63,365	\$	10.00%	\$ 6,337
Construction Contingency	69,702	\$	10.00%	\$ 6,970
Design / Engineering Fees	76,672	\$	20.00%	\$ 15,334
Staffing and General Conditions	92,006	\$	10.00%	\$ 9,201
General Requirements	101,207	\$	10.00%	\$ 10,121
Construction Manager Fee	111,328	\$	8.00%	\$ 8,906
Permitting - Allowance	1	ls	\$ 5,000.00	\$ 5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$ 2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$ 10,000
General Insurance	137,734	\$	0.80%	\$ 1,102
Performance Bond	138,836	\$	0.85%	\$ 1,180
Building 410				\$ 162,686
Division 02 – Existing Conditions				\$ 47,754
Building Demolition - demolish and remove Building - bldg 410	7,959	gsf	\$ 6.00	\$ 47,754
Division 31 – Earthwork				\$ 13,947
Earthwork - remove trees	1	ea	\$ 75.00	\$ 75
Earthwork - overhead utility lines from power poles	125	lf	\$ 10.00	\$ 1,250
Earthwork - remove wood power poles	2	ea	\$ 500.00	\$ 1,000
Earthwork - cap and abandon sanitary sewer connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - install thrust blocking prior to cutting water	2	ls	\$ 1,000.00	\$ 2,000
Earthwork - cap and abandon water utility connection	1	ea	\$ 1,000.00	\$ 1,000
Earthwork - remove water hydrants	1	ea	\$ 2,500.00	\$ 2,500
Earthwork - cap and abandon natural gas utility connection	1	ea	\$ 500.00	\$ 500
Earthwork - re-grade demolition area	3,082	sy	\$ 1.50	\$ 4,622
Division 32 – Exterior Improvements				\$ 13,417
Fences & Gates - temporary perimeter fencing / gates	689	lf	\$ 15.00	\$ 10,335
Planting - seed all disturbed areas	3,082	sy	\$ 1.00	\$ 3,082
Division 01 General Requirements				\$ 87,568
Design Contingency	75,118	\$	10.00%	\$ 7,512
Construction Contingency	82,630	\$	10.00%	\$ 8,263
Design / Engineering Fees	90,893	\$	20.00%	\$ 18,179
Staffing and General Conditions	109,072	\$	10.00%	\$ 10,907
General Requirements	119,979	\$	10.00%	\$ 11,998
Construction Manager Fee	131,977	\$	8.00%	\$ 10,558
Permitting - Allowance	1	ls	\$ 5,000.00	\$ 5,000
Inspections - Allowance	1	ls	\$ 2,500.00	\$ 2,500
3rd Party Testing - Allowance	1	ls	\$ 10,000.00	\$ 10,000
General Insurance	160,035	\$	0.80%	\$ 1,280
Performance Bond	161,315	\$	0.85%	\$ 1,371
Dental Clinic				\$ 4,706,309
Division 03 – Concrete				\$ 2,343,000
Construct New Building	11,000	sf	\$ 213.00	\$ 2,343,000
Division 31 – Earthwork				\$ 165,000
Earthwork - site prep for new construction	11,000	sf	\$ 15.00	\$ 165,000
Division 32 – Exterior Improvements				\$ 275,000
Site Development - for new construction	11,000	sf	\$ 25.00	\$ 275,000
Division 01 General Requirements				\$ 1,923,309
Design Contingency	2,783,000	\$	5.00%	\$ 139,150
Construction Contingency	2,922,150	\$	10.00%	\$ 292,215
Design / Engineering Fees	3,214,365	\$	10.00%	\$ 321,437
Staffing and General Conditions	3,535,802	\$	10.00%	\$ 353,580



Grissom ARB Joint Land Use Study



Task 1C Estimate

February 7, 2020

BUDGET COSTS CSI DIVISION DETAIL				
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
General Requirements	3,889,382	\$	10.00%	\$ 388,938
Construction Manager Fee	4,278,320	\$	8.00%	\$ 342,266
Permitting - Allowance	11,000	sf	\$ 0.17	\$ 1,870
Inspections - Allowance	11,000	sf	\$ 0.15	\$ 1,650
3rd Party Testing - Allowance	11,000	sf	\$ 0.50	\$ 5,500
General Insurance	4,629,606	\$	0.80%	\$ 37,037
Performance Bond	4,666,643	\$	0.85%	\$ 39,666
MCEDA Office (Non-FBO)				\$ 3,299,541
Division 03 – Concrete				\$ 1,550,000
Construct New Building	10,000	sf	\$ 155.00	\$ 1,550,000
Division 31 – Earthwork				\$ 150,000
Earthwork - site prep for new construction	10,000	sf	\$ 15.00	\$ 150,000
Division 32 – Exterior Improvements				\$ 250,000
Site Development - for new construction	10,000	sf	\$ 25.00	\$ 250,000
Division 01 General Requirements				\$ 1,349,541
Design Contingency	1,950,000	\$	5.00%	\$ 97,500
Construction Contingency	2,047,500	\$	10.0%	\$ 204,750
Design / Engineering Fees	2,252,250	\$	10.0%	\$ 225,225
Staffing and General Conditions	2,477,475	\$	10.0%	\$ 247,748
General Requirements	2,725,223	\$	10.0%	\$ 272,522
Construction Manager Fee	2,997,745	\$	8.0%	\$ 239,820
Permitting - Allowance	10,000	sf	\$ 0.17	\$ 1,700
Inspections - Allowance	10,000	sf	\$ 0.15	\$ 1,500
3rd Party Testing - Allowance	10,000	sf	\$ 0.50	\$ 5,000
General Insurance	3,245,765	\$	0.8%	\$ 25,966
Performance Bond	3,271,731	\$	0.9%	\$ 27,810
Indiana Mentor Network				\$ 1,187,834
Division 03 – Concrete				\$ 558,000
Construct New Building	3,600	sf	\$ 155.00	\$ 558,000
Division 31 – Earthwork				\$ 54,000
Earthwork - site prep for new construction	3,600	sf	\$ 15.00	\$ 54,000
Division 32 – Exterior Improvements				\$ 90,000
Site Development - for new construction	3,600	sf	\$ 25.00	\$ 90,000
Division 01 General Requirements				\$ 485,834
Design Contingency	702,000	\$	5.00%	\$ 35,100
Construction Contingency	737,100	\$	10.00%	\$ 73,710
Design / Engineering Fees	810,810	\$	10.00%	\$ 81,081
Staffing and General Conditions	891,891	\$	10.00%	\$ 89,189
General Requirements	981,080	\$	10.00%	\$ 98,108
Construction Manager Fee	1,079,188	\$	8.00%	\$ 86,335
Permitting - Allowance	3,600	sf	\$ 0.17	\$ 612
Inspections - Allowance	3,600	sf	\$ 0.15	\$ 540
3rd Party Testing - Allowance	3,600	sf	\$ 0.50	\$ 1,800
General Insurance	1,168,475	\$	0.80%	\$ 9,348
Performance Bond	1,177,823	\$	0.85%	\$ 10,011
Airfield Maintenance / Storage (75' x 85')				\$ 1,759,147
Division 03 – Concrete				\$ 784,125
Construct New Building	6,375	sf	\$ 123.00	\$ 784,125
Division 31 – Earthwork				\$ 95,625
Earthwork - site prep for new construction	6,375	sf	\$ 15.00	\$ 95,625
Division 32 – Exterior Improvements				\$ 159,375
Site Development - for new construction	6,375	sf	\$ 25.00	\$ 159,375
Division 01 General Requirements				\$ 720,022
Design Contingency	1,039,125	\$	5.00%	\$ 51,956
Construction Contingency	1,091,081	\$	10.00%	\$ 109,108



Grissom ARB Joint Land Use Study



Task 1C Estimate

February 7, 2020

BUDGET COSTS CSI DIVISION DETAIL					
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT	
Design / Engineering Fees	1,200,189		\$ 10.00%	\$	120,019
Staffing and General Conditions	1,320,208		\$ 10.00%	\$	132,021
General Requirements	1,452,229		\$ 10.00%	\$	145,223
Construction Manager Fee	1,597,452		\$ 8.00%	\$	127,796
Permitting - Allowance	6,375	sf	\$ 0.17	\$	1,084
Inspections - Allowance	6,375	sf	\$ 0.15	\$	956
3rd Party Testing - Allowance	6,375	sf	\$ 0.50	\$	3,188
General Insurance	1,730,476		\$ 0.80%	\$	13,844
Performance Bond	1,744,320		\$ 0.85%	\$	14,827
Airfield Maintenance / Storage (40' x 90')				\$	993,400
Division 03 – Concrete				\$	442,800
Construct New Building	3,600	sf	\$ 123.00	\$	442,800
Division 31 – Earthwork				\$	54,000
Earthwork - site prep for new construction	3,600	sf	\$ 15.00	\$	54,000
Division 32 – Exterior Improvements				\$	90,000
Site Development - for new construction	3,600	sf	\$ 25.00	\$	90,000
Division 01 General Requirements				\$	406,600
Design Contingency	586,800		\$ 5.00%	\$	29,340
Construction Contingency	616,140		\$ 10.00%	\$	61,614
Design / Engineering Fees	677,754		\$ 10.00%	\$	67,775
Staffing and General Conditions	745,529		\$ 10.00%	\$	74,553
General Requirements	820,082		\$ 10.00%	\$	82,008
Construction Manager Fee	902,090		\$ 8.00%	\$	72,167
Permitting - Allowance	3,600	sf	\$ 0.17	\$	612
Inspections - Allowance	3,600	sf	\$ 0.15	\$	540
3rd Party Testing - Allowance	3,600	sf	\$ 0.50	\$	1,800
General Insurance	977,209		\$ 0.80%	\$	7,818
Performance Bond	985,027		\$ 0.85%	\$	8,373
Fuel Farm				\$	269,408
Division 10 – Specialties				\$	1,900
Fuel Farm - Fire Extinguishers	2	ea	\$ 200.00	\$	400
Fuel Farm - Signage	1	ls	\$ 1,500.00	\$	1,500
Division 33 – Utilities				\$	155,100
Site Utilities / Fuel Farm - double walled tanks - 12,000 gal	1	ls	\$ 45,000.00	\$	45,000
Site Utilities / Fuel Farm - double walled tanks - 3,000 gal	1	ls	\$ 18,000.00	\$	18,000
Site Utilities / Fuel Farm - guardrails	150	lf	\$ 125.00	\$	18,750
Site Utilities / Fuel Farm - pipe bollards	6	ea	\$ 350.00	\$	2,100
Site Utilities / Fuel Farm - skid foundations	2	ea	\$ 5,000.00	\$	10,000
Site Utilities / Fuel Farm - stone base	2,500	sf	\$ 2.50	\$	6,250
Site Utilities / Fuel Farm - subgrade prep	2,500	sf	\$ 10.00	\$	25,000
Site Utilities / Fuel Farm - ug power feeds	2	ea	\$ 5,000.00	\$	10,000
Site Utilities / Fuel Farm - unload and install tanks	1	ls	\$ 15,000.00	\$	15,000
Site Utilities / Fuel Farm - final connections to tanks	1	ls	\$ 5,000.00	\$	5,000
Division 01 General Requirements				\$	112,408
Design Contingency	157,000		\$ 5.00%	\$	7,850
Construction Contingency	164,850		\$ 10.00%	\$	16,485
Design / Engineering Fees	181,335		\$ 10.00%	\$	18,134
Staffing and General Conditions	199,469		\$ 10.00%	\$	19,947
General Requirements	219,416		\$ 10.00%	\$	21,942
Construction Manager Fee	241,358		\$ 8.00%	\$	19,309
Permitting - Allowance	1	ls	\$ 350.00	\$	350
Inspections - Allowance	1	ls	\$ 2,500.00	\$	2,500
3rd Party Testing - Allowance	1	ls	\$ 1,500.00	\$	1,500
General Insurance	265,017		\$ 0.80%	\$	2,120
Performance Bond	267,137		\$ 0.85%	\$	2,271
Corporate Hangar (75 x 150)				\$	4,794,284
Division 03 – Concrete				\$	2,385,000
Construct New Hangar	11,250	sf	\$ 212.00	\$	2,385,000



Grissom ARB Joint Land Use Study



Task 1C Estimate

February 7, 2020

BUDGET COSTS CSI DIVISION DETAIL				
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
Division 31 – Earthwork				\$ 168,750
Earthwork - site prep for new construction	11,250	sf	\$ 15.00	\$ 168,750
Division 32 – Exterior Improvements				\$ 281,250
Site Development - for new construction	11,250	sf	\$ 25.00	\$ 281,250
Division 01 General Requirements				\$ 1,959,284
Design Contingency	2,835,000	\$	5.00%	\$ 141,750
Construction Contingency	2,976,750	\$	10.00%	\$ 297,675
Design / Engineering Fees	3,274,425	\$	10.00%	\$ 327,443
Staffing and General Conditions	3,601,868	\$	10.00%	\$ 360,187
General Requirements	3,962,055	\$	10.00%	\$ 396,206
Construction Manager Fee	4,358,261	\$	8.00%	\$ 348,661
Permitting - Allowance	11,250	sf	\$ 0.17	\$ 1,913
Inspections - Allowance	11,250	sf	\$ 0.15	\$ 1,688
3rd Party Testing - Allowance	11,250	sf	\$ 0.50	\$ 5,625
General Insurance	4,716,147	\$	0.80%	\$ 37,729
Performance Bond	4,753,876	\$	0.85%	\$ 40,408
Corporate Hangar (100 x 117)				\$ 4,986,053
Division 03 – Concrete				\$ 2,480,400
Construct New Hangar	11,700	sf	\$ 212.00	\$ 2,480,400
Division 31 – Earthwork				\$ 175,500
Earthwork - site prep for new construction	11,700	sf	\$ 15.00	\$ 175,500
Division 32 – Exterior Improvements				\$ 292,500
Site Development - for new construction	11,700	sf	\$ 25.00	\$ 292,500
Division 01 General Requirements				\$ 2,037,653
Design Contingency	2,948,400	\$	5.00%	\$ 147,420
Construction Contingency	3,095,820	\$	10.00%	\$ 309,582
Design / Engineering Fees	3,405,402	\$	10.00%	\$ 340,540
Staffing and General Conditions	3,745,942	\$	10.00%	\$ 374,594
General Requirements	4,120,536	\$	10.00%	\$ 412,054
Construction Manager Fee	4,532,590	\$	8.00%	\$ 362,607
Permitting - Allowance	11,700	sf	\$ 0.17	\$ 1,989
Inspections - Allowance	11,700	sf	\$ 0.15	\$ 1,755
3rd Party Testing - Allowance	11,700	sf	\$ 0.50	\$ 5,850
General Insurance	4,904,791	\$	0.80%	\$ 39,238
Performance Bond	4,944,029	\$	0.85%	\$ 42,024
Corporate Hangar (100 x 135)				\$ 5,753,140
Division 03 – Concrete				\$ 2,862,000
Construct New Hangar	13,500	sf	\$ 212.00	\$ 2,862,000
Division 31 – Earthwork				\$ 202,500
Earthwork - site prep for new construction	13,500	sf	\$ 15.00	\$ 202,500
Division 32 – Exterior Improvements				\$ 337,500
Site Development - for new construction	13,500	sf	\$ 25.00	\$ 337,500
Division 01 General Requirements				\$ 2,351,140
Design Contingency	3,402,000	\$	5.00%	\$ 170,100
Construction Contingency	3,572,100	\$	10.00%	\$ 357,210
Design / Engineering Fees	3,929,310	\$	10.00%	\$ 392,931
Staffing and General Conditions	4,322,241	\$	10.00%	\$ 432,224
General Requirements	4,754,465	\$	10.00%	\$ 475,447
Construction Manager Fee	5,229,912	\$	8.00%	\$ 418,393
Permitting - Allowance	13,500	sf	\$ 0.17	\$ 2,295
Inspections - Allowance	13,500	sf	\$ 0.15	\$ 2,025
3rd Party Testing - Allowance	13,500	sf	\$ 0.50	\$ 6,750
General Insurance	5,659,375	\$	0.80%	\$ 45,275
Performance Bond	5,704,650	\$	0.85%	\$ 48,490
Corporate Hangar (100 x 200)				\$ 8,523,168
Division 03 – Concrete				\$ 4,240,000



Grissom ARB Joint Land Use Study



Task 1C Estimate

February 7, 2020

BUDGET COSTS CSI DIVISION DETAIL					
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT	
Construct New Hangar	20,000	sf	\$ 212.00	\$	4,240,000
Division 31 – Earthwork				\$	300,000
Earthwork - site prep for new construction	20,000	sf	\$ 15.00	\$	300,000
Division 32 – Exterior Improvements				\$	500,000
Site Development - for new construction	20,000	sf	\$ 25.00	\$	500,000
Division 01 General Requirements				\$	3,483,168
Design Contingency	5,040,000		\$ 5.00%	\$	252,000
Construction Contingency	5,292,000		\$ 10.00%	\$	529,200
Design / Engineering Fees	5,821,200		\$ 10.00%	\$	582,120
Staffing and General Conditions	6,403,320		\$ 10.00%	\$	640,332
General Requirements	7,043,652		\$ 10.00%	\$	704,365
Construction Manager Fee	7,748,017		\$ 8.00%	\$	619,841
Permitting - Allowance	20,000	sf	\$ 0.17	\$	3,400
Inspections - Allowance	20,000	sf	\$ 0.15	\$	3,000
3rd Party Testing - Allowance	20,000	sf	\$ 0.50	\$	10,000
General Insurance	8,384,258		\$ 0.80%	\$	67,074
Performance Bond	8,451,332		\$ 0.85%	\$	71,836
FBO Office / Operations				\$	1,187,834
Division 03 – Concrete				\$	558,000
Construct New Building	3,600	sf	\$ 155.00	\$	558,000
Division 31 – Earthwork				\$	54,000
Earthwork - site prep for new construction	3,600	sf	\$ 15.00	\$	54,000
Division 32 – Exterior Improvements				\$	90,000
Site Development - for new construction	3,600	sf	\$ 25.00	\$	90,000
Division 01 General Requirements				\$	485,834
Design Contingency	702,000		\$ 5.00%	\$	35,100
Construction Contingency	737,100		\$ 10.00%	\$	73,710
Design / Engineering Fees	810,810		\$ 10.00%	\$	81,081
Staffing and General Conditions	891,891		\$ 10.00%	\$	89,189
General Requirements	981,080		\$ 10.00%	\$	98,108
Construction Manager Fee	1,079,188		\$ 8.00%	\$	86,335
Permitting - Allowance	3,600	sf	\$ 0.17	\$	612
Inspections - Allowance	3,600	sf	\$ 0.15	\$	540
3rd Party Testing - Allowance	3,600	sf	\$ 0.50	\$	1,800
General Insurance	1,168,475		\$ 0.80%	\$	9,348
Performance Bond	1,177,823		\$ 0.85%	\$	10,011
FBO / MCEDA Office and 3 Tenants				\$	4,289,404
Division 03 – Concrete				\$	2,015,000
Construct New Building	13,000	sf	\$ 155.00	\$	2,015,000
Division 31 – Earthwork				\$	195,000
Earthwork - site prep for new construction	13,000	sf	\$ 15.00	\$	195,000
Division 32 – Exterior Improvements				\$	325,000
Site Development - for new construction	13,000	sf	\$ 25.00	\$	325,000
Division 01 General Requirements				\$	1,754,404
Design Contingency	2,535,000		\$ 5.00%	\$	126,750
Construction Contingency	2,661,750		\$ 10.00%	\$	266,175
Design / Engineering Fees	2,927,925		\$ 10.00%	\$	292,793
Staffing and General Conditions	3,220,718		\$ 10.00%	\$	322,072
General Requirements	3,542,790		\$ 10.00%	\$	354,279
Construction Manager Fee	3,897,069		\$ 8.00%	\$	311,766
Permitting - Allowance	13,000	sf	\$ 0.17	\$	2,210
Inspections - Allowance	13,000	sf	\$ 0.15	\$	1,950
3rd Party Testing - Allowance	13,000	sf	\$ 0.50	\$	6,500
General Insurance	4,219,495		\$ 0.80%	\$	33,756
Performance Bond	4,253,251		\$ 0.85%	\$	36,153



Grissom ARB Joint Land Use Study

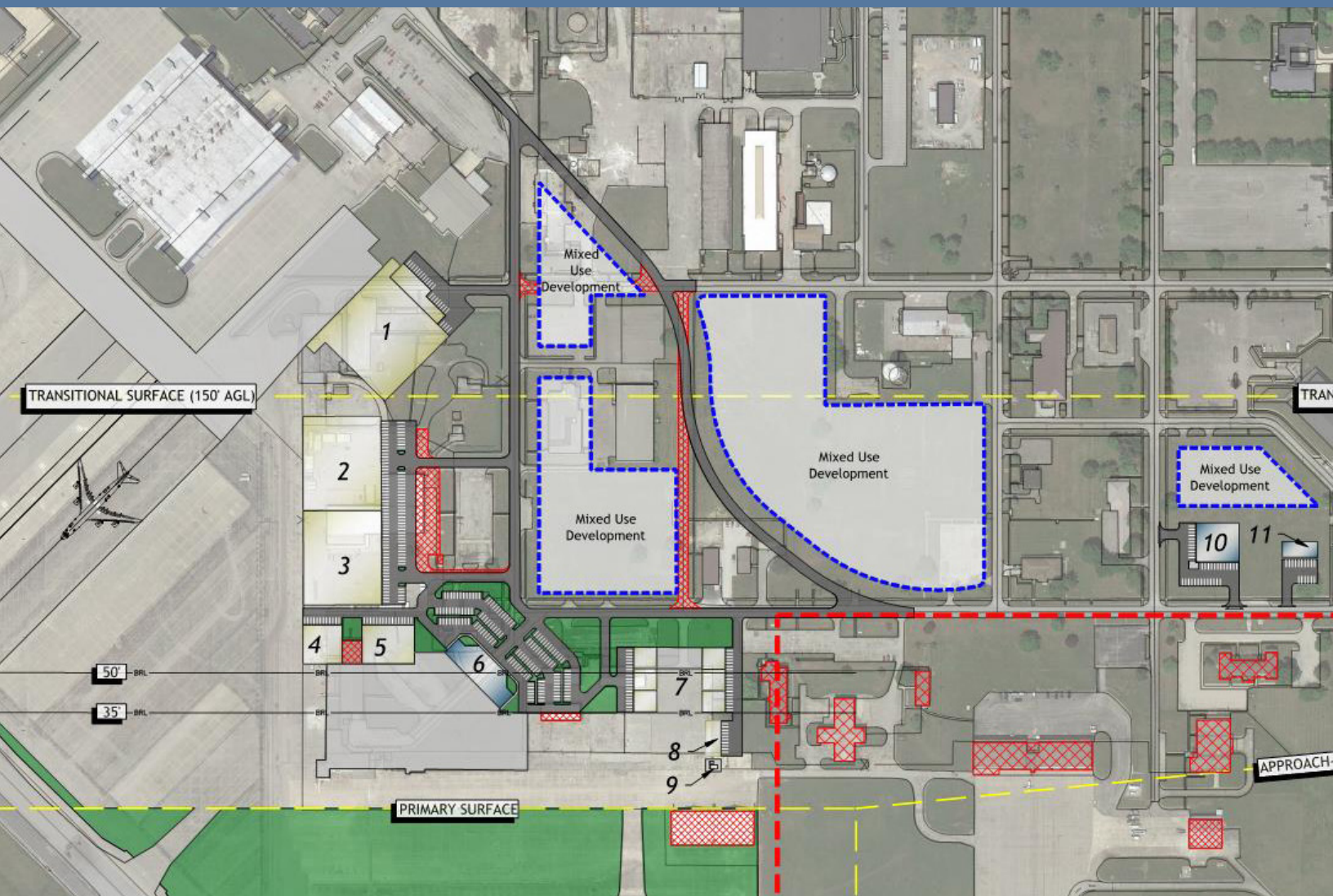


Task 1C Estimate

February 7, 2020

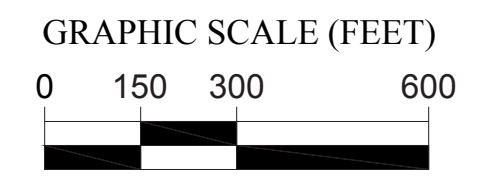
BUDGET COSTS CSI DIVISION DETAIL				
AREA - CSI - ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	AMOUNT
Mixed Use - Building 1				\$ 5,083,397
Division 03 – Concrete				\$ 2,040,000
Construct New Building Shell	24,000	sf	\$ 85.00	\$ 2,040,000
Division 31 – Earthwork				\$ 360,000
Earthwork - site prep for new construction	24,000	sf	\$ 15.00	\$ 360,000
Division 32 – Exterior Improvements				\$ 600,000
Site Development - for new construction	24,000	sf	\$ 25.00	\$ 600,000
Division 01 General Requirements				\$ 2,083,397
Design Contingency	3,000,000	\$	5.00%	\$ 150,000
Construction Contingency	3,150,000	\$	10.00%	\$ 315,000
Design / Engineering Fees	3,465,000	\$	10.00%	\$ 346,500
Staffing and General Conditions	3,811,500	\$	10.00%	\$ 381,150
General Requirements	4,192,650	\$	10.00%	\$ 419,265
Construction Manager Fee	4,611,915	\$	8.00%	\$ 368,953
Permitting - Allowance	24,000	sf	\$ 0.17	\$ 4,080
Inspections - Allowance	24,000	sf	\$ 0.15	\$ 3,600
3rd Party Testing - Allowance	24,000	sf	\$ 0.50	\$ 12,000
General Insurance	5,000,548	\$	0.80%	\$ 40,004
Performance Bond	5,040,552	\$	0.85%	\$ 42,845
Project Total:				\$ 49,314,343

APPENDIX C: Preferred Relocation Plan (Concept 1-B)





