

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS			Report Control Symbol RCS:	
INSTRUCTIONS: Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).				
SECTION I - PROPONENT INFORMATION				
1. TO (Environmental Planning Function) 88 CEG/CEIE	2. FROM (Proponent organization and functional address symbol) 88 CEG/CENPL	2a. TELEPHONE NO. 937-656-3430		
3. TITLE OF PROPOSED ACTION Repair/Upgrade Aircraft Fire Training Facility, F34091, Project ZHTV170021				
4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date) See continuation sheet				
5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.) See continuation sheet				
6. PROPONENT APPROVAL (Name and Grade) Gardenier B. Ware, GS-13	6a. SIGNATURE WARE.GARDENIER.B.1239567270 <small>Digitally signed by WARE.GARDENIER.B.1239567270 Date: 2024.12.12 15:30:23 -05'00'</small>		6b. DATE 12 Dec 24	
SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. (Check appropriate box and describe potential environmental effects Including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U= unknown effect)			+	0
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)			<input type="checkbox"/>	<input type="checkbox"/>
8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)			<input type="checkbox"/>	<input type="checkbox"/>
9. WATER RESOURCES (Quality, quantity, source, etc.)			<input type="checkbox"/>	<input type="checkbox"/>
10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.)			<input type="checkbox"/>	<input type="checkbox"/>
11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)			<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.)			<input type="checkbox"/>	<input checked="" type="checkbox"/>
13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)			<input type="checkbox"/>	<input checked="" type="checkbox"/>
14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)			<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)			<input checked="" type="checkbox"/>	<input type="checkbox"/>
16. OTHER (Potential impacts not addressed above.)			<input type="checkbox"/>	<input type="checkbox"/>
SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION				
17. <input checked="" type="checkbox"/> PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # 32CFR775.6(f)(33); OR PROPOSED <input type="checkbox"/> ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.				
18. REMARKS This proposal seeks to utilize the Department of Navy's (DON) CATEX (f)(33) New construction that is like or compatible with existing land use (i.e., site and scale of construction are consistent with those of existing adjacent or nearby facilities) and, when completed, the use or operation of which complies with existing regulatory requirements (e.g., a building within a cantonment area with associated discharges and runoff within existing handling capacities). See continuation sheet for explanation of how the scope of this action falls within the same scope of action used by the Navy, along with the review of both the DAF and DON lists of extraordinary circumstances.				
19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade) RONALD J. ONDERKO, P.E. NH-04, DAF Command Senior Civil Engineer Logistics, Civil Engineering, Force Protection and Nuclear Integration	19a. SIGNATURE		19b. DATE	

Repair/Upgrade Aircraft Fire Training Facility
Environmental Impact Analysis Documentation

SECTION I PROPONENT INFORMATION

4. Purpose and Need for Action (continuation of Block 4):

Background: The area where the current Wright-Patterson Air Force Base (WPAFB) Aircraft Fire Training Facility (AFTF) is located at has been used by the base fire department for more than 40 years to train personnel on mission critical live-fire trainings. The facility is situated away from base personnel within undeveloped land in Area A along the Mad River. It is located within the 100-year floodplain at an elevation of 803 to 805 feet above mean sea level (MSL) and is within the Miami Conservancy District (MCD) regulated Huffman Retarding Basin. The AFTF infrastructure is 20 years old. The control and observation tower used to monitor training is 43 years old and continues to fail reducing the live fire training capabilities for the WPAFB Fire Department.

Purpose: The purpose of this project is to provide the WPAFB fire department with a modernized facility to meet training requirements with Department of Air Force (DAF) Manual 91-203, *Air Force Occupational Safety, Fire, and Health Standards*.

Need: The need for the action is to support live fire training of the base's fire department personnel to maintain proficiency in aircraft fires. The live fire training facility must be sited on Wright-Patterson AFB within land designated for industrial use with no restrictions. The facility must also be adjacent to the runway to meet the requirements of Department of Defense (DoD) Instruction 6055.06, *DoD Fire and Emergency Services Program*, October 3, 2019, Section 7.2, which require aircraft rescue and firefighting apparatus to respond to an incident on the runway (not including overruns) within one minute of aircraft full stop.

5. Description of Proposed Action and Alternatives (continuation of Block 5):

Proposed Action (Renovate the Existing AFTF): The AFTF encompasses approximately 3.5 acres. Existing buildings and structures include the mock aircraft trainer (Facility 34092FMTF1), control and observation tower (Facility 34090), a metal shed (Facility 34093), lined pond (Facility 6206), and propane tank (Facility 7241). Facilities adjacent and to the west of the AFTF include a picnic table shelter (Facility 34091) and the structural burn tower (Facility 34092) (Attachment 1).

Key project objectives include:

- Upgrading the existing control and observation tower with new control systems,
- Replacing the existing rock covering within the mock aircraft burner pit with a new wet deck grating system,
- Installing a new burner ignition system and thermal imaging system,
- Removing the existing propane gas and water lines,
- Installing new propane gas and water lines placed underground to the existing mock aircraft, and
- Redesign the AFTF to remove the existing lined pond and provide a new approximately 100,000 gallon above-ground storage tank (AST) for containing PFAS-impacted cooling water/wastewater from the mock aircraft training pit.

Each training session generates approximately 3,000 gallons of wastewater (30,000 gallons/year) that currently needs to be contained, treated, and/or disposed of due to former use of firefighting aqueous film-

forming foam (AFFF) containing per- and polyfluoroalkyl substances (PFAS). The AST would be approximately 37 feet in diameter and 18 feet tall. Underground piping would be installed to discharge the PFAS wastewater from the AST to the adjacent PFAS treatment system operated and maintained by the Air Force Civil Engineer Center (AFCEC). The existing AFTF wastewater containment pond would be demolished and the area backfilled and contoured to match the existing grade. Propane piping, pneumatic control piping, all existing controls and panels, and valves would be removed from Facility 34090. Access holes in the floor would be infilled and a commercial off-the-shelf control system for the new trainer would be installed in Facility 34090.

The identification of PFAS contamination and the management of PFAS contaminated media is a DAF priority. As such, separate and apart from this Proposed Action, AFCEC is currently installing a treatment system to remediate PFAS contamination in groundwater as part of an Installation Restoration Program (IRP) action. The PFAS treatment system is scheduled to be operational in the spring/summer of 2025.

Implementation of the Proposed Action would not increase the size of the AFTF. All repairs and upgrades would occur within the existing 3.5-acre footprint. During construction there is a possibility of the removal and subsequent disposal of PFAS contaminated rock and soil from underneath the mock aircraft trainer. It is estimated that up to 1,300 cubic yards of PFAS contaminated media could be removed for disposal to a licensed hazardous waste landfill. The 88 CEG Environmental Branch would oversee disposal.

A laydown yard would be made available by WPAFB for the contractor's use. The AFTF would be vacated during construction. The adjacent structural burn tower (Facility 34092) would not be impacted by the Proposed Action and would remain in use throughout the construction period. The burn tower is utilized to train WPAFB firefighters in fighting structural fires.

No Action Alternative: Under the No Action Alternative, the AFTF would remain in its current location with no upgrades or repairs.

Alternatives to the Proposed Action: No other alternatives were found to be practicable since the constraints of the response time to an emergency aircraft incident do not lend itself to a new location that is outside of the 100-year floodplain, absent of PFAS environmental contamination, and would not impact threatened and endangered species and habitat. Other alternative locations were considered and were eliminated from further analyses because they did not meet the Purpose and Need for the Proposed Action.

SECTION II PRELIMINARY ENVIRONMENTAL SURVEY

7. Air Installation Compatible Use Zone (AICUZ): The Proposed Action is located within the AICUZ noise level of 80-84 decibels (dB) due to being adjacent to the airfield runway. The training operations align with the scope of the area as an industrial-like training activity. According to OSHA, noise levels for routine construction activities (bulldozers, forklifts, graders) are between 93 and 107 dBA. The Proposed Action would result in insignificant short-term impacts on ambient noise generated from construction-related activities (excavation, construction equipment and delivery trucks) during repairs and upgrades of the AFTF. Noise impacts would be minor since construction activities would be carried out during normal working hours, would be short in duration, and would occur within the isolated AFTF area (the nearest occupied facility is approximately 3,750 feet away). The Proposed Action would result in no long-term adverse impacts to noise.

The ground elevation of the AFTF is flat ranging from 803 to 805 feet above MSL. The proposed above-ground storage tank would be approximately 18 feet tall resulting in an obstruction height of 821 to 823 feet above MSL depending on where it is sited. The height of the AFTF control and observation tower (Facility 34090) is approximately 20 feet tall and the adjacent structural burn tower (Facility 34092) is

approximately 45 feet tall, resulting in an obstruction height of 825 and 850 feet above MSL. The allowed airspace obstruction height for this area ranges from 903 to 968 feet above MSL. Therefore, the Proposed Action would result in no short- or long-term impacts to airspace as existing and proposed new structures are below 903 feet MSL.

The No Action Alternative would have no short- or long-term impacts over current conditions.

8. Air Quality: The Proposed Action would result in insignificant temporary short-term impacts on air quality resulting from construction-related emissions (particulate matter and engine exhaust emissions). Emissions would be minor and short-term in duration. Because WPAFB is in an area designated as attainment/maintenance for ozone, a conformity applicability analysis was used to determine whether the Proposed Action is subject to the General Conformity Rule. The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impacts on the National Ambient Air Quality Standard pollutants and greenhouse gases associated with the Proposed Action (Attachment 2). None of the annual net change in estimated emissions associated with this action are above the General Conformity Rule threshold values established at 40 CFR § 93.153(b)(2). Therefore, the Proposed Action has no significant impacts on air quality, and a General Conformity Determination is not applicable.

The No Action Alternative would have no short- or long-term impacts over current conditions.

9. Water Resources: The AFTF is located adjacent to the backwaters of the Mad River and approximately two miles upstream of the city of Dayton Huffman Dam wellfield. The Mad River serves as a groundwater recharge source for the Miami Buried Valley Aquifer and Dayton's drinking water wellfields. The current AFTF was constructed in 2001, which replaced the former aircraft fire training facility, known as Fire Training Area 5 (FTA5). FTA5 operated from 1981 to 2000 and was situated within the same general footprint as the existing AFTF, approximately 150 feet to the southwest (Figure 1). AFFF containing PFAS was utilized at FTA5 to extinguish the fires during training operations. The wastewater resulting from these operations, consisting of AFFF, fuel, and water, was collected in an underground storage tank and subsequently sprayed on the land just east of FTA5. As a result of the historical use of AFFF, the entire footprint and surrounding area of the current AFTF and former FTA5 exhibit elevated PFAS concentrations in the soil, surface water, and groundwater above the USEPA screening levels. No AFFF has been utilized at the current AFTF since 2001, only water has been used to extinguish the training fires. Water will continue to be used as part of the Proposed Action.

Groundwater: WPAFB is in the Great Miami River Valley and is located atop a portion of the Miami Valley Buried Aquifer, which is a source of drinking water for the base and the surrounding Miami Valley communities. The average depth to groundwater at the AFTF is 14 feet below ground surface. The PFAS contamination resulting from historical use of AFFF at FTA5 is currently under investigation as part of the AFCEC IRP and is undergoing a Non-time Critical Removal Action (NTCRA) to treat the PFAS in the groundwater. The IRP site is designated as AFFF Area 21 and is also being evaluated in an AFCEC Remedial Investigation (RI). Within the project area, there are 14 groundwater monitoring and extraction wells with PFAS concentrations ranging from 8 to 7,800 parts per trillion (ppt) combined perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) (Figure 2). The AFCEC NTCRA groundwater PFAS treatment system is currently under construction adjacent to the AFTF and is scheduled to be operational in spring/summer 2025. Considering groundwater is already contaminated with PFAS due to historical use of AFFF, the Proposed Action would have no short- or long-term impacts over current conditions.

The No Action Alternative would have no short- or long-term impacts over current conditions.

Wetlands/Streams/Rivers: The nearest wetlands to the west and southwest of the Proposed Action are C28 (approximately 420 feet), C29 (approximately 600 feet) and C22 (approximately 600 feet). The nearest stream is SC3 approximately 25 feet northwest. The Mad River is approximately 400 feet northwest of the fence line boundary of the Proposed Action. None of the wetlands, stream or river would be impacted by the Proposed Action because ground disturbance would take place on the existing gravel area and would not extend beyond the boundaries of the current facility footprint. See the Surface/Storm Water section below for storm water protection and best management practices (BMPs) to prevent runoff to adjacent surface water features.

The No Action Alternative would have no short- or long-term impacts over current conditions.

Surface/Storm Water: WPAFB operates under a base-wide Storm Water Management Plan (SWMP) and a Storm Water Pollution Prevention Plan (SWPPP). These plans provide descriptions of storm drainage areas and their associated outfalls, potential storm water pollution sources and material management approaches to reduce potential storm water contamination. An Ohio EPA National Pollutant Discharge Elimination System (NPDES) industrial permit and a municipal NPDES General Permit cover WPAFB's storm water program. These plans and permits provide specific BMPs to prevent surface water contamination from activities such as construction, storing and transferring fuels, use of deicing fluids, storage and use of lubrication oils and maintenance fluids and solid and hazardous waste management. Based on the area (approximately 3.5 acres) to be disturbed during construction, this project would require adherence to permit conditions stated within the base's NPDES permits, SWMP, and SWPPP. The BMPs for erosion and sedimentation controls described in these plans and permits would be followed to include:

- Use of erosion control fence around the perimeter of the construction and laydown areas,
- Use of haybales and inlet sediment filtration to protect storm drain inlets, and
- Temporary seeding and other soil stabilization techniques to stabilize disturbed surface soils.

To comply with the Energy Independence and Security Act storm water requirements, the design will incorporate storm water management requirements as appropriate to maintain pre-development hydrology. No retention or detention ponds would be required since no additional impervious surfaces would be installed as part of the Proposed Action. The lined pond would be removed and replaced with an AST potentially within the same location since the infrastructure is already in place. Overall, the Proposed Action would have no long-term impacts on surface and storm water.

The No Action Alternative would have no short- or long-term impacts over current conditions.

Floodplain: A large portion of the base and most of Area A lies within the Mad River floodplain. The 100-year floodplain elevation is 811.4 feet above MSL and the AFTF (803 to 805 feet above MSL) falls within the 100-year floodplain and the Huffman Retarding Basin (835 feet above MSL). The AST for the Proposed Action would be installed in the floodplain at an elevation of approximately 805 feet above MSL. The tank would cover an area of approximately 1,075 square feet in the 100-year floodplain reducing the Huffman Retarding Basin (HRB) storage capacity by approximately 717 cubic yards. This would be mitigated by removing 717 cubic yards from another location within the HRB on WPAFB (e.g., soils disturbed as part of the Proposed Action, soils disturbed as part of AFCEC PFAS treatment system, or credits given from the removal of previous facilities within the HRB, which have increased retarding basin capacity). On December 18, 2024, the Miami Conservancy District (MCD) was consulted regarding the Proposed Action (Attachment 3). MCD responded on December 31, 2024, and determined that prior to importing any material or structures into the HRB below elevation of 835 feet, an MCD Storage Basin Individual Permit would be needed to mitigate the effects on the floodplain and HRB. The mitigation measures include providing cut and fill calculations along with ensuring a net zero gain in fill at the project site.