**MIAMI COUNTY ECONOMIC
DEVELOPMENT AUTHORITY**
**GRISSOM ARB
JOINT LAND USE STUDY
IMPLEMENTATION**



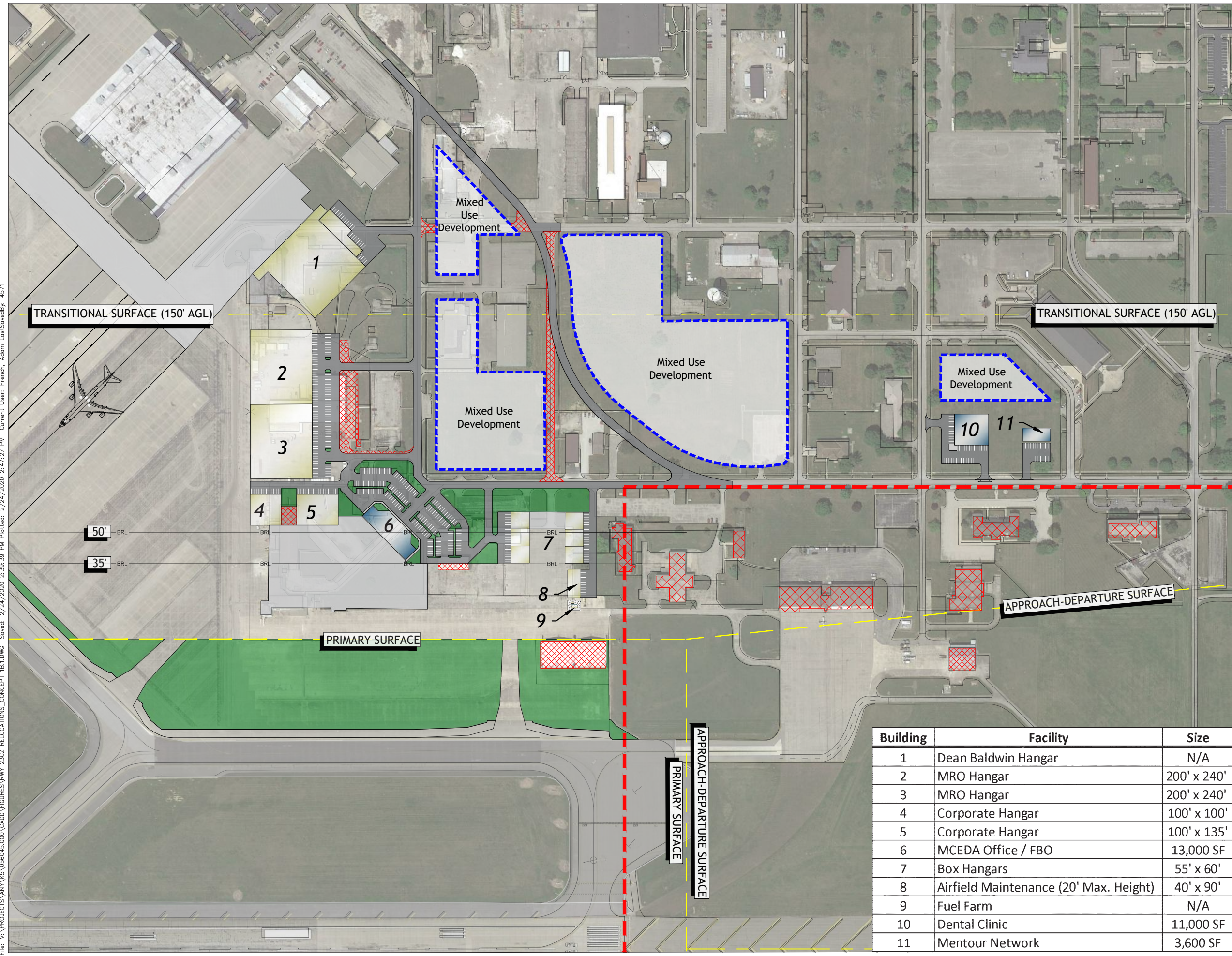
LEGEND

- Clear Zone
- Airspace Surface
- BRL — Building Restriction Line
- Future Building Relocation
- Future Airfield Building
- Future Airfield Pavement
- Future Roadway
- Clear Zone Building Demolition
- Pavement/Building Removal

Building	Facility	Size
1	Dean Baldwin Hangar	N/A
2	MRO Hangar	200' x 240'
3	MRO Hangar	200' x 240'
4	Corporate Hangar	100' x 100'
5	Corporate Hangar	100' x 135'
6	MCEDA Office / FBO	13,000 SF
7	Box Hangars	55' x 60'
8	Airfield Maintenance (20' Max. Height)	40' x 90'
9	Fuel Farm	N/A
10	Dental Clinic	11,000 SF
11	Mentour Network	3,600 SF

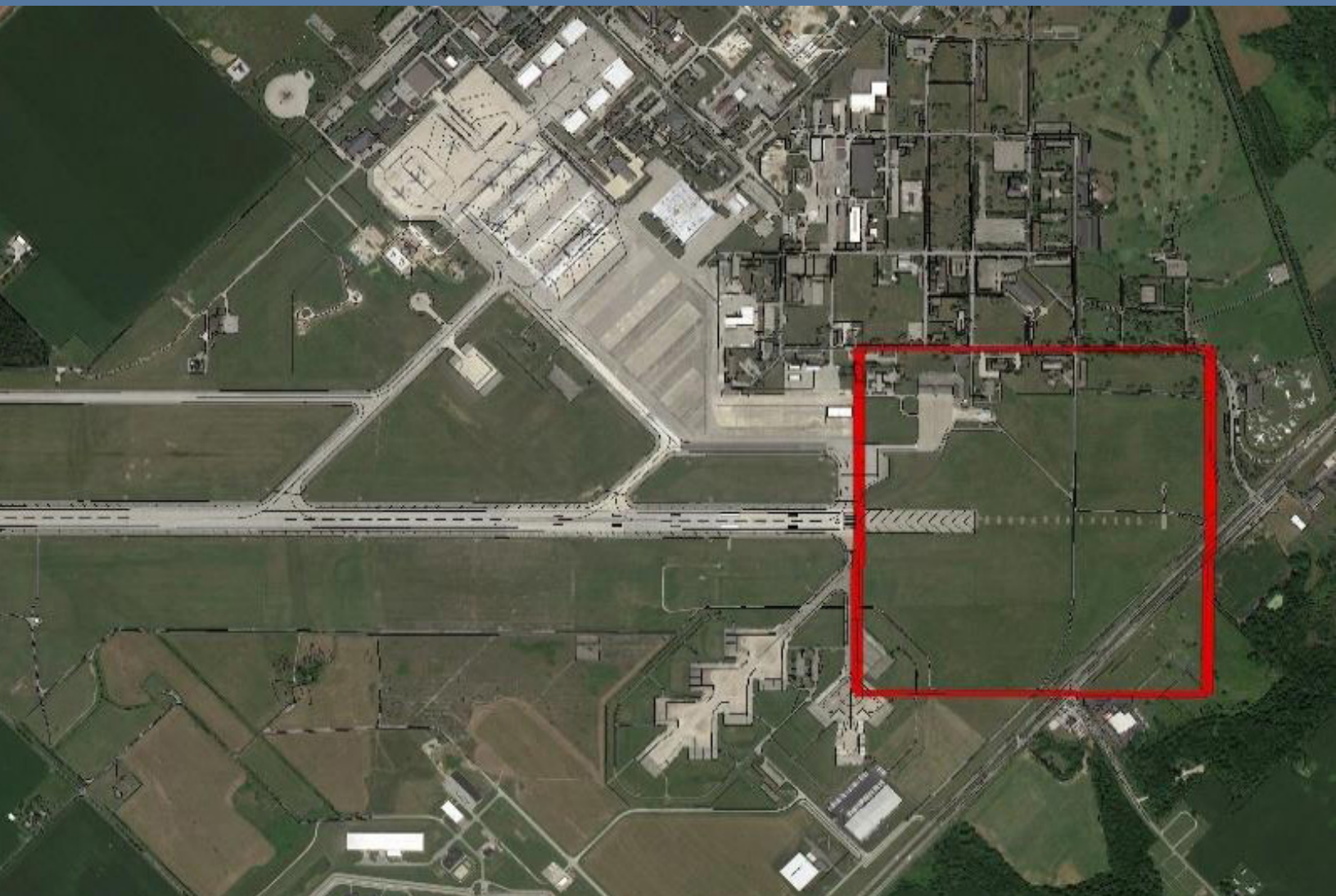
Figure 3-13

Concept 1B
Consolidated FBO & MCEDA Office



File: V:\PROJECTS\ANY\45_056045_000\CADD\FIGURES\RWY_23CZ_RELOCATIONS_CONCEPT_1B1.DWG
 Saved: 2/24/2020 2:39:39 PM Plotted: 2/24/2020 2:47:27 PM
 Current User: French, Adam LastSavedBy: 4571

APPENDIX D:
North Clear
Zone Deeds



Parcels C-1 & D-1

DULY ENTERED FOR TAXATION
SUBJECT TO FINAL ACCEPTANCE
FOR TRANSFER

SEP 04 2007

Brenda Weaver
MIAMI COUNTY AUDITOR

016-17601-00 split
016-17601-01 split

Parcel C1/D1

MIAMI COUNTY RECORDER

SHERRY R PAYNE 18 P
RECORDED AS PRESENTED ON
DATE: 09/04/2007 TIME: 12:23:32PM
I 20070524014 FEES: \$55.00

QUITCLAIM DEED

I. PARTIES

THIS QUITCLAIM DEED is made and entered into this *8th* day of *August*, 2007, by and between THE UNITED STATES OF AMERICA (the "Grantor"), acting by and through the Secretary of the Air Force, under and pursuant to the powers and authority contained in the Defense Base Closure and Realignment Act of 1990, as amended (10 U.S.C. § 2687 note), and delegations and regulations promulgated thereunder, and MIAMI COUNTY ECONOMIC DEVELOPMENT AUTHORITY (the "Grantee"), a duly constituted redevelopment authority under the laws of the State of Indiana. Unless the context otherwise specifically provides, when used in this Deed, "Grantor" includes the assigns of the Grantor and "Air Force" includes any successor entity to the Department of the Air Force or any successor to the Secretary of the Air Force, and "Grantee" includes the successors and assigns of the Grantee.

II. CONSIDERATION AND CONVEYANCE

THE GRANTOR, having a mailing address at 1700 North Moore Street, Suite 2300, Arlington, VA 22209, quitclaims to the Grantee, having a mailing address at 1525 W. Hoosier Boulevard, Peru, IN 46970, the following real property located in the County of Miami, State of Indiana, for good and valuable consideration, receipt of which is hereby acknowledged, consisting of 30.760 acres more or less (Parcel C-1 is 14.666 acres, Parcel D-1 is 16.094 acres more or less), and easements for ingress and egress. The property location consists of fractional parts of the northwest quarter (1/4) of Section Thirty-six (36), Township Twenty-six (26) North, Range Three (3) East, Pipe Creek Township, Miami County, Indiana. Excluded from this Quitclaim Deed is Tract #3, Subparcel #4, Exception #2 containing 1.138 acres. The descriptions for these Parcels are attached at Exhibit A. The Plat of Survey for these Parcels is attached at Exhibit B.

III. APPURTENANCES

TOGETHER WITH all the buildings and improvements erected thereon, except existing monitoring and pumping wells, treatment facilities, and related piping, if any, and all and singular the tenements, hereditaments, appurtenances, and improvements hereunto belonging, or in anywise appertaining, which, together with the Premises above described, is called the "Property" in this Deed.

IV. RESERVATIONS

A. RESERVING UNTO THE GRANTOR an overriding royalty of TEN PERCENT (10%) of the gross fair market value of the minerals, if any minerals are extracted at some future time, by the Grantee, or pursuant to a lease or any other agreement. The value of the mineral products will be the free-on-board value after final processing, equivalent to public sale. The Grantee will be under no obligation or duty to the Grantor to extract such minerals or to issue such a lease or agreement.

Notwithstanding this reservation, the Grantor agrees and consents to any prohibition or restriction relative to the extraction of minerals the Grantee may impose in any subsequent instruments affecting the Property, including, but not limited to, conveyances, leases, contracts, and mortgages, to which the Grantee is a party.

B. AND FURTHER RESERVING UNTO THE GRANTOR, including the United States Environmental Protection Agency (“USEPA”) and the Indiana Department of Environmental Management (“IDEM”), and their respective officials, agents, employees, contractors, and subcontractors, the right of access to the Property (including the right of access to, and use of, utilities at reasonable cost to the Grantor), for the following purposes, either on the Property or on adjoining lands, and for such other purposes consistent with the Installation Restoration Program (“IRP”) of the Grantor:

1. To conduct investigations and surveys, including, where necessary, drilling, soil and water sampling, testpitting, testing soil borings, and other activities related to the IRP or FFA, if applicable.
2. To inspect field activities of the Grantor and its contractors and subcontractors in implementing the IRP or the FFA, if applicable.
3. To conduct any test or survey required by the USEPA or IDEM relating to the implementation of the IRP or environmental conditions on the Property, or to verify any data submitted to the USEPA or the IDEM by the Grantor relating to such program, agreement, or conditions.
4. To conduct, operate, maintain, or undertake any other response, corrective, or remedial action as required or necessary under the IRP or the covenant of the Grantor in Section VI. of this Deed, but not limited to, the installation of monitoring wells, pumping wells, and treatment facilities, and to conduct investigations and response actions related to lead-based paint.

5. To monitor any environmental restrictive use covenants in this Deed and the effectiveness of any other land use or institutional control established by the Air Force on the Property, either by itself, by its contractor, by any public entity, including the State of Indiana, or by a private entity registered in the State to monitor environmental covenants.

With regard to the right of ingress and egress of the Grantor under this paragraph IV.B. of this Deed, the Grantor agrees to provide the Grantee reasonable notice before exercising this right, and to restore the Property within a reasonable time after such access to a condition equivalent to its condition before the Grantor's entry. The Grantor agrees that in exercising its right of ingress and egress under this Section IV.B. of this Deed, it will take reasonable measures to minimize disruption of the Grantee's business activities on the Property.

C. AND FURTHER RESERVING UNTO GRANTOR, as long as Grissom Air Reserve Base (ARB) continues as an Air Force reserve base and has a flying mission, the right of ingress and egress upon, over and across the Property for the purpose of making low and frequent flights over the Property and to generate noises associated with (1) aircraft in flight, whether or not which directly over the Property; (2) aircraft and aircraft engines operating on the ground at Grissom ARB; and (3) aircraft engine test-stand operations at Grissom ARB.

V. CONDITIONS

A. The Grantee agrees to accept conveyance of the Property subject to all covenants, conditions, restrictions, easements, rights-of-way, reservations, rights, agreements, and encumbrances, whether or not of record.

B. The Grantee acknowledges it has inspected, is aware of, and accepts the condition and state of repair of the Property, and the Property is conveyed "as is, where is," without any representation, promise, agreement, or warranty on the part of the Grantor regarding such condition and state of repair, or regarding the making of any alterations, improvements, repairs, or additions; provided, however, this provision shall not relieve the Grantor of its obligation under section 120(h) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. § 9620(h)). The Grantee further acknowledges the Grantor shall not be liable for any latent or patent defects in the Property, except to the extent required by applicable law, including but not limited to, the obligation of the Grantor to conduct additional remedial action under 42 U.S.C. § 9620.

VI. NOTICES AND COVENANTS RELATED TO SECTION 120(h)(3) OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA), AS AMENDED, (42 U.S.C. §9620(h)(3)).

A. Pursuant to section 120(h)(3)(A)(i) of CERCLA, the following is notice of hazardous substances on the Property, and a description of remedial action taken by the Grantor concerning the Property.

1. The Grantor has made a complete search of its files and records. Exhibit C contains a table with the name of hazardous substances stored for one year or more, or known to have been released or disposed of, on the Property; the quantity in kilograms and pounds of the hazardous substance stored for one year or more, or known to have been released or disposed of, on the Property; and the date(s) on which such storage, release, or disposal took place.

2. A description of the remedial action(s) taken by the Grantor on the Property regarding hazardous substances and petroleum is as follows. The remedies for Parcel C-1/D-1 sites are soil removal, monitored natural attenuation, land use controls, and institutional controls.

3. Pursuant to section 120(h)(3)(A)(ii) of CERCLA, the United States covenants and warrants:

(a). that all remedial action necessary to protect human health and the environment with respect to hazardous substances remaining on the Property has been taken before the date of this Deed; and

(b). any additional remedial action found to be necessary after the date of this Deed for contamination on the Property existing prior to the date of this Deed will be conducted by the United States.

The obligation of the United States under this warranty does not include response actions required by an act or omission of the Grantee that either (a) introduces new or additional contamination, or (b) increases the cost of the required response action by improperly managing any CERCLA contamination present on the Property on the date of this Deed from the United States. For the purposes of this warranty, the phrase “remedial action found to be necessary” does not include any performance by the United States, or payment to the Grantee from the United States, for (a) additional remedial action that is required to facilitate use of the Property by the Grantee in a manner that is inconsistent with restrictive covenants set forth in section VI.B. of this Deed, as may be modified or released pursuant to section VI.C., or (b) disposal of soils that do not require response actions if left in place, but must be disposed of when disturbed.

4. The United States has reserved access to the Property in the Reservation section of this Deed in order to perform any remedial or corrective action as required by CERCLA section 120(h)(3)(A)(ii).

**NOTICE
BREACH OF ANY ENVIRONMENTAL USE RESTRICTIVE COVENANT IN
SECTION VI.B. BELOW, MAY AFFECT THE FOREGOING WARRANTY**

B. Environmental Restrictive Covenants

1. For purposes of the environmental restrictive covenants in this section, the term “Property” includes any part of the Property specifically depicted on the Plat of Survey at Exhibit B to this Deed to which one or more of these environmental restrictive covenants may apply.

2. The following environmental restrictive covenants in this section are being created to protect human health and the environment against residual contaminants as a component of the remedial action taken in Section A.2. above:

(a). Restrictive covenants applicable to the Property are:

(i) Prohibition of residential uses, including, but not limited to, daily care facilities (e.g., daycare centers, schools and senior citizen facilities).

(ii) Prohibition of the installation of drinking water wells, extraction of water (other than for investigation or remediation purposes with prior IDEM approval), and use of groundwater for drinking water purposes.

(b). Monitoring Well Operations. The Grantee covenants not to alter, remove, or interfere with the operation of, any monitoring well now existing or which may later be constructed on the Property.

(c). Grantee Cooperation. In the event the Grantor, after the date of this Deed, enters all or any part of the Property to undertake environmental remediation activities under section IV.B. of this Deed, the Grantee covenants not to knowingly disrupt any remediation activities of the Grantor on or adjacent to the Property.

C. Release of Environmental Restrictive Covenant(s)

1. The Grantee may request from the United States a modification or release of one or more of the environmental restrictive covenant(s) in whole or in part in this section, subject to the notification and concurrence or approval of the IDEM and USEPA. In the event the request of the Grantee for modification or release is approved by the United States, IDEM, and USEPA, the United States agrees to modify or release the covenant (the “Covenant Release”) giving rise to that environmental restriction in whole or in part. The Grantee understands and agrees that all costs associated with the Covenant Release shall be the sole responsibility of the Grantee,

without any cost whatsoever to the United States. The United States shall deliver to the Grantee in recordable form the Covenant Release. The execution of the Covenant Release by the United States shall modify or release the environmental restrictive covenant with respect to the Property in the Covenant Release.

2. In the event that the environmental restrictive covenants contained in this section are no longer necessary, the United States will record an appropriate document modifying or removing them.

VII. OTHER COVENANTS

A. Hazards to Air Navigation. Prior to commencing any construction on, or alteration of, the Property, the Grantee covenants to comply with 14 C.F.R. pt. 77 entitled “Objects Affecting Navigable Airspace,” under the authority of the Federal Aviation Act of 1958, as amended provided, however, to the extent provisions of 14 C.F.R. pt. 77 conflict with provisions of the following Section VII. B., Air Installation Compatible Use Zone (AICUZ) Compliance, the more restrictive provisions will prevail.

B. AICUZ Compliance. The Grantee covenants to comply with the applicable provisions, conditions, and restrictions contained in the 1995 Grissom ARB AICUZ.

C. Non-Discrimination. The Grantee covenants not to discriminate upon the basis of race, color, religion, national origin, sex, age, or handicap in the use, occupancy, sale, or lease of the Property, or in its employment practices conducted thereon. This covenant shall not apply, however, to the lease or rental of a room or rooms within a family dwelling unit, nor shall it apply if the Property, or any portion thereof, is used primarily for religious purposes. The United States of America shall be deemed a beneficiary of this covenant without regard to whether it remains the owner of any land or interest therein in the locality of the Property.

D. Asbestos-Containing Materials (“ACM”). The Grantee is warned that the Property does contain current and former improvements, such as buildings, facilities, equipment, and pipelines, above and below the ground, with ACM. The Grantee covenants and agrees that in its use and occupancy of the Property, it will comply with all applicable Federal, state, and local laws relating to asbestos. The Grantee is cautioned to use due care during property development activities that may uncover pipelines or other buried ACM.

1. The November 2006 visual site inspection of the Property identified what appeared to be damaged ACM at Building 14. The ACM at Building 190 appeared to be in good condition. Although no survey is available for Buildings 106 and 28, the USAF Real Property Inventory Detail List dated 08 March 1996 indicates the presence of ACM (steam heat utility piping) at Building 28. Utility pipes in the building are concealed behind the walls. Therefore, this paragraph constitutes notice to the Grantee regarding Buildings 14, 28 and 190. The Grantee covenants to take appropriate precautions in accordance with applicable laws and regulations in

the event of facility renovation or demolition. Survey reports dated 1994 for Buildings 19, 21, and 26 state that these buildings are asbestos-free, and that no materials need to be removed before a renovation or demolition takes place. However, the USAF Real Property Inventory Detail List dated 08 March 1996 indicates the likely presence of ACM (steam heat utility piping) at Buildings 20, 21, and 26. The Grantee covenants to take appropriate precautions in accordance with applicable laws and regulations in the event ACM is identified during facility renovation or demolition. The Grantee is notified that the Air Force will not be responsible for ACM liability, repair or removal, mitigation, or health issues.

2. ACM in Utility Pipelines: ACM, such as transite pipes or pipes wrapped with asbestos insulation, may be found in (or on) utility pipelines located on the Property. ACM associated with utility pipelines below-ground utility pipelines does not pose a threat to human health or environment as long as it is not disturbed, or, if it is disturbed, proper care is taken to manage and dispose of it. Utility pipelines below the ground have not been inspected. The Grantee is notified of the possibility of ACM in utility pipelines. The Grantee is notified that the Air Force will not be responsible for ACM liability, repair or removal, mitigation, or health issues.

3. ACM in Demolition Debris: ACM, which was commonly used in building materials, may be located at building demolition locations. Based upon an inspection of the Property, and a review of the environmental baseline survey reports, no such locations are specifically known within these parcels. Two demolished buildings (119 and 122) are presently vacant grassland. However, it is possible that there are undiscovered locations where demolition debris may be found by the Grantee during ground disturbance activities. The Grantee covenants to exercise care during ground disturbing activities. The Grantee further covenants to notify the Air Force promptly of any demolition debris containing friable asbestos and believed to be associated with Air Force activities. The Grantee agrees to allow the Air Force a reasonable opportunity to investigate, and, if a CERCLA remedial action is necessary, to accomplish it. The Grantee is notified that the Air Force will not be responsible for ACM liability, repair or removal, mitigation, or health issues.

4. General: The Grantee, in its use and occupancy of the Property, agrees to comply with all applicable Federal, state, and local laws relating to asbestos. The Air Force will be responsible for conducting any CERCLA remedial action found to be necessary for hazardous substances released or disposed of on the Property prior to the date of the deed, so long as the Grantee is not a potentially responsible party under CERCLA for the release or disposal.

F. General Lead-Based Paint and Lead-Based Paint-Containing Materials and Debris (collectively "LBP")

1. Lead-based paint was commonly used prior to 1978 and may be located on the Property. The Grantee is advised to exercise caution during any use of the Property that may result in exposure to LBP.

2. The Grantee covenants and agrees that in its use and occupancy of the Property, the Grantee is solely responsible for managing LBP, including LBP in soils, in accordance with all applicable Federal, state, and local laws and regulations. The Grantee acknowledges that the Grantor assumes no liability for property damages or damages for personal injury, illness, disability, or death to the Grantee, or to any other person, including members of the general public, arising from or incident to the purchase, transportation, removal, handling, use, contact, disposition, or other activity involving LBP on the Property, whether the Grantee has properly warned, or failed to properly warn, the persons injured. The Grantee further agrees to notify the Grantor promptly of any discovery of LBP in soils that appears to be the result of Grantor activities and that is found at concentrations that may require remediation. The Grantor hereby reserves the right, in its sole discretion, to undertake an investigation and conduct any remedial action that it determines is necessary.

VIII. MISCELLANEOUS

Each covenant of this Quitclaim Deed shall be deemed to run with the land; provided the covenant in Section VII. B., AICUZ Compliance, will be applicable to the Grantee only so long as Grissom continues as an Air Force reserve base and has a flying mission, at which time the Grantee may apply to the Air Force for a release of the covenant.

IX. LIST OF EXHIBITS

The following Exhibits are attached to and made a part of this Quitclaim Deed:

Exhibit A - Legal Description

Exhibit B - Plat of Survey

Exhibit C - Notice of Hazardous Substances Stored/Disposed/Released

IN WITNESS WHEREOF, I have hereunto set my hand at the direction of the Secretary of the Air Force, the day and year first above written.

THE UNITED STATES OF AMERICA
by the Secretary of the Air Force

By: *Kathryn M. Halvorson*
KATHRYN M. HALVORSON
Director
Air Force Real Property Agency

Witness:

Amy Pfeiffer

Grantee's Mailing Address
1525 W. Hassler Blvd
Peru IN 46970

COMMONWEALTH OF VIRGINIA):

ss.

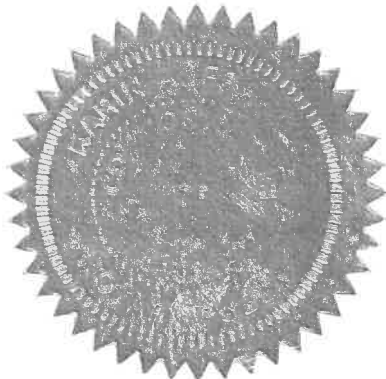
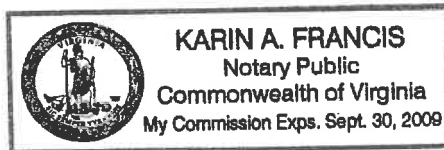
COUNTY OF ARLINGTON):

Before me, a notary public, this 20th day of July, 2007, personally appeared the Secretary of the Air Force by Kathryn M. Halvorson, Director, Air Force Real Property Agency, and acknowledged the execution of the foregoing instrument.

Karin A. Francis
Notary Public

My Commission expires on 9/30/2009

My registration number is: 364704



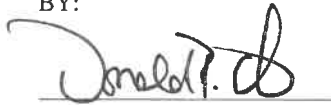
ACCEPTANCE

The Grantee hereby accepts this Quitclaim Deed and agrees to be bound by all the agreements, covenants, conditions, restrictions, and reservations contained in it.

DATE: August 8th, 2007

MIAMI COUNTY ECONOMIC DEVELOPMENT AUTHORITY

BY:



Donald P. Cates
Chairman

Attest:



James E. Tidd
Executive Director

Exhibit A
Legal Description

LEGAL DESCRIPTION FROM SURVEY FOR PARCEL D-1

A FRACTIONAL PART OF THE NORTHWEST QUARTER OF SECTION THIRTY-SIX (36), TOWNSHIP TWENTY-SIX (26) NORTH, RANGE THREE (3) EAST, PIPE CREEK TOWNSHIP, MIAMI COUNTY, INDIANA, MORE FULLY DESCRIBED AS FOLLOWS:

Commencing at a Section Monument Found marking the Northwest Corner of the Northwest Quarter of said Section Thirty-Six, said Monument lying in the intersection of the Centerline of Hoosier Boulevard and the Centerline of Foreman Drive;
 Thence S 89-51-15 E, 78.18 Feet along the North Line of the Northwest Quarter of said Section Thirty-Six;
 Thence N 00-29-00 W, 0.63 Feet to a P.K. Nail Found w/I.D. Washer stamped "R.L.S. 040123" (hereafter referred to as Nail Found), said Nail lying in the Centerline of Hoosier Boulevard;
 Thence N 89-41-09 E, 373.86 Feet along said Centerline of said Hoosier Boulevard to a P.K. Nail Set w/I.D. Washer stamped "R.L.S. 040123" (hereafter referred to as Nail Set);
 Thence N 89-41-09 E, 17.20 Feet along said Centerline of said Hoosier Boulevard to a Nail Set;
 Thence along said Centerline of said Hoosier Boulevard on a curve to the right, 145.31 Feet, said curve having a radius of 185.00 Feet and a central angle of 45-00-13, whose radius point bears S 00-18-52 E;
 Thence S 45-18-39 E, 18.80 Feet along said Centerline of said Hoosier Boulevard to a Nail Set;
 Thence S 45-18-39 E, 45.62 Feet along said Centerline of said Hoosier Boulevard to a Nail Set;
 Thence S 45-14-06 E, 289.75 Feet along said Centerline of said Hoosier Boulevard to a Nail Found lying in the intersection of said Centerline of said Hoosier Boulevard and the Centerline of Lightning Avenue;
 Thence S 45-16-24 E, 463.10 Feet along said Centerline of said Hoosier Boulevard to the PLACE OF BEGINNING;
 Thence N 44-39-39 E, 430.15 Feet to a Nail Set lying in the Centerline of Flyer Street;
 Thence S 45-17-13 E, 367.35 Feet along said Centerline of said Flyer Street to a Nail Found lying in the intersection of said Centerline of said Flyer Street and the Centerline of Hoosier Boulevard;
 Thence N 44-41-10 E, 292.39 Feet along said Centerline of said Hoosier Boulevard to a Nail Set;
 Thence S 45-18-49 E, 751.75 Feet to a 3/4 inch black Pipe Set w/plastic I.D. Cap stamped "T. Newport 040123" (hereafter called Pipe Set);
 Thence S 44-46-01 W, 723.15 Feet;
 Thence N 45-16-24 W, 1117.89 Feet to the PLACE OF BEGINNING.

CONTAINING 16.094 ACRES, MORE OR LESS, BEING SUBJECT TO ALL LEGAL EASEMENTS AND TO ALL PUBLIC HIGHWAY RIGHT-OF-WAYS.

THE ABOVE DESCRIBED REAL ESTATE IS SUBJECT TO AND TOGETHER WITH EXISTING STREET RIGHT-OF-WAYS AND EXISTING UTILITY EASEMENTS AS REFERRED TO IN MISCELLANEOUS RECORD #68, PAGE 347, AS FOUND IN THE OFFICE OF THE MIAMI COUNTY RECORDER.

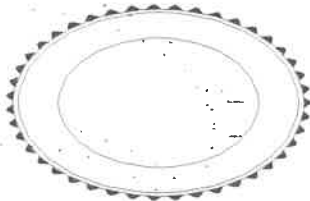
I, THOMAS L. NEWPORT, a Registered Land Surveyor in the State of Indiana, do hereby certify the attached Plat and Legal description to be a true representation of the field work completed under my direct supervision between December 1994 and May 20, 2005. I further certify that this survey is in accordance with Title 865, Article 1, Rule 12, of Indiana Administrative Code.

The Theoretical Uncertainty (due to random errors in measurement) of the corners of the subject tract established this survey is within the specifications for a CLASS C Survey (0.50) feet) as defined in IAC 865.

PLAT OF SURVEY IS
ATTACHED HERETO:

THOMAS L. NEWPORT
INDIANA SURVEYOR SO123

4313 E. CO. RD. 600 S.
WALTON, INDIANA 46994



04:07 12:46P

HP-RPH

7656882871

p. 2

Parcel C-1

PAGE 4 OF 10

LEGAL DESCRIPTION FROM SURVEY FOR PARCEL C1

A FRACTIONAL PART OF THE NORTHWEST QUARTER OF SECTION THIRTY-SIX (36), TOWNSHIP TWENTY-SIX (26) NORTH, RANGE THREE (3) EAST, PIPE CREEK TOWNSHIP, MIAMI COUNTY, INDIANA, MORE FULLY DESCRIBED AS FOLLOWS:

Commencing at a Section Monument Found marking the Northwest Corner of the Northwest Quarter of said Section Thirty-Six, said Monument lying in the intersection of the Centerline of Hoosier Boulevard and the Centerline of Foreman Drive;
Thence S 89-51-15 E, 78.18 Feet along the North Line of the Northwest Quarter of said Section Thirty-Six;
Thence N 00-29-00 W, 0.63 Feet to a P.K. Nail Found w/I.D. Washer stamped "R.L.S. 040123" (hereafter referred to as Nail Found), said Nail lying in the Centerline of Hoosier Boulevard;
Thence N 89-41-09 E, 373.86 Feet along said Centerline of said Hoosier Boulevard to a P.K. Nail Set w/I.D. Washer stamped "R.L.S. 040123" (hereafter referred to as Nail Set);
Thence N 89-41-09 E, 17.20 Feet along said Centerline of said Hoosier Boulevard to a Nail Set;
Thence along said Centerline of said Hoosier Boulevard on a curve to the right, 145.31 Feet, said curve having a radius of 185.00 Feet and a central angle of 45-00-13, whose radius point bears S 00-18-52 E;
Thence S 45-18-39 E, 18.80 Feet along said Centerline of said Hoosier Boulevard to a Nail Set;
Thence S 45-18-39 E, 45.62 Feet along said Centerline of said Hoosier Boulevard to a Nail Set;
Thence S 45-14-06 E, 289.75 Feet along said Centerline of said Hoosier Boulevard to a Nail Found lying in the intersection of said Centerline of said Hoosier Boulevard and the Centerline of Lightning Avenue;
Thence S 45-16-24 E, 451.02 Feet along said Centerline of said Hoosier Boulevard to a Nail Set, being the PLACE OF BEGINNING;
Thence S 44-45-01 W, 214.27 Feet to a Nail Set;
Thence N 45-16-18 W, 93.94 Feet to a 3/4 inch black Pipe Set w/plastic I.D. Cap stamped "T. Newport 040123" (hereafter called Pipe Set);
Thence S 44-41-28 W, 364.75 Feet to a Nail Found;
Thence S 45-16-25 E, 1223.37 Feet;
Thence N 44-46-01 E, 579.02 Feet;
Thence N 45-16-24 W, 674.30 Feet to a Nail Found;
Thence S 01-43-30 W, 199.64 Feet to a Nail Found;
Thence N 85-01-24 W, 106.28 Feet to a Re-Rod Found;
Thence N 44-24-28 W, 123.81 Feet to a Re-Rod Found;
Thence N 44-50-49 E, 29.10 Feet to a Re-Rod Found;
Thence N 44-15-23 W, 101.32 Feet to a Nail Found;
Thence N 44-43-22 E, 181.19 Feet to a Nail Found lying in the aforesaid Centerline of said Hoosier Boulevard;
Thence N 45-16-24 W, 285.05 Feet along said Centerline of said Hoosier Boulevard to the PLACE OF BEGINNING.

CONTAINING 14.666 ACRES, MORE OR LESS, BEING SUBJECT TO ALL LEGAL EASEMENTS AND TO ALL PUBLIC HIGHWAY RIGHT-OF-WAYS.

THE ABOVE DESCRIBED REAL ESTATE IS SUBJECT TO AND TOGETHER WITH EXISTING STREET RIGHT-OF-WAYS AND EXISTING UTILITY EASEMENTS AS REFERRED TO IN MISCELLANEOUS RECORD #68, PAGE 347, AS FOUND IN THE OFFICE OF THE MIAMI COUNTY RECORDER.

I, THOMAS L. NEWPORT, a Registered Land Surveyor in the State of Indiana, do hereby certify the attached Plat and Legal description to be a true representation of the field work completed under my direct supervision between December 1994 and May 20, 2005. I further certify that this survey is in accordance with Title 865, Article 1, Rule 12, of Indiana Administrative Code.

The Theoretical Uncertainty (due to random errors in measurement) of the corners of the subject tract established this survey is within the specifications for a CLASS C Survey (0.50) feet as defined in IAC 865.

PLAT OF SURVEY IS ATTACHED HERETO:

THOMAS L. NEWPORT
INDIANA SURVEYOR SO123
4313 E. CO. RD. 600 S.
WALTON, INDIANA 46994



Handwritten signature of Thomas L. Newport.

Exhibit B
Plat of Survey

RECORDING PAGE

Oversized Exhibit B
page of Grissom
Air Force Base

Exhibit C

Notice of Hazardous Substances Stored/Disposed/Released

SUMMARY OF EXHIBIT C

The United States of America, by the Secretary of the Air Force, has conveyed by Quitclaim Deed to the Miami County Economic Development Authority certain real estate and improvements located at:

Fractional parts of the Northwest Quarter of Section 36, Township 26 North, Range 3 East, Pipe Creek Township, Miami County, Indiana as more specifically described in Exhibit A to this Deed.

Also attached to said deed is Exhibit C, entitled A Notice of Hazardous Substances Stored/Disposed/Released, consisting of 41 pages. Said Exhibit C, in its entirety, will be kept with the books and records of the Miami County Economic Development Authority for the review and inspection of the public.

This document represents a summary of said Exhibit C.

Parcel D

DULY ENTERED FOR TAXATION
SUBJECT TO FINAL ACCEPTANCE
FOR TRANSFER

MAR 13 2006

Brenda Weaver
MIAMI COUNTY AUDITOR

MIAMI COUNTY RECORDER

SHERRY R PAYNE 26 P
DATE:03/13/2006 TIME:12:57:12PM
I 20060521093 FEES:\$68.00

QUITCLAIM DEED

I. PARTIES

THIS QUITCLAIM DEED is made and entered into this 26th day of August, 2005, by and between THE UNITED STATES OF AMERICA (the "Grantor"), acting by and through the Secretary of the Air Force, under and pursuant to the powers and authority contained in the Defense Base Closure and Realignment Act of 1990, as amended (10 U.S.C. § 2687 note), and delegations and regulations promulgated thereunder, and MIAMI COUNTY ECONOMIC DEVELOPMENT AUTHORITY (formerly GRISSOM REDEVELOPMENT AUTHORITY) (the "Grantee"), a duly constituted redevelopment authority under the laws of the State of Indiana. Unless the context otherwise specifically provides, when used in this Deed, "Grantor" includes the assigns of the Grantor and "Air Force" includes any successor entity to the Department of the Air Force or any successor to the Secretary of the Air Force, and "Grantee" includes the successors and assigns of the Grantee.

II. CONSIDERATION AND CONVEYANCE

THE GRANTOR, having a mailing address at 1700 North Moore Street, Suite 2300, Arlington, VA 22209, quitclaims to the Grantee, having a mailing address at 1525 W. Hoosier Boulevard, Peru, IN 46970, the following real property located in the County of Miami, State of Indiana, for good and valuable consideration, receipt of which is hereby acknowledged, consisting of Parcel D West, comprised of 18 acres, more or less; Parcel D East, comprised of 3 acres, more or less; and Parcel I, comprised of 20 acres, more or less. The descriptions for these Parcels are attached at Exhibit A. The Plat of Survey for these parcels is attached at Exhibit B.

III. APPURTENANCES

TOGETHER WITH all the buildings and improvements erected thereon, except existing monitoring and pumping wells, treatment facilities, and related piping, if any, and all and singular the tenements, hereditaments, appurtenances, and improvements hereunto belonging, or in anywise appertaining, which, together with the Premises above described, is called the "Property" in this Deed.

Former Grissom AFB IN

Deed - Parcels D & I

IV. EXCEPTIONS

0.304 acres (Cantonment Area) and 0.114 acres (Water Tower), both lying within New Parcel I (19.883 acres) and depicted on Exhibit B, Detail #4, are excepted from the Property.

V. RESERVATIONS

A. RESERVING UNTO THE GRANTOR an overriding royalty of TEN PERCENT (10%) of the gross fair market value of the minerals, if any minerals are extracted at some future time, by the Grantee, or pursuant to a lease or any other agreement. The value of the mineral products will be the free-on-board value after final processing, equivalent to public sale. The Grantee will be under no obligation or duty to the Grantor to extract such minerals or to issue such a lease or agreement. Notwithstanding this reservation, the Grantor agrees and consents to any prohibition or restriction relative to the extraction of minerals the Grantee may impose in any subsequent instruments affecting the Property, including, but not limited to, conveyances, leases, contracts, and mortgages, to which the Grantee is a party.

B. AND FURTHER RESERVING UNTO THE GRANTOR, including the United States Environmental Protection Agency (“USEPA”) and the Indiana Department of Environmental Management (“IDEM”), and its and their respective officials, agents, employees, contractors, and subcontractors, the right of access to the Property (including the right of access to, and use of, utilities owned or controlled by the Grantee at reasonable cost to the Grantor), for the following purposes, either on the Property or on adjoining lands, and for such other purposes consistent with the Installation Restoration Program (“IRP”) of the Grantor or the Federal Facility Agreement (“FFA”), if applicable:

1. To conduct investigations and surveys, including, where necessary, drilling, soil and water sampling, testpitting, testing soil borings, and other activities related to the IRP or FFA, if applicable.
2. To inspect field activities of the Grantor and its contractors and subcontractors in implementing the IRP or the FFA, if applicable.
3. To conduct any test or survey required by the USEPA or IDEM relating to the implementation of the IRP or FFA, if applicable, or environmental conditions on the Property, or to verify any data submitted to the USEPA or the IDEM by the Grantor relating to such program, agreement, or conditions.
4. To conduct, operate, maintain, or undertake any other response, corrective, or remedial action as required or necessary under the IRP or the FFA, if applicable, or the covenant of the Grantor in Section VI. of this Deed, but not limited to, the installation of monitoring wells, pumping wells, and treatment facilities.

5. To monitor any environmental covenants in this Deed and the effectiveness of any other land use or institutional control established by the Air Force on the Property, either by itself, by its contractor, by any public entity, including the State of Indiana, or by a private entity registered in the State to monitor environmental covenants.

With regard to the right of ingress and egress of the Grantor under this paragraph IV.B. of this Deed, the Grantor agrees to give the Grantee reasonable notice before exercising this right, and to restore the Property within a reasonable time after such access to a condition equivalent to its condition before the Grantor's entry. The Grantor agrees that in exercising its right of ingress and egress under this Section IV.B. of this Deed, it will take reasonable measures to minimize disruption of the Grantee's business activities on the Property.

C. AND FURTHER RESERVING UNTO GRANTOR, as long as Grissom Air Reserve Base (ARB) continues as an Air Force reserve base and has a flying mission, the right of ingress and egress upon, over, and across the Property for the purpose of making low and frequent flights over the Property and to generate noises associated with (1) aircraft in flight, whether or not which directly over the Property; (2) aircraft and aircraft engines operating on the ground at Grissom ARB; and (3) aircraft engine test-stand operations at Grissom ARB.

VI. CONDITIONS

A. The Grantee agrees to accept conveyance of the Property subject to all covenants, conditions, restrictions, easements, rights-of-way, reservations, rights, agreements, and encumbrances, whether or not of record.

B. The Grantee acknowledges it has inspected, is aware of, and accepts the condition and state of repair of the Property, and the Property is conveyed "as is, where is," without any representation, promise, agreement, or warranty on the part of the Grantor regarding such condition and state of repair, or regarding the making of any alterations, improvements, repairs, or additions; provided, however, this provision shall not relieve the Grantor of its obligation under section 120(h) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. § 9620(h)). The Grantee further acknowledges the Grantor shall not be liable for any latent or patent defects in the Property, except to the extent required by applicable law, including but not limited to, the obligation of the Grantor to conduct additional remedial action under 42 U.S.C. § 9620 (h).

VII. COVENANTS

A. Asbestos-Containing Materials ("ACM"). The Grantee is warned that the Property may contain current and former improvements, such as buildings, facilities, equipment, and pipelines, above and below the ground, that may contain ACM. The Grantee covenants and agrees that in its use and occupancy of the Property, it will comply with all applicable Federal, State, and local laws relating to asbestos. The Grantee is cautioned to use due care during

property development activities that may uncover pipelines or other buried ACM. The Grantee covenants and agrees that it will notify the Grantor promptly of any potentially friable ACM that constitutes a release under CERCLA. The Grantor's responsibility under this deed for friable ACM is limited to friable ACM in demolition debris associated with Air Force activities and usage arising prior to the date of this Indenture and is limited to the actions, if any, to be taken in accordance with the covenant contained in Section VII.B. of this Deed. The Grantee is warned that the Grantor will not be responsible for removing or responding to ACM in or on utility pipelines. The Grantee acknowledges that the Grantor assumes no liability for property damages or damages for personal injury, illness, disability, or death to the Grantee, or to any other person, including members of the general public, arising from or incident to the purchase, transportation, removal, handling, use, disposition, or other activity causing or leading to contact of any kind whatsoever with asbestos on the Property arising after the date of this Indenture, whether the Grantee has properly warned, or failed to properly warn, the persons injured.

B. Residuals of Lead-Based Paint and Lead-Based Material and Debris ("LBP"). The Grantee is warned that Lead-based paint (LBP) products were commonly used prior to 1978, and, therefore, LBP may be located on and within buildings and structures and surrounding areas where these products were used, and potentially below the ground. The Grantee covenants and agrees that in its use and occupancy of the Property, it will comply with all applicable Federal, State, and local laws relating to LBP. The Grantee is also cautioned to use due care during ground-disturbing activities that may uncover material and debris containing lead from LBP products. The Grantee further covenants and agrees that it will notify the Grantor promptly of any discovery of lead in soils that is believed to be associated with past Air Force activities involving the use of LBP products that constitutes a release under CERCLA. The Grantor's responsibility under this deed for lead in soils is limited to LBP in demolition debris associated with Air Force activities and usage arising prior to the date of this Deed and is limited to the actions, if any, to be taken in accordance with the covenant contained in Section VII.B. of this Deed. Notwithstanding the foregoing, the Grantee acknowledges that the Grantor assumes no liability for property damages or damages for personal injury, illness, disability, or death to the Grantee, or to any other person, including members of the general public, arising from or incident to the purchase, transportation, removal, handling, use, disposition, or other activity causing or leading to contact of any kind whatsoever with LBP on the Property, whether the Grantee has properly warned, or failed to properly warn, the persons injured.

C. Non-Discrimination. With respect to activities related to the Property, the Grantee covenants to comply with the requirements of Title II and Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000a and 42 U.S.C. § 2000e-2); Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794); and the Age Discrimination Act of 1975 (42 U.S.C. §§ 6101-6107) and all requirements imposed by or pursuant to the foregoing Acts and the regulations issued thereunder now in effect or as amended in the future, to the end that, in accordance with said Acts and regulations, no person in the United States shall, on the ground of race, color, religion, national origin, sex, age or handicap be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity of the Grantee, its successor and assigns. This covenant shall not apply, however, to the lease or rental of a room or rooms within a family dwelling unit; nor shall it apply with respect to religion to premises used

primarily for religious purposes. The United States of America shall be deemed a beneficiary of this covenant without regard to whether it remains the owner of any land or interest therein in the locality of the property hereby conveyed and shall have the sole right to enforce this covenant in any court of competent jurisdiction.

VIII. NOTICES AND COVENANTS RELATED TO SECTION 120(h)(3) OF CERCLA (42 U.S.C. §9620(h)(3)).

A. Pursuant to section 120(h)(3)(A)(i) of CERCLA, the following is notice of hazardous substances on the Property, and a description of remedial action taken by the Grantor concerning the Property.

1. The Grantor has made a complete search of its files and records. Exhibit C contains a table with the name of hazardous substances stored for one year or more, or known to have been released or disposed of, on the Property; the quantity in kilograms and pounds of the hazardous substance stored for one year or more, or known to have been released or disposed of, on the Property; and the date(s) on which such storage, release, or disposal took place.

2. The remedial action(s) taken by the Grantor on Parcel D regarding hazardous substances at OWS11/11R is institutional controls to restrict use of the shallow groundwater due to the presence of metals.

3. Pursuant to section 120(h)(3)(A)(ii) of CERCLA, the United States covenants and warrants:

(a). that all remedial action necessary to protect human health and the environment with respect to hazardous substances remaining on the Property has been taken before the date of this Deed; and

(b). any additional remedial action found to be necessary after the date of this Deed for contamination on the Property existing prior to the date of this Deed will be conducted by the United States.

This warranty will not apply in any case in which any grantee of the Property, or any part thereof, is a potentially responsible party with respect to the Property before the date on which any grantee acquired an interest in the Property, or is a potentially responsible party as a result of an act or omission affecting the Property. For the purposes of this warranty, the phrase “remedial action necessary” does not include any performance by the United States, or payment to the Grantee from the United States, for additional remedial action that is required to facilitate use of the Property for uses and activities prohibited by those environmental use restrictive covenants set forth in section VIII.B. below, as may be modified or released pursuant to section VIII.C.

4. The United States has reserved access to the Property in the Reservation section of this Deed in order to perform any remedial or corrective action as required by CERCLA section 120(h)(3)(A)(ii).

NOTICE

BREACH OF ANY ENVIRONMENTAL USE RESTRICTIVE COVENANT IN SECTION VIII.B. BELOW, MAY AFFECT THE FOREGOING WARRANTY

B. Environmental Restrictive Covenants

1. For purposes of the environmental restrictive covenants in this section, the term “Property” includes any part of the Property specifically depicted on the Plat of Survey at Exhibit B to this Deed to which one or more of these environmental restrictive covenants may apply.

2. The following environmental restrictive covenants in this section are being created to protect human health and the environment against residual contaminants as a component of the remedial action taken in Section A.2. above:

(a). Restrict use of shallow ground water for any purpose at OWS11/11R, and within the restricted zone surrounding OWS11/11R as depicted in Exhibit B, Parcel D.

(i). The Grantee covenants not to extract or use shallow groundwater for any purpose unless the groundwater has been tested and found to meet all standards for human consumption and the Grantee obtains the prior written approval of the Air Force, IDEM, and USEPA. The Grantee will assume all costs associated with obtaining use of such water, including the costs of studies, analysis, or remediation, without any costs whatsoever to the Grantor. The Grantee agrees to comply with all applicable Federal and state laws with regard to activities affecting the groundwater in the upper aquifer.

(ii). The Grantee covenants to obtain all water for use on the Property from a potable source.

(iii). The Grantee covenants not to engage in any well installation at OWS11/11R, and within the restricted zone surrounding OWS11/11R depicted in Exhibit B, Parcel D.

(b). The Grantee covenants not to alter, remove, or interfere with the operation of, any monitoring well now existing or that may later be constructed on the Property.

(c). In the event the Grantor enters any part of the Property to undertake environmental remediation activities under this Deed, the Grantee covenants not to disrupt any remediation activities of the Grantor on or adjacent to the Property.

C. Release of Environmental Restrictive Covenant(s)

1. The Grantee may request from the United States a modification or release of one or more of the environmental restrictive covenant(s) in whole or in part in this section, subject to the notification and concurrence or approval of the IDEM and USEPA. In the event the request

of the Grantee for modification or release is approved in writing by the United States, IDEM, and USEPA, the United States agrees to modify or release the covenant (the "Covenant Release") in whole or in part. The Grantee understands and agrees that all costs associated with the Covenant Release shall be the sole responsibility of the Grantee, without any cost whatsoever to the United States. The United States shall deliver to the Grantee in recordable form the Covenant Release. The execution of the Covenant Release by the United States shall modify or release the environmental restrictive covenant in the Covenant Release.

2. In the event that the environmental restrictive covenants contained in this section are no longer necessary, the United States will record an appropriate document modifying or removing such covenants.

IX. OTHER COVENANTS

A. Hazards to Air Navigation. Prior to commencing any construction on, or alteration of, the Property, the Grantee covenants to comply with 14 C.F.R. pt. 77 entitled "Objects Affecting Navigable Airspace," under the authority of the Federal Aviation Act of 1958, as amended provided, however, to the extent provisions of 14 C.F.R. pt. 77 conflict with provisions of the following Section IX.B., Air Installation Compatible Use Zone (AICUZ) Compliance, the more restrictive provisions will prevail.

B. AICUZ Compliance. The Grantee covenants to comply with the applicable provisions, conditions, and restrictions contained in the 1995 Grissom ARB AICUZ.

X. MISCELLANEOUS

Each covenant of this Quitclaim Deed shall be deemed to run with the land; provided that the covenant in Section IX. B., AICUZ Compliance, will be applicable to the Grantee only as long as Grissom continues as an Air Force reserve base and has a flying mission, at which time the Grantee may apply to the Air Force for a release of such covenant. It is the intent of the Grantor and the Grantee that the Grantor may enforce the covenants in this Deed against any grantee through the chain of title.

XI. LIST OF EXHIBITS

The following Exhibits are attached to and made a part of this Quitclaim Deed:

- Exhibit A - Legal Description
- Exhibit B - Plat of Survey Depicting Deed Property and OWS11/11R Restrictive Zone
- Exhibit C - Notice of Hazardous Substances Stored/Disposed/Released

[Faint handwritten notes]

ACCEPTANCE

The Grantee hereby accepts this Quitclaim Deed and agrees to be bound by all the agreements, covenants, conditions, restrictions, and reservations contained in it.

DATE: September 14, 2005.

(Grantee)

BY:

[Handwritten Signature]
DON CATES
CHAIRMAN

Attest:

[Handwritten Signature], MCEOA.

EXHIBIT A

LEGAL DESCRIPTIONS

Parcel E

Parcel E

DULY ENTERED FOR TAXATION
SUBJECT TO FINAL ACCEPTANCE
FOR TRANSFER

Mo Oct Day 9 2002

Renda Weaver Auditor Miami Co

MIAMI COUNTY RECORDER
SHERRY R PAYNE 15P
VALIDATION: 49.00
SRP Date 10/09/2002 Time 13:28:08
I 20020522203 Page 1 of 15

QUITCLAIM DEED

I. PARTIES

THIS QUITCLAIM DEED is made and entered into this 30th day of September 2002, by and between THE UNITED STATES OF AMERICA ("Grantor"), acting by and through the Secretary of the Air Force, under and pursuant to the powers and authority contained in the Defense Base Closure and Realignment Act of 1990, as amended (10 U.S.C. § 2687 note), and delegations and regulations promulgated thereunder, and the GRISSOM REDEVELOPMENT AUTHORITY ("Grantee"), a duly constituted Redevelopment Authority under the laws of the State of Indiana. When used in this Deed, unless the context specifies otherwise, "Grantor" shall include the assigns of the Grantor and any successor entity of the Department of the Air Force and any successor of the Secretary of the Air Force, and "Grantee" shall include the successors and assigns of the Grantee.