The No Action Alternative would have no short- or long-term impacts over current conditions.

10. Safety and Occupational Health: The Proposed Action could result in potential insignificant short-term impacts to workers during construction activities. Activities that can be hazardous include transportation, maintenance and repair activities, movement and contact of PFAS contaminated media, vehicle and equipment operations. All contractors performing construction activities are responsible for following ground safety regulations, industrial hygiene measures and worker compensation programs in a manner that would minimize risks to workers or personnel. Impacts would be minimized by adherence to health and safety regulations and standards. The Proposed Action would have no long-term impacts to the safety or occupational health of construction workers.

The No Action Alternative would have no short- or long-term impacts over current conditions.

11. Hazardous Materials/Waste: See Water Resources (Section 9) above for the history of the source of PFAS contamination at the project site. In October 2022, the AFTF pondwater was sampled for PFAS with results of a combined PFOA and PFOS concentration of 5,503 ppt. Since October 2022, the pondwater has been treated and disposed of off the base as PFAS wastewater. Prior to October 2022, the discharge from the AFTF lined pond was directed to the ground surface which drained towards stream SC3. With the current configuration of the AFTF, the lined pond collects not only the fire training wastewater from the mock aircraft pit, but also is the collection point for all the stormwater runoff from the area around the AFTF during precipitation events. The Proposed Action would redesign the fire training wastewater collection system to eliminate the lined pond collection point and replace it with a new AST. This redesign would reduce the quantity of PFAS contaminated training wastewater to approximately 30,000 gallons per year by eliminating the lined pond collection point, which serves to collect a combination of both the training wastewater and surface/storm water generated from precipitation events. Overall, the Proposed Action would result in negligible short-term impacts to hazardous materials used and hazardous waste generated during construction activities. These materials would be managed through the 88 CEG Environmental Branch in accordance with the WPAFB Hazardous Waste Management Plan. The Proposed Action would have long-term positive impacts on the generation and disposal of PFAS contaminated wastewater. In contrast, the No Action Alternative would continue to generate 100,000 to 295,000 gallons of PFAS wastewater annually.

12. Biological Resources: The Proposed Action would result in no short- or long-term impacts to vegetation and wildlife because construction-related activities would take place in an already disturbed gravel area with no naturally occurring vegetation or suitable habitat. The proposed location is within the range of the following federally and state protected species: bald eagle, Indiana bat, northern long-eared bat, eastern massasauga rattlesnake and clubshell mussel (Attachment 4). However, the proposed location neither contains the species nor the habitat of these animals, therefore the Proposed Action would have no short- or long-term impacts to these species. On December 18, 2024, WPAFB consulted with U.S. Fish and Wildlife Service (USFWS) and Ohio Department of Natural Resources (ODNR). On December 31, 2024, the USFWS responded stating they do not anticipate the Proposed Action would have adverse effects to federally endangered, threatened, or proposed species or proposed or designated critical habitat (Attachment 5). On January 14, 2025, ODNR responded stating their review of the Proposed Action project area and an additional one-mile radius revealed a list of both federally and state protected species. However, none of the species listed have been recorded in the project area. ODNR also recommended impacts to streams, wetlands and other water resources be avoided and fully minimized as possible, and that BMPs be utilized to minimize erosion and sedimentation. They also noted the project is in the vicinity of the state and federally endangered northern long-eared bat, Indiana bat and tricolored bat and recommended any tree cutting only occur from October 1 through March 31. ODNR also recommended a desktop habitat assessment be conducted, followed by a field assessment if needed, to determine if a potential bat hibernaculum is present within the project area. Since the project area does not contain any in-water work ODNR concluded there would be no impact to state and federally endangered fish, mussel, snake, and turtle species (Attachment 6). As noted in Section 9 Water Resources, BMPs for erosion and sedimentation

controls (i.e. erosion control fence, haybales, inlet sediment filtration, temporary seeding and storm drain inlet protection) during construction-related activities would be followed. There are no trees present in the Proposed Action location. Therefore, negating the need for a desktop habitat/field assessment.

The No Action Alternative would have no short- or long-term impacts over current conditions.

13. Cultural Resources: There are no known properties listed on, or eligible for listing on the National Register of Historic Places at the Proposed Action or at the No Action Alternative locations. Prior to the construction of the existing AFTF, an archaeological survey of the area was performed in July 1993 by archaeologists working for the U.S. Army Corps of Engineers Construction Engineering Research Lab. The survey confirmed the area was extensively disturbed in the past and no archaeological sites existed in that location. As outlined in the Installation Tribal Relations Plan (updated October 2024), the federally recognized Native American tribes (Keweenaw Bay Indian Community, Sac and Fox of the Mississippi in Iowa, Saginaw Chippewa Indian Tribe, Oklahoma Seneca Cayuga Nation, and Seneca Nation of Indians) only request notification/consultation when an action involves ground disturbance or when construction on base involves areas of previously undisturbed ground. Since the Proposed Action and No Action Alternative project areas are in an area of previous ground disturbance, consultation with the above-referenced federally recognized Native American tribes is not required.

The AFTF and Facility 34090 is not within any of the three historic districts located on the base, is not 50 years old, and lacks the historical significance required for inclusion on the National Register of Historic Places (NRHP). On April 14, 2025, a consultation letter was sent to the Ohio State Historic Preservation Office (SHPO). On May 13, 2025, SHPO replied concurring there would be no effect on historic properties (Attachment 7). Therefore, the DAF determined that the Proposed Action would not affect historic properties.

The No Action Alternative would have no short- or long-term impacts over current conditions.

14. Geology and Soils: The Proposed Action would result in insignificant short-term impacts to existing soils during construction activities, which would be minimized by implementing BMPs for erosion and sedimentation controls as described in Section 9 Water Resources. The contractor would be required to submit an accurately scaled Site Layout Plan showing proposed construction site features applicable to this project and would include site perimeter fencing, safety fencing, temporary facilities, equipment and material storage areas, trash dumpsters, temporary sanitary facilities, worker parking, access and haul routes, and other features as may be applicable. At completion of work the contractor would remove from the project site all contractor tools, equipment, surplus materials, and waste and restore laydown area to existing or better conditions. The Proposed Action would have no long-term impacts to the geology and soils.

The No Action Alternative would have no short- or long-term impacts over current conditions.

15. Socioeconomic: The Proposed Action would result in a short-term negligible impact on the local workforce and a beneficial impact on the local economy from revenue generated by construction activities. Concerning PFAS wastewater treatment and disposal cost, the Proposed Action would have long-term beneficial impact due to annual cost savings ranging from \$105,000 to \$358,000. WPAFB would utilize the AFCEC PFAS treatment system to treat 30,000 gallons of training wastewater at an annual cost of \$25,000 starting in FY26.

Between 70,000 to 273,000 gallons of PFAS contaminated surface/storm water per year were disposed of off-site during FY23-25 costing between \$135,000 to \$400,000. While the No Action Alternative would have no short-term impacts over current conditions, in the long-term, the No Action Alternative would

negatively impact the 88 CEG Facility Operations funding due to the continued annual off-site disposal cost of PFAS wastewater.

SECTION III ENVIRONMENTAL ANALYSIS DETERMINATION

18. REMARKS: Effective immediately as published in the Federal Register Volume 89, No. 227 on November 25, 2024, the DAF adopted 35 Categorical Exclusions (CATEXs) established by other federal agencies to be used for DAF proposed actions. The DAF has consulted with these federal agencies and obtained their concurrence on DAF use of these CATEXs. The use of another agency's CATEX requires the DAF to evaluate the proposed action for extraordinary circumstances pursuant to both agencies' regulations. If the DAF conducts analyses of the proposed actions and determines no extraordinary circumstances are present, or if an extraordinary circumstance exists and the proposed action does not have the potential to result in significant effects, the DAF may apply the CATEX without preparing an EA or EIS.

Wright-Patterson Air Force Base has evaluated the proposed action for extraordinary circumstances as defined in both the DAF (Appendix B to 32 CFR Part 989) and Department of the Navy (DON) (32 CFR § 775.6(e)) National Environmental Policy Act regulations and determined no extraordinary circumstances exist and the proposed action does not have the potential to result in significant effects, as documented in Section II above. WPAFB has also evaluated the proposed action and has determined it falls within the same scope of action as listed in the DON CATEX 32 CFR § 775.6(f)(33), *New construction that is like or compatible with existing land use (i.e., site and scale of construction are consistent with those of existing adjacent or nearby facilities) and, when completed, the use or operation of which complies with existing regulatory requirements (e.g., a building within a cantonment area with associated discharges and runoff within existing handling capacities).*

This project does not impact any extraordinary circumstance as defined by the Navy in its regulations at 32 CFR 775.6(e). This project will not “[a]dversely affect public health or safety, [i]nvolve effects on the human environment that are highly uncertain, [i]nvolve unique or unknown risks, or which are scientifically controversial; [e]stablish precedents or make decisions in principle for future actions that have the potential for significant impacts; [t]hreaten a violation of Federal, State, or local environmental laws applicable to the D[AF], [or] [i]nvolve an action” under 32 CFR 775.6(e)(1)(v)(A-D).

It was determined this CATEX fits within the designated land use of the proposed site. The determination is based on the following:

- A. The proposed action is an infrastructure upgrade and modernization to the existing 20-year-old AFTF that supports the current training requirements of the WPAFB fire department personnel. The existing land use would not change, and the scale of construction would be consistent with the existing and adjacent facilities and structures.
- B. When completed the proposed action does not change the type or tempo of the training operations and would comply with all environmental regulatory requirements, along with DoD and DAF aircraft training requirement for WPAFB firefighters.
- C. The proposed action would not change the designated land use nor involve a substantial modification to the nature of the existing training area. The upgrades and modernization actions are within the existing areas of the training facility, impacting the same previously used area.

Therefore, the application of DON CATEX as listed in 32 CFR § 775.6(f)(33) for the repair and upgrade of the AFTF is appropriate and within the same scope of action used by the Navy. This determination will be made publicly available by publishing this AF Form 813 on the WPAFB public website for 30 days.

Public Scoping Period: To meet the requirements of Executive Order (EO) 11988, *Floodplain Protection*, a public notice regarding the early determination of actions affecting the floodplain was posted in the *Dayton Daily News*, *Xenia Daily Gazette*, *Fairborn Daily Herald*, *Beavercreek News Current* and the base public website for a 30-day public comment period from January 10 through February 9, 2025. No comments were received during the public scoping period.

Public Notice Period: A public notice was posted in the *Dayton Daily News*, *Xenia Daily Gazette*, *Fairborn Daily Herald*, *Beavercreek News Current* and the base public website for a 30-day public comment period from May xx through June xx, 2025. No comments were received during the public comment period.

FINDING OF NO PRACTICABLE ALTERNATIVE

The Proposed Action, with the construction of the 100,000 above-ground storage tank, would impact approximately 1,075 square feet of the 100-year floodplain and HRB. These impacts would be minimized through mitigation banking with the removal of approximately 717 cubic yards of soil from another location within the HRB on WPAFB. Alternatives to the Proposed Action were considered; however, none of the identified alternatives met the Purpose and Need for the project and consequently were not carried forward for detailed analysis. Pursuant to EO 11988 and considering all supporting information, I find there is no practicable alternative to the Repair and Upgrade of the AFTF at the existing site which will impact the floodplain as described in this AF Form 813. This finding fulfills both the requirements of the referenced EO and the Environmental Impact Analysis Process regulation, 32 CFR § 989.14 for a Finding of No Practicable Alternative.

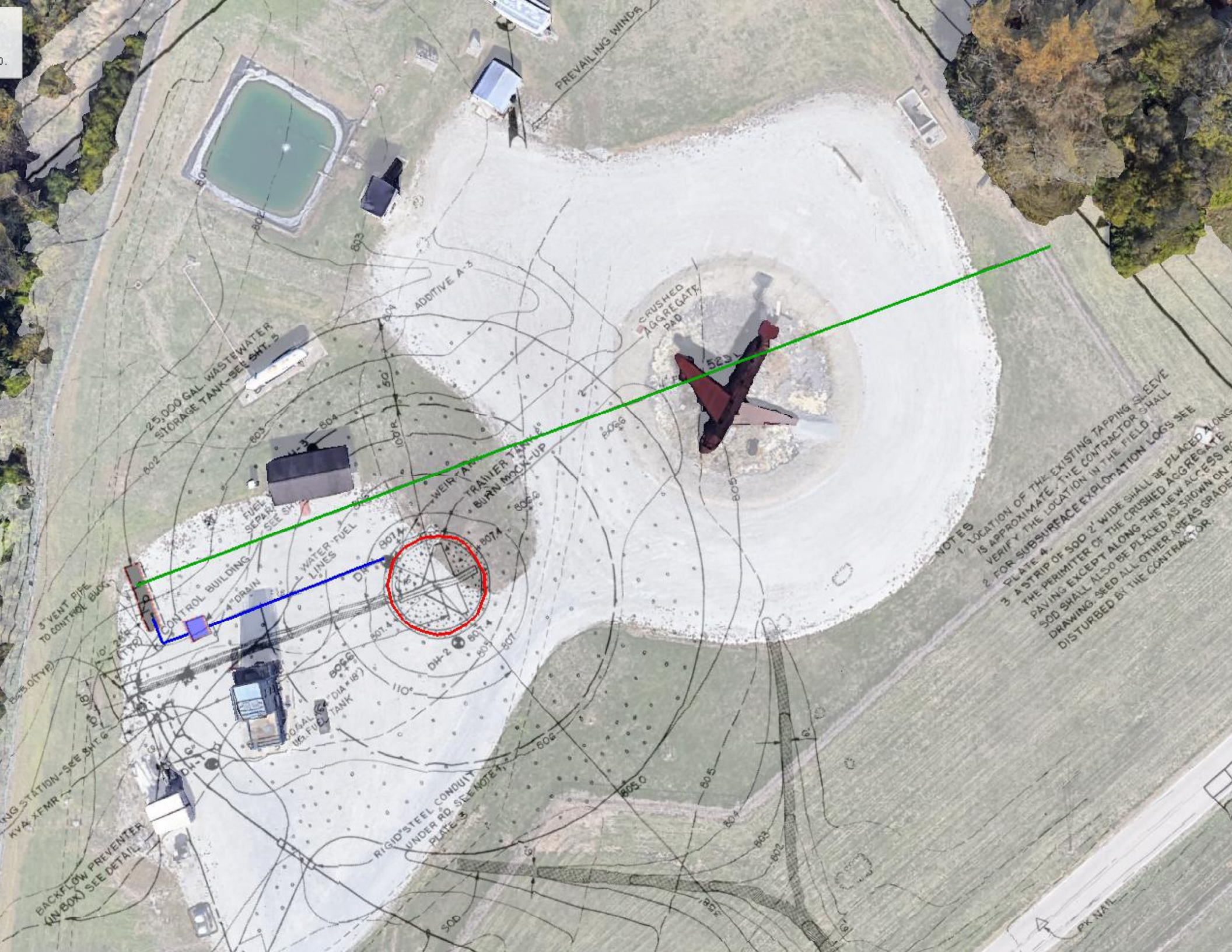
RONALD J. ONDERKO, P.E. NH-04, DAF
Command Senior Civil Engineer
Logistics, Civil Engineering, Force Protection
and Nuclear Integration