II. CONSIDERATION AND CONVEYANCE

THE GRANTOR, having a mailing address at 1700 North Moore Street, Suite 2300, Arlington, VA 22209, QUITCLAIMS to the Grantee, having a mailing address at 1525 W. Hoosier Boulevard, Peru, IN 46970, for good and valuable consideration, receipt of which is hereby acknowledged, the following real property located in the County of Miami, State of Indiana consisting of Sub-parcel Building #2 Area comprised of 8.921 acres, more or less; Sub-parcel known as Building #2-Adjoining Area comprised of 1.880 acres, more or less; Sub-parcel Building #37 Area comprised of 4.476 acres, more or less; Sub-parcel Building #156 Area comprised of 4.893 acres, more or less; and Sub-parcel Building #1 and 32 Area comprised of 4.928 acres, more or less, or a total of 25.098 acres of land, more or less. The descriptions of Sub-parcels Building #2 Area, Building #2 - Adjoining Area, Building #37 Area, and Building #156 Area are attached in Exhibit A, and the Plat for Legal Description for these Sub-parcels is attached in Exhibit B to this Deed. The legal description from survey of the Sub-parcel known as the Building #1 and 32 Area is attached in Exhibit C, and the Plat of Survey for this Sub-parcel is attached in Exhibit D to this Deed.

Parcel E

MIAMI COUNTY RECORDER
I 20020522203 Page 2 of 15

III. APPURTENANCES

TOGETHER WITH all the buildings and improvements erected thereon, except existing monitoring and pumping wells, treatment facilities, and related piping and all and singular the tenements, hereditaments, appurtenances, and improvements hereunto belonging, or in anywise appertaining which, together with the premises above described, is called the "Property" in this Deed.

IV. RESERVATIONS

A. RESERVING UNTO THE GRANTOR, including the United States Environmental Protection Agency ("the EPA") and the State of Indiana (the "State"), and its and their respective officials, agents, employees, contractors, and subcontractors, the right of access to the Property (including the right of access to, and use of, utilities at reasonable cost to the Grantor), for the following purposes, either on the Property or on adjoining lands, and for such other purposes consistent with the Installation Restoration Program ("IRP") of the Grantor or the Federal Facility Agreement ("FFA"), if applicable:

1. To conduct investigations and surveys, including, where necessary, drilling, soil and water sampling, testpitting, testing soil borings, and other activities related to the IRP or FFA, if applicable.
2. To inspect field activities of the Grantor and its contractors and subcontractors in implementing the IRP or the FFA, if applicable.
3. To conduct any test or survey required by the EPA or the State relating to the implementation of the IRP or FFA, if applicable, or environmental conditions on the Property, or to verify any data submitted to the EPA or the State by the Grantor relating to such program, agreement, or conditions.
4. To conduct, operate, maintain, or undertake any other response, corrective, or remedial action as required or necessary under the IRP or the FFA, if applicable, of this Deed, but not limited to, the installation of monitoring wells, pumping wells, and treatment facilities.

With regard to the right of ingress and egress of the Grantor under this paragraph IV.A. of this Deed, the Grantor agrees to provide the Grantee reasonable notice before exercising this right, and to restore the Property within a reasonable time after such access to a condition equivalent to its condition before the Grantor's entry. The Grantor agrees that in exercising its right of ingress and egress under this Section IV.A. of this Deed, it will take reasonable measures to minimize disruption of the Grantee's business activities on the Property.

MIAMI COUNTY RECORDER
I 20020522203 Page 3 of 15

B. AND FURTHER RESERVING UNTO THE GRANTOR an overriding royalty of TEN PERCENT (10%) of the gross fair market value of the minerals, if any minerals are extracted at some future time, by the Grantee, or pursuant to a lease or any other agreement. The value of the mineral products will be the free-on-board value after final processing, equivalent to public sale. The Grantee will be under no obligation or duty to the Grantor to extract such minerals or to issue such a lease or agreement.

Notwithstanding this reservation, the Grantor agrees and consents to any prohibition or restriction relative to the extraction of minerals the Grantee may impose in any subsequent instruments affecting the Property, including, but not limited to, conveyances, leases, contracts, and mortgages, to which the Grantee is a party.

C. AND FURTHER RESERVING UNTO GRANTOR, as long as Grissom Air Reserve Base (ARB) continues as a military base and has a flying mission, the right of ingress and egress upon, over, and across the Property for the purpose of making low and frequent flights over the Property, and the right to generate noises associated with (1) aircraft in flight, whether or not directly over the Property; (2) aircraft and aircraft engines operating on the ground at Grissom ARB; and (3) aircraft engine test-stand operations at Grissom ARB.

D. AND FURTHER RESERVING UNTO THE GRANTOR, as long as Grissom Air Reserve Base continues as military base and has a flying mission, the right of ingress and egress upon, over, and across that portion of the Property identified as being a part of the clear zone established in the 1995 Grissom Air Reserve Base Air Installation Compatible Use Zone (AICUZ) Study, or its successor documents, for the purpose of exercising the following rights:

1. Visibility Impairment. The Grantor will have the right to regulate or prohibit the release into the air of any substance that could impair the visibility or otherwise interfere with the operations of aircraft, including, but not limited to, steam, dust, and smoke.
2. Light Emissions. The Grantor will have the right to regulate or prohibit light emissions, either direct or indirect (reflective), that could interfere with pilot vision.
3. Electrical Emissions. The Grantor will have the right to regulate or prohibit electrical emissions that could interfere with the operations of aircraft, including, but not limited to, military communications systems and aircraft navigational equipment.
4. Facility Removal. The Grantor will have the right to remove any building, facility, or nonfrangible structure that does not comply with the land use or height restrictions contained in the AICUZ Study or its successor documents, provided that the Grantee will have the right to use and occupy any facility, structure, or building existing on the date of this Deed, subject to the restrictions contained in section VI. D. of this Deed.
5. Vegetation Control. The Grantor will have the right to top, cut to ground level, or remove trees, shrubs, brush, or other obstructions that could interfere with the operation of aircraft, including emergency landings.

MIAMI COUNTY RECORDER
I 20020522203 Page 4 of 15

6. Signs. The Grantor will have the right to post signs on the Property indicating the rights of the Grantor reserved in this section D.

V. CONDITIONS

A. The Grantee agrees to accept conveyance of the Property subject to all covenants, conditions, restrictions, easements, rights-of-way, reservations, rights, agreements, and encumbrances, whether or not of record.

B. The Grantee acknowledges it has inspected, is aware of, and accepts the condition and state of repair of the Property, and the Property is conveyed “as is, where is,” without any representation, promise, agreement, or warranty on the part of the Grantor regarding such condition and state of repair, or regarding the making of any alterations, improvements, repairs, or additions; provided, however, this provision shall not relieve the Grantor of its obligation under section 120(h) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. § 9620(h)) (“CERCLA”). The Grantee further acknowledges the Grantor shall not be liable for any latent or patent defects in the Property, except to the extent required by applicable law, including but not limited to, the obligation of the Grantor to conduct additional remedial action under CERCLA.

VI. COVENANTS

A. Non-Discrimination. The Grantee covenants not to discriminate upon the basis of race, color, religion, national origin, sex, age, or handicap in the use, occupancy, sale, or lease of the Property, or in its employment practices conducted thereon. This covenant shall not apply, however, to the lease or rental of a room or rooms within a family dwelling unit, nor shall it apply if the Property, or any portion thereof, is used primarily for religious purposes. The United States of America shall be deemed a beneficiary of this covenant without regard to whether it remains the owner of any land or interest therein in the locality of the Property.

B. Grantee Cooperation. In the event the Grantor, after the date of this Deed, enters the Property or any portion thereof, to undertake environmental remediation activities under section IV.A. of this Deed, the Grantee covenants not to knowingly disrupt any remediation activities of the Grantor on or adjacent to the Property.

C. Hazards to Air Navigation. Prior to commencing any construction on, or alteration of, the Property, the Grantee covenants to comply with 14 C.F.R. Part 77 entitled “Objects Affecting Navigable Airspace,” under the authority of the Federal Aviation Act of 1958, as amended; provided, however, to the extent provisions of 14 C.F.R. Part 77 conflict with provisions of the following Section VI. D., AICUZ Compliance, the more restrictive provisions will prevail.

MIAMI COUNTY RECORDER
I 20020522203 Page 5 of 15

D. AICUZ Compliance. The Grantee covenants to comply with the applicable provisions, conditions, and restrictions contained in the AICUZ Study, or its successor documents. The Grantee may use existing facilities on the Property that are located in the clear zone, which is that area defined and described in the AICUZ Study, or its successor documents, subject to the following restrictions:

1. The Grantee will not construct or place any new facility in the clear zone, but the Grantee may make interior modifications to the facilities existing on the date of this Deed in the clear zone that do not expand the exterior of the facilities except upon the prior written approval of the military commander responsible for the implementation of restrictions contained in the AICUZ Study, or its successor document. The commander will render his or her decision in writing to the request of the Grantee not later than forty-five (45) days following the date on which the commander receives the plans and specifications and complete narrative details from the Grantee regarding the proposed expansion.

2. The Grantee agrees to restrict its use of existing facilities located in the clear zone on the date of this Deed and identified in the AICUZ Study to airport-related activities, professional services, business services, and adult training programs. The Grantee will not make any residential uses of any nature in the clear zone, including, but not limited to, housing, hotels, motels, apartments, mobile homes, group homes, or nursing homes will be allowed in the clear zone. In addition, the Grantee will not make any use of the clear zone for retail operations, hospitals, theaters, auditoriums, pre-primary, primary, and secondary schools, including secondary vocational training, or day care centers, or similar uses that typically are expected to attract more than 50 persons on premises at one time, except for those uses specified in the first sentence of this subsection 2.

3. If a building existing on the date of this Deed is totally or partially destroyed by fire or other casualty, the Grantee may rebuild that building, provided that the rebuilt building must be located on or within the original foundation and must not exceed any dimension existing prior to such destruction.

E. Grantor Covenant. Pursuant to Section 120(h)(4) of CERCLA, 42 U.S.C. § 9620(h)(4), the Grantor has identified the Premises as real property on which no hazardous substances and no petroleum products or their derivatives were known to have been released or disposed of by the Grantor. The Grantor covenants and warrants that in the event that any response action or corrective action is found to be necessary after the date of this Deed for contamination existing on the Property prior to the date of conveyance, such response action or corrective action shall be conducted by the Grantor.

F. Asbestos-Containing Materials ("ACM"). The Grantee is warned that the Property may be improved with buildings, facilities, and equipment that may contain ACM. The Grantee covenants and agrees that in its use and occupancy of the Property, it will comply with all applicable Federal, State, and local laws relating to asbestos. The Grantee acknowledges that the Grantor assumes no liability for damages for personal injury, illness, disability, or death to the Grantee, or to any other person, including members of the general public, arising from or

MIAMI COUNTY RECORDER
I 20020522203 Page 6 of 15

incident to the purchase, transportation, removal, handling, use, disposition, or other activity causing or leading to contact of any kind whatsoever with asbestos on the Property, whether the Grantee has properly warned, or failed to properly warn, the person(s) injured.

G. Monitoring Well Operations. The Grantee covenants not to alter, remove, or interfere with the operation of any monitoring well now existing or that may later be constructed on the Property.

VII. MISCELLANEOUS

Each covenant of this Deed shall be deemed to run with the land, provided the covenant in Section VI. D., AICUZ Compliance, will be applicable to the Grantee only as long as Grissom ARB continues as a military base and has a flying mission, at which time the Grantee may apply to the U.S. Government for a release of such covenant.

VIII. LIST OF EXHIBITS

The following Exhibits are attached to and made a part of this Deed:

Exhibit A - Descriptions of Sub-parcels:

- A-1. Building #2 Area
- A-2. Building #2 - Adjoining Area
- A-3. Building #37 Area
- A-4. Building #156 Area

Exhibit B - Plat for Legal Description Building #2, Building #2 Adjoining Area, #37, and #156 Area

Exhibit C - Description of Sub-parcel Building #1 and 32 Area

Exhibit D - Plat of Survey of Sub-parcel Building #1 and 32 Area

MIAMI COUNTY RECORDER
I 20020522203 Page 7 of 15

IN WITNESS WHEREOF, I have hereunto set my hand at the direction of the Secretary of the Air Force, the day and year first above written.

THE UNITED STATES OF AMERICA

By: Joyce K Frank
JOYCE K. FRANK
Deputy Director
Air Force Base Conversion Agency

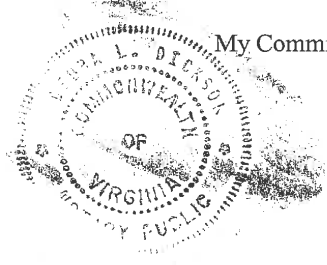
Witness: [Signature]

COMMONWEALTH OF VIRGINIA):
ss.
COUNTY OF ARLINGTON):

Before me, DEBRA L. DICKSON, a notary public, this 30th day of SEPTEMBER, 2002, personally appeared the Secretary of the Air Force by Joyce K. Frank, Deputy Director, Air Force Base Conversion Agency, and acknowledged the execution of the foregoing instrument.

[Signature]
Notary Public

My Commission expires on DECEMBER 31, 2003



ACCEPTANCE

The Grantee hereby accepts this Deed and agrees to be bound by all the agreements, covenants, conditions, restrictions, and reservations contained in it.

DATE: October 4, 2002.

GRISSOM REDEVELOPMENT AUTHORITY

BY: James B. Clery
James B. Clery, Chairman

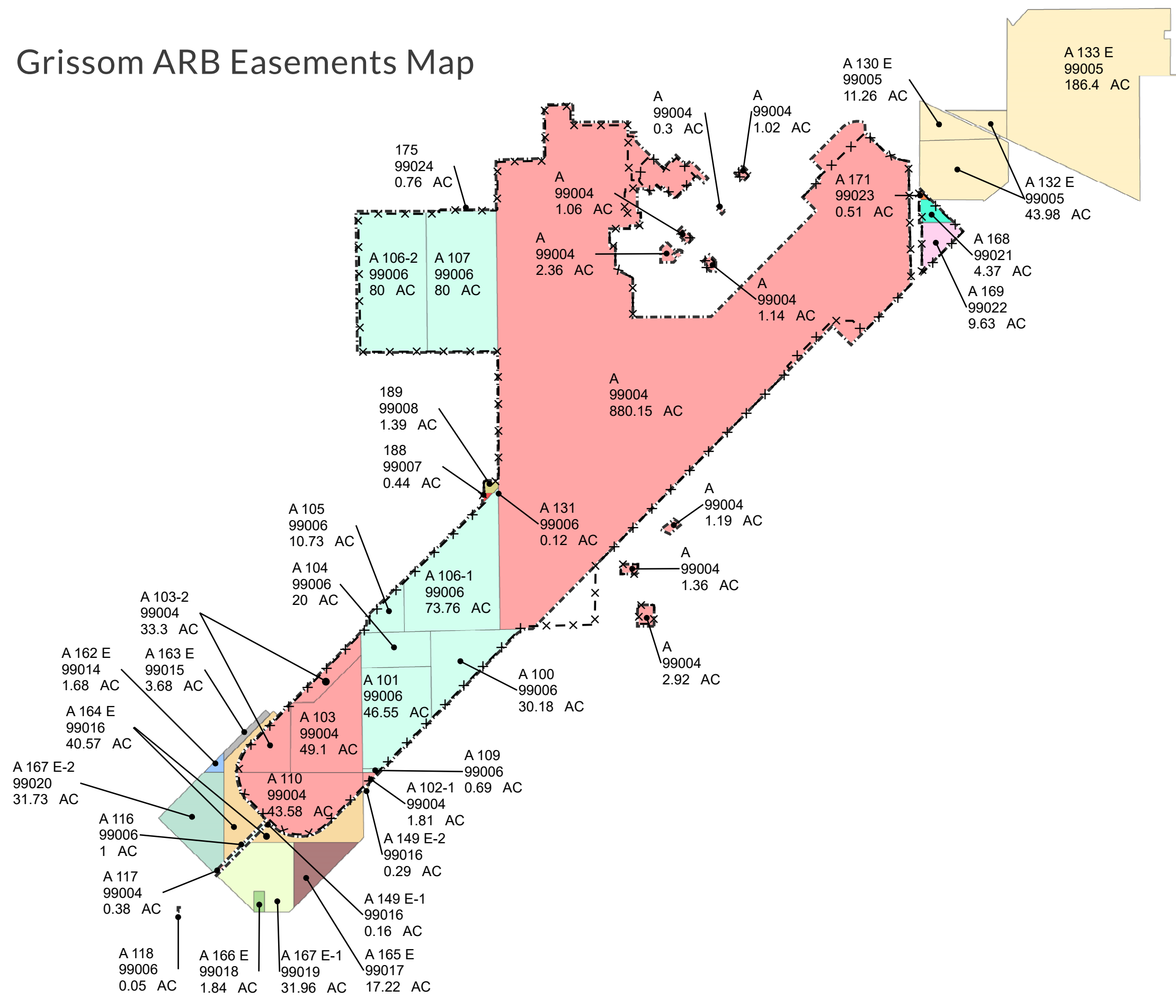
Attest:
James E. Kiehl, Deputy Director

APPENDIX E:
Existing USAF
Easements



Grissom ARB Easements Map

Grissom Boundary & Land Tract Map

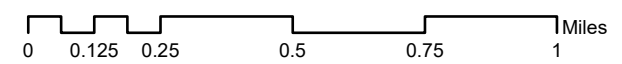
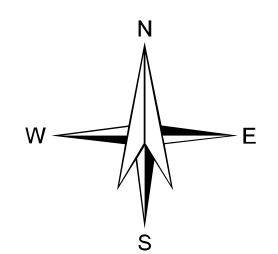


Legend

- x-x-x - Boundary Fence
- - - Grissom Boundary, 1,387.38 AC

Land Tract

Fac. No, Acreage	Color
99004, 1019.67 AC	Light Red
99005 (Easement), 241.64 AC	Yellow
99006, 343.08 AC	Light Green
99007, 0.44 AC	Red
99008, 1.39 AC	Olive Green
99014, 1.68 AC	Blue
99015 (Easement), 3.68 AC	Grey
99016 (Easement), 41.02 AC	Orange
99017 (Easement), 17.22 AC	Brown
99018 (Easement), 1.84 AC	Green
99019 (Easement), 31.96 AC	Light Yellow
99020 (Easement), 31.73 AC	Teal
99021, 4.37 AC	Cyan
99022, 9.63 AC	Pink
99023, 0.51 AC	Orange
99024, 0.76 AC	Light Green



Note:
 All Grissom Air Reserve Base, US Government owned tracts are approximately 1,379.85 acres.
 The Grissom Air Reserve Base Boundary is approximately 1,387 acres.

Tract A130E

*Tract A-130-E
Original in Easement 6/4/6*

IN THE
UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ILLINOIS
SOUTH FIELD DIVISION

TRACT - A-130-E

UNITED STATES OF AMERICA
Plaintiff,

vs.

21.26 ACRES OF LAND, MORE OR LESS,
SITUATE IN HAMILTON COUNTY, STATE OF
INDIANA AND MID-CENTRAL PACIFIC AIRLINES
CORPORATION, A CORPORATION OF THE
STATE OF ILLINOIS, ET AL,
Defendants

DECLARATION
OF
EMILIE

So. Bond
CIVIL NO. 2767

Filed 24 August 1960

TO THE HONORABLE,
THE UNITED STATES DISTRICT COURT:

I, the undersigned *Lytle S. Starlock*
Assistant Secretary of the Air Force of the United States of America, do
hereby make the following declaration by direction of the Secretary of the
Air Force:

1. (a) The land hereinafter described is taken under ^{AND} in accordance
with the Act of Congress approved February 26, 1931 (46 Stat. 1421, 40 U.S.C.
293a), and into ^{supplementary} ~~supplementary~~ ^{AMENDATORY} ~~amendatory~~ thereof, and under the
further authority of the Act of Congress approved August 1, 1928 (25 Stat. 397,
40 U.S.C. 297); Sections 2663 and 9179 of Title 10, United States Code, which
authorize the ^{acquisition} ~~acquisition~~ of land for military purposes; Section 2672 of Title
10, United States Code, as ^{AMENDED} ~~amended~~ by Section 523 of the Act of Congress approved
August 20, 1956 (Public Law 89 - 635), ^{AUTHORIZED ACQUISITION} ~~authorized acquisition~~ of the land, and
Section 505 of the Act of Congress approved July 7, 1960 (Public Law 86 - 601),
which ^{act made} ~~act made~~ ^{purpose} ~~purpose~~ available for such ^{uses for which sold} ~~purpose~~.

(b) The public uses for which ^{adequately} ~~adequately~~ land is taken are as follows:
The said land is necessary ^{adequately} ~~adequately~~ to provide for the establishment of ^{additional} ~~additional~~
facilities ^{USE OF} ~~USE OF~~ the Department of the Air Force and for other
military ^{uses incident} ~~uses incident~~ thereto. The land has been selected under the direction
of the Secretary of the Air Force for ^{acquisition} ~~acquisition~~ by the United States for
use in connection with Foster Hill Air Force Base, Hamilton County, State of
Ohio

130E + 130E-2

Schedule A. A certain section of land...
 Schedule A. A certain section of land...
 of the same land described in the complaint in the above entitled cause.
 The estate taken for said public use is the following:
 3. The estate taken for said public use is as follows:
 (a) The CONTINUING PERPETUAL has the right to cut
 to remove, and to prohibit the growth of trees, bushes, shrubs, or any other
 perennial growth or personal growth or underground intruding things, extending
 above, or which could in the future hereafter grow, extend above or extend
 ABOVE the GLIDE PLANE SURFACE SET FORTH AFTER THE DESCRIPTION
 ABOVE the Glide Plane Surface set forth after the land description in

Schedule A. Schedule A.
 (b) The CONTINUING PERPETUAL has the right to remove, to raise, to destroy,
 and to prohibit the future construction of buildings or permanent interest,
 other structures or permanent interest, and, encumbrances of earth and other
 materials unfringing, extending into or extending above the Glide
 Plane Surface set forth after the description in Schedule A,
 (c) The right of ingress to, egress from, and passage on and over
 the land described in Schedule "A" for the purpose of exercising the rights
 hereby taken for said public uses;

Subject to existing easements for public roads and high
 ways, public utilities, railroads and pipelines, reservoirs, however, to the
 landowner, its successors and assigns all right, title, interest, and
 privilege as may be exercised and enjoyed without interference with or abridg-
 ment of the rights hereby taken for said public use,
 A plan showing the land taken in certain parcels as Schedule B
 and made a part hereof.

That can be obtained by the undersigned as just compensation for the
 same land, with all buildings and improvements thereon and all appurtenances
 thereon and including any and all interest therein in said land is not
 part in Schedule A hereto but that assignment cannot be
 herein in the of the said court for the use and benefit of the
 persons entitled hereunder. The undersigned as of its opinion that the
 assignment herein for said land

in Witness

IN WITNESS WHEREOF, the undersigned, the Assistant
Secretary of the Air Force, hereunto subscribed his name by direction of the
Secretary of the Air Force, this 23rd day of August A.D. 1960,
in the City of Washington, District of Columbia.

Lyle S. Harlock
Assistant Secretary of the Air Force

MEMORANDUM

The land which is the subject matter of this declaration of taking ~~agrees~~
 agrees 11.25 acres, more or less, situate and being in the County of Miami, State
 of Indiana. A ^{description} ~~description~~ of the land taken together with the name of the ^{pur-}
~~part owner~~ ^{part owner} thereof and a statement of the sum estimated to be just ^{compensation}
 therefor is as follows:

TRACT NO. A-130-E
 TRACT NO. A-130-E

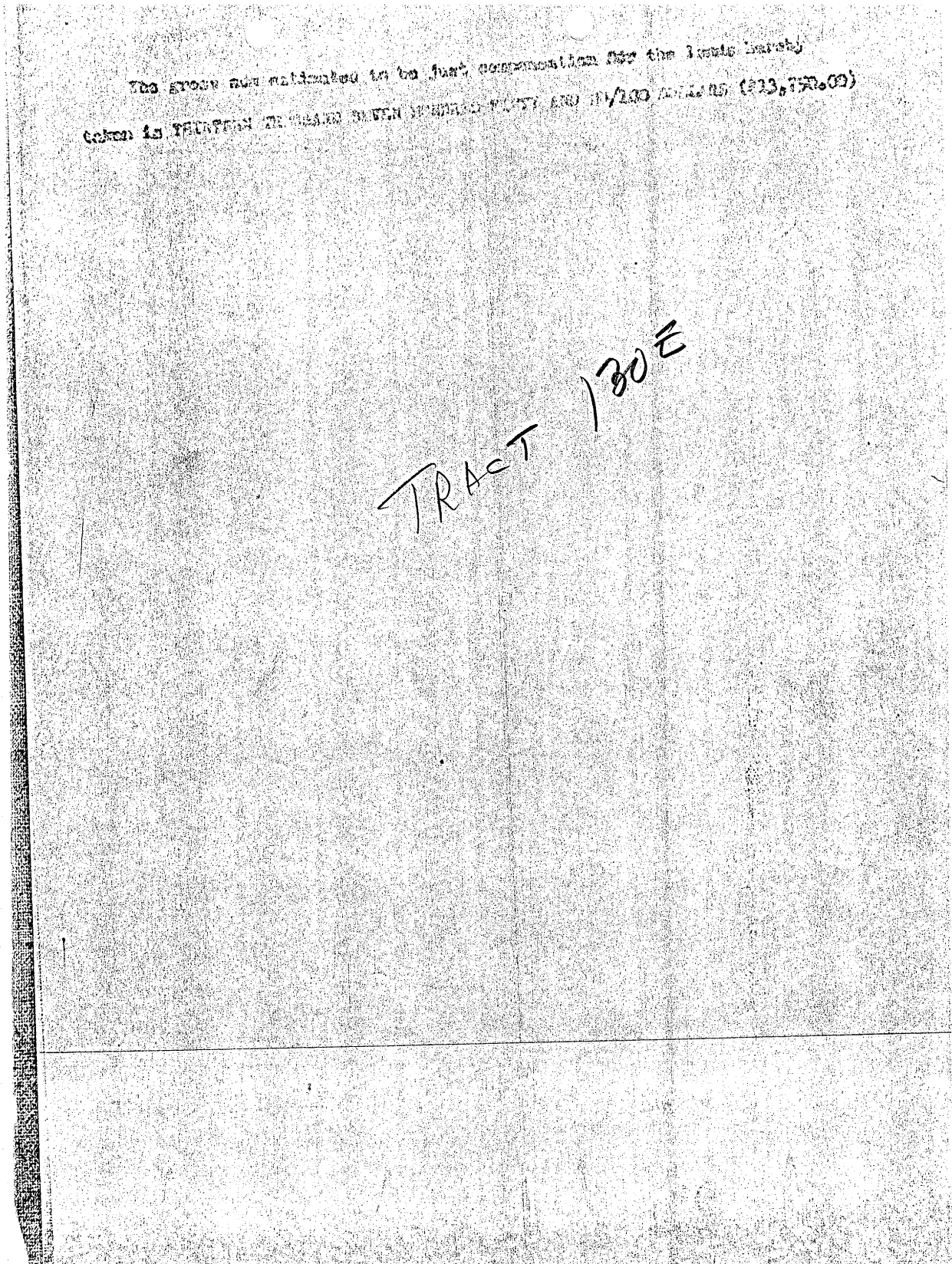
The ^{approach easement in a} ~~approach easement~~ ^{plane surface extending over that}
 part of ^{fractional Section 30, Township 26 North, Range 4 East of the second} ~~fractional Section 30,~~
 Township 26 North, Range 4 East of the second
 Principal Meridian, in Pipe Creek Township, Miami County, Indiana, described as
 follows:

Beginning at a point 1327 ^{EAST} feet North and 59 feet East, ^{measured at right}
 angles, from the Southwest corner of said ^{fractional Section 30,} said point
 being on the East right of way line of United States Highway Number 31, the
³⁾ ~~mentioned~~ ^{draw} ~~mentioned~~ plane surface intersecting a line drawn vertically thru said
 point at an elevation of 853.0 feet above Mean Sea Level, 1929 Datum, or approxi-
 mately 62.5 feet above the ^{existing ground surface} ~~existing ground surface~~; thence East 1407 feet to
 a point on the South right of way line of the Pennsylvania Railroad Company, the
^{draw} ~~mentioned~~ ^{thru} ~~mentioned~~ plane surface intersecting a line drawn vertically thru said
 point at an elevation of 873.0 feet above Mean Sea Level, 1929 Datum, or approxi-
 mately 52.0 feet above the ^{existing ground surface; thence North} ~~existing ground surface~~; thence North 65°-36' West,
 423 feet ^{South} along the South right of way line of said railroad to a point, the
^{plane surface} ~~mentioned~~ ^{a line} ~~mentioned~~ plane surface intersecting a line drawn vertically thru said
 point at an elevation of 866.7 feet above Mean Sea Level, 1929 Datum, or approxi-
 mately 66.7 feet above the existing ground surface; thence North 21°-21' East,
 40 feet to a point, the ~~mentioned~~ ^{plane surface} ~~mentioned~~ plane surface intersecting a line drawn
 vertically thru said point at an elevation of 1109.6 feet above Mean Sea Level,
 1929 Datum, or approximately 67.8 feet above the existing ground surface; thence
 North 65°-36' West, 29 feet, more or less to a point, the ~~mentioned~~ ^{plane surface} ~~mentioned~~ plane
 surface intersecting a line drawn vertically thru said point at an elevation of

an elevation of 40.0 feet above Mean Sea Level, 1929 Datum, or approximately 47.2 feet above the existing ground surface; thence North 62°30' West, 100 feet along the said South right of way line of said railroad to a point, the aforementioned plane surface intersecting a line drawn vertically thru said point at an elevation of 62.4 feet above Mean Sea Level, 1929 Datum, or approximately 69.6 feet above the existing ground surface; thence North 50°45' West, 27 feet along said South right of way line to a point, the aforementioned plane surface intersecting a line drawn vertically thru said point at an elevation of 66.2 feet above Mean Sea Level, 1929 Datum, or approximately 73.4 feet above the existing ground surface; thence North 47°30' West, 100 feet along said South right of way line to a point, the aforementioned plane surface intersecting a line drawn vertically thru said point at an elevation of 67.5 feet above Mean Sea Level, 1929 Datum, or approximately 74.7 feet above the existing ground surface; thence North 60° West, 100 feet along said South right of way line to its point of intersection with the aforementioned South right of way line of United States Highway Number 11, the aforementioned plane surface intersecting a line drawn vertically thru said point at an elevation of 80.1 feet above Mean Sea Level, 1929 Datum, or approximately 87.3 feet above the existing ground surface; thence South 10° West, 100 feet along said South right of way of United States Highway Number 11 to the point of termination;

— Containing, approximately, 11.70 acres, more or less
 Grant and a grant of easement herein
 United States Army and Air Force
 of the State of Indiana
 P. O. Box 1191
 Indianapolis, Indiana
 (11,751.00)

The plane surface of the easement shall limit the various portions of the tract of land which are shown on the plan and the elevation of the ground at each position indicated above the surface of the same described herein. The property owners for the above described tract of land, projected vertically to the plane surface of the easement, shall be bound to maintain the same in accordance with the provisions of the easement, as being indicated



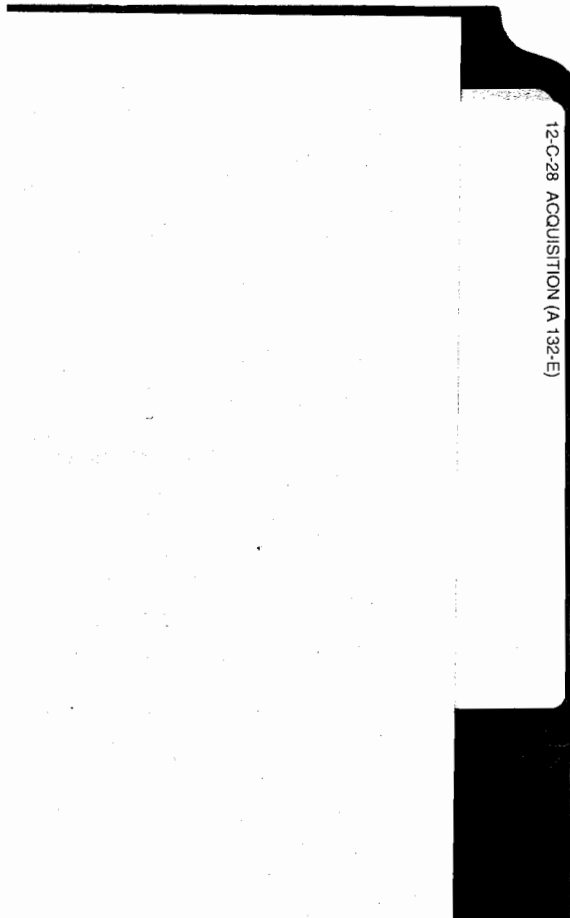
The gross area indicated is to just compensation for the lands hereby
taken is THIRTYEIGHT SEVEN HUNDRED FORTY AND 11/100 ACRES (\$13,750.00)

TRACT 130E

Tract A132E

IN_GRISSOM ARB_TRACT A132E_EASEMENT (43.98 AC).pdf

Page 1 of 2



IN_GRISSOM ARB_TRACT A132E_EASEMENT (43.98 AC).pdf

Page 2 of 2

*file 12028
MDD*

TRACT A-132-E

1. Reference Material
 - A. Voucher 66-0197

2. Supporting Documents
 - A. DD Form 1354, Transfer & Acceptance of Military Real Property

3. Area/Cost
 - A. 43.98 acres/\$45,000.00

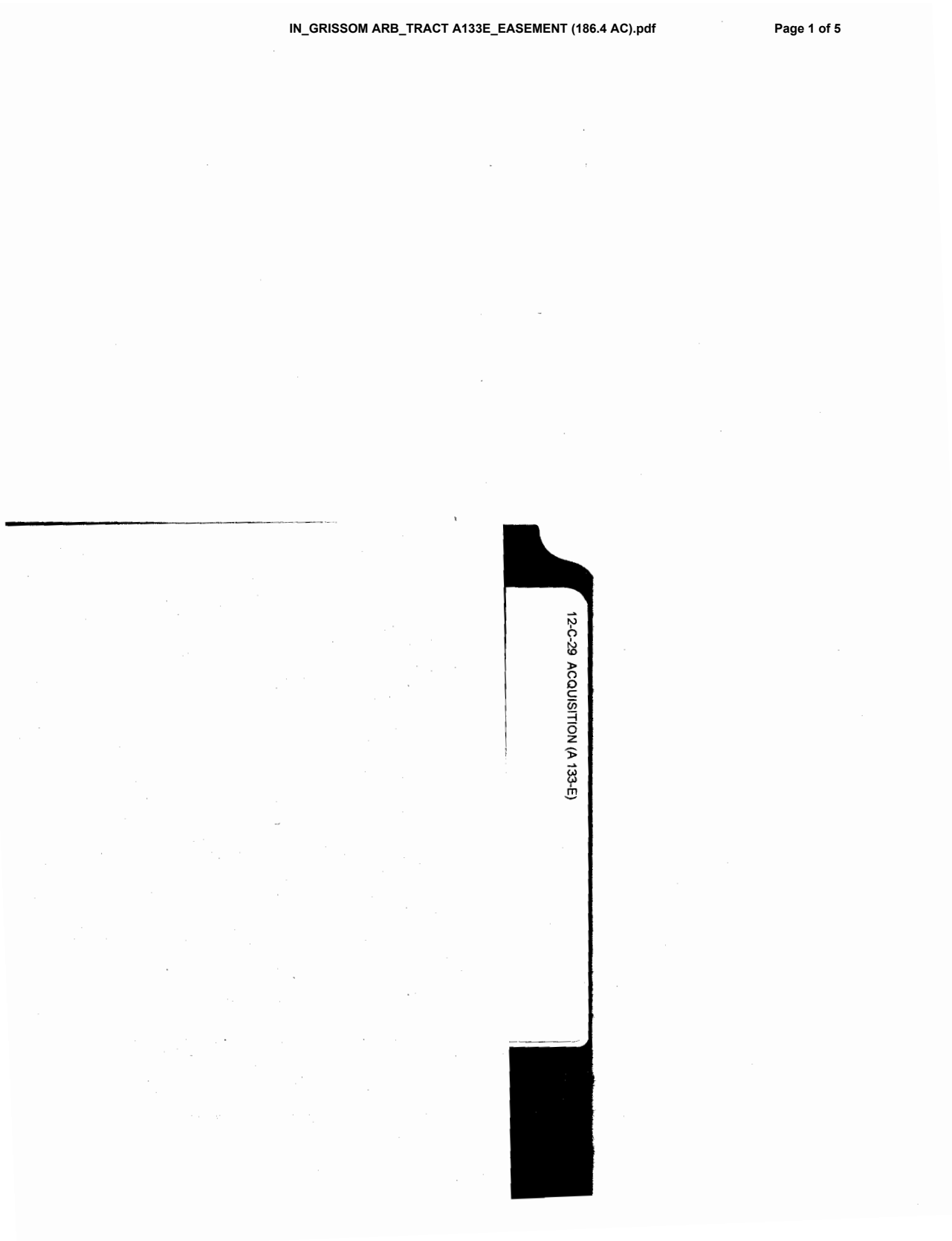
4. Real Estate Interest
 - A. Land, Esmt, Clear (Perpetual Avigation & Clearance Easement)

5. Acquired
 - A.

Tract A133E

IN_GRISSOM ARB_TRACT A133E_EASEMENT (186.4 AC).pdf

Page 1 of 5



12-C-29 ACQUISITION (A 133-E)

IN_GRISSOM ARB_TRACT A133E_EASEMENT (186.4 AC).pdf

Page 2 of 5

10/20/21
MDD

TRACT A-133-E

1. Reference material
 - A. Voucher 66-0193

2. Supporting documents
 - A. DD Form 1354, transfer and acceptance of Military Real Property.

3. Area/Cost
 - A. 186.40 acrea/\$2,500.00

4. Real Estate Interest
 - A. Land, Esmt, clear

5. Acquired
 - A. Transfer of avigation easement

IN_GRISSOM ARB_TRACT A133E_EASEMENT (186.4 AC).pdf

Page 3 of 5

RECORDED
 27 Jan 65
 Record 141 Page 329
 Indexed 12009
 10
 19326
 1100

AVIGATION EASEMENT DEED

This indenture made this 27th day of January, 1965, by and between Mabel M. Riggle, of Miami County, Indiana, party of the first part, hereinafter with her heirs, executors, administrators, successors, and assigns, referred to as "GRANTOR", and the UNITED STATES OF AMERICA and its assigns, party of the second part,

WITNESSETH:

THAT THE GRANTOR, for and in consideration of the settlement of Civil Number 3047, United States District Court for the Northern District of Indiana, the receipt of which is hereby acknowledged, hereby GRANTS, BARGAINS, SELLS AND CONVEYS unto the UNITED STATES OF AMERICA and its assigns, a perpetual easement and right-of-way for the free passage of aircraft of any character in, through and across the air space above an angle plane hereinafter described over the following described parcel of land in Miami County, State of Indiana, to-wit:

A part of Squirrel Village Reserve No. 7 at Big Pipe Creek, to John B. Richardville, in Township 26 North, Range 4 East, bounded and described as follows, to wit:

Commencing at a stone at the northwest corner of said Reserve; thence east on the north line thereof 3270.3 feet to a stone; thence south 1270.5 feet parallel with the east and west boundary line of said Reserve, to a corner stone in said creek; thence west parallel with the south line of said Reserve 792 feet to a corner stone on the bank of said creek; thence south 2335 feet to the north line of the right of way of the Pittsburg, Cincinnati, Chicago and St. Louis Railway Company; thence north 64 degrees and 30 minutes west 605 feet; thence south 10 feet; thence north 64 degrees and 30 minutes west 2157 feet to the west line of said Reserve; thence north on the west line of said Reserve 2397 feet to the place of beginning, save and except therefrom, the following: - Beginning at a point in the center of the Peru and Bunker Hill public road, where said road intersects the north boundary line of said Reserve, which point is 3061.8 feet east of the northwest corner of said Reserve; thence east 208.5 feet to a point; thence south 1243 feet to a point; thence west 208-1/3 feet to a point; thence north in the center of said public road 1243 feet to the place of beginning, containing in said exception 5.95 acres, leaving 188.33 acres, more or less.

EXCEPTING also from said 188.33 acres, the following two separate tracts:

Tr. 133 E

Exception

TRACT No. 1

A part of Squirrel Village Reserve in Township 26 North, Range 4 East, more fully described as follows: Beginning at a point in the center of the Peru and Bunker Hill Public Road, said point being south 0 degrees 30 minutes east a distance of 419 feet from a point in the center of the Peru and Bunker Hill Public Road where said road intersects the north boundary line of said Reserve, said point of intersection being 3061.8 feet east of the northwest corner of said Reserve; thence south 89 degrees 30 minutes west a distance of 116 feet; thence south 2 degrees 06 minutes west a distance of 154.5 feet; thence north 87 degrees 53 minutes east a distance of 123 feet to a point in the center of the aforesaid Peru and Bunker Hill Public Road; thence north 0 degrees 30 minutes west a distance of 151 feet to the place of beginning, containing .42 acres, more or less.

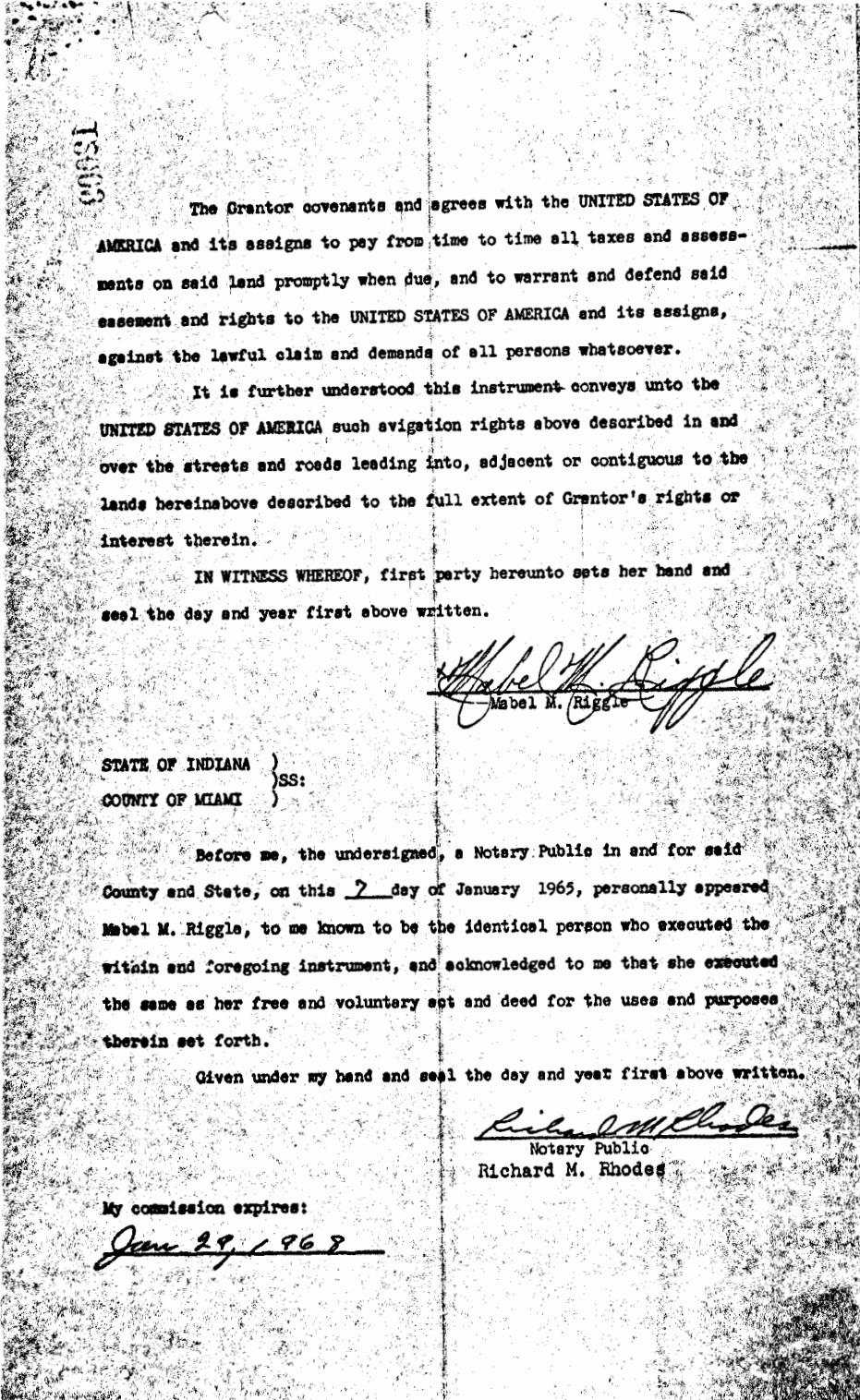
TRACT No. 2

A part of Squirrel Village Reserve in Township 26 North, Range 4 East, more fully described as follows:

Beginning at the northwest corner of said Reserve; thence south along the west line of said Reserve a distance of 145.8 feet to a point in the center of a public highway; thence south 36 degrees east along the central part of said highway a distance of 186 feet; thence north 42 degrees 45 minutes east a distance of 403.5 feet to a point on the north line of said Reserve, 390.1 feet east of the place of beginning; thence west a distance of 390.1 feet to the place of beginning, containing 1.51 acres, more or less.

The angle plane within the provisions of this easement, is definitely defined as a trapezoidal plane extending over the tract of land, starting at an elevation of eight hundred (800) feet mean sea level at a point where the extended center line of the present northeast - southwest runway of Bunker Hill Air Force Base, Peru, Indiana, intersects a line, perpendicular thereto and extending from the southwest corner of the above described tract, and sloping upward from said point at a rate of one foot vertically for each fifty feet horizontally.

There is reserved to the Grantor such use, rights and privileges in said land as may be exercised and enjoyed without interference with or abridgment of the rights hereby granted. Nothing herein shall be construed as entitling the UNITED STATES OF AMERICA to raise or remove the presently existing structures upon said property, or to prevent future erection of such structures as may be necessary or proper for the highest and best use of the property, not inconsistent with the easement granted hereby.



15000

The Grantor covenants and agrees with the UNITED STATES OF AMERICA and its assigns to pay from time to time all taxes and assessments on said land promptly when due, and to warrant and defend said easement and rights to the UNITED STATES OF AMERICA and its assigns, against the lawful claim and demands of all persons whatsoever.

It is further understood this instrument conveys unto the UNITED STATES OF AMERICA such avigation rights above described in and over the streets and roads leading into, adjacent or contiguous to the lands hereinabove described to the full extent of Grantor's rights or interest therein.

IN WITNESS WHEREOF, first party hereunto sets her hand and seal the day and year first above written.

Mabel M. Riggle
Mabel M. Riggle

STATE OF INDIANA)
COUNTY OF MIAMI) SS:

Before me, the undersigned, a Notary Public in and for said County and State, on this 7 day of January 1965, personally appeared Mabel M. Riggle, to me known to be the identical person who executed the within and foregoing instrument, and acknowledged to me that she executed the same as her free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and seal the day and year first above written.

Richard M. Rhodes
Notary Public
Richard M. Rhodes

My commission expires:
Jan 29, 1968

Tracts A149E-1 and A149E-2

Obermeyer Disposal, Res. Ease. A149E-1 & 149E-2.pdf

Contract No. GS-05-DR-(S)-00020

QUITCLAIM DEED

THIS QUITCLAIM DEED, made by and between the UNITED STATES OF AMERICA, acting by and through the Administrator of General Services, under and pursuant to the powers and authority contained in the provisions of the Federal Property and Administrative Services Act of 1949, 63 Stat. 377, as amended, and the regulations and orders promulgated thereunder, Grantor, and R. F. OBERMEYER, whose address is R. R. #4, Kokomo, Indiana, Grantee;

WITNESSETH THAT, for and in consideration of the sum of SIX THOUSAND TWO DOLLARS (\$6,002.00), as hereinafter set forth, the Grantor by these presents does hereby QUITCLAIM, without warranty or representation express or implied, unto the Grantee, his heirs and assigns, the following described parcel of real estate, to-wit:

In Sections 2, 3, 10 and 11, Township 25 North, Range 3 East of the Second Principal Meridian in the Counties of Miami and Cass, State of Indiana, more particularly described as follows:

Commencing at the center of Section 2, Township 25 North, Range 3 East of the Second Principal Meridian in the County of Miami, State of Indiana, thence East 600 feet along the East and West centerline of said Section 2 to the Point of Beginning; thence Southwesterly 2670 feet, more or less, to a point on the West line of the East Half (E½) of the Southwest Quarter (SW¼) of said Section 2, which point is 1853.00 feet South of the East-West centerline of said Section 2; thence South along said West line to a point on the South line of Section 2 and North line of Section 11; thence West along said Section line to a point 635.75 feet East of the West line of said Section; thence Southwesterly to a point that is 262.00 feet, more or less, East of the West line of said Section and 384.10 feet South of the North line of said Section 11; thence West 262.00 feet, more or less, to a point in the West line of said Section 11 and East line of Section 10, Township 25 North, Range 3 East of the Second Principal Meridian, being the boundary line between Cass and Miami Counties; thence South along said East line of Section 10 to a point on the South line of the Northeast Quarter (NE¼) of the Northeast Quarter (NE¼) of Section 10; thence West on said Quarter Quarter Section line to a point, said point being 478.15 feet East of the West line of the Northeast Quarter (NE¼); thence S 45° W to a point in the West line of the Northeast Quarter (NE¼) of Section 10; thence North along said West line to a point in the North line of Section 10 and the South line of

Obermeyer Disposal, Res. Ease. A149E-1 & 149E-2.pr

Section 3; thence continuing North along said West line 209.20 feet to a point; thence N 45° E to a point on the East-West centerline of Section 3; thence West along said line 46.55 feet; thence N 45° E 346.79 feet to a point on the East line of the Northeast Quarter (NE¼) of said Section 3; thence South along the East line of Section 3 and West line of Section 2, being the boundary line between Cass and Miami Counties, to a point that is 200 feet North of the Southwest Corner of the Northwest Quarter (NW¼) of Section 2; thence N 45° E 160.00 feet, more or less, to the Easterly right-of-way line of a relocated road; thence Southerly along said road right-of-way 100.00 feet, more or less, to the point of curve concave Southeasterly and having a radius of 150.00 feet; thence Southwesterly along said curve 119.70 feet to the point of tangency; thence S 45° W and parallel to the Southwest-Northeast runway of Grissom Air Force Base 93.00 feet, more or less, to a point in the West line of the Southwest Quarter (SW¼) of the Northwest Quarter (NW¼) of Section 2, said line being the boundary line between Miami and Cass Counties, said point being 15 feet, more or less, North of the Southwest corner, Northwest Quarter (NW¼) of Section 2; thence continuing South 45° West 20 feet, more or less, to a point on the South line of the Southeast Quarter (SE¼) of the Northeast Quarter (NE¼) of Section 3; said point being 15 feet West of the Southeast corner, Northeast Quarter (NE¼) of Section 3; thence continuing South 45° West and parallel to the Southwest-Northeast runway of Grissom Air Force Base 2990.00 feet, more or less, to the point of curve concave Southwesterly and having a radius of 750.00 feet; thence 1183.5 feet along said curve to the point of tangency in the Northeast Quarter (NE¼) of Section 10; thence Southeasterly 612.50 feet to a point of curve concave Southerly and having a radius of 750.00 feet; thence along said curve 1183.5 feet to the point of tangency; thence North 45° East and parallel to the Southwest-Northeast runway of Grissom Air Force Base 990 feet, more or less, to a point on the East line of Section 10 and the West line of Section 11, being the boundary line between Cass and Miami Counties; thence continuing North 45° East 330.00 feet, more or less, to a point in the North line of said Section 11, continuing North 45° East into the South Half (S½) of Section 2, 3720 feet, more or less, to the point of curve concave Northwesterly and having a radius of 350 feet; thence along said curve to a point in the East-West centerline of Section 2; thence East along said centerline to the Point of Beginning, containing 75.75 acres, more or less.

Excepting therefrom a parcel of land more particularly described as follows:

Beginning at a point on the West line of the Southwest Quarter (SW¼) of the Northeast Quarter (NE¼) of Section 10, Township 25 North, Range 3 East of the Second Principal Meridian, 484.08 feet South of the Northwest corner of said

- 2 -

Page 2 of 7

Obermeyer Disposal, Res. Ease. A149E-1 & 149E-2.p

Southwest Quarter (SW $\frac{1}{4}$); thence North 45° East 1150 feet, more or less, to a point in the Southwest right-of-way line of relocated State Route No. 218; thence Northwesterly at a right angle from the last described line 70 feet, more or less, to a point; thence South 45° West for a distance of 1070 feet, more or less, to a point in the West line of the Southwest Quarter (SW $\frac{1}{4}$) of the Northeast Quarter (NE $\frac{1}{4}$) of said Section; thence South 100 feet, more or less, to the Point of Beginning, containing 1.78 acres, more or less, in the County of Cass, State of Indiana.

Reserving to the Government in the aforesaid 75.75 acre tract a perpetual and assignable easement and right-of-way in, under, and across the following described parcel for an underground electric cable line serving the approach lighting system together with the right of ingress and egress over said easement area for maintenance, repair, replacement or removal of said line:

A-149E-1.

Commencing at a point on the West line of the Southwest Quarter (SW $\frac{1}{4}$) of the Northeast Quarter (NE $\frac{1}{4}$) of Section 10, Township 25 North, Range 3 East of the Second Principal Meridian, 484.08 feet South of the Northwest corner of said Southwest Quarter (SW $\frac{1}{4}$); thence North 45° East 1150 feet, more or less, to the Point of Beginning, said Point being on the Southwesterly right-of-way line of relocated State Route No. 218; thence continuing North 100 feet, more or less, to a point on the Northeast right-of-way line of said road; thence Northwesterly at a right angle from the last described line 70 feet, more or less, to a point; thence South 45° West for a distance of 100 feet, more or less, to a point in the Southwesterly right-of-way line of said road, thence Southeasterly at a right angle from the last described line 70 feet, more or less, to the Point of Beginning, containing 0.16 acres, more or less, in the County of Cass, State of Indiana.