Figures:

1. Fire Training Area 5 Overlay with Current AFTF
2. Fire Training Area AFFF Area 21 PFAS Monitoring Well Sampling Results

Attachments:

1. AFTF Photos
2. ACAM Report, December 2024
3. MCD Consultation Letters
4. AFTF Natural Resources Map
5. USFWS Consultation Letters
6. ODNR Consultation Letters
7. SHPO Consultation Letters



PREVAILING WINDS

25,000 GAL WASTEWATER STORAGE TANK-SEE SHT. 5

ADDITIVE A-3

CRUSHED AGGREGATE PAD

WEIR TANK
TRAILER TANK
BURN MUCK-UP

FUEL SEPAR. SEE SHT. 5

WATER/FUEL LINES

CONTROL BUILDING

5" VENT PIPE TO CONTROL BUILDING

10" DIA. (TYP)

4" DRAIN

10" DIA. (TYP)

10" DIA. (TYP)

10" DIA. (TYP)

10" DIA. (TYP)

10" DIA. (TYP)

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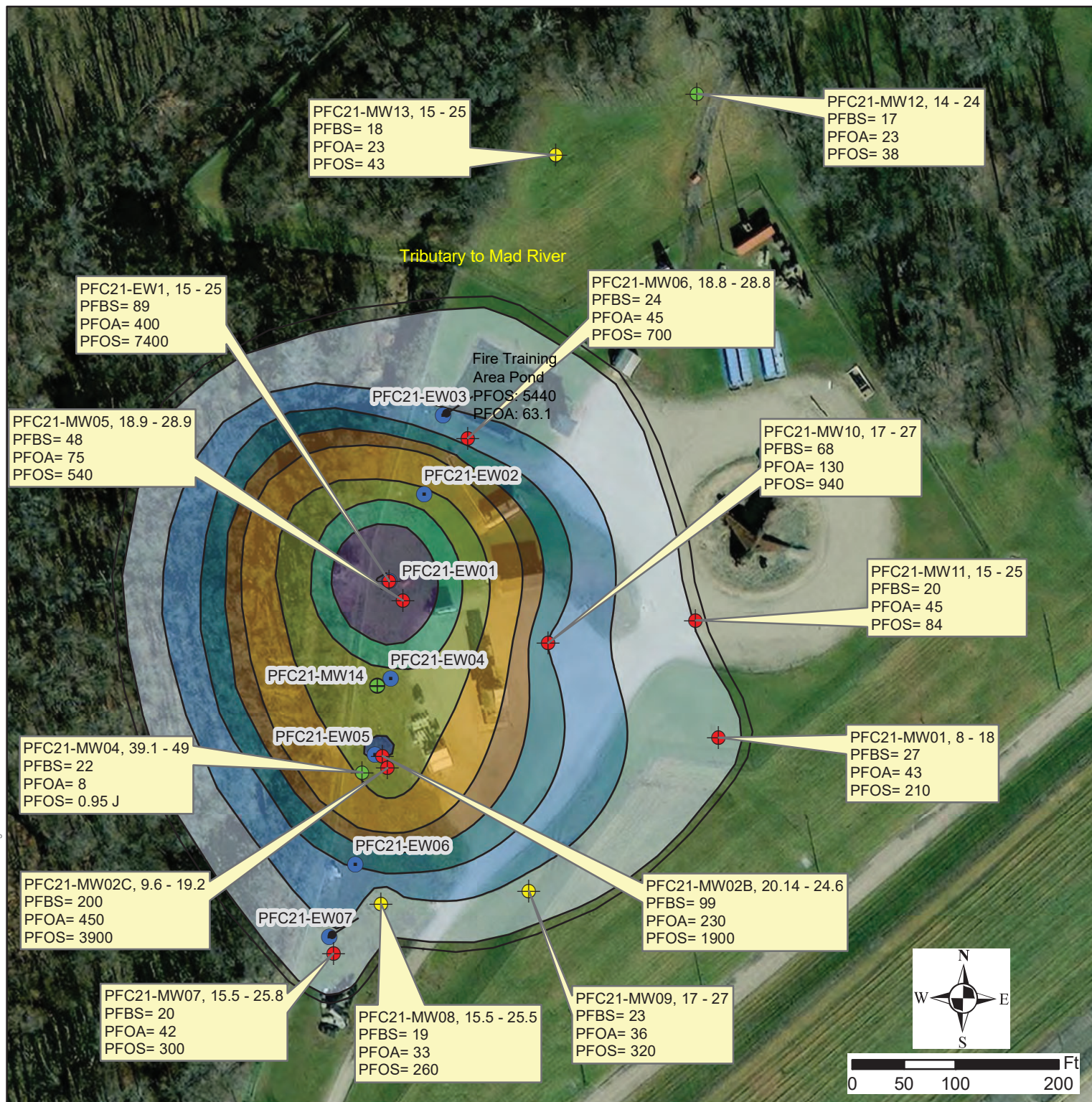
BACKFLOW PREVENTER (N-BOX) SEE DETAIL

RIGID STEEL CONDUIT UNDER RD. SEE NOTE 4, PLATE 3

- NOTES
1. LOCATION OF THE EXISTING TAPPING SLEEVE IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION IN THE FIELD.
 2. FOR SUBSURFACE EXPLORATION LOGS SEE PLATE 4.
 3. A STRIP OF 500' 2' WIDE SHALL BE PLACED ALONG THE PERIMETER OF THE CRUSHED AGGREGATE PAVING EXCEPT ALONG THE NEW ACCESS ROAD. SOD SHALL ALSO BE PLACED AS SHOWN ON DRAWING. SEED ALL OTHER AREAS GRADED & DISTURBED BY THE CONTRACTOR.

PK NAIL

FILE: C:\Projects\Wright_Patterson\Work\mxd\Data gap figures\New folder\Figure 18 AFFE Area 21 MW PFAS Results.mxd 1:44:32 PM 9/9/2022 dimgd



Legend

- | | | | |
|------------------------------------|---------------|------------|------------|
| ● Exceeds Standard for PFOA & PFOS | PFOS Contours | 1,500 ng/L | 4,000 ng/L |
| ● Exceeds Standard for PFOS | 100 ng/L | 2,000 ng/L | 5,000 ng/L |
| ● No Exceedance of Standard | 500 ng/L | 2,500 ng/L | 6,000 ng/L |
| ● Extraction Well | 1,000 ng/L | 3,000 ng/L | |

Laboratory Qualifiers:
J – Estimated Result

RSL Standards:
PFBS 600 ng/L
PFOA 40 ng/L
PFOS 40 ng/L
All units are in ng/L.

Note: 1. PFC21-MW04 and -MW05 are not included in the contour interpolation, because they represent concentrations at depths below or within the clay layer (30 to 40 ft bgs).
2. At MW02 location (MW2B and MW2C), PFAS concentrations decrease with depth.
3. The coordinate system is NAD 1983 State Plane Ohio South.
4. PFBS - Perfluorobutanesulfonic acid
PFOA - Perfluorooctanoic acid
PFOS - Perfluorooctanesulfonic acid



FIGURE 18 AFFE AREA 21 MONITORING WELL PFAS RESULTS

DAYTON, OHIO

DATE
SEPTEMBER 2022

PROJECT NO
15881.001.002.0002.01

SCALE
AS SHOWN

AFTF Facilities, 5 Feb 25

- 34092FMTF1 – Mock aircraft trainer
- 34090 – Control & observation tower
- 34093 – Metal shed
- 6206 – Lined wastewater pond
- 7241 – Propane tank
- 34091 – Picnic table shelter
- 34092 – Structural burn tower



Aircraft Fire Training
Facility (AFTF)
View looking North,
4 Feb 25



Control & Observation
Tower, Facility 34090

Mock Aircraft Trainer

AFTF
View looking South
from Control &
Observation Tower,
4 Feb 25



AFTF
View looking
Northwest from
Riverview Rd,
4 Feb 25



Facility 34092
Structural Burn
Tower
4 Feb 25



Facility 34090
Control &
Observation Tower
Control Panel
4 Feb 25



View Looking
Southwest Toward
AFCEC PFAS
Treatment System
4 Feb 25



AFCEC PFAS
Treatment System
4 Feb 25



Lined AFTF Pond
4 Feb 25



Stream SC3, North
of AFTF Fenceline
Boundary
4 Feb 25



AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform a net change in emissions analysis to assess the potential air quality impact/s associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, *Environmental Compliance and Pollution Prevention*; the *Environmental Impact Analysis Process* (EIAP, 32 CFR 989); the *General Conformity Rule* (GCR, 40 CFR 93 Subpart B); and the *USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide*. This report provides a summary of the ACAM analysis.

Report generated with ACAM version: 5.0.23a

a. Action Location:

Base: WRIGHT-PATTERSON AFB
State: Ohio
County(s): Greene
Regulatory Area(s): Dayton-Springfield, OH

b. Action Title: Repair and Renovate the Aircraft Fire Training Facility

c. Project Number/s (if applicable):

d. Projected Action Start Date: 6 / 2025

e. Action Description:

The project area encompasses approximately 14,500 square feet. Key project objectives include upgrades to the control and observation tower, new wet deck grating system to replace existing rock covering within burner pit, new burner ignition system, and thermal imaging system

f. Point of Contact:

Name: Tony Brodess
Title: NH-03/Air Program Manager
Organization: 88 CEG/CEIEA
Email: anthony.brodess@us.af.mil
Phone Number: 937-257-2455

2. Analysis: Total reasonably foreseeable net change in direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the "worst-case" (highest annual emissions) and "steady state" (no net gain/loss in emission stabilized and the action is fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

All emissions estimates were derived from various sources using the methods, algorithms, and emission factors from the most current *Air Emissions Guide for Air Force Stationary Sources*, *Air Emissions Guide for Air Force Mobile Sources*, and/or *Air Emissions Guide for Air Force Transitory Sources*. For greater details of this analysis, refer to the Detail ACAM Report.

☐ applicable
☒ not applicable

Conformity Analysis Summary:

2025

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)

AIR CONFORMITY APPLICABILITY MODEL REPORT

RECORD OF CONFORMITY ANALYSIS (ROCA)

Dayton-Springfield, OH			
VOC	0.039	100	No
NO_x	0.343	100	No
CO	0.412		
SO_x	0.001		
PM 10	0.363		
PM 2.5	0.014		
Pb	0.000		
NH₃	0.001		

2026 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Dayton-Springfield, OH			
VOC	0.000	100	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		

The Criteria Pollutants (or their precursors) with a General Conformity threshold listed in the table above are pollutants within one or more designated nonattainment or maintenance area/s for the associated National Ambient Air Quality Standard (NAAQS). These pollutants are driving this GCR Applicability Analysis. Pollutants exceeding the GCR thresholds must be further evaluated potentially through a GCR Determination.

The pollutants without a General Conformity threshold are pollutants only within areas designated attainment for the associated NAAQS. These pollutants have an insignificance indicator for VOC, NO_x, CO, SO_x, PM 10, PM 2.5, and NH₃ of 250 ton/yr (Prevention of Significant Deterioration major source threshold) and 25 ton/yr for Pb (GCR de minimis value). Pollutants below their insignificance indicators are at rates so insignificant that they will not cause or contribute to an exceedance of one or more NAAQSs. These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Refer to the *Level II, Air Quality Quantitative Assessment Insignificance Indicators* for further details.

None of the annual net change in estimated emissions associated with this action are above the GCR threshold values established at 40 CFR 93.153 (b); therefore, the proposed Action has an insignificant impact on Air Quality and a General Conformity Determination is not applicable.

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Tony Brodess, NH-03/Air Program Manager

Dec 16 2024

Name, Title

Date

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

1. General Information

- Action Location

Base: WRIGHT-PATTERSON AFB
State: Ohio
County(s): Greene
Regulatory Area(s): Dayton-Springfield, OH

- Action Title: Repair and Renovate the Aircraft Fire Training Facility

- Project Number/s (if applicable):

- Projected Action Start Date: 6 / 2025

- Action Purpose and Need:

The scope of the Proposed Action is an infrastructure modernization upgrade to repair and renovate the Aircraft Fire Training Facility to comply with requirements and improve training for the current mock aircraft, training tower and infrastructure.

- Action Description:

The project area encompasses approximately 14,500 square feet. Key project objectives include upgrades to the control and observation tower, new wet deck grating system to replace existing rock covering within burner pit, new burner ignition system, and thermal imaging system

- Point of Contact

Name: Tony Brodess
Title: NH-03/Air Program Manager
Organization: 88 CEG/CEIEA
Email: anthony.brodess@us.af.mil
Phone Number: 937-257-2455

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257119030 Y.1257119030
Date: 2024.12.16
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Report generated with ACAM version: 5.0.23a

- Activity List:

Activity Type		Activity Title
2.	Construction / Demolition	Site Prep

Emission factors and air emission estimating methods come from the United States Air Force's Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and Air Emissions Guide for Air Force Transitory Sources.