And also, reserving to the Government in the aforesaid 75.75 acre tract a perpetual and assignable easement and right-of-way in, under and across the following described parcel for an underground electric cable line together with the right of ingress and egress over said easement area for maintenance, repair, replacement or removal of said line:

A-149E-2

Beginning at a Point on the West line of Section 11, Township 25 North, Range 3 East of the Second Principal Meridian, 384.10 feet, more or less, South of the Northwest Corner of said Section; thence Easterly 66 feet to a point; thence Northerly 220 feet, more or less, to a point in the Northwesterly right-of-way line of relocated State Route No. 218; thence Southwesterly along said right of way line to a point on the west line of Section 11; thence South along said West line to the Point of Beginning, containing 0.29 acres, more or less, in the County of Miami, State of Indiana.

- 3 -

*0.16
0.29

.45*

Page 3 of 7

Obermeyer Disposal, Res. Ease. A149E-1 & 149E-2.p

The above described property is also subject to easements for highway purposes located by the following descriptions.

A centerline description of a relocated highway 100.00 feet wide on Grissom Air Force Base, Indiana, located in the East Half of Section 3 and the North Half of the Northeast Quarter of Section 10, Township 25 North, Range 3 East of the Second Principal Meridian, in Cass County, Indiana:

Beginning at a point 99.00 feet North of the Southeast corner of the Northeast Quarter of Section 3 for the centerline of the relocated highway; thence South 45° West 135.00 feet, more or less, to a point on the South line of the Southeast Quarter, Northeast Quarter of Section 3, said point being 97.82 feet West of the Southeast corner, Northeast Quarter of Section 3; thence continuing South 45° West and parallel to the Southwest-Northeast runway of Grissom Air Force Base 2951.21 feet to the point of curve concave Easterly and having a radius of 800.00 feet; thence 1256.64 feet along said curve into the Northeast Quarter of Section 10; thence 612.5 feet South 45° East to the point of a curve concave Northerly and having a radius of 800.00 feet; thence along said curve 1256.64 feet to a point; thence North 45° East and parallel to the Southwest-Northeast runway of Grissom Air Force Base 940.00 feet, more or less, to a point in the East line of Section 10, said line is common for the East line of Cass County and the West line of Miami County.

ALSO

A perimeter description of a service road in the Southeast Quarter, Northeast Quarter of Section 3, Township 25 North, Range 3 East of the Second Principal Meridian in Cass County, Indiana:

Beginning at a point 167.87 feet West of the Southeast corner, Northeast Quarter of Section 3; thence North 45° East 46.49 feet to a point; thence Westerly and parallel to the South line of the Southeast Quarter, Northeast Quarter of Section 3, 80.00 feet more or less to a point in the Northwesterly boundary of Grissom Air Force Base; thence South 45° West along said Northwesterly boundary 46.49 feet to a point on the South line of the Southeast Quarter of the Northeast Quarter of Section 3; thence Easterly 80.00 feet to the point of beginning; containing in all 16.48 acres, more or less.

ALSO

A centerline description of a relocated highway 100.00 feet wide on Grissom Air Force Base, Indiana, in Section 2, Township 25 North, Range 3 East of the Second Principal Meridian, in Miami County, Indiana:

- 4 -

Obermeyer Disposal, Res. Ease. A149E-1 & 149E-2.p

Commencing at a point 200.00 feet North of the Southwest corner of the Northwest Quarter of said Section 2, thence North 45° East along the reservation boundary of Grissom Air Force Base 95.00 feet, more or less, to the centerline of said relocated road, the point of beginning; thence Southerly along the centerline of said relocated road 48.00 feet, more or less, to the point of a curve concave to the Northwest and having a radius of 100.00 feet; thence Southwesterly along said curve 79.88 feet to a point; thence South 45° West and parallel to the Southwest-Northeast runway of Grissom Air Force Base 43.00 feet, more or less, to a point in the West line of the Southwest Quarter, Northwest Quarter of Section 2, said point being 99.00 feet, more or less, North of the Southwest corner, Northwest Quarter of Section 2; and

ALSO

A centerline description of a relocated highway 100.00 feet wide on Grissom Air Force Base in the Northwest Quarter of Section 11 and the South Half of Section 2, Township 25 North, Range 3 East of the Second Principal Meridian in Miami County, Indiana.

Beginning at a point 300.00 feet South of the Northwest corner of the Northwest Quarter of Section 11; thence North 45° East 428.00 feet, more or less, to a point in the North line of said Section 11; continuing North 45° East into the South Half of Section 2, 3720.00 feet, more or less, to the point of a curve concave Southeasterly and having a radius of 300.00 feet; thence along said curve 300.00 feet, more or less, to the end of said relocated road, containing 10.60 acres, more or less.

The Grantee by the acceptance of this Deed, covenants and agrees for himself, his successors and assigns, that the property shall be used for no purpose other than the growing of cultivated crops, not including trees, and that no construction of any kind shall be placed upon the property except fences of a type ordinarily used for the enclosure and protection of property. This agreement shall be construed to be a covenant running with the land.

Together with all buildings and improvements located thereon and all and singular the tenements, hereditaments, appurtenances and improvements thereunto belonging, or in anywise appertaining.

SUBJECT TO all existing easements, reservations, licenses, permits, etc., recorded or unrecorded, for public roads, rights-of-way, public utilities, power and pipe lines, transmission lines, railroads, water drainage and flowage rights.

Obermeyer Disposal, Res. Ease. A149E-1 & 149E-2.p

before me this day in person and acknowledged that he, being thereunto duly authorized, signed, sealed and delivered the said instrument in his official capacity as such Acting Regional Administrator, as his free and voluntary act and the free and voluntary act of the Administrator of General Services, and as the free and voluntary act and deed of the United States of America, for the consideration and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and notarial seal this 24th day of July, 1970.

/s/ Mary C. Skinder

Mary C. Skinder - Notary Public

(Notarial Seal)

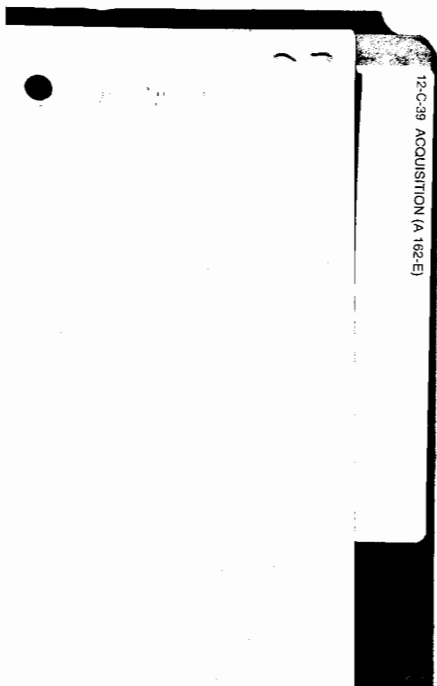
My Commission Expires: 3/11/73

This instrument was prepared by Frederick R. Axley, Attorney, General Services Administration, 219 South Dearborn Street, Chicago, Illinois 60604.

Tract A162E

IN_GRISSOM ARB_TRACT A162E_EASEMENT (1.68 AC).pdf

Page 1 of 8



IN_GRISSOM ARB_TRACT A162E_EASEMENT (1.68 AC).pdf

Page 2 of 8

file 10/21/21
MDD

TRACT A - 162E

File 99014

1. Reference Material
 - A. Voucher 85 - 0119
2. Supporting Documents
 - A. DD Form 1354 - Transfer & Acceptance of Military Property
 - B. Notarized Statement
3. Area/Cost
 - 1.68 Acres / \$1,625
4. Real Estate Interest
 - A. Land, Easement
5. Acquired
 - A. Support Expanded Clear Zone Project
16 February 83

IN_GRISSOM ARB TRACT A162E_EASEMENT (1.68 AC).pdf

Page 3 of 8

418

Recorded February 11, 2011
John W. Harvey

Fee 7.00 Time 9:30 Recorder Cass County

Inst Deed Bk 239 Pg 910

Grissom Air Force Base Expanded Clear Zone Project
Tract No. 162E
Cass County, Indiana

WARRANTY DEED OF EASEMENT

THIS INDENTURE WITNESSETH, That MARION C. PULLEN and JANET L. PULLEN, Husband and Wife, the GRANTORS, CONVEY AND WARRANT to THE UNITED STATES OF AMERICA and its assigns, the GRANTEE, for and in consideration of the sum of ONE THOUSAND SIX HUNDRED TWENTY-FIVE AND NO/100 Dollars (\$1,625.00), the receipt of which is hereby acknowledged, a perpetual and assignable easement and right of way in, on, over and across real estate designated as Tract No. 162E of the Grissom Air Force Base, Indiana, Expanded Clear Zone Project, more particularly described as follows:

Situate in the State of Indiana, County of Cass, in the Southeast Quarter of the Southeast Quarter of the Southwest Quarter of Section 3, Township 25 North, Range 3 East of the Second Principal Meridian, being a clear zone easement for Grissom Air Force Base, more particularly described as follows:

Beginning at the Southeast corner of said Southwest Quarter; thence with the South line of said Section 3

Westwardly 378.84 feet to a point 1500 feet northwest of and perpendicular to the extended centerline of the Southwest-Northeast runway of Grissom Air Force Base; thence with a line 1500 feet northwest of and parallel to said extended runway centerline

Northeastwardly to a point on the East line of aforesaid Southwest Quarter; thence with said East line

Southwardly 385.29, more or less, to the point of beginning, containing 1.68 acres, more or less.

It being the intent of the foregoing description to include a part of the same land as that described in a deed from Bertha C. House to Marion C. Pullen and Janet L. Pullen, husband and wife, dated 18 March 1976, recorded in Deed Book 227, Page 907, in the records of Cass County, Logansport, Indiana,

for the establishment, maintenance and operation of a restrictive use area for the operation of aircraft to and from the base consisting of the following rights in the land described above for the following purposes:

1. The right to make low and frequent flights over said land and to generate noises associated with:
 - a. aircraft in flight, whether or not while directly over said land;
 - b. aircraft and aircraft engines operating on the ground at said base; and
 - c. aircraft engine test-stand operations at said base.
2. The right to regulate or prohibit the release into the air of any substance which would impair the visibility or otherwise interfere with the operations of aircraft; such as, but not limited to, steam, dust and smoke.

IN_GRISSOM ARB TRACT A162E_EASEMENT (1.68 AC).pdf

Page 4 of 8

Feed
BOOK 239 PAGE 911

3. The right to regulate or prohibit light emissions, either direct or indirect (reflective), which might interfere with pilot vision.
4. The right to prohibit electrical emissions which would interfere with aircraft and Air Force communications systems or aircraft navigational equipment.
5. The right to prohibit and remove any buildings or other non-frangible structures.
6. The right to top, cut to ground level, and to remove trees, shrubs, brush or other forms of obstruction which the officer having command of the base determines might interfere with the operation of aircraft, including emergency landings.
7. The right to ingress and egress upon, over, and across said land for the purpose of exercising the rights set forth herein.
8. The right to post signs on said land indicating the nature and extent of the Grantee's control over said land.
9. The right to prohibit all land uses other than the following:
 - a. agriculture;
 - b. grazing (excluding feed lots and dairy herds);
 - c. permanent open space;
 - d. existing water areas;
 - e. rights-of-way for fenced two-lane highways, without sidewalks or bicycle trails, and single track railroads; and
 - f. communications and utilities rights-of-way.
10. None of the above restrictions are intended to interfere with normal farming operations in connection with the growing and harvesting of hay, row and small grain crops.
11. The right to prohibit entry of persons onto the land except in connection with activities authorized under 9. a, b, e, and f above.

Said easement and rights are conveyed subject to existing easements for public roads and highways, public utilities, railroads and pipelines; reserving unto the GRANTORS, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easements hereby acquired.

For the consideration recited above, the GRANTORS agree to abide by the following covenant which shall run with the land: That the payment by the GRANTEE of the consideration recited above shall constitute full fair value and full compensation to the GRANTORS for the easement and rights granted herein, whether such easement and rights shall be exercised by the GRANTEE or by any of its assigns, and the GRANTORS

Deed
JK 239 PAGE 912

expressly release and relinquish any and all claims against any of the aforementioned for further or future payment of consideration for the aforesaid easement and rights granted herein.

The described estate is acquired for the United States Department of the Air Force, Washington, D. C. 20332.

IN WITNESS WHEREOF, the said MARION C. PULLEN and JANET L. PULLEN have hereunto set their hands this 16th day of February 1983.

Marion C. Pullen
MARION C. PULLEN

Janet L. Pullen
JANET L. PULLEN

CERTIFICATE

STATE OF INDIANA)
) SS
COUNTY OF **CASS**)

Before me, Daniel M. Kininmonth, a Notary Public in and for said County and State, this day personally appeared MARION C. PULLEN and JANET L. PULLEN, Husband and Wife, and acknowledged the execution of the foregoing Warranty Deed of Easement to be their voluntary act and deed for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 16th day of February 1983.



Daniel M. Kininmonth
NOTARY PUBLIC

County of Residence: Floyd

My Commission Expires:
October 20, 1985

The consideration of \$1,625.00 recited herein includes severance damages in the amount of \$ - 0 -.

Daniel M. Kininmonth
Closing Officer

This instrument was prepared by:
Alicia J. Holland
Alicia J. Holland, Attorney
U. S. Army Engineer District,
Louisville, Corps of Engineers
P. O. Box 59
Louisville, Kentucky 40201

Page 6 of 8

IN_GRISSOM ARB_TRACT A162E_EASEMENT (1.68 AC).pdf

TRANSFER AND ACCEPTANCE OF MILITARY REAL PROPERTY										PAGE 1 OF 2 PAGES	
1. FROM: (Installation/Activity/Service) U. S. Army Engineer District, Louisville P. O. Box 59 Louisville, Kentucky 40201-0059		2. OPERATING UNIT N/A	3. DISTRICT CODE N/A	4. OPERATING AGENCY N/A	5. DATE 13 Feb 85	6. JOB NUMBER RE-A 85-1	7. SERIAL NUMBER RE-A 85-1	8. CONTRACT NUMBER N/A		15. PROJECT NUMBER N/A	
9. TO: (Installation/Activity/Service) Commander, Grissom AFB ATTN: Base Civil Engineer 305CSG/DE Grissom AFB, Indiana 46971		10. OPERATING UNIT N/A	11. DISTRICT CODE N/A	12. OPERATING AGENCY N/A	13. ACCOUNTING NUMBER N/A	14. ACCOUNTABLE OFFICE NUMBER N/A	18. TYPE OF TRANSACTION <input type="checkbox"/> NEW CONSTR. <input type="checkbox"/> EXISTING FAC. <input type="checkbox"/> CAPITAL IMP. <input checked="" type="checkbox"/> OTHER (Specify)			19. BENF/O <input type="checkbox"/> PHYSICAL COM. <input type="checkbox"/> FINAN. COM. <input type="checkbox"/> OTHER (Specify)	
ITEM NO.	CATEGORY CODE	FACILITY (Category description)	NO. OF UNITS	TYPE	UNIT OF MEAS.	TOTAL QUANTITY	COST	DRAWING NUMBERS	REMARKS		
17	18	19	20	21	22	23	24	25	26		
1	921-10	Easement Purchased (Tract No. 162E-Deed dtd 2-16-83)	1.68	N/A	AC	1.68	\$1,625	N/A			
2	921-10	Easement Purchased (Tract No. 163E-Deed dtd 2-11-83)	3.68	N/A	AC	3.68	\$3,350	N/A			
3	921-10	Easement Purchased (Tract No. 164E-Deed dtd 4-12-84)	40.57	N/A	AC	40.57	\$3,296	N/A			
4	921-10	Easement Purchased (Tract No. 165E-Deed dtd 7-19-84)	17.22	N/A	AC	17.22	\$17,000	N/A			
5	921-10	Easement Purchased (Tract No. 166E-Deed dtd 9-21-82)	1.84	N/A	AC	1.84	\$38,000	N/A			
6	911-10	Land Purchased (Tract No. 168-Deed dtd 8-30-84)	11.90	N/A	AC	11.90	\$60,000	N/A			

Page 7 of 8

IN_GRISSOM ARB_TRACT_A162E_EASEMENT (1.68 AC).pdf

TRANSFER AND ACCEPTANCE OF MILITARY REAL PROPERTY										PAGE 2 OF 2 PAGES		
1. FROM: (Installation/Activity/Service) U. S. Army Engineer District, Louisville P. O. Box 59 Louisville, Kentucky 40201-0059			2. OPERATING UNIT N/A	3. DISTRICT CODE	4. OPERATING AGENCY	5. DATE 13 Feb 85	6. JOB NUMBER RE-A 85-1	7. SERIAL NUMBER RE-A 85-1	8. CONTRACT NUMBER N/A			
9. TO: (Installation/Activity/Service) Commander, Grissom AFB ATTN: Base Civil Engineer 305CSG/DE Grissom AFB, Indiana 46971			10. OPERATING UNIT	11. DISTRICT CODE	12. OPERATING AGENCY	13. ACCOUNTING NUMBER	14. ACCOUNTABLE OFFICE NUMBER	15. TYPE OF TRANSACTION <input type="checkbox"/> NEW CONSTR. <input type="checkbox"/> EXISTING FAC. <input type="checkbox"/> CAPITAL IMP. <input type="checkbox"/> OTHER (Specify)		16. PROJECT NUMBER <input type="checkbox"/> BENF/O <input type="checkbox"/> PHYSICAL COM. <input type="checkbox"/> FINAN. COM. <input type="checkbox"/> OTHER (Specify)		
ITEM NO.	CATEGORY CODE	FACILITY (Category description)	NO. OF UNITS	TYPE	UNIT OF MEAS.	TOTAL QUANTITY	COST	DRAWING NUMBERS	REMARKS			
7	911-10	Land Condemned (Tract No. 169-Complaint Filed 12-4-84)	22.49	N/A	AC	22.49	\$375,000*		*Estimated just compensation deposited with the court. Final determination of just compensation to be made by court.			
17. STATEMENT OF COMPLETION: The facilities listed herein are in accordance with plans, drawings, and specifications not change orders approved by the authorized representative of the using agency except for the deficiencies listed on the reverse side.						18. ACCEPTED BY (Signature) <i>Cheryl Ste...</i>			DATE 11 JUN 1985			
19. TRANSFERRED BY (Signature) <i>L. R. Link, Jr.</i>			DATE 13 Feb 85			20. TITLE (Post/Grade/Base Ctl. Engr./Navy Rep.) BASE CIVIL ENGINEER, GRISSOM AFB			21. PROPERTY VOUCHER NUMBER			
22. TITLE (Area Engr./Base Engr./DPWO) L. R. LINK, JR., Act. Ch., Real Estate Div.			DATE 13 Feb 85			23. TITLE (Post/Grade/Base Ctl. Engr./Navy Rep.) BASE CIVIL ENGINEER, GRISSOM AFB			24. PROPERTY VOUCHER NUMBER			

DD FORM 1354 NOV 81

30.	CONSTRUCTION DEFICIENCIES
REMARKS	
<p>1) Legal descriptions of these tracts and names of fee owners from whom Government acquired stated interests are contained in attached deeds and condemnation assembly.</p> <p>2) Item 15A-Expanded Clear Zone easements and fee acquisitions as set out in deeds and condemnation assembly.</p> <p>3) Acquisition Authorized under Public Law 95-356 dtd 8 Sept 78.</p> <p>4) Funds provided under Public Law 97-106 dtd 23 Dec 81.</p>	
INSTRUCTIONS	
<p>This form has been designed and issued for use in connection with the transfer of military real property between the military departments and to or from other government agencies. It supersedes ENG Forms 290 and 290B (formerly used by the Army and Air Force) and NAVDOCKS Form 2317 (formerly used by the Navy).</p> <p>Existing instructions issued by the military departments relative to the preparation of the three superseded forms are applicable to this form to the extent that the various items and</p> <p>columns on the superseded forms have been retained. Additional instructions, as appropriate, will be promulgated by the military departments in connection with any new items appearing hereon.</p> <p>With the issuance of this DD form, it is not intended that the departments shall revise and reprint manuals and directives simply to show the number of this DD form. Such action can be accomplished through the normal course of revision for other reasons.</p>	

GPO 821-285

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Tract A163E

IN_GRISSOM ARB_TRACT A163E_EASEMENT (3.68 AC).pdf

Page 1 of 8



12-C-40 ACQUISITION (A 163-E)

Page 2 of 8

IN_GRISSOM_ARB_TRACT_A163E_EASEMENT (3.68 AC).pdf

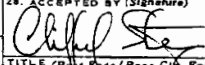

TRANSFER AND ACCEPTANCE OF MILITARY REAL PROPERTY										PAGE 1 OF 2 PAGES	
1. FROM: (Installation/Activity/Service) U. S. Army Engineer District, Louisville P. O. Box 59 Louisville, Kentucky 40201-0059		2. OPERATING UNIT N/A	3. DISTRICT CODE N/A	4. OPERATING AGENCY N/A	5. DATE 13 Feb 85	6. JOB NUMBER RE-A 85-1	7. SERIAL NUMBER RE-A 85-1	8. CONTRACT NUMBER N/A			
9. TO: (Installation/Activity/Service) Commander, Grissom AFB ATTN: Base Civil Engineer 305CSG/DE Grissom AFB, Indiana 46971		10. OPERATING UNIT N/A	11. DISTRICT CODE N/A	12. OPERATING AGENCY N/A	13. ACCOUNTING NUMBER N/A	14. ACCOUNTABLE OFFICE NUMBER N/A	15. TYPE OF TRANSACTION <input type="checkbox"/> NEW CONSTR. <input type="checkbox"/> BEN/F/O <input type="checkbox"/> EXISTING FAC. <input type="checkbox"/> PHYSICAL COM. <input type="checkbox"/> CAPITAL IMP. <input type="checkbox"/> FINAN. COM. <input checked="" type="checkbox"/> OTHER (Specify) <input type="checkbox"/> OTHER (Specify)			16. PROJECT NUMBER N/A	
ITEM NO. 17	CATEGORY CODE 18	FACILITY (Category description) 19	NO. OF UNITS 20	TYPE 21	UNIT OF MEAS. 22	TOTAL QUANTITY 23	COST 24	DRAWING NUMBERS 25	REMARKS 26		
1	921-10	Easement Purchased (Tract No. 162E-Deed dtd 2-16-83)	1.68	N/A	AC	1.68	\$1,625	N/A			
2	921-10	Easement Purchased (Tract No. 163E-Deed dtd 2-11-83)	3.68	N/A	AC	3.68	\$3,350	N/A			
3	921-10	Easement Purchased (Tract No. 164E-Deed dtd 4-12-84)	40.57	N/A	AC	40.57	\$3,296	N/A			
4	921-10	Easement Purchased (Tract No. 165E-Deed dtd 7-19-84)	17.22	N/A	AC	17.22	\$17,000	N/A			
5	921-10	Easement Purchased (Tract No. 166E-Deed dtd 9-21-82)	1.84	N/A	AC	1.84	\$38,000	N/A			
6	911-10	Land Purchased (Tract No. 168-Deed dtd 8-30-84)	11.90	N/A	AC	11.90	\$60,000	N/A			

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Page 3 of 8

IN_GRISSOM_ARB_TRACT_A163E_EASEMENT (3.68 AC).pdf

TRANSFER AND ACCEPTANCE OF MILITARY REAL PROPERTY										PAGE 2 OF 2 PAGES		
1. FROM: (Installation/Activity/Service) U. S. Army Engineer District, Louisville P. O. Box 59 Louisville, Kentucky 40201-0059			2. OPERATING UNIT N/A	3. DISTRICT CODE	4. OPERATING AGENCY	5. DATE 13 Feb 85	6. JOB NUMBER RE-A 85-1	7. SERIAL NUMBER RE-A 85-1	8. CONTRACT NUMBER N/A			
9. TO: (Installation/Activity/Service) Commander, Grissom AFB ATTN: Base Civil Engineer 305CSG/DE Grissom AFB, Indiana 46971			10. OPERATING UNIT	11. DISTRICT CODE	12. OPERATING AGENCY	13. AC-COUNTING NUMBER	14. AC-COUNTABLE OFFICE NUMBER	15. TYPE OF TRANSACTION <input type="checkbox"/> NEW CONSTR. <input type="checkbox"/> BENF/O <input type="checkbox"/> EXISTING FAC. <input type="checkbox"/> PHYSICAL COM. <input type="checkbox"/> CAPITAL IMP. <input type="checkbox"/> FINAN. COM. <input type="checkbox"/> OTHER (Specify) <input type="checkbox"/> OTHER (Specify)		16. PROJECT NUMBER		
ITEM NO. 17	CATEGORY CODE 18	FACILITY (Category description) 19	NO. OF UNITS 20	TYPE 21	UNIT OF MEAS. 22	TOTAL QUANTITY 23	COST 24	DRAWING NUMBERS 25	REMARKS 26			
7	911-10	Land Condemned (Tract No. 169-Complaint Filed 12-4-84)	22.49	N/A	AC	22.49	\$375,000*		*Estimated just compensation deposited with the court. Final determination of just compensation to be made by court.			

27. STATEMENT OF COMPLETION: The facilities listed herein are in accordance with maps, drawings, and specifications and change orders approved by the authorized representative of the using agency except for the deficiencies listed on the reverse side.		28. ACCEPTED BY (Signature) 	DATE 11 JUN 1985
TRANSFERRED BY (Signature) 	DATE 13 Feb 85	TITLE (Post Engn./Base Civ. Engr./Navy Rep.) BASE CIVIL ENGINEER, GRISSOM AFB	29. PROPERTY VOUCHER NUMBER
L. R. LINK, JR., Act. Ch., Real Estate Div.			

DD FORM NOV 81 1354

30.	CONSTRUCTION DEFICIENCIES
<p>11 11 11</p>	<p>CONSTRUCTION DEFICIENCIES</p>
<p>REMARKS</p> <p>1) Legal descriptions of these tracts and names of fee owners from whom Government acquired stated interests are contained in attached deeds and condemnation assembly.</p> <p>2) Item 15A-Expanded Clear Zone easements and fee acquisitions as set out in deeds and and condemnation assembly.</p> <p>3) Acquisition Authorized under Public Law 95-356 dtd 8 Sept 78.</p> <p>4) Funds provided under Public Law 97-106 dtd 23 Dec 81.</p>	
<p>INSTRUCTIONS</p>	
<p>This form has been designed and issued for use in connection with the transfer of military real property between the military departments and to or from other government agencies. It supersedes ENG Forms 290 and 290B (formerly used by the Army and Air Force) and NAVDOCKS Form 2317 (formerly used by the Navy).</p> <p>Existing instructions issued by the military departments relative to the preparation of the three superseded forms are applicable to this form to the extent that the various items and</p>	<p>columns on the superseded forms have been retained. Additional instructions, as appropriate, will be promulgated by the military departments in connection with any new items appearing hereon.</p> <p>With the issuance of this DD form, it is not intended that the departments shall revise and reprint manuals and directives simply to show the number of this DD form. Such action can be accomplished through the normal course of revision for other reasons.</p>

GPO 821-265

1962 O - 656942

IN_GRISSOM ARB_TRACT A163E_EASEMENT (3.68 AC).pdf

Page 5 of 8

#419

John W. Harvey
M.D.Grissom Air Force Base Expanded Clear Zone Project
Tract No. 163E
Cass County, IndianaRecorded February 17, 1983
John W. Harvey
Fee 8.50 Time 9.35 Recorder Cass County

WARRANTY DEED OF EASEMENT

Inst Deed Bk 239 Pg 913

THIS INDENTURE WITNESSETH, That PAUL F. WINSLOW and CAROL L. WINSLOW, his wife, the GRANTORS, CONVEY AND WARRANT to THE UNITED STATES OF AMERICA and its assigns, the GRANTEE, for and in consideration of the sum of THREE THOUSAND THREE HUNDRED FIFTY AND NO/100 Dollars (\$3,350.00), the receipt of which is hereby acknowledged, a perpetual and assignable easement and right of way in, on, over and across real estate designated as Tract No. 163E of the Grissom Air Force Base, Indiana, Expanded Clear Zone Project, more particularly described as follows:

Situate in the State of Indiana, County of Cass, in the Southwest Quarter of the Southeast Quarter of Section 3, Township 25 North, Range 3 East of the Second Principal Meridian, being a clear zone easement for Grissom Air Force Base, more particularly described as follows:

Beginning at a point in the West line of said Southeast Quarter Section, said point being located northwardly 209.20 feet along said West line from the Southwest corner of said Quarter Section; thence continuing along said West line

Northwardly 176.09 feet to a point 1500 feet northwest of and perpendicular to the extended centerline of the Southwest - Northeast runway of Grissom Air Force Base; thence deflecting 44° 31' 00" to the right and with a line 1500 feet northwest of and parallel to said extended runway centerline

Northeastwardly 1236.21 feet to a point 1500 feet northwest of and perpendicular to the runway centerline at the end of said runway; thence deflecting 90° 00' 00" to the right

Southeastwardly 123.46 feet to a point; thence deflecting 90° 00' 00" to the right

Southwestwardly 1361.77 feet, more or less, to the point of beginning, containing 3.68 acres, more or less.

It being the intent of the foregoing description to include a part of the same lands as that described in a deed from Kenneth Lucas and Mary Ineta Lucas, his wife, to Paul F. Winslow and Clara L. Winslow, husband and wife, dated 20 March 1954, and recorded in Deed Book 181, page 381, in the records of Cass County, Logansport, Indiana. Clara L. Winslow died on 12 November 1978 in Putnam County, Florida. A photocopy of the certified death certificate has been furnished the Cass County Auditor,

for the establishment, maintenance and operation of a restrictive use area for the operation of aircraft to and from the base consisting of the following rights in the land described above for the following purposes:

1. The right to make low and frequent flights over said land and to generate noises associated with:

a. aircraft in flight, whether or not while directly over said land;

239 PAGE 914

- b. aircraft and aircraft engines operating on the ground at said base; and
 - c. aircraft engine test-stand operations at said base.
2. The right to regulate or prohibit the release into the air of any substance which would impair the visibility or otherwise interfere with the operations of aircraft; such as, but not limited to, steam, dust and smoke.
 3. The right to regulate or prohibit light emissions, either direct or indirect (reflective), which might interfere with pilot vision.
 4. The right to prohibit electrical emissions which would interfere with aircraft and Air Force communications systems or aircraft navigational equipment.
 5. The right to prohibit and remove any buildings or other non-frangible structures.
 6. The right to top, cut to ground level, and to remove trees, shrubs, brush or other forms of obstruction which the officer having command of the base determines might interfere with the operation of aircraft, including emergency landings.
 7. The right to ingress and egress upon, over, and across said land for the purpose of exercising the rights set forth herein.
 8. The right to post signs on said land indicating the nature and extent of the Grantee's control over said land.
 9. The right to prohibit all land uses other than the following:
 - a. agriculture;
 - b. grazing (excluding feed lots and dairy herds);
 - c. permanent open space;
 - d. existing water areas;
 - e. rights-of-way for fenced two-lane highways, without sidewalks or bicycle trails, and single track railroads; and
 - f. communications and utilities rights-of-way.
 10. None of the above restrictions are intended to interfere with normal farming operations in connection with the growing and harvesting of hay, row and small grain crops.
 11. The right to prohibit entry of persons onto the land except in connection with activities authorized under 9. a, b, e, and f above.

Said easement and rights are conveyed subject to existing easements for public roads and highways, public utilities, railroads and pipelines; reserving unto the GRANTORS, their heirs and assigns, all such rights and privileges as may be used

IN_GRISSOM ARB_TRACT A163E_EASEMENT (3.68 AC).pdf

Page 7 of 8

JK 239 PAGE 915

without interfering with or abridging the rights and easements hereby acquired.

For the consideration recited above, the GRANTORS agree to abide by the following covenant which shall run with the land: That the payment by the GRANTEE of the consideration recited above shall constitute full fair value and full compensation to the GRANTORS for the easement and rights granted herein, whether such easement and rights shall be exercised by the GRANTEE or by any of its assigns, and the GRANTORS expressly release and relinquish any and all claims against any of the aforementioned for further or future payment of consideration for the aforesaid easement and rights granted herein.

The described estate is acquired for the United States Department of the Air Force, Washington, D. C. 20332.

IN WITNESS WHEREOF, the said PAUL F. WINSLOW and CAROL L. WINSLOW, his wife, have hereunto set their hands this 11th day of February, 1988.

Paul F. Winslow

PAUL F. WINSLOW

Carol L. Winslow

CAROL L. WINSLOW

239 PAGE 916

CERTIFICATE

FLORIDA)
STATE OF INDIANA)
) SS
COUNTY OF Polk)

Before me, Melissa Torgersen, a Notary Public in and for said County and State, this day personally appeared Paul F. Winslow and Carol L. Winslow, his wife, and acknowledged the execution of the foregoing Warranty Deed of Easement to be their voluntary act and deed for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 11th day of February, 19 83.

Melissa Torgersen
NOTARY PUBLIC

COUNTY OF RESIDENCE: Polk

My Commission Expires:

NOTARY PUBLIC STATE OF INDIANA
BORNED THIS GENERAL DEED
MY COMMISSION EXPIRES July, 1986



The consideration of \$3,350.00 recited herein includes severance damages in the amount of \$ —0—.

Daniel M. Kivimuth
Closing Officer

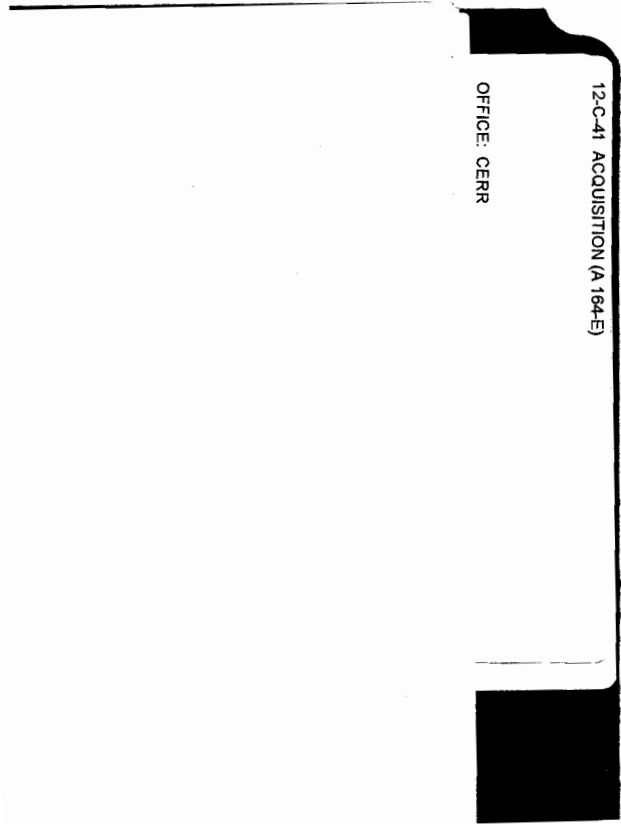
This instrument was prepared by:

Alicia J. Holland
Alicia J. Holland, Attorney
U. S. Army Engineer District,
Louisville, Corps of Engineers
P. O. Box 59
Louisville, Kentucky 40201

Tract A164E

IN_GRISSOM ARB_TRACT A164E_EASEMENT (40.57 AC).pdf

Page 1 of 8



IN_GRISSOM ARB_TRACT A164E_EASEMENT (40.57 AC).pdf

Page 2 of 8

*file 12/24/16
ADD*

TRACT - A - 164E

Fee 99016

1. Reference Material
 - A. Voucher 85-0121

2. Supporting Documents
 - A. D D Form 1354 , Transfer & Acceptance of Military Real Property
 - B. Notarized Statement

3. Area/Cost
40.57 Acres/\$3,296

4. Real Estate Interest
 - A. Land, Easement

5. Acquired
 - A. Support Expanded Clear Zone Project, 12 April

IN_GRISSOM ARB_TRACT A164E_EASEMENT (40.57 AC).pdf

Page 3 of 8

**DEPARTMENT OF THE AIR FORCE**HEADQUARTERS 434TH AIR REFUELING WING (AFRC)
GRISSOM AIR RESERVE BASE, INDIANA 46971

13 Oct 2004

Commander, 434th Air Refueling Wing
Bldg 596 Warthog Drive
Grissom ARB IN 47971

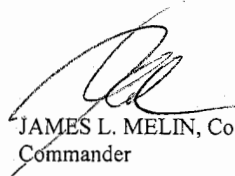
Mr. Richard Obermeyer
2282 N. Touby Pike
Kokomo, IN 46901

Dear Mr Obermeyer

On behalf of the United States Air Force, I am writing to reiterate my safety related concerns about the presence of trees in the portions of your property that overlap the flight path "Clear Zone" at the end of the Grissom ARB runway. Many trees in this area have grown over recent years to a height that threatens the safety of flight crews conducting operations at Grissom. As you are aware from our previous discussions in 1984, the Air Force obtained an easement over a portion of your property, for the purpose of ensuring that the Clear Zone would remain free of obstructions to those flight operations.

On or about November 1, 2004, we plan to exercise that easement right by cutting or removing all trees and brush in the areas depicted on the attached map. This will include approximately 40 trees on or near your property. Most of the trees to be cut are along the fencerows that divide your property from two of your neighbors. Your neighbors have also been contacted and advised of this effort.

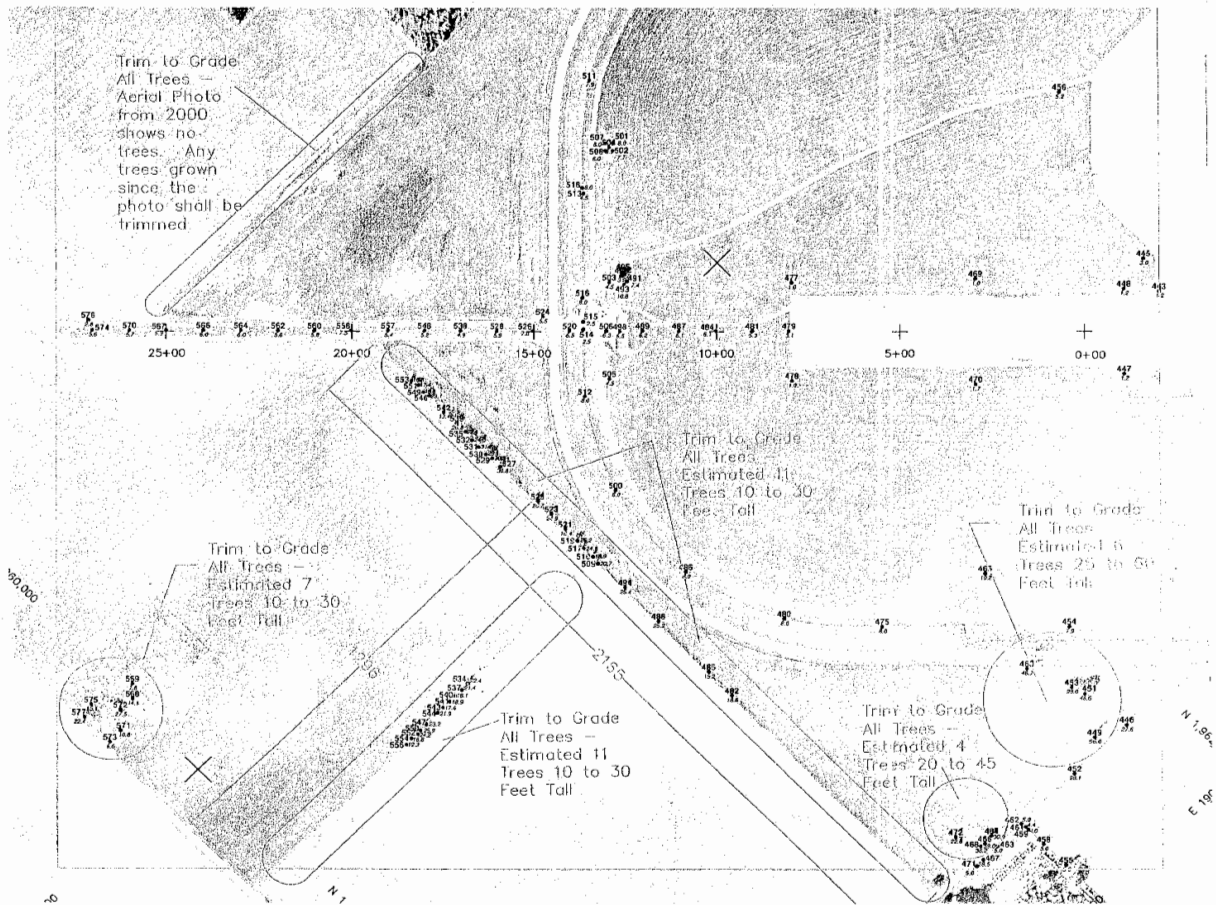
Thank you for your years of support to Grissom Air Reserve Base and our mission. If you have any concerns about this project, please contact Denise Gumm (765-688-2838) or Robert Comerford (765-688-4577) Monday through Friday, 8:30 a.m. - 4:00 p.m.



JAMES L. MELIN, Colonel, USAFR
Commander

2 Attachments:

1. Map of Work Area
2. Order for Delivery of Possession



I:_GRISSOM ARB TRACT A164E_EASEMENT (40.57 AC).pdf

Page 4 of 8

IN_GRISSOM ARB_TRACT A164E_EASEMENT (40.57 AC).pdf

Page 5 of 8

914
 4-12-84
 Christian "Cood" O'Brien
 9.50
 Recorder Cass County
 241 598

file
 012C41
 .HSS
 Grissom Air Force Base
 Expanded Clear Zone Project
 Tract No. 164E
 Cass County, Indiana

WARRANTY DEED OF EASEMENT

THIS INDENTURE WITNESSETH, That R. F. OBERMEYER, a single man, the GRANTOR, CONVEYS AND WARRANTS to THE UNITED STATES OF AMERICA and its assigns, the GRANTEE, for and in consideration of the sum of THREE THOUSAND TWO HUNDRED NINETY-SIX AND NO/100 Dollars (\$3,296.00), the receipt of which is hereby acknowledged, a perpetual and assignable easement and right of way in, on, over and across real estate designated as Tract No. 164E of the Grissom Air Force Base, Indiana, Expanded Clear Zone Project, more particularly described as follows:

Situate in the State of Indiana, County of Cass, Jackson Township, Township 25 North, Range 3 east of the second principal meridian, being a part of the Northeast Quarter Section 10, and a part of the Southeast Quarter of Section 3, being a Clear Zone Easement for Grissom Air Force Base, more particularly described as follows:

Beginning at a stone at the southwest corner of the Southeast Quarter of Section 3; thence with the west line of said quarter

N 01° 06' 22" W 209.20 feet to a point; thence leaving said quarter line, and with a line parallel to the centerline of the northeast-southwest runway

N 44° 42' 52" E 1,386.00 feet to a point; thence with a line perpendicular to the southwest end of said runway;

S 45° 17' 08" E 141.19 feet, more or less, to a point in the centerline of a county road; thence with said centerline, parallel to said runway

S 44° 42' 52" W 778.87 feet, more or less, to the point of curvature of a curve to the left having a radius of 750.00 feet; thence along said curve

Southeasterly 1183.50 feet, more or less, to the point of tangency of said curve; thence perpendicular to said runway

S 45° 17' 08" E 612.50 feet, more or less, to the point of a curvature of a curve to the left having a radius of 750 feet; thence along said curve

Northeasterly 1183.50 feet, more or less, to the point of tangency of said curve; thence parallel to said runway

N 44° 42' 52" E 778.87 feet, more or less, to a point; thence with a perpendicular to the center of said runway

S 45° 17' 08" E 104.37 feet, more or less, to a point on the east line of the Northeast Quarter of the Northeast Quarter of Section 10; thence with the east line of said quarter quarter

S 00° 10' 40" E 764.28 feet to the east line of aforesaid Clear Zone Easement; thence leaving the east line of said quarter quarter, and with said east line

S 44° 42' 52" W 147.44 feet to a point on the south line of the North One-Half of the Northeast Quarter of aforesaid Section 10; thence leaving said easement line, and with the south line of said North One-Half of said quarter

IN_GRISSOM ARB_TRACT A164E_EASEMENT (40.57 AC).pdf

Page 6 of 8

241 599

N 89° 57' 56" W 2,060.35 feet to the east line of a 70 foot strip of land owned by the United States of America; thence leaving said south line, and with the boundary line of said 70 foot strip of land, as follows:

N 44° 42' 52" E 482.02 feet to a point; thence

N 44° 17' 08" W 70.00 feet to a point on the west boundary line of said 70 foot strip of land; thence

S 44° 42' 52" W 1,096.76 feet to a point on the west line of the North-east Quarter of said Section 10; thence leaving said west boundary line, and with the west line of said quarter

N 00° 06' 47" E 1,712.67 feet, more or less, to the point of beginning containing 40.57 acres, more or less.

It being the intent of the foregoing description to include a part of the land as that described in a deed from the United States of America to R.F. Obermeyer, dated 24 July 1970 and recorded in Deed Book 217, page 902, in the records of Cass County, Logansport, Indiana.

for the establishment, maintenance and operation of a restrictive use area for the operation of aircraft to and from the base consisting of the following rights in the land described above for the following purposes:

1. The right to make low and frequent flights over said land and to generate noises associated with:
 - a. aircraft in flight, whether or not while directly over said land;
 - b. aircraft and aircraft engines operating on the ground at said base; and
 - c. aircraft engine test-stand operations at said base.
2. The right to regulate or prohibit the release into the air of any substance which would impair the visibility or otherwise interfere with the operations of aircraft; such as, but not limited to, steam, dust and smoke.
3. The right to regulate or prohibit light emissions, either direct or indirect (reflective), which might interfere with pilot vision.
4. The right to prohibit electrical emissions which would interfere with aircraft and Air Force communications systems or aircraft navigational equipment.
5. The right to prohibit and remove any buildings or other non-frangible structures.
6. The right to top, cut to ground level, and to remove trees, shrubs, brush or other forms of obstruction which the officer having command of the base determines might interfere with the operation of aircraft, including emergency landings.
7. The right to ingress and egress upon, over, and across said land for the purpose of exercising the rights set forth herein.
8. The right to post signs on said land indicating the nature and extent of the Grantee's control over said land.

IN_GRISSOM ARB_TRACT A164E_EASEMENT (40.57 AC).pdf

Page 7 of 8

9. The right to prohibit all land uses other than the following:

- a. agriculture;
- b. grazing (excluding feed lots and dairy herds);
- c. permanent open space;
- d. existing water areas;
- e. rights-of-way for fenced two-lane highways, without sidewalks or bicycle trails, and single track railroads; and
- f. communications and utilities rights-of-way.

10. None of the above restrictions are intended to interfere with normal farming operations in connection with the growing and harvesting of hay, row and small grain crops.

11. The right to prohibit entry of persons onto the land except in connection with activities authorized under 9. a, b, e, and f above.

Said easement and rights are conveyed subject to existing easements for public roads and highways, public utilities, railroads and pipelines; reserving unto the Grantor, his heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired.

For the consideration recited above, the Grantor agrees to abide by the following covenant which shall run with the land: That the payment by the Grantee of the consideration recited above shall constitute full fair value and full compensation to the Grantor for the easement and rights granted herein, whether such easement and rights shall be exercised by the Grantee or by any of its assigns, and the Grantor expressly releases and relinquishes any and all claims against any of the aforementioned for further or future payment of consideration for the aforesaid easement and rights granted herein.

The described estate is acquired for the United States Department of the Air Force, Washington, D. C. 20332.

IN WITNESS WHEREOF, the said R. F. OBERMEYER has hereunto set his hand this

12th day of April, 1984.


R. F. OBERMEYER

241 601

CERTIFICATE

STATE OF INDIANA)
) SS
COUNTY OF CASS)

Before me, the undersigned, a Notary Public in and for said County and State, this day personally appeared R. F. OBERMEYER, a single man, and acknowledged the execution of the foregoing Warranty Deed of Easement to be his voluntary act and deed for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 12th day of April 1984.

Judith A. Bronkstein
NOTARY PUBLIC
County of Residence: Cass

My Commission Expires:
May 24, 1984
The consideration of \$3,296.00 recited herein includes severance damages in the amount of \$ ZERO.

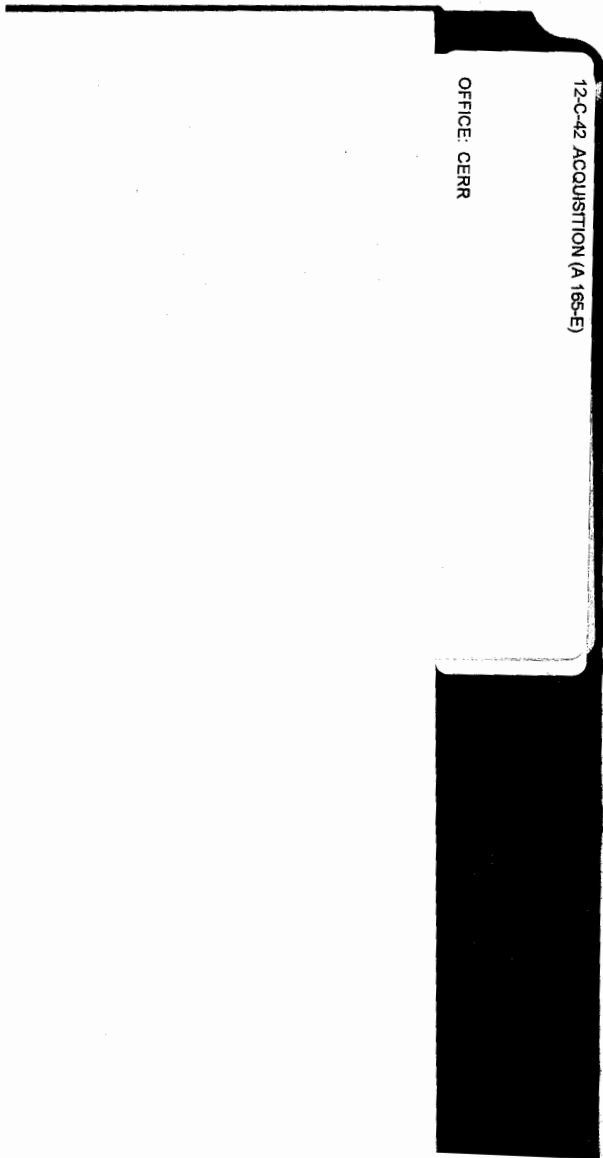
Carl-Har A. Arnold
Closing Officer

This instrument was prepared by:
Alicia J. Holland
Alicia J. Holland, Attorney
U.S. Army Engineer District, Louisville
Corps of Engineers
P.O. Box 59
Louisville, Kentucky 40201

Tract A165E

IN_GRISSOM ARB_TRACT A165E_EASEMENT (17.22 AC).pdf

Page 1 of 8



IN_GRISSOM ARB_TRACT A165E_EASEMENT (17.22 AC).pdf

Page 2 of 8

*file 10040
MDD*

TRACT - A 165E

File 99017

1. Reference Material
 - A. Voucher 85 - 0122
2. Supporting Documents
 - A. D D Form 1354, Transfer & Acceptance of Military Real Property
 - B. Notarized Statement
3. Area/Cost
17.22 acres/\$17,000
4. Real Estate Interest
 - A. Land, Easement
5. Acquired
 - A. 19 July 84, Support Expanded Clear Zone Project

IN_GRISSOM ARB_TRACT A165E_EASEMENT (17.22 AC).pdf

Page 3 of 8

#2088

Fee: \$2,550 Recorder Cass County

Deed No. 242, 309

Grissom Air Force Base
Expanded Clear Zone Project
Tract No. 165E
Cass County, IndianaWARRANTY DEED OF EASEMENT

This WARRANTY DEED OF EASEMENT made and entered into this 18th day of July, 1984 by and between Ruth Wilson, an unmarried widow, and John Henry Wilson, unmarried, AKA John H. Wilson and John Wilson, hereinafter called the Grantors and the United States of America, hereinafter called the Grantee.

WITNESSETH: That for the total consideration of SEVENTEEN THOUSAND DOLLARS (\$17,000.00), the receipt of which is hereby acknowledged, the Grantors do hereby convey and warrant unto the Grantee, and its assigns, a perpetual and assignable easement and right of way for the establishment, maintenance and operation of a restrictive use area and for all other rights, uses, restrictions and covenants as set forth and described herein, in, upon, over, and across a certain tract of real estate designated as Tract No. 165E of the Grissom Air Force Base Expanded Clear Zone Project, being located in Cass County, Indiana and being more particularly described as follows:

Situate in the State of Indiana, County of Cass, Jackson Township, Township 25 North, Range 3 east of the second principal meridian, being a part of the Southeast Quarter of the Northeast Quarter of Section 10, more particularly described with bearings referenced to the Indiana Plane Coordinate System (East Zone), as follows:

Beginning at the northwest corner of the Southeast Quarter of the Northeast Quarter of Section 10; thence with the north line of said quarter, quarter

S 89° 57' 56" E 1,218.89 feet to a point on the east line of a clear zone easement; thence leaving said north line and with the east line of said clear zone easement

S 44° 42' 52" W 1,731.44 feet to a point on the west line of the southeast Quarter of the Northeast Quarter of said section; thence leaving said east line, and with the west line of said quarter, quarter

N 00° 01' 56" W 1,231.14 feet, more or less, to the point of beginning, containing 17.22 acres, more or less.