2. Construction / Demolition

2.1 General Information & Timeline Assumptions

- Activity Location

County: Greene
Regulatory Area(s): Dayton-Springfield, OH

- Activity Title: Site Prep

- Activity Description:

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Activity Start Date

Start Month: 6
Start Month: 2025

- Activity End Date

Indefinite: False
End Month: 7
End Month: 2025

- Activity Emissions:

Pollutant	Total Emissions (TONs)
VOC	0.039151
SO _x	0.000578
NO _x	0.342969
CO	0.412151

Pollutant	Total Emissions (TONs)
PM 10	0.363377
PM 2.5	0.013981
Pb	0.000000
NH ₃	0.000669

- Activity Emissions of GHG:

Pollutant	Total Emissions (TONs)
CH ₄	0.002677
N ₂ O	0.001071

Pollutant	Total Emissions (TONs)
CO ₂	66.854927
CO ₂ e	67.240862

- Global Scale Activity Emissions for SCGHG:

Pollutant	Total Emissions (TONs)
CH ₄	0.002677
N ₂ O	0.001071

Pollutant	Total Emissions (TONs)
CO ₂	66.854927
CO ₂ e	67.240862

2.1 Site Grading Phase

2.1.1 Site Grading Phase Timeline Assumptions

- Phase Start Date

Start Month: 6
Start Quarter: 1
Start Year: 2025

- Phase Duration

Number of Month: 2
Number of Days: 0

2.1.2 Site Grading Phase Assumptions

- General Site Grading Information

Area of Site to be Graded (ft²): 14500
Amount of Material to be Hauled On-Site (yd³): 3000
Amount of Material to be Hauled Off-Site (yd³): 0

- Site Grading Default Settings

Default Settings Used: Yes
Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Graders Composite	1	6

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

Other Construction Equipment Composite	1	8
Rubber Tired Dozers Composite	1	6
Tractors/Loaders/Backhoes Composite	1	7

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.1.3 Site Grading Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Graders Composite [HP: 148] [LF: 0.41]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.33951	0.00490	2.85858	3.41896	0.15910	0.14637
Other Construction Equipment Composite [HP: 82] [LF: 0.42]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.29762	0.00487	2.89075	3.51214	0.17229	0.15851
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.37086	0.00491	3.50629	2.90209	0.15396	0.14165
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.19600	0.00489	2.00960	3.48168	0.07738	0.07119

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Graders Composite [HP: 148] [LF: 0.41]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02155	0.00431	531.19419	533.01712
Other Construction Equipment Composite [HP: 82] [LF: 0.42]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02141	0.00428	527.74261	529.55369
Rubber Tired Dozers Composite [HP: 367] [LF: 0.4]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02159	0.00432	532.17175	533.99803
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02149	0.00430	529.86270	531.68105

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	NH ₃
LDGV	0.27885	0.00165	0.14853	4.01700	0.00523	0.00463	0.05155
LDGT	0.23819	0.00204	0.19874	3.61412	0.00618	0.00547	0.04323
HDGV	0.82564	0.00458	0.68863	10.86830	0.02401	0.02124	0.09253

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

LDDV	0.11631	0.00125	0.15055	5.13494	0.00348	0.00320	0.01640
LDDT	0.22071	0.00142	0.48302	4.97527	0.00568	0.00523	0.01740
HDDV	0.13608	0.00424	2.51067	1.52094	0.05091	0.04684	0.06526
MC	2.53189	0.00195	0.69317	12.89871	0.02329	0.02060	0.05341

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH ₄	N ₂ O	CO ₂	CO _{2e}
LDGV	0.01768	0.00506	325.48613	327.43388
LDGT	0.01759	0.00715	403.81749	406.38631
HDGV	0.05725	0.02628	906.51784	915.77090
LDDV	0.05809	0.00068	369.55500	371.20909
LDDT	0.04556	0.00099	420.33424	421.76902
HDDV	0.03231	0.16085	1262.26628	1311.00755
MC	0.11076	0.00302	393.91119	397.58016

2.1.4 Site Grading Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

HP: Equipment Horsepower

LF: Equipment Load Factor

EF_{POL}: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL} : Vehicle Emissions (TONs)

VMT_{WT} : Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM: Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

2.2 Trenching/Excavating Phase

2.2.1 Trenching / Excavating Phase Timeline Assumptions

- Phase Start Date

Start Month: 6

Start Quarter: 1

Start Year: 2025

- Phase Duration

Number of Month: 2

Number of Days: 0

2.2.2 Trenching / Excavating Phase Assumptions

- General Trenching/Excavating Information

Area of Site to be Trenched/Excavated (ft²): 3000

Amount of Material to be Hauled On-Site (yd³): 0

Amount of Material to be Hauled Off-Site (yd³): 0

- Trenching Default Settings

Default Settings Used: Yes

Average Day(s) worked per week: 5 (default)

- Construction Exhaust (default)

Equipment Name	Number Of Equipment	Hours Per Day
Excavators Composite	2	8
Other General Industrial Equipmen Composite	1	8
Tractors/Loaders/Backhoes Composite	1	8

- Vehicle Exhaust

Average Hauling Truck Capacity (yd³): 20 (default)

Average Hauling Truck Round Trip Commute (mile): 20 (default)

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

- Vehicle Exhaust Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	0	0	0	0	0	100.00	0

- Worker Trips

Average Worker Round Trip Commute (mile): 20 (default)

- Worker Trips Vehicle Mixture (%)

	LDGV	LDGT	HDGV	LDDV	LDDT	HDDV	MC
POVs	50.00	50.00	0	0	0	0	0

2.2.3 Trenching / Excavating Phase Emission Factor(s)

- Construction Exhaust Criteria Pollutant Emission Factors (g/hp-hour) (default)

Excavators Composite [HP: 36] [LF: 0.38]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.40191	0.00542	3.44643	4.21104	0.10704	0.09848
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.49122	0.00542	3.71341	4.67487	0.13603	0.12515
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]						
	VOC	SO _x	NO _x	CO	PM 10	PM 2.5
Emission Factors	0.19600	0.00489	2.00960	3.48168	0.07738	0.07119

- Construction Exhaust Greenhouse Gasses Pollutant Emission Factors (g/hp-hour) (default)

Excavators Composite [HP: 36] [LF: 0.38]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02382	0.00476	587.13772	589.15263
Other General Industrial Equipmen Composite [HP: 35] [LF: 0.34]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02385	0.00477	588.02637	590.04433
Tractors/Loaders/Backhoes Composite [HP: 84] [LF: 0.37]				
	CH ₄	N ₂ O	CO ₂	CO ₂ e
Emission Factors	0.02149	0.00430	529.86270	531.68105

- Vehicle Exhaust & Worker Trips Criteria Pollutant Emission Factors (grams/mile)

	VOC	SO _x	NO _x	CO	PM 10	PM 2.5	NH ₃
LDGV	0.27885	0.00165	0.14853	4.01700	0.00523	0.00463	0.05155
LDGT	0.23819	0.00204	0.19874	3.61412	0.00618	0.00547	0.04323
HDGV	0.82564	0.00458	0.68863	10.86830	0.02401	0.02124	0.09253
LDDV	0.11631	0.00125	0.15055	5.13494	0.00348	0.00320	0.01640
LDDT	0.22071	0.00142	0.48302	4.97527	0.00568	0.00523	0.01740
HDDV	0.13608	0.00424	2.51067	1.52094	0.05091	0.04684	0.06526
MC	2.53189	0.00195	0.69317	12.89871	0.02329	0.02060	0.05341

- Vehicle Exhaust & Worker Trips Greenhouse Gasses Emission Factors (grams/mile)

	CH ₄	N ₂ O	CO ₂	CO ₂ e
LDGV	0.01768	0.00506	325.48613	327.43388
LDGT	0.01759	0.00715	403.81749	406.38631
HDGV	0.05725	0.02628	906.51784	915.77090
LDDV	0.05809	0.00068	369.55500	371.20909
LDDT	0.04556	0.00099	420.33424	421.76902
HDDV	0.03231	0.16085	1262.26628	1311.00755

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

MC	0.11076	0.00302	393.91119	397.58016
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2.2.4 Trenching / Excavating Phase Formula(s)

- Fugitive Dust Emissions per Phase

$$PM10_{FD} = (20 * ACRE * WD) / 2000$$

PM10_{FD}: Fugitive Dust PM 10 Emissions (TONs)

20: Conversion Factor Acre Day to pounds (20 lb / 1 Acre Day)

ACRE: Total acres (acres)

WD: Number of Total Work Days (days)

2000: Conversion Factor pounds to tons

- Construction Exhaust Emissions per Phase

$$CEE_{POL} = (NE * WD * H * HP * LF * EF_{POL} * 0.002205) / 2000$$

CEE_{POL}: Construction Exhaust Emissions (TONs)

NE: Number of Equipment

WD: Number of Total Work Days (days)

H: Hours Worked per Day (hours)

HP: Equipment Horsepower

LF: Equipment Load Factor

EF_{POL}: Emission Factor for Pollutant (g/hp-hour)

0.002205: Conversion Factor grams to pounds

2000: Conversion Factor pounds to tons

- Vehicle Exhaust Emissions per Phase

$$VMT_{VE} = (HA_{OnSite} + HA_{OffSite}) * (1 / HC) * HT$$

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

HA_{OnSite}: Amount of Material to be Hauled On-Site (yd³)

HA_{OffSite}: Amount of Material to be Hauled Off-Site (yd³)

HC: Average Hauling Truck Capacity (yd³)

(1 / HC): Conversion Factor cubic yards to trips (1 trip / HC yd³)

HT: Average Hauling Truck Round Trip Commute (mile/trip)

$$V_{POL} = (VMT_{VE} * 0.002205 * EF_{POL} * VM) / 2000$$

V_{POL}: Vehicle Emissions (TONs)

VMT_{VE}: Vehicle Exhaust Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL}: Emission Factor for Pollutant (grams/mile)

VM: Vehicle Exhaust On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

- Worker Trips Emissions per Phase

$$VMT_{WT} = WD * WT * 1.25 * NE$$

VMT_{WT}: Worker Trips Vehicle Miles Travel (miles)

WD: Number of Total Work Days (days)

WT: Average Worker Round Trip Commute (mile)

1.25: Conversion Factor Number of Construction Equipment to Number of Works

NE: Number of Construction Equipment

$$V_{POL} = (VMT_{WT} * 0.002205 * EF_{POL} * VM) / 2000$$

DETAIL AIR CONFORMITY APPLICABILITY MODEL REPORT

V_{POL} : Vehicle Emissions (TONs)

VM_{TVE} : Worker Trips Vehicle Miles Travel (miles)

0.002205: Conversion Factor grams to pounds

EF_{POL} : Emission Factor for Pollutant (grams/mile)

VM : Worker Trips On Road Vehicle Mixture (%)

2000: Conversion Factor pounds to tons

AIR CONFORMITY APPLICABILITY MODEL REPORT

GREENHOUSE GAS (GHG) EMISSIONS

1. General Information: The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to estimate GHG emissions and assess the theoretical Social Cost of Greenhouse Gases (SC GHG) associated with the action. The analysis was performed in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the USAF Air Quality Environmental Impact Analysis Process (EIAP) Guide. This report provides a summary of GHG emissions and SC GHG analysis.

Report generated with ACAM version: 5.0.23a

a. Action Location:

Base: WRIGHT-PATTERSON AFB
State: Ohio
County(s): Greene
Regulatory Area(s): Dayton-Springfield, OH

b. Action Title: Repair and Renovate the Aircraft Fire Training Facility

c. Project Number/s (if applicable):

d. Projected Action Start Date: 6 / 2025

e. Action Description:

The project area encompasses approximately 14,500 square feet. Key project objectives include upgrades to the control and observation tower, new wet deck grating system to replace existing rock covering within burner pit, new burner ignition system, and thermal imaging system

f. Point of Contact:

Name: Tony Brodess
Title: NH-03/Air Program Manager
Organization: 88 CEG/CEIEA
Email: anthony.brodess@us.af.mil
Phone Number: 937-257-2455

BRODESS.A Digitally signed by
NTHONY.1 BRODESS.ANTHON
Y.1257119030
257119030 Date: 2024.12.16
08:11:43 -05'00'

2. Analysis: Total combined direct and indirect GHG emissions associated with the action were estimated through ACAM on a calendar-year basis from the action start through the expected life cycle of the action. The life cycle for Air Force actions with "steady state" emissions (SS, net gain/loss in emission stabilized and the action is fully implemented) is assumed to be 10 years beyond the SS emissions year or 20 years beyond SS emissions year for aircraft operations related actions.

GHG Emissions Analysis Summary:

GHGs produced by fossil-fuel combustion are primarily carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (NO₂). These three GHGs represent more than 97 percent of all U.S. GHG emissions. Emissions of GHGs are typically quantified and regulated in units of CO₂ equivalents (CO₂e). The CO₂e takes into account the global warming potential (GWP) of each GHG. The GWP is the measure of a particular GHG's ability to absorb solar radiation as well as its residence time within the atmosphere. The GWP allows comparison of global warming impacts between different gases; the higher the GWP, the more that gas contributes to climate change in comparison to CO₂. All GHG emissions estimates were derived from various emission sources using the methods, algorithms, emission factors, and GWPs from the most current Air Emissions Guide for Air Force Stationary Sources, Air Emissions Guide for Air Force Mobile Sources, and/or Air Emissions Guide for Air Force Transitory Sources.

AIR CONFORMITY APPLICABILITY MODEL REPORT

GREENHOUSE GAS (GHG) EMISSIONS

The Air Force has adopted the Prevention of Significant Deterioration (PSD) threshold for GHG of 75,000 ton per year (ton/yr) of CO₂e (or 68,039 metric ton per year, mton/yr) as an indicator or "threshold of insignificance" for NEPA air quality impacts in all areas. This indicator does not define a significant impact; however, it provides a threshold to identify actions that are insignificant (de minimis, too trivial or minor to merit consideration). Actions with a net change in GHG (CO₂e) emissions below the insignificance indicator (threshold) are considered too insignificant on a global scale to warrant any further analysis. Note that actions with a net change in GHG (CO₂e) emissions above the insignificance indicator (threshold) are only considered potentially significant and require further assessment to determine if the action poses a significant impact. For further detail on insignificance indicators see Level II, Air Quality Quantitative Assessment, Insignificance Indicators (April 2023).

The following table summarizes the action-related GHG emissions on a calendar-year basis through the projected life cycle of the action.

Action-Related Annual GHG Emissions (mton/yr)						
YEAR	CO ₂	CH ₄	N ₂ O	CO ₂ e	Threshold	Exceedance
2025	61	0.0024283	0.0009713	61	68,039	No
2026 [SS Year]	0	0	0	0	68,039	No

The following U.S. and State's GHG emissions estimates (next two tables) are based on a five-year average (2016 through 2020) of individual state-reported GHG emissions (Reference: State Climate Summaries 2022, NOAA National Centers for Environmental Information, National Oceanic and Atmospheric Administration. <https://statesummaries.ncics.org/downloads/>).

State's Annual GHG Emissions (mton/yr)				
YEAR	CO ₂	CH ₄	N ₂ O	CO ₂ e
2025	199,548,422	802,236	39,448	200,390,106
2026 [SS Year]	0	0	0	0

U.S. Annual GHG Emissions (mton/yr)				
YEAR	CO ₂	CH ₄	N ₂ O	CO ₂ e
2025	5,136,454,179	25,626,912	1,500,708	5,163,581,798
2026 [SS Year]	0	0	0	0

GHG Relative Significance Assessment:

A Relative Significance Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (yGba.e., global, national, and regional) and the degree (intensity) of the proposed action's effects. The Relative Significance Assessment provides real-world context and allows for a reasoned choice against alternatives through a relative comparison analysis. The analysis weighs each alternative's annual net change in GHG emissions proportionally against (or relative to) global, national, and regional emissions.

The action's surroundings, circumstances, environment, and background (context associated with an action) provide the setting for evaluating the GHG intensity (impact significance). From an air quality perspective, context of an action is the local area's ambient air quality relative to meeting the NAAQSs, expressed as attainment, nonattainment, or maintenance areas (this designation is considered the attainment status). GHGs are non-hazardous to health at normal ambient concentrations and, at a cumulative global scale, action-related GHG emissions can only potentially cause warming of the climatic system. Therefore, the action-related GHGs generally have an insignificant impact to local air quality.

However, the affected area (context) of GHG/climate change is global. Therefore, the intensity or degree of the proposed action's GHG/climate change effects are gauged through the quantity of GHG associated with the action as compared to a baseline of the state, U.S., and global GHG inventories. Each action (or alternative) has

AIR CONFORMITY APPLICABILITY MODEL REPORT

GREENHOUSE GAS (GHG) EMISSIONS

significance, based on their annual net change in GHG emissions, in relation to or proportionally to the global, national, and regional annual GHG emissions.

To provide real-world context to the GHG and climate change effects on a global scale, an action's net change in GHG emissions is compared relative to the state (where action will occur) and U.S. annual emissions. The following table provides a relative comparison of an action's net change in GHG emissions vs. state and U.S. projected GHG emissions for the same time period.

Total GHG Relative Significance (mton)					
		CO2	CH4	N2O	CO2e
2025-2036	State Total	199,548,422	802,236	39,448	200,390,106
2025-2036	U.S. Total	5,136,454,179	25,626,912	1,500,708	5,163,581,798
2025-2036	Action	61	0.002428	0.000971	61
Percent of State Totals		0.00003039%	0.00000030%	0.00000246%	0.00003044%
Percent of U.S. Totals		0.00000118%	0.00000001%	0.00000006%	0.00000118%

From a global context, the action's total GHG percentage of total global GHG for the same time period is: 0.00000016%.*

* Global value based on the U.S. emits 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, <https://www.c2es.org/content/international-emissions>).

Climate Change Assessment (as SC GHG):

On a global scale, the potential climate change effects of an action are indirectly addressed and put into context through providing the theoretical SC GHG associated with an action. The SC GHG is an administrative and theoretical tool intended to provide additional context to a GHG's potential impacts through approximating the long-term monetary damage that may result from GHG emissions affect on climate change. It is important to note that the SC GHG is a monetary quantification, in 2020 U.S. dollars, of the theoretical economic damages that could result from emitting GHGs into the atmosphere.

The SC GHG estimates are derived using the methodology and discount factors in the "Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990," released by the Interagency Working Group on Social Cost of Greenhouse Gases (IWG SC GHGs) in February 2021.

The speciated IWG Annual SC GHG Emission associated with an action (or alternative) are first estimated as annual unit cost (cost per metric ton, \$/mton). Results of the annual IWG Annual SC GHG Emission Assessments are tabulated in the IWG Annual SC GHG Cost per Metric Ton Table below:

IWG SC GHG Discount Factor: 2.5%

IWG Annual SC GHG Cost per Metric Ton (\$/mton [In 2020 \$])			
YEAR	CO2	CH4	N2O
2025	\$83.00	\$2,200.00	\$30,000.00
2026 [SS Year]	\$84.00	\$2,300.00	\$30,000.00

Action-related SC GHG were estimated by calendar-year for the projected action's lifecycle. Annual estimates were found by multiplying the annual emission for a given year by the corresponding IWG Annual SC GHG Emission value (see table above).

Action-Related Annual SC GHG (\$K/yr [In 2020 \$])

AIR CONFORMITY APPLICABILITY MODEL REPORT

GREENHOUSE GAS (GHG) EMISSIONS

YEAR	CO2	CH4	N2O	GHG
2025	\$5.03	\$0.01	\$0.03	\$5.07
2026 [SS Year]	\$0.00	\$0.00	\$0.00	\$0.00

The following two tables summarize the U.S. and State's Annual SC GHG by calendar-year. The U.S. and State's Annual SC GHG are in 2020 dollars and were estimated by each year for the projected action lifecycle. Annual SC GHG estimates were found by multiplying the U.S. and State's annual five-year average GHG emissions for a given year by the corresponding IWG Annual SC GHG Cost per Metric Ton value.

State's Annual SC GHG (\$K/yr [In 2020 \$])				
YEAR	CO2	CH4	N2O	GHG
2025	\$16,562,518.99	\$1,764,919.97	\$1,183,436.40	\$19,510,875.36
2026 [SS Year]	\$0.00	\$0.00	\$0.00	\$0.00

U.S. Annual SC GHG (\$K/yr [In 2020 \$])				
YEAR	CO2	CH4	N2O	GHG
2025	\$426,325,696.86	\$56,379,205.70	\$45,021,229.08	\$527,726,131.63
2026 [SS Year]	\$0.00	\$0.00	\$0.00	\$0.00

Relative Comparison of SC GHG:

To provide additional real-world context to the potential climate change impact associate with an action, a Relative Comparison of SC GHG Assessment is also performed. While the SC GHG estimates capture an indirect approximation of global climate damages, the Relative Comparison of SC GHG Assessment provides a better perspective from a regional and global scale.

The Relative Comparison of SC GHG Assessment uses the rule of reason and the concept of proportionality along with the consideration of the affected area (yGba.e., global, national, and regional) and the SC GHG as the degree (intensity) of the proposed action's effects. The Relative Comparison Assessment provides real-world context and allows for a reasoned choice among alternatives through a relative contrast analysis which weighs each alternative's SC GHG proportionally against (or relative to) existing global, national, and regional SC GHG. The below table provides a relative comparison between an action's SC GHG vs. state and U.S. projected SC GHG for the same time period:

Total SC-GHG (\$K [In 2020 \$])					
		CO2	CH4	N2O	GHG
2025-2036	State Total	\$16,562,518.99	\$1,764,919.97	\$1,183,436.40	\$19,510,875.36
2025-2036	U.S. Total	\$426,325,696.86	\$56,379,205.70	\$45,021,229.08	\$527,726,131.63
2025-2036	Action	\$5.03	\$0.01	\$0.03	\$5.07
Percent of State Totals		0.00003039%	0.00000030%	0.00000246%	0.00002598%
Percent of U.S. Totals		0.00000118%	0.00000001%	0.00000006%	0.00000096%

From a global context, the action's total SC GHG percentage of total global SC GHG for the same time period is: 0.00000013%.*

* Global value based on the U.S. emits 13.4% of all global GHG annual emissions (2018 Emissions Data, Center for Climate and Energy Solutions, accessed 7-6-2023, <https://www.c2es.org/content/international-emissions>).

Tony Brodess, NH-03/Air Program Manager
Name, Title

Dec 16 2024
Date

**AIR CONFORMITY APPLICABILITY MODEL REPORT
GREENHOUSE GAS (GHG) EMISSIONS**



December 31, 2024

38 E. MONUMENT AVE
DAYTON, OHIO 45402
(937) 223-1271
mcdwater.org

BOARD OF DIRECTORS
Mark G. Rentschler
Michael H. van Haaren
Beth G. Whelley

GENERAL MANAGER
MaryLynn Lodor

Mr. Darryn Warner
88 CEG/CEIEA
1450 Littrell Road, Building 22
Wright-Patterson AFB, OH 45433-5209

Re: Huffman Storage Basin, WPAFB, Aircraft Fire Training Facility

Dear Mr. Warner:

We have reviewed the proposed actions involving repair/upgrade at the Aircraft Fire Training Facility within Area A of Wright Patterson Air Force Base (WPAFB).

The proposed project is located within the Huffman Storage Basin and is subject to those restrictions as set forth by the Miami Conservancy District (MCD) in Greene County Deed Book 129, Page 146 on December 16, 1922.

Prior to importing any material or structures into the basin below elevation 835.0 feet, a MCD Storage Basin Individual Permit will be required.

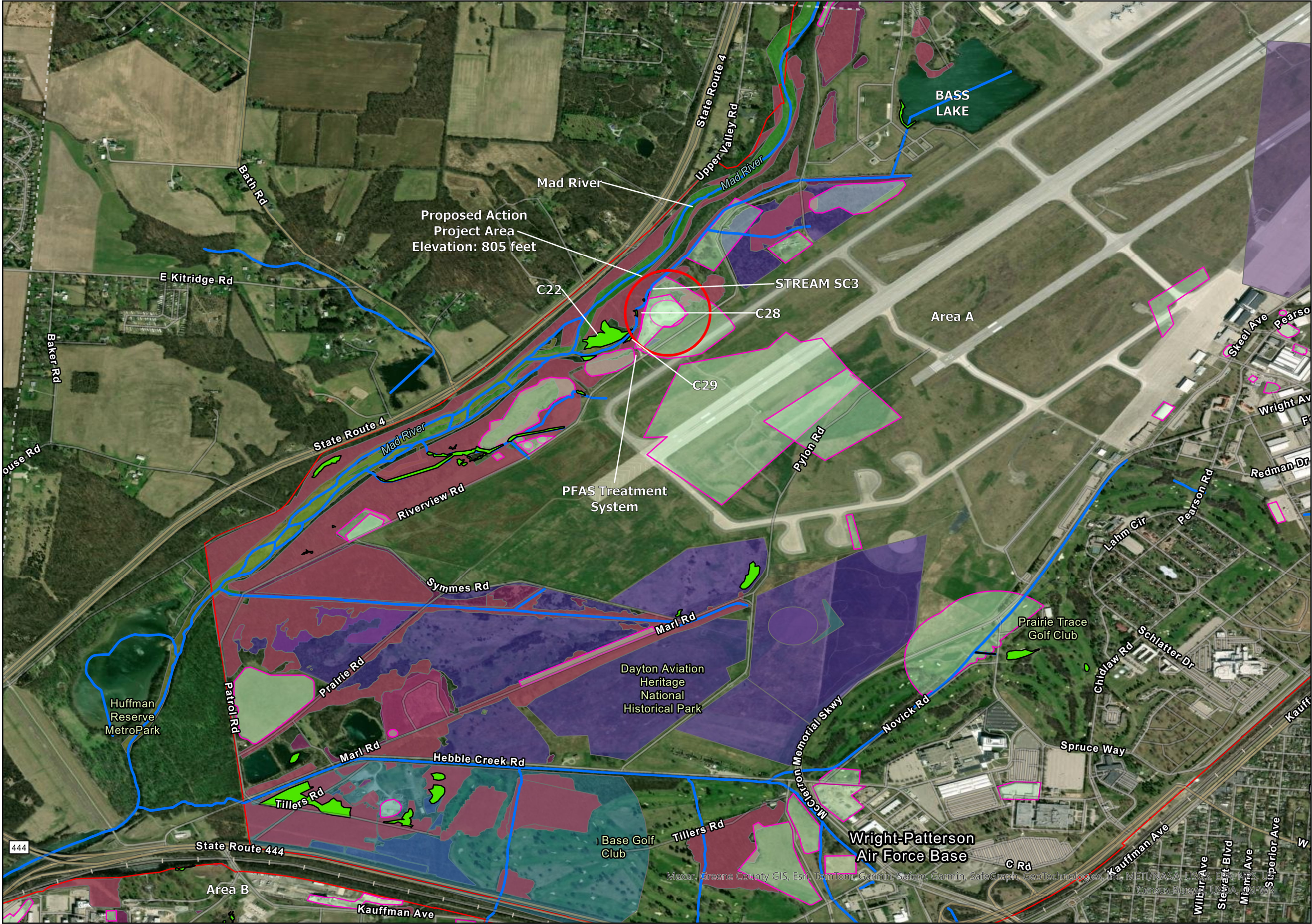
A licensed surveyor may be required to perform ground elevations prior to work beginning, and to perform survey work after the earth work is completed.

Thank you for the opportunity to review your project. If you have any further questions please contact me at (937) 223-1278, ext. 3230 or by email at rfarrier@mcdwater.org.

Sincerely,

Roxanne H. Farrier
Property Administrator

cc: Don O'Connor



Legend

- Wetland
- River and Streams
- Environmental Restoration Site
- WPAFB Boundary

TE Species

Feature Name
Bald Eagle
Blazing Stem Star Borer
Clubshell Mussel
Eastern Massasauga Rattlesnake
Indiana Bat
Mussel Bed
Northern Adder's-tongue
ODNR Species

Wright-Patterson Air Force Base, OH
Environmental Management
February 2025

United States Department of the Interior



FISH AND WILDLIFE SERVICE

Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / FAX (614) 416-8994



December 31, 2024

Project Code: 2025-0033261

Dear Mr. Warner:

The U.S. Fish and Wildlife Service (Service) received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse effects to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: Due to the project, type, size, and location, we do not anticipate adverse effects to federally endangered, threatened, or proposed species or proposed or designated critical habitat. If there are any project modifications during the term of this action, or additional information for listed or proposed species or their critical habitat becomes available, or if new information reveals effects of the action that were not previously considered, then please contact us for additional project review.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

Erin Knoll
Field Office Supervisor



**Department of
Natural Resources**
ohiodnr.gov

Mike DeWine, Governor
Jon Husted, Lt. Governor
Mary Mertz, Director

Office of Real Estate & Land Management

Tara Paciorek - Chief
2045 Morse Road – E-2
Columbus, Ohio 43229-6693

January 14, 2025

Darryn Warner
United States Air Force
1450 Littrell Road, Building 22
Wright-Patterson Air Force Base, Ohio 43229

Re: 24-1982_WPAFB Aircraft Fire Training Facility Upgrades

Project: The proposed project involves the repair and renovation of the Aircraft Fire Training Facility.

Location: The proposed project is located in Bath Township, Greene County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state, or federal agency nor relieve the applicant of the obligation to comply with any local, state, or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has the following data within one mile of the project area:

Northern Adder's-tongue (*Ophioglossum pusillum*), T
Blanchard's Cricket Frog (*Acris blanchardi*), SC
Sedge Wren (*Cistothorus platensis*), SC
Indiana Myotis (*Myotis sodalis*), E, FE
Smooth Greensnake (*Opheodrys vernalis*), E
Eastern Massasauga (*Sistrurus catenatus*), E, FT
Eastern Ringtail (*Erpetogomphus designatus*), SC
Beer's Noctuid (*Papaipema beeriana*), E

Conservation status abbreviations are as follows: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federally endangered, and FT = federally threatened. The review was performed on the specified project area as well as an additional one-mile radius. Records searched date from 1980. Features searched include locations of rare and endangered plants and animals determined to be of value to the conservation of their species, high quality plant communities, animal breeding assemblages, and outstanding geological features.

The species listed above are not recorded within the boundaries of the specified project area. However, please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for an area is not a statement that rare species or unique features are absent from that area.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that Best Management Practices be utilized to minimize erosion and sedimentation.

The project is within the vicinity of records for the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. Because presence of state endangered bat species has been established in the area, summer tree cutting is not recommended, and additional summer surveys would not constitute presence/absence in the area. However, limited summer tree cutting inside this buffer may be acceptable after further consultation with DOW (contact Eileen Wyza at Eileen.Wyza@dnr.ohio.gov).

In addition, the entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally endangered species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these bat species predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. The DOW recommends tree cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH \geq 20 if possible.

The DOW also recommends that a desktop habitat assessment is conducted, followed by a field assessment if needed, to determine if a potential hibernaculum is present within the project area. Direction on how to conduct habitat assessments can be found in the current USFWS "[RANGE-WIDE INDIANA BAT & NORTHERN LONG-EARED BAT SURVEY GUIDELINES](#)." If a habitat assessment finds that a potential hibernaculum is present within 0.25 miles of the project area, please send this information to Eileen Wyza for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with the DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the following listed mussel species.

Federally Endangered

clubshell (*Pleurobema clava*)
snuffbox (*Epioblasma triquetra*)
rayed bean (*Villosa fabalis*)

Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the tonguetied minnow (*Exoglossum laurae*), a state threatened fish. Due to the location, and that there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.

The project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and a federally threatened snake species. The eastern massasauga uses a range of habitats including wet prairies, fens, and other wetlands, as well as adjacent drier upland habitat. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the smooth greensnake (*Opheodrys vernalis*), a state endangered species. This species is primarily a prairie inhabitant, but also found in marshy meadows and roadside ditches. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the Kirtland's snake (*Clonophis kirtlandii*), a state threatened species. This secretive species prefers wet fields and meadows. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the spotted turtle (*Clemmys guttata*), a state threatened species. This species prefers fens, bogs and marshes, but also is known to inhabit wet prairies, meadows, pond edges, wet woods, and the shallow sluggish waters of small streams and ditches. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the US Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

If the subject project is in a floodplain regulated by the Federal Emergency Management Agency (FEMA), the local [local floodplain administrator](#) should be contacted concerning the possible need for any floodplain permits or approvals. The FEMA National Flood Hazard Layer (NHFL) Viewer [website](#) can be utilized to see if the project is in a FEMA regulated floodplain. If the project is not in a FEMA regulated floodplain, then no further action is required.

ODNR appreciates the opportunity to provide these comments. Please contact Mike Pettegrew (Environmental Services Administrator) at mike.pettegrew@dnr.ohio.gov if you have questions about these comments or need additional information.

Expiration: ODNR Environmental Reviews are typically valid for 2 years from the issuance date. If the scope of work, project area, construction limits, and/or anticipated impacts to natural resources have changed significantly from the original project submittal, then a new Environmental Review request should be submitted.



**DEPARTMENT OF THE AIR FORCE
88TH CIVIL ENGINEER GROUP (AFMC)
WRIGHT-PATTERSON AIR FORCE BASE OHIO**

14 Apr, 2025

Mr. Steven Byington, CRM
88 CEG/CEIEA
1450 Littrell Road
Wright-Patterson AFB OH 45433-5209

Ms. Joy Williams
Project Reviews Manager
Ohio State Historic Preservation Office
800 East 17th Avenue
Columbus OH 43211-2497

Dear Ms. Williams,

Wright-Patterson Air Force Base (WPAFB) is preparing to conduct an infrastructure modernization upgrade to repair and renovate the Aircraft Fire Training Facility in Area A of the base. This proposed action does not involve any historic structures or districts and will thus have no adverse effects on historic properties. (See Attachment 1 for the Area of Potential Effect (APE)) In accordance with Section 306108 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 Code of Federal Regulations (CFR) Part 800, the Air Force is submitting the following documentation.

Description of the undertaking. The Proposed Action is to complete an infrastructure modernization upgrade to repair and renovate the Aircraft Fire Training Facility to comply with current requirements and to improve training associated with the current mock aircraft, training tower and infrastructure. The project includes complete renovation of the existing control tower F34090 for compatibility with the new fire training system being installed in the mock aircraft pit. Propane piping, pneumatic control piping, all existing controls and panels, and valves will be removed, access holes in the floor will be infilled, and a commercial off-the-shelf control system for the new trainer will be installed. Infrastructure upgrades include new controls for the tower with new gas and water lines to the aircraft trainer, and installation of a new 100,000 gallon above-ground storage tank (approximately 37 feet diameter x 18 feet high) to collect the water from the training operations and treating the training PFAS wastewater at the adjacent AFCEC PFAS treatment system verses utilizing the existing containment pond, which will be demolished. The project area encompasses approximately 14,500 square feet. Key project objectives include upgrades to the control and observation tower, new wet deck grating system to replace existing rock covering within burner pit, new burner ignition system, and thermal imaging system. (See Attachment 2 for site photos and Attahement 3 for design drawings)

Description of steps taken to identify historic properties. In accordance with 36 CFR 800.4(c) WPAFB has evaluated the historic significance of base facilities applying the National Register (NR) criteria. WPAFB has assessed all buildings on the installation that are 50 years old or older, and has additionally assessed buildings for exceptional significance relating to the Cold War. None of the

Strength Through Support

structures associated with this project are considered eligible for listing in the National Register of Historic Places, as they do not meet the age requirement, nor any of the criteria for evaluation as established by the NHPA .

Description of the potentially affected property. The only resource potentially affected by undertaking the Proposed Action is existing Building F/34090, which was constructed in 1982. All other structures on the site date from the mid 1990's or early 2000's. Because none of them are more than 45 years old and do not meet any of the criteria for evaluation of a historic building, they cannot be considered eligible for listing on the NRHP.

Description of the undertaking's effects on historic properties. WPAFB has reviewed the Criteria of Adverse Effects and has determined that none apply to the activities that would be carried out in this undertaking. Therefore, it is our opinion that, in accordance with 36 CFR 800.5(b), the proposed undertaking would have no adverse effect on the historic property.

This determination was made for the primary reason that none of the structures involved in this upgrade meet the standard for listing as a historic property.

Attached for your review are copies of relevant documents supporting the Air Force's findings and determinations. Please review the information and inform us of your concurrence with our determination. Should you have questions, I can be reached at 937-257-1374 or via email at steven.byington@us.af.mil.

Sincerely

A handwritten signature in black ink, appearing to read "Steve Byington". The signature is fluid and cursive, with the first name "Steve" being more prominent than the last name "Byington".

Steven Byington
Cultural Resources Manager
Environmental Branch

Attachments:

1. Aircraft Fire Training Center APE
2. Aircraft Fire Training Photos
3. Aircraft Fire Training Center Scope of Work Drawings

AFTF Facilities

- 34092FMTF1 – Mock aircraft trainer
- 34090 – Control & observation tower
- 34093 – Metal shed
- 6206 – Lined wastewater pond
- 7241 – Propane tank
- 34091 – Picnic table shelter
- 34092 – Structural burn tower



Aircraft Fire Training
Facility (AFTF)
View looking North



Control & Observation
Tower, Facility 34090

Mock Aircraft Trainer

Facility 34090
Control &
Observation Tower
Control Panel



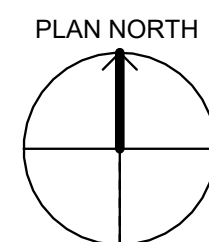


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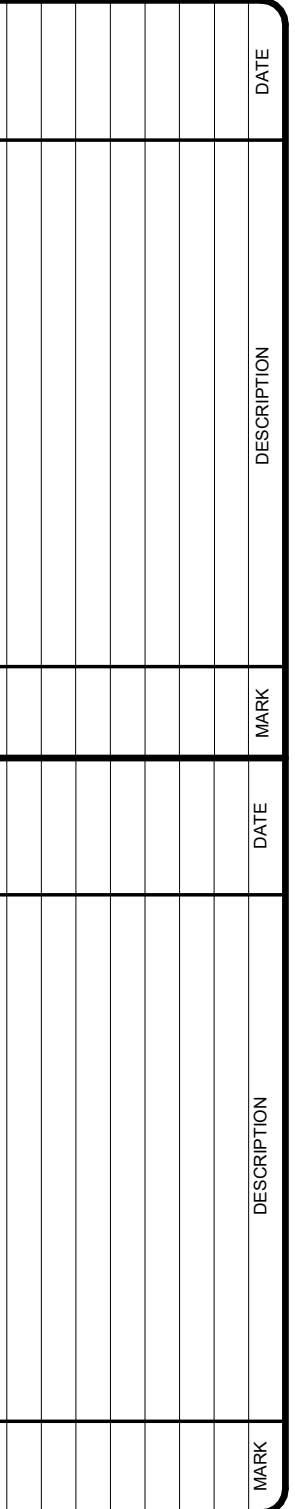
B



LOCATION MAP



E-501	ELECTRICAL DETAILS
E-601	ELECTRICAL SCHEDULES
E-701	ELECTRICAL ONE-LINE DIAGRAMS



A BODART	MAR 2025				
DRAWN BY:	CHECKED BY:	COORDINATOR:			
A BODART	S DUFFY				
DESIGN CHIEF:	ENGINEERING CHIEF				
B WADDRAJI					
PLOT SCALE:	PLOT DATE:	PROJECT NO:			
	03/06/2025	17/00428			
SIZE:	FILE NAME:				
ANSI D	FILE NAME				



REPAIR AIRCRAFT FIRE TRAINING FACILITY
F34091
WRIGHT-PATTERSON AFB, OHIO 45433
COVER SHEET

SHEET
IDENTIFICATION
G-001



NOTES:

1.

COORDINATE WITH ELECTRICAL AND PLUMBING FOR PROPOSED PROPANE AND ELECTRIC ROUTING.

2.

RESTORE LAYDOWN AREA TO EXISTING OR BETTER CONDITIONS POST-CONSTRUCTION.

SITE KEYNOTES

1

ABOVE GROUND STORAGE TANK. SEE SHEET CU101 FOR MORE DETAILS. (CLIN 0005)

2

EXISTING STORM TO BE TIED INTO THE NEW TANK. (CLIN 0005)

3

PROPANE MAIN (CLIN 0004) AND NEW 4' X 4' X 4' PROPANE VAULT (SEE DETAIL D2 ON SHEET C-501)(SEE SHEET PS101) (CLIN 0003)

4

5' SIDEWALK (SEE DETAIL A1/C-501) (CLIN 0004)

5

NEW WET DECK SYSTEM PER MANUFACTURER'S REQUIREMENTS (SIZE TO BE ADJUSTED AS NECESSARY TO ACCOMMODATE MANUFACTURED SIZES) - COORDINATE WET DECK SYSTEM INSTALLATION WITH EXISTING MOCK AIRCRAFT (CLIN 0003)

6

BOLLARD (TYP) (SEE DETAIL C3/C-501) (CLIN 0004)

7

REMOVE POND LINER AND INFILL TO PROVIDE POSITIVE DRAINAGE AS SHOWN. PROPERLY DISPOSE OF POND LINER. (CLIN 0005)

8

SILT FENCE (SEE DETAIL A3/C-501)

9

NEW 4' X 4' ELECTRICAL VAULT. SEE MECHANICAL/ELECTRICAL PLANS FOR MORE DETAILS. (CLIN 0003)

10

EXISTING AGGREGATE REMOVED TO BE REPLACED WITH 6" THICK PCC (CLIN 0004)

11

T.I.D. PER ELECTRICAL PLANS (SEE SHEET ES101 FOR MORE DETAILS) (CLIN 0003)

12

STORM DRAIN. SEE SHEET CU101 FOR ADDITIONAL DETAILS (CLIN 0004)

13

NEW 4' X 4' PNEUMATIC VAULT. SEE MECHANICAL PLANS FOR MORE DETAILS. (CLIN 0003)

14

CONTRACTOR TO GRADE IN SWALE TO DIRECT WATER AWAY FROM ABOVE GROUND STORAGE TANK PAD. (CLIN 0005)

SITE PLAN LEGEND

NEW DECKING SYSTEM

CONCRETE SIDEWALK

CONCRETE WET DECK

STONE

CONSTRUCTION LIMITS

DESIGNED BY: S. SCHULTZ

CHECKED BY: A. WEAVER

DRAWN BY: A. WEAVER

DATE: MAR 2025

COORDINATOR: A. WEAVER

ENGINEERING CHIEF: A. WEAVER

PROJECT NO: 1666

FILE NAME: 1666-142_C-101.dwg

ANSI D

WPAFB

WRIGHT-PATTERSON AIR FORCE BASE

REPAIR AIRCRAFT FIRE TRAINING FACILITY

F34091

WRIGHT-PATTERSON AFB, OHIO 45433

SITE LAYOUT PLAN - BASE BID

WPAFB

WRIGHT-PATTERSON AIR FORCE BASE

REPAIR AIRCRAFT FIRE TRAINING FACILITY

F34091

WRIGHT-PATTERSON AFB, OHIO 45433

SITE LAYOUT PLAN - BASE BID

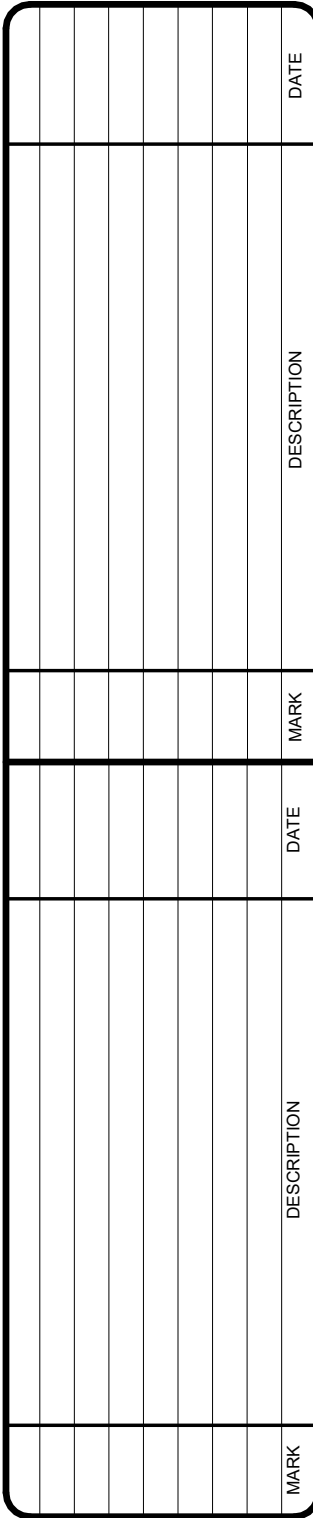
SHEET IDENTIFICATION


C-101

A

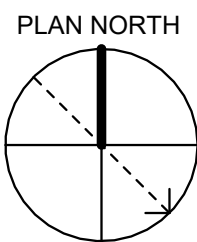


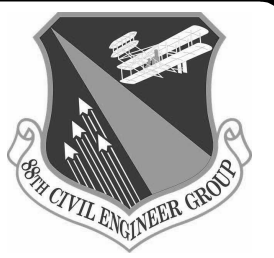
1. REFER TO SHEET A-001 FOR PROJECT GENERAL NOTES.
2. CONDUIT & WIRE ASSOC WITH ELECTRICAL ITEMS THAT ARE DEMOLISHED BECAUSE OF GENERAL CONSTRUCTION DEMOLITION SHALL BE REMOVED BACK TO PANELBOARD THAT REMAINS ACTIVE.
3. WIRING SHALL REMAIN WHERE CIRCUITS ARE REQUIRED TO SERVE NEW LOADS, OR ELECTRICAL ITEMS ARE REPLACED.
4. PROTECT ALL STRUCTURAL ELEMENTS IN PLACE THROUGHOUT ALL PHASES OF DEMOLITION AND CONSTRUCTION.
5. PROVIDE DEMOLITION WORK SHOWN ON THE DRAWINGS AND RELATED INCIDENTAL DEMOLITION WORK REQUIRED TO COMPLETE NEW CONSTRUCTION WORK. REFER TO MEP DRAWINGS FOR ADDITIONAL DEMOLITION SCOPE AND REQUIREMENTS.
6. FIELD VERIFY EXISTING CONDITIONS PRIOR TO THE START OF DEMOLITION OPERATIONS. BRING DISCREPANCIES WHICH MAY SIGNIFICANTLY AFFECT DEMOLITION OR NEW CONSTRUCTION WORK TO THE ATTENTION OF THE ARCHITECT FOR REVIEW.
7. PROTECT CONSTRUCTION TO REMAIN FROM DAMAGE DURING DEMOLITION AND/OR NEW CONSTRUCTION OPERATIONS. CONDUCT DEMOLITION OPERATIONS SO AS TO MINIMIZE THE DEVELOPMENT AND SPREAD OF DUST.
8. REMOVE DEMOLITION MATERIALS FROM SITE PROMPTLY AND DISPOSE OF LEGALLY OFF SITE. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON SITE.
9. DO NOT ALTER THE STRUCTURAL INTEGRITY OF THE EXISTING BUILDING OR ITS ASSEMBLIES UNLESS SPECIFICALLY NOTED OTHERWISE.
10. PATCH AND REPAIR DAMAGE ARISING FROM DEMOLITION OPERATIONS TO FLOOR, WALL, AND CEILING SURFACES, TO MATCH EXISTING.
11. COORDINATE TIMING AND HOURS OF DEMOLITION OPERATIONS WITH BASE'S SCHEDULE.
12. ALL EXISTING DOOR HARDWARE TO REMAIN.





 WPAFB WRIGHT-PATTERSON AIR FORCE BASE	DESIGNED BY:	DATE:
	A-60247	MAR 2025
	DRAWN BY:	COORDINATOR:
	1-237-17	
DESIGN CHIEF:	ENGINEERING CHIEF:	
M-23031431		
PROJECT NO.:	PILOT DATE:	
171700428	03-04-2025	
ANSI D FILE NAME:		

SHEET
IDENTIFICATION
AD101



[illegible]

 WPAFB WRIGHT-PATTERSON AIR FORCE BASE	DESIGNED BY:	DATE:
	DRAWN BY:	DATE:
	CHECKED BY:	DATE:
	INSP. CHIEF:	DATE:
 AECOM AECOM JOINT VENTURE	DESIGNED BY:	DATE:
	DRAWN BY:	DATE:
	CHECKED BY:	DATE:
	INSP. CHIEF:	DATE:

REPAIR AIRCRAFT FIRE TRAINING FACILITY
F34091
WRIGHT-PATTERSON AFB, OHIO 45433

CLIN 0002 - CNOT PLANS

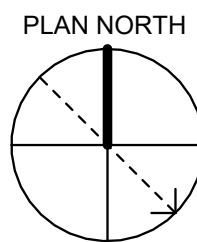
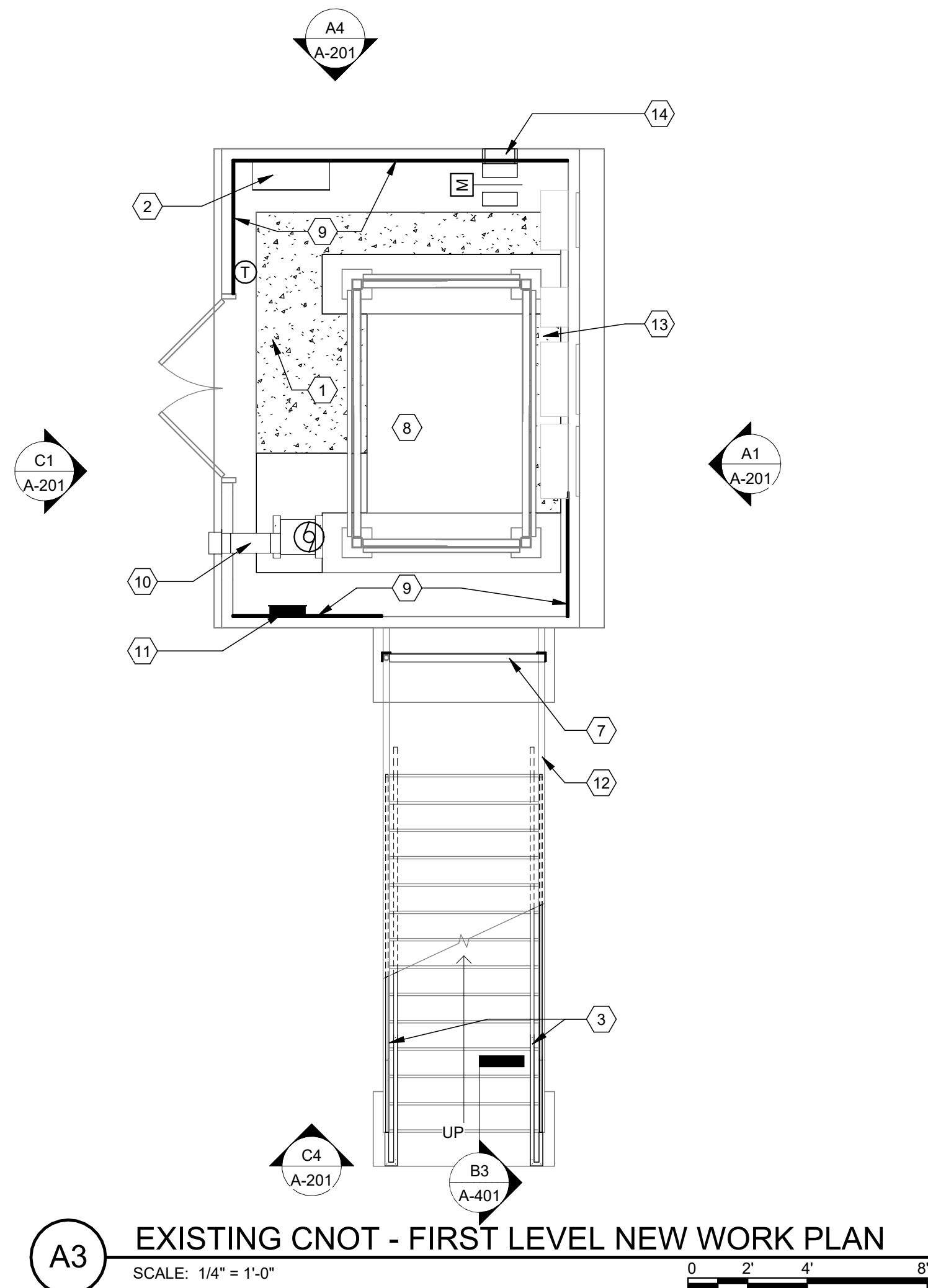
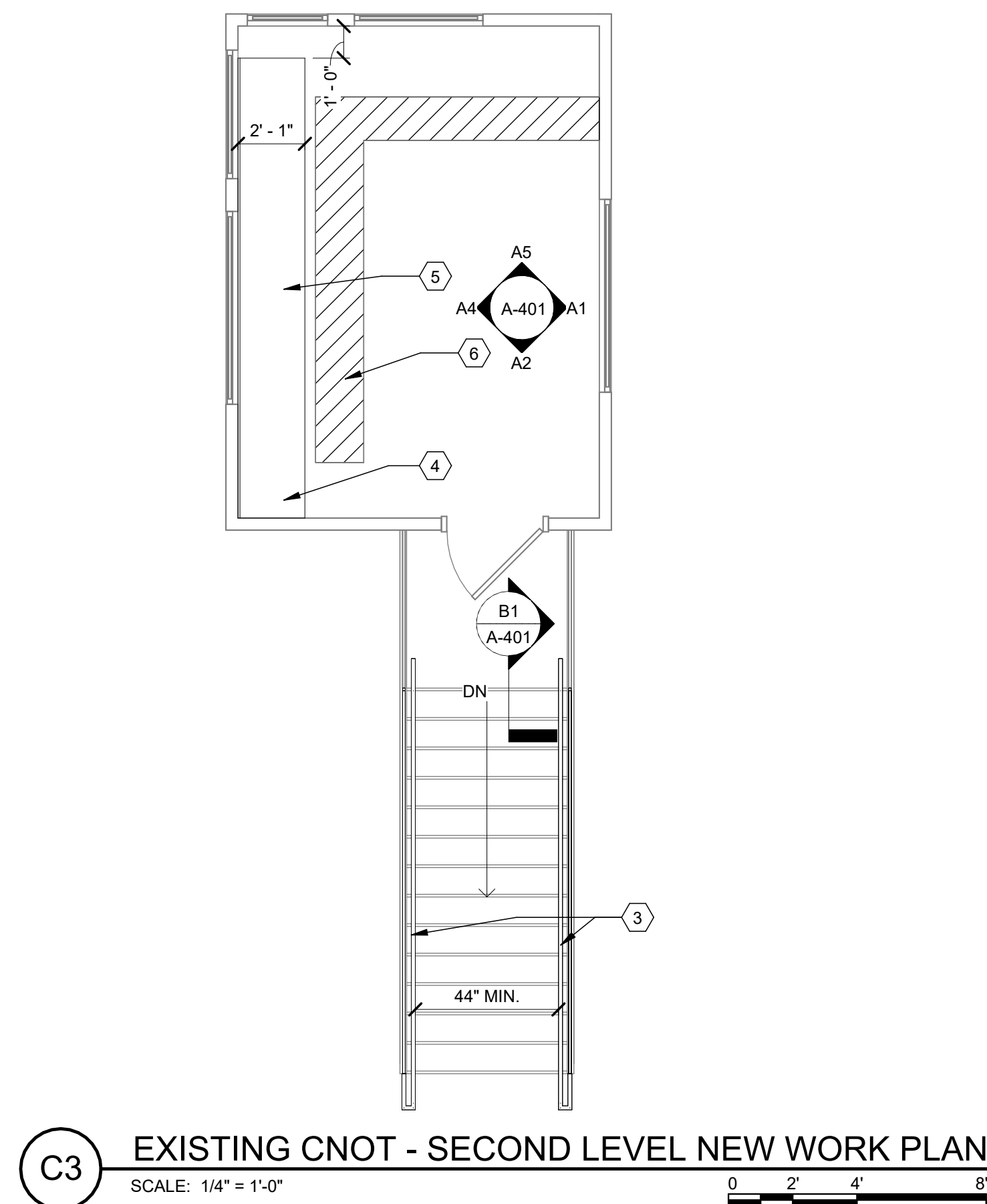
SHEET
IDENTIFICATION
A-101

DRAWING NOTES


- 1 CONCRETE SLAB OVER CONTINUOUS VAPOR BARRIER AND GRAVEL BASE -
REFER TO STRUCTURAL B3/S-101.
- 2 PROVIDE NEW PROGRAMMABLE LOGIC CONTROLLER (PLC) CABINET FOR
NEW BURNER SYSTEM. COORDINATE LOCATION WITH COTS.
- 3 NEW GALVANIZED 42" HIGH ROUND METAL PIPE RAIL GUARDRAIL WITH 36"
HIGH 1 1/2" ROUND METAL HANDRAIL. ATTACH TO EXISTING STAIR STRINGER
AND PAINT TO MATCH EXISTING.
- 4 SOLID SURFACE COUNTERTOP W/ BACK AND SIDE SPLASH AND STEEL
COUNTER BRACKETS AT 3'-0" MAX.
- 5 PROVIDE NEW FIRE CONTROL PANEL FOR NEW BURNER SYSTEM.
COORDINATE LOCATION WITH COTS.
- 6 INFILL OPENING WITH WOOD FRAMING AND PLYWOOD FLOORING - REFER TO
STRUCTURAL SHEET S-501. FINISH TO MATCH EXISTING.
- 7 NEW STRUCTURAL STEEL BRACING - REFER TO STRUCTURAL C1/S-502. PAINT
TO MATCH EXISTING.
- 8 PAINT/PROTECT ALL NEW STRUCTURAL STEEL MEMBERS TO MATCH
EXISTING.
- 9 INSTALL NEW WALL SHEATHING - REFER TO STRUCTURAL B3/S-101 FOR
EXTENTS AND LOCATION.
- 10 EXHAUST FAN AND WALL VENT - REFER TO MECHANICAL C3/M-101
- 11 ELECTRICAL PANEL - REFER TO ELECTRICAL A3/E-101.
- 12 LINE OF STAIR ABOVE.
- 13 NEW CONCRETE INFILL - REFER TO STRUCTURAL B3/S-101
- 14 METAL LOUVER AND MOTORIZED DAMPER - REFER TO MECHANICAL C3/M-101.

GENERAL NOTES THIS SHEET

1. REFER TO SHEET A-001 FOR PROJECT GENERAL NOTES.
2. REFER TO A-401 FOR MILLWORK, RAILING AND SECTION DETAILS.

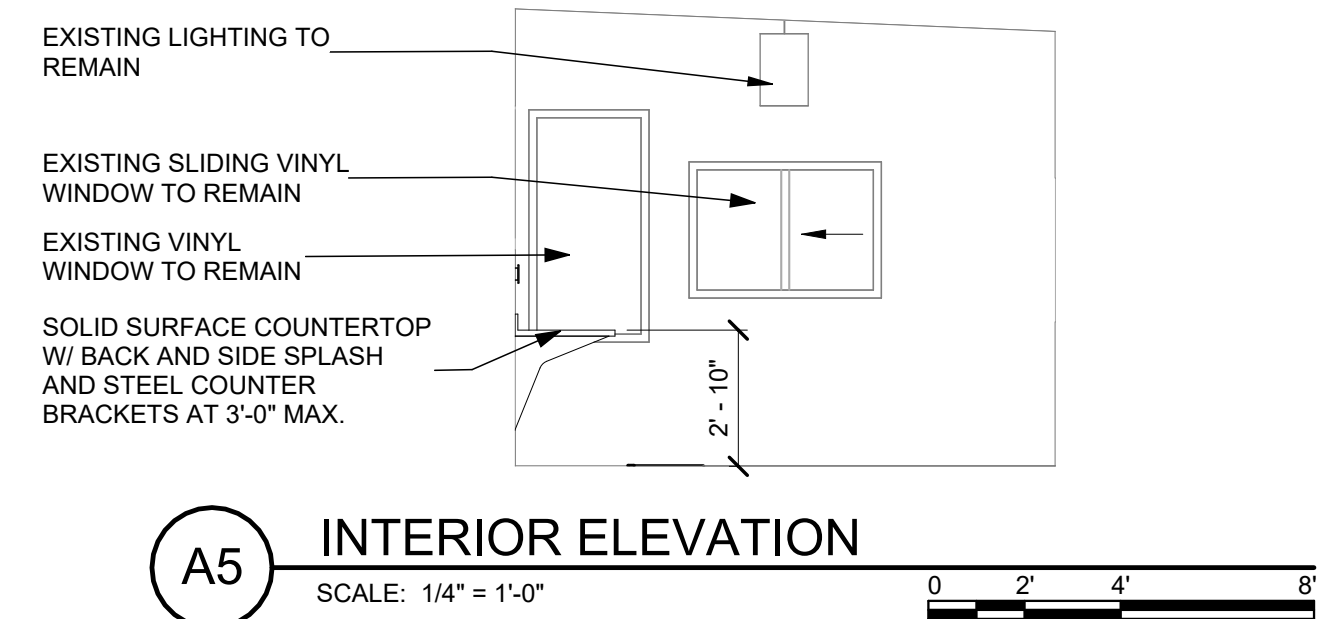
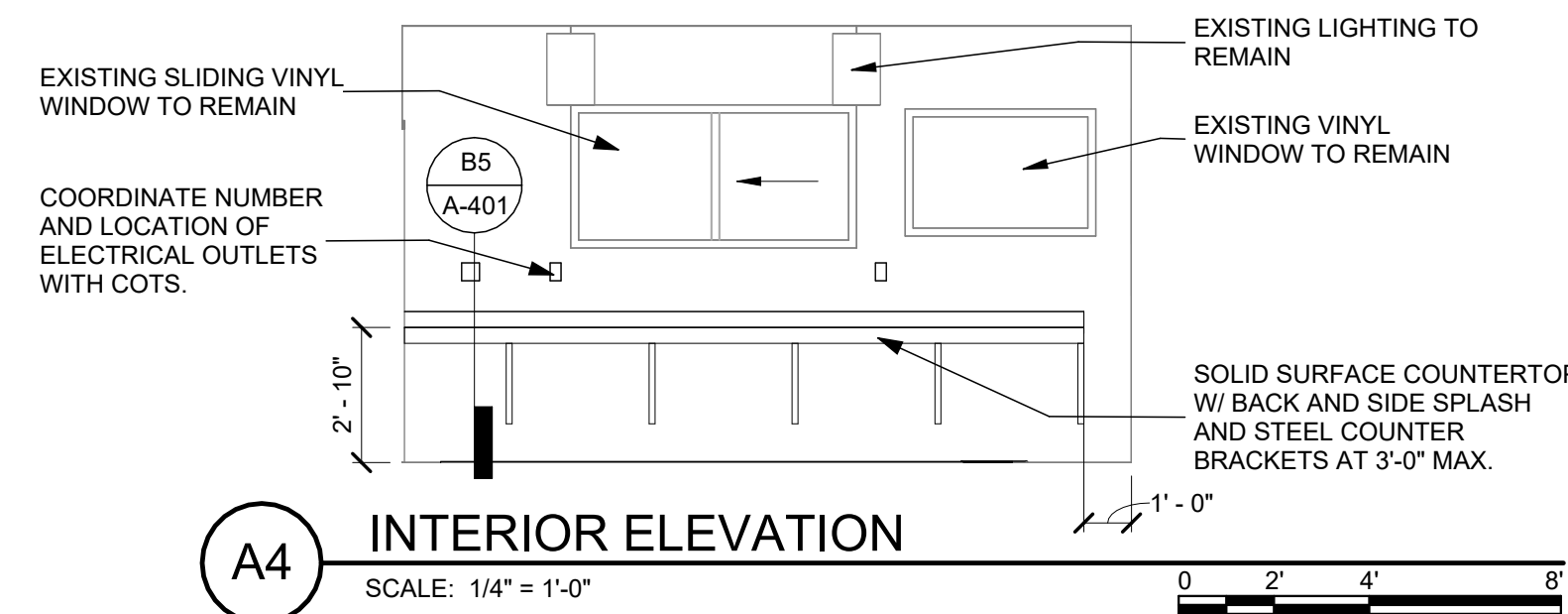
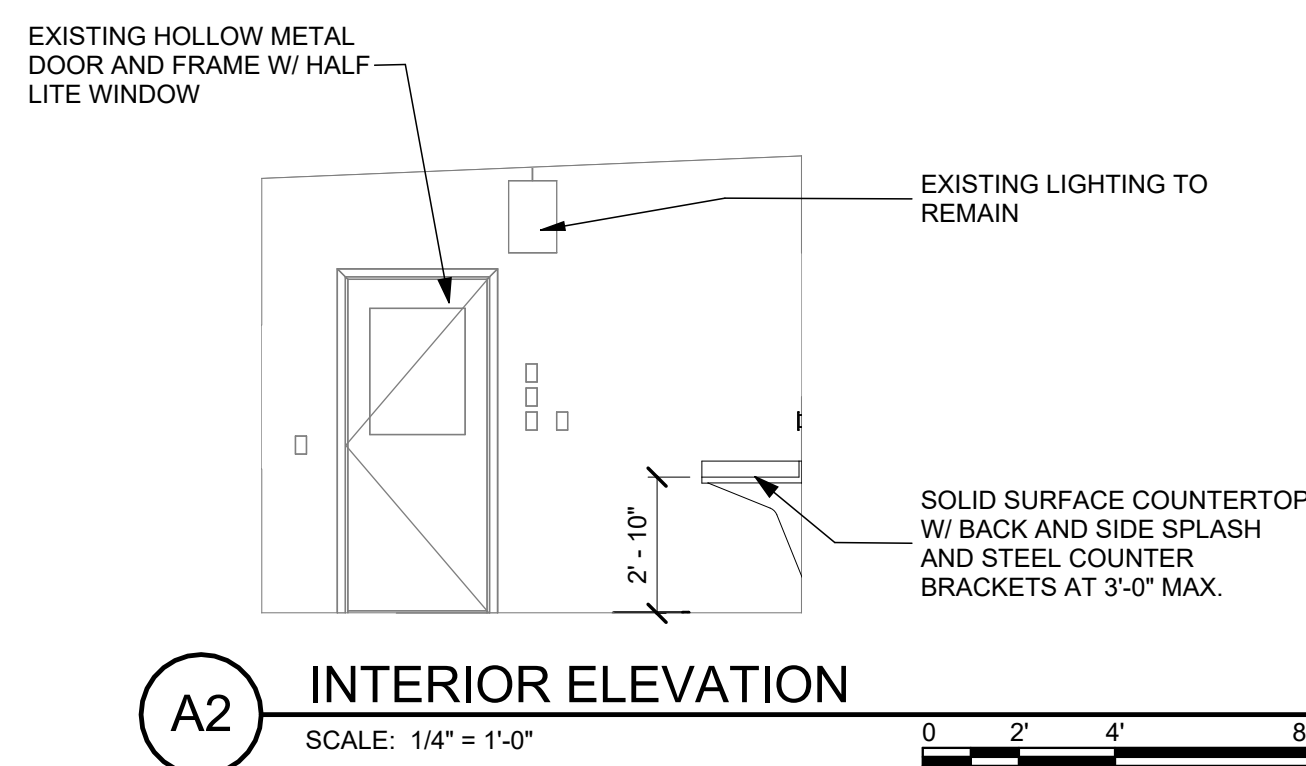
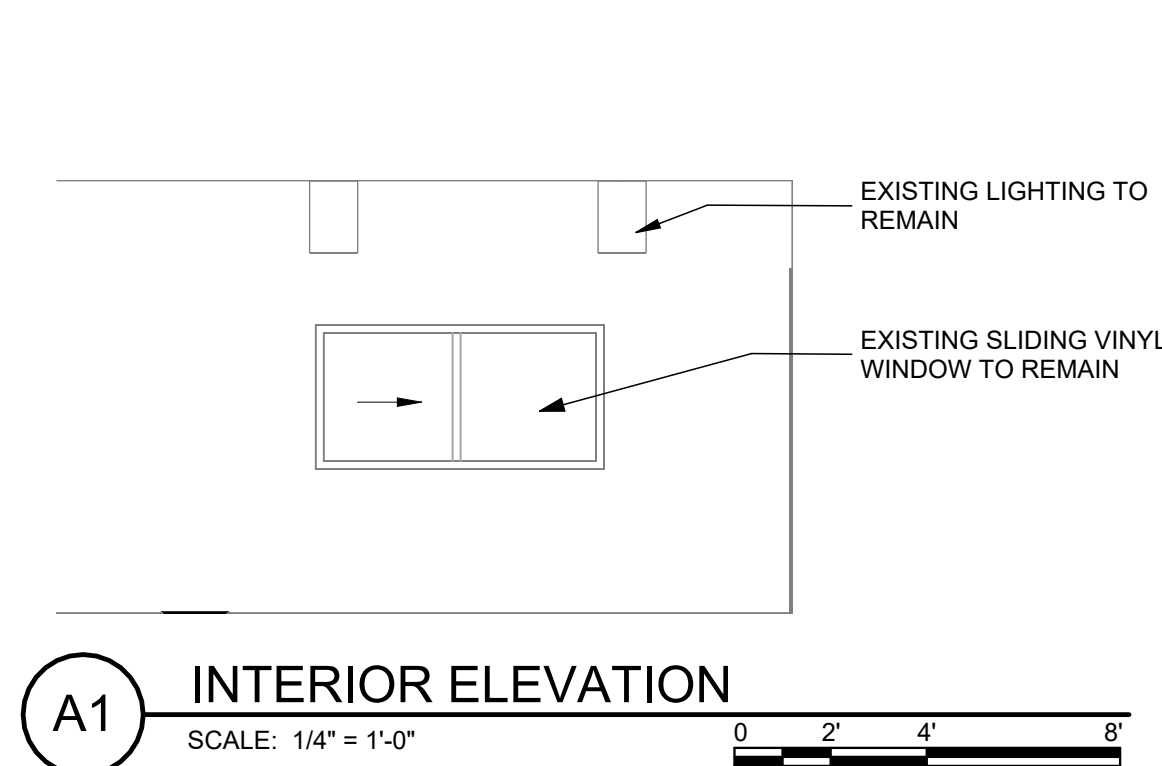
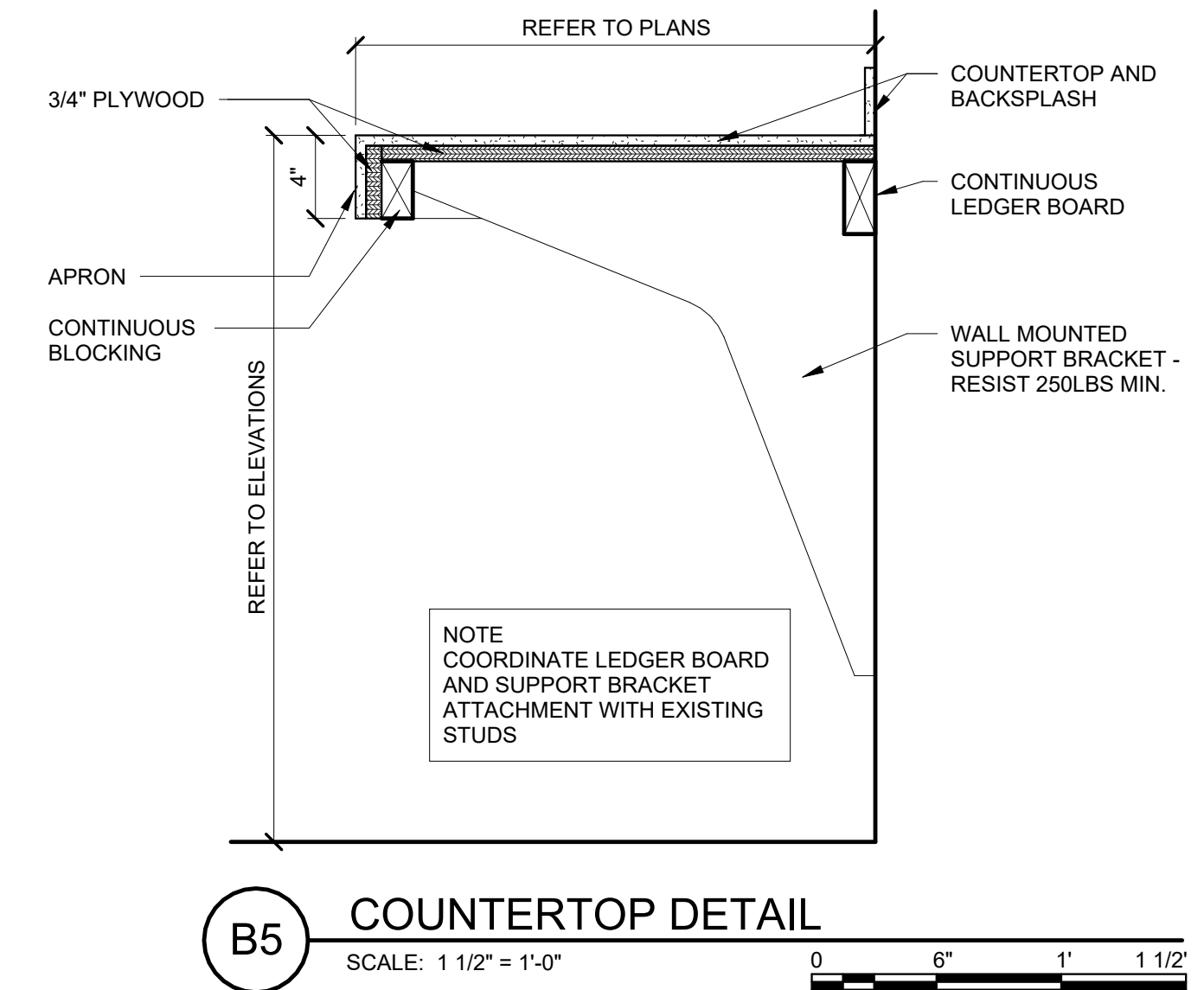