It being the intent of the foregoing description to include a part of the land as that described in a deed from Roy Bish, not married,

IN_GRISSOM ARB_TRACT A165E_EASEMENT (17.22 AC).pdf

Page 4 of 8

BOOK 242 PAGE 310

Harry G. Bish and Sadie Bish, his wife, to Glen Wilson and Ruth Wilson, his wife, and John Henry Wilson, dated 13 July 1937 and recorded in Deed Book 143, page 563 in the records of Cass County, Logansport, Indiana. (See Tenancy By Entireties - Affidavit Of Death, dated March 7, 1984 and recorded in Miscellaneous Record 101, page 83 in the Office of the Recorder of Cass County, Indiana for information regarding the death of Glen Wilson)

The perpetual and assignable easement and right of way hereby created in the United States of America is for the establishment, maintenance and operation of a restrictive use area for the operation of aircraft to and from the base consisting of the following rights in the land described above for the following purposes:

1. The right to make low and frequent flights over said land and to generate noises associated with:
 - a. aircraft in flight, whether or not while directly over said land;
 - b. aircraft and aircraft engines operating on the ground at said base; and
 - c. aircraft engine test-stand operations at said base.
2. The right to regulate or prohibit the release into the air of any substance which would impair the visibility or otherwise interfere with the operations of aircraft, such as, but not limited to, steam, dust and smoke.
3. The right to regulate or prohibit light emissions, either direct or indirect (reflective), which might interfere with pilot vision.
4. The right to prohibit electrical emissions which would interfere with aircraft and Air Force communications systems or aircraft navigational equipment.
5. The right to prohibit and remove any buildings or other non-frangible structures.
6. The right to top, cut to ground level, and to remove trees, shrubs, brush or other forms of obstruction which the officer having command of the base determines might interfere with the operation of aircraft, including emergency landings.

IN_GRISSOM ARB_TRACT A165E_EASEMENT (17.22 AC).pdf

Page 5 of 8

BOOK 242 PAGE 311

7. The right to ingress and egress upon, over, and across said land for the purpose of exercising the rights set forth herein.
8. The right to post signs on said land indicating the nature and extent of the United States' control over said land.
9. The right to prohibit all land uses other than the following:
 - a. agriculture;
 - b. grazing (excluding feed lots and dairy herds);
 - c. permanent open space;
 - d. existing water areas;
 - e. rights-of-way for fenced two-lane highways, without side-walks or bicycle trails, and single tract railroads; and
 - f. communications and utilities rights-of-way.
10. None of the above restrictions are intended to interfere with normal farming operations in connection with the growing and harvesting of hay, row and small grain crops.
11. The right to prohibit entry of persons onto the land except in connection with activities authorized under a, b, e, and f above. Subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easements hereby acquired.

TO HAVE AND TO HOLD the above described perpetual and assignable easement and right of way, together with all rights, uses, restrictions and covenants as set forth and described herein, unto the Grantee, and its assigns, as a perpetual and assignable easement and right of way running with the land with Covenant of General Warranty.

Grantors further covenant that they are lawfully seized of the hereinabove described real estate; they have full right and power to convey and warrant unto the Grantee, and its assigns, the perpetual and assignable easement and right of way as set forth and described herein and that the hereinabove described real estate is free and clear of all liens and encumbrances, except a certain mortgage in favor of First

IN_GRISSOM ARB_TRACT A165E_EASEMENT (17.22 AC).pdf

Page 6 of 8

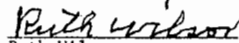
BOOK 242 PAGE 312

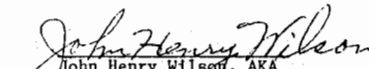
Farmers National Bank of Miami County, Indiana, an Indiana corporation, dated March 9, 1984, recorded in Mortgage Record 261, page 861 in the Office of the Recorder of Cass County, Indiana and 1984 real estate taxes.

For the consideration recited above, the Grantors agree to abide by the following covenant which shall run with the land: That the payment by the United States of America of the consideration recited above shall constitute full fair value and full compensation to the Grantors for the easement and rights granted herein, whether such easement and rights shall be exercised by the United States of America or by any of its grantees, and the Grantors expressly release and relinquish any and all claims against any of the aforementioned for further or future payment of consideration for the aforesaid easement and rights granted herein.

The estate described herein is acquired for the United States Department of the Air Force, Washington, D.C. 20332.

Witness the signature of Ruth Wilson the date first above written and witness the signature of John Henry Wilson, AKA John H. Wilson and John Wilson, on the 19th day of July, 1984.


Ruth Wilson


John Henry Wilson, AKA
John H. Wilson and
John Wilson

IN_GRISSOM ARB_TRACT A165E_EASEMENT (17.22 AC).pdf

Page 7 of 8

CERTIFICATEBOOK 242 PAGE 313

STATE OF INDIANA

COUNTY OF MIAMI

Before me DANIEL M. KININMONTH, a Notary Public in and for said County and State, on this 19th day of July, 1984, personally appeared the within named Ruth Wilson, an unmarried widow, and acknowledged the execution of the foregoing Warranty Deed of Easement.

Witness my hand and official seal this 19th day of July, 1984.

My commission expires October 20, 1985.



Daniel M. Kininmonth
 Notary Public,
 State of Indiana
 My County of Residence
 is Floyd County, Indiana

IN_GRISSOM ARB_TRACT A165E_EASEMENT (17.22 AC).pdf

Page 8 of 8

BOOK 242 PAGE 314

CERTIFICATE

STATE OF INDIANA

COUNTY OF Tippecanoe

Before me Daniel M. Kininmonth, a Notary Public in and for said County and State, on this 19th day of July, 1984, personally appeared the within named John Henry Wilson, unmarried, AKA John H. Wilson and John Wilson, and acknowledged the execution of the foregoing Warranty Deed of Easement.

Witness my hand and official seal this 19th day of July, 1984.

My commission expires October 20, 1985.



Daniel M. Kininmonth
Notary Public,
State of Indiana
My County of Residence
is Floyd County, Indiana

This Warranty Deed of Easement was prepared by George F. Williamson, III, Attorney-Advisor, U.S. Army Corps of Engineers, Louisville, P.O. Box 59, Louisville, Kentucky 40201-0059

George F. Williamson III
GEORGE F. WILLIAMSON, III
Attorney for the United States of America

Tract A166E

IN_GRISSOM ARB_TRACT A166E_EASEMENT (1.84 AC).pdf

Page 1 of 7

12-C-43 ACQUISITION (A 166-E)

IN_GRISSOM ARB_TRACT A166E_EASEMENT (1.84 AC).pdf

Page 2 of 7

file 12043
MDU
Fac 99018

TRACT - 166 E

1. Reference Material
 - A. Voucher 85 - 0123
2. Supporting Documents
 - A. D D Form 1354, Transfer & Acceptance of Military Real Property
 - B. Notarized Statement
3. Area/Cost

1.84 Acres/\$38,000
4. Real Estate Interest
 - A. Land Easement
5. Acquired
 - A. 21 September 82, Support Expanded Clear Zone Project

IN_GRISSOM ARB TRACT A166E_EASEMENT (1.84 AC).pdf

Page 3 of 7

2380

Recorded Sept 24 11:17 AM by W. Harvey MDO
 For DE Time 1:00 P. Recorder Cass County
 Deed No. 239, 381

Grissom Air Force Base Expanded Clear Zone Project
 Tract No. 166E
 Cass County, Indiana

WARRANTY DEED OF EASEMENT

THIS INDENTURE WITNESSETH, That MARLIN FAUST AKA MARLIN J. FAUST, and LINDA D. FAUST, Husband and Wife, the GRANTORS, CONVEY AND WARRANT to THE UNITED STATES OF AMERICA and its assigns, the GRANTEE, for and in consideration of the sum of THIRTY-EIGHT THOUSAND AND NO/100 Dollars (\$38,000.00), the receipt of which is hereby acknowledged, a perpetual and assignable easement and right of way in, on, over and across real estate designated as Tract No. 166E of the Grissom Air Force Base, Indiana, Expanded Clear Zone Project, more particularly described as follows:

Situate in the State of Indiana, County of Cass, in the Southwest Quarter of the Northeast Quarter of Section 10, Township 25 North, Range 3 East of the Second Principal Meridian, being a clear zone easement for Grissom Air Force Base, more particularly described as follows:

Beginning at a point in the South line of said Quarter Section, said point being located eastwardly 561.08 feet along said South line from the Southwest corner of said Quarter Section; thence deflecting 90° 00' 00" to the left

Northwardly 400.00 feet to a point; thence deflecting 90° 00' 00" to the right

Eastwardly 200.00 feet to a point; thence deflecting 90° 00' 00" to the right

Southwardly 400.00 feet to a point on the aforesaid south quarter section line; thence deflecting 90° 00' 00" to the right and with said south quarter section line

Westwardly 200.00 feet, more or less, to the point of beginning, containing 1.84 acres, more or less.

It being the intent of the foregoing description to include all the same land as that described in a deed from Melford E. Bullick and Dorothy J. Bullick, husband and wife, to Marlin Faust, dated 6 January 1978, and recorded in Deed Book 231, page 849, in the records of Cass County, Logansport, Indiana, which describes said parcel as follows:

Situated in Cass County in the State of Indiana, to wit:

A part of the Southwest Quarter (1/4) of the Northeast Quarter (1/4) of Section Ten (10), Township Twenty-five (25) North, Range Three (3) East, more fully described as follows: COMMENCING at the Established Southeast Corner of the Northeast Quarter (1/4) of said Section Ten (10), being a P.K. Nail Set lying in the Center of County Road 950 South; thence North 90 degrees West along the South line of said Northeast Quarter (1/4) and along the Center of said County Road a distance of 1329.00 feet to a P.K. Nail Set being the Southeast Corner of the Southwest Quarter (1/4) of the Northeast Quarter (1/4) of said Section Ten (10); thence continuing North 90 degrees West a distance of 554.40 feet to a P.K. Nail Set being the Place of Beginning; thence continuing North 90 degrees West along the South Line of said

Northeast Quarter (1/4) a distance of 200.00 feet to a P.K. Nail Set; thence North 400.00 feet to a Pipe Set; thence North 90 degrees East parallel to the South Line of said Northeast Quarter (1/4) a distance of 200.00 feet to a Pipe Set; thence South 400.00 feet to the Place of Beginning. Containing 1.837 Acres, more or less,

for the establishment, maintenance and operation of a restrictive use area for the operation of aircraft to and from the base consisting of the following rights in the land described above for the following purposes:

1. The right to make low and frequent flights over said land and to generate noises associated with:
 - a. aircraft in flight, whether or not while directly over said land;
 - b. aircraft and aircraft engines operating on the ground at said base; and
 - c. aircraft engine test-stand operations at said base.
2. The right to regulate or prohibit the release into the air of any substance which would impair the visibility or otherwise interfere with the operations of aircraft; such as, but not limited to, steam, dust and smoke.
3. The right to regulate or prohibit light emissions, either direct or indirect (reflective), which might interfere with pilot vision.
4. The right to prohibit electrical emissions which would interfere with aircraft and Air Force communications systems or aircraft navigational equipment.
5. The right to prohibit and remove any buildings or other non-frangible structures.
6. The right to top, cut to ground level, and to remove trees, shrubs, brush or other forms of obstruction which the officer having command of the base determines might interfere with the operation of aircraft, including emergency landings.
7. The right to ingress and egress upon, over, and across said land for the purpose of exercising the rights set forth herein.

8. The right to post signs on said land indicating the nature and extent of the Grantee's control over said land.

9. The right to prohibit all land uses other than the following:

- a. agriculture;
- b. grazing (excluding feed lots and dairy herds);
- c. permanent open space;
- d. existing water areas;
- e. rights-of-way for fenced two-lane highways, without sidewalks or bicycle trails, and single tract railroads; and
- f. communications and utilities rights-of-way.

10. None of the above restrictions are intended to interfere with normal farming operations in connection with the growing and harvesting of hay, row and small grain crops.

11. The right to prohibit entry of persons onto the land except in connection with activities authorized under 9. a, b, e, and f above.

Said easement and rights are conveyed subject to existing easements for public roads and highways, public utilities, railroads and pipelines; reserving unto the GRANTORS, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easements hereby acquired.

The GRANTORS, or their tenant now in possession of the property, in consideration of the protection and maintenance of the land, buildings and structures, protection of the property against loss by fire, waste or other causes, to which the GRANTORS hereby agree, reserve the right to occupy the buildings until 30 November 1982, subject to GRANTORS assuming all risk of loss and/or damage by reason of flooding, contractor operations, or other causes. The GRANTEE shall have the right to enter upon said property at any time in connection with contractor operations, except the buildings in which occupancy has been reserved herein by the GRANTORS. Such occupancy is subject to revocation by the GRANTEE at any time upon giving ninety (90) days notice in writing to the GRANTORS if possession of the property is required by the GRANTEE and provided further that the GRANTORS or their tenant will remove no

IN_GRISSOM ARB_TRACT A166E_EASEMENT (1.84 AC).pdf

Page 6 of 7

BOOK 239 PAGE 384

improvements or timber unless otherwise provided herein; and the GRANTORS reserve the right to remove the house and shed ~~or~~ before 30 November 1982. In the event that the said buildings and improvements are not removed on or before said date the right of removal shall terminate automatically, and the GRANTEE shall have a good and indefeasible title to said buildings or improvements without notice to the GRANTORS.

For the consideration recited above, the GRANTORS agree to abide by the following covenant which shall run with the land: That the payment by the GRANTEE of the consideration recited above shall constitute full fair value and full compensation to the GRANTORS for the easement and rights granted herein, whether such easement and rights shall be exercised by the GRANTEE or by any of its assigns, and the GRANTORS expressly release and relinquish any and all claims against any of the aforesaid for further or future payment of consideration for the aforesaid easement and rights granted herein.

The described estate is acquired for the United States Department of the Air Force, Washington, D. C. 20332.

IN WITNESS WHEREOF, the said MARLIN FAUST ~~AM~~ MARLIN J. FAUST, and LINDA D. FAUST, his wife, have hereunto set their hands this 21st day of September 1982.

Marlin J. Faust
MARLIN FAUST ~~AM~~ MARLIN J. FAUST

Linda D. Faust
LINDA D. FAUST

BOOK 239 PAGE 385

CERTIFICATE

STATE OF INDIANA)
) SS
COUNTY OF CASS)

Before me, DANIEL M. KININMONTH, a Notary Public in and for
AKA MARLIN J. FAUST
said County and State, this day personally appeared MARLIN FAUST and LINDA D.
FAUST, Husband and Wife, and acknowledged the execution of the foregoing Warranty
Deed of Easement to be their voluntary act and deed for the uses and purposes
therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 21st day
of September 19 82



My Commission Expires:
October 20, 1985

Daniel M. Kininmonth
DANIEL M. KININMONTH, NOTARY PUBLIC

COUNTY OF RESIDENCE: Floyd

The consideration of \$38,000.00 recited herein includes severance damages in the
amount of \$ -0-.

Daniel M. Kininmonth
Closing Officer

This instrument was prepared by:

Daniel M. Kininmonth
Daniel M. Kininmonth, Attorney
U.S. Army Engineer District,
Louisville, Corps of Engineers
P.O. Box 59
Louisville, Kentucky 40201

Tracts A167E-1 and A167E-2

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF INDIANA
SOUTH BEND DIVISION

FILED

JAN 17 12 05 PM '85

RICHARD E. TIMMONS,
CLERK
U.S. DISTRICT COURT
NORTHERN DISTRICT
OF INDIANA

UNITED STATES OF AMERICA)

Plaintiff)

v.)

63.69 ACRES OF LAND, MORE OR
LESS, SITUATE IN THE COUNTY
OF CASS, STATE OF INDIANA,
AND MELFORD E. BULLICK, ET
AL., AND UNKNOWN OWNERS)

Defendants)

CIVIL NO.)

Tract Nos. 167E-1
167E-2

ORDER FOR DELIVERY OF POSSESSION

Upon consideration of the pleadings filed by plaintiff herein for an order of possession to the extent of the property described in the complaint filed herein, as Tract Nos. 167E-1 and 167E-2, and the court finding that the plaintiff having filed a declaration of taking in this cause and deposited estimated just compensation into the registry of the court for the said property is entitled to such possession;

IT IS HEREBY ORDERED that all persons in possession or control of the aforesaid Tract No. 169 shall surrender possession of said property to the extent of the estate being condemned, to the plaintiff on or before January 17, 1985, and the plaintiff

Received
United States Attorney

JAN 18 1985

Hammond, Indiana

ATCH 2

-FILED

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF INDIANA
SOUTH BEND DIVISION

JAN 16 10 16 AM '85

RICHARD E. TIMMONS,
CLERK
U.S. DISTRICT COURT
NORTHERN DISTRICT
OF INDIANA

UNITED STATES OF AMERICA,)
Plaintiff,)
)
vs.)
)
63.69 ACRES OF LAND, MORE)
OR LESS, SITUATE IN CASS)
COUNTY, STATE OF INDIANA AND)
MELFORD E. BULLICK ET UX ET AL,)
Defendants)

DECLARATION
OF
TAKING

CIVIL NO. _____

935-0021

TO THE HONORABLE,
THE UNITED STATES DISTRICT COURT:

I, the undersigned, James F. Boatright, Deputy Assistant Secretary
of the Air Force (Installations, Environment and Safety),

do hereby make the following declaration by direction of the Secretary of the
Air Force:

1. The land hereinafter described is taken under and in accordance with the authority set forth in Schedule "A" annexed hereto and made a part hereof.
2. The public uses for which said land is taken are also set forth in said Schedule "A".
3. A general description of the tracts of land being taken, the estimated just compensation therefor, and the estates taken for said public uses are set forth in Schedule "B" annexed hereto and made a part hereof.
4. A plan showing the land taken is annexed hereto as Schedule "C" and made a part hereof.

A TRUE COPY ATTEST:
DATE: JAN 16 1985
Richard E. Timmons
Clerk, U.S. District Court
Northern District of Indiana

SCHEDULE "A"

AUTHORITY FOR THE TAKING:

The authority for the taking of the land is under and in accordance with the Act of Congress approved February 26, 1931 (46 Stat. 1421, 40 U.S.C. 258a), and acts supplementary thereto and amendatory thereof, and under the further authority of the Act of Congress approved August 1, 1888 (25 Stat. 357, 40 U.S.C. 257); Sections 2663 and 9773 of Title 10, United States Code which authorizes the acquisition of land for military purposes; and the Act of Congress approved September 8, 1978 (Public Law 95-356), which act authorized the acquisition of the land; and the Act of Congress approved December 23, 1981 (Public Law 97-106), which act made funds available for such purposes.

PUBLIC USES:

The public uses for which said land is taken are as follows: The said land is necessary to provide for the establishment of additional facilities for the use of the Department of the Air Force and for other military uses incident thereto. The land has been selected under the direction of the Secretary of the Air Force for acquisition by the United States for use in connection with Grissom Air Force Base, Indiana, and for such other uses as may be authorized by Congress or by Executive Order.

TRACT NO. 167E-2

DESCRIPTION:

Situate in the State of Indiana, County of Cass, Jackson Township, Township 25 North, Range 3 East of the Second Principal Meridian, being a part of the east-half of the northwest quarter of Section 10, being a part of a clear zone easement required for Grissom Air Force Base, with bearings being referenced to the Indiana Plane Coordinate System (East Zone), more particularly described as follows:

Beginning at a stone at the northeast corner of the northwest quarter of Section 10; thence with the east line of said northwest quarter

S 00° 06' 47" W 1712.67 feet to a point on the northwest boundary of a 70 foot strip of land owned by the United States of America; thence leaving said east line and with said northwest boundary

S 44° 42' 52" W 247.66 feet to a point 3000 feet southwest of the southwest end of the SW-NE runway; thence leaving said northwest boundary and with a line perpendicular to said runway centerline, being the expanded clear zone easement line

N 45° 17' 08" W 1465.00 feet to a point 1500 feet northwest of the extended runway centerline; thence continuing with said easement line and paralleling said expanded runway centerline

N 44° 42' 52" E 1208.28 feet to a point on the north line of the northwest quarter of Section 10; thence leaving said easement line and with said north quarter section line

S 89° 53' 24" E 368.58 feet to the point of beginning, containing 31.73 acres, more or less.

It being the intent of the foregoing description to include a part of the land as that described in a deed from Melford E. Bullick and Dorothy Bullick, husband and wife, to Melford E. Bullick and Dorothy Bullick, as tenants in common, and without rights of survivorship, dated 26 May 1981 and recorded in Deed Book 273, page 562 in the records of Cass County, Logansport, Indiana.

TRACT NO. 167E-2

TRACTS NOS. 167E-1, 167E-2 (Cont'd)

Estate Taken: As to Tracts Nos. 167E-1 and 167E-2, a perpetual and assignable easement for the establishment, maintenance, and operation of a restrictive use area for the operation of aircraft to and from the base consisting of the following rights in the land described above for the following purposes:

- (1) The right to make low and frequent flights over said land and to generate noises associated with:
 - a. aircraft in flight, whether or not while directly over said land;
 - b. aircraft and aircraft engines operating on the ground at said base; and
 - c. aircraft engine test-stand operations at said base.
- (2) The right to regulate or prohibit the release into the air of any substance which would impair the visibility or otherwise interfere with the operations of aircraft, such as, but not limited to, steam, dust and smoke.
- (3) The right to regulate or prohibit light emissions, either direct or indirect (reflective), which might interfere with pilot vision.
- (4) The right to prohibit electrical emissions which would interfere with aircraft and Air Force communications systems or aircraft navigational equipment.
- (5) The right to prohibit and remove any buildings or other non-frangible structures.
- (6) The right to top, cut to ground level, and to remove trees, shrubs, brush or other forms of obstruction which the officer having command of the base determines might interfere with the operation of aircraft, including emergency landings.
- (7) The right to ingress and egress upon, over, and across said land for the purpose of exercising the rights set forth herein.
- (8) The right to post signs on said land indicating the nature and extent of the United States' control over said land.

TRACTS NOS. 167E-1, 167E-2

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF INDIANA
SOUTH BEND DIVISION

FILED

JAN 11 1981

UNITED STATES OF AMERICA
Plaintiff

v.

63.69 ACRES OF LAND, MORE OR
LESS, SITUATE IN THE COUNTY
OF CASS, STATE OF INDIANA,
AND MELFORD E. BULLICK, ET
AL., AND UNKNOWN OWNERS

Defendants

CIVIL NO.

Tract Nos. 167E-1
167E-2

Attest:
RICHARD E. TIMMONS, CLERK
U.S. DISTRICT COURT
NORTHERN DISTRICT OF INDIANA

COMPLAINT IN CONDEMNATION

1. This is an action of a civil nature brought by the United States of America at the request of the Deputy Assistant Secretary of the Department of the Air Force for the taking of the property under power of eminent domain and for the ascertainment and award of just compensation to the owners and parties in interest.

2. The uses for which the property is to be taken and the authority for the taking are set forth in Schedule "A" attached hereto and made a part hereof.

3. The interest in the property to be acquired is set forth in Schedule "B" attached hereto and made a part hereof.

4. The property so to be taken is described in Schedule "B" and delineated in Schedule "C", attached hereto and made a part hereof.

SCHEDULE "A"

AUTHORITY FOR THE TAKING:

The authority for the taking of the land is under and in accordance with the Act of Congress approved February 26, 1931 (46 Stat. 1421, 40 U.S.C. 258a), and acts supplementary thereto and amendatory thereof, and under the further authority of the Act of Congress approved August 1, 1888 (25 Stat. 357, 40 U.S.C. 257); Sections 2663 and 9773 of Title 10, United States Code which authorizes the acquisition of land for military purposes; and the Act of Congress approved September 8, 1978 (Public Law 95-356), which act authorized the acquisition of the land; and the Act of Congress approved December 23, 1981 (Public Law 97-106), which act made funds available for such purposes.

PUBLIC USES:

The public uses for which said land is taken are as follows: The said land is necessary to provide for the establishment of additional facilities for the use of the Department of the Air Force and for other military uses incident thereto. The land has been selected under the direction of the Secretary of the Air Force for acquisition by the United States for use in connection with Grissom Air Force Base, Indiana, and for such other uses as may be authorized by Congress or by Executive Order.

TRACT NO. 167E-2

DESCRIPTION:

Situate in the State of Indiana, County of Cass, Jackson Township, Township 25 North, Range 3 East of the Second Principal Meridian, being a part of the east-half of the northwest quarter of Section 10, being a part of a clear zone easement required for Grissom Air Force Base, with bearings being referenced to the Indiana Plane Coordinate System (East Zone), more particularly described as follows:

Beginning at a stone at the northeast corner of the northwest quarter of Section 10; thence with the east line of said northwest quarter

S 00° 06' 47" W 1712.67 feet to a point on the northwest boundary of a 70 foot strip of land owned by the United States of America; thence leaving said east line and with said northwest boundary

S 44° 42' 52" W 247.66 feet to a point 3000 feet southwest of the southwest end of the SW-NE runway; thence leaving said northwest boundary and with a line perpendicular to said runway centerline, being the expanded clear zone easement line

N 45° 17' 08" W 1465.00 feet to a point 1500 feet northwest of the extended runway centerline; thence continuing with said easement line and paralleling said expanded runway centerline

N 44° 42' 52" E 1208.28 feet to a point on the north line of the northwest quarter of Section 10; thence leaving said easement line and with said north quarter section line

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TRACT NO. 167E-2

TRACTS NOS. 167E-1, 167E-2 (Cont'd)

Estate Taken: As to Tracts Nos. 167E-1 and 167E-2, a perpetual and assignable easement for the establishment, maintenance, and operation of a restrictive use area for the operation of aircraft to and from the base consisting of the following rights in the land described above for the following purposes:

- (1) The right to make low and frequent flights over said land and to generate noises associated with:
 - a. aircraft in flight, whether or not while directly over said land;
 - b. aircraft and aircraft engines operating on the ground at said base; and
 - c. aircraft engine test-stand operations at said base.
- (2) The right to regulate or prohibit the release into the air of any substance which would impair the visibility or otherwise interfere with the operations of aircraft, such as, but not limited to, steam, dust and smoke.
- (3) The right to regulate or prohibit light emissions, either direct or indirect (reflective), which might interfere with pilot vision.
- (4) The right to prohibit electrical emissions which would interfere with aircraft and Air Force communications systems or aircraft navigational equipment.
- (5) The right to prohibit and remove any buildings or other non-frangible structures.
- (6) The right to top, cut to ground level, and to remove trees, shrubs, brush or other forms of obstruction which the officer having command of the base determines might interfere with the operation of aircraft, including emergency landings.
- (7) The right to ingress and egress upon, over, and across said land for the purpose of exercising the rights set forth herein.
- (8) The right to post signs on said land indicating the nature and extent of the United States' control over said land.

TRACTS NOS. 167E-1, 167E-2

An aerial photograph of the Grissom Air Reserve Base, showing runways, taxiways, hangars, and surrounding fields. A blue graphic overlay is present, consisting of a vertical line with two circular nodes and a horizontal line extending to the right, which frames the title text.

GRISSOM AIR RESERVE BASE
**OPERATIONAL AREAS
ACTION PLAN**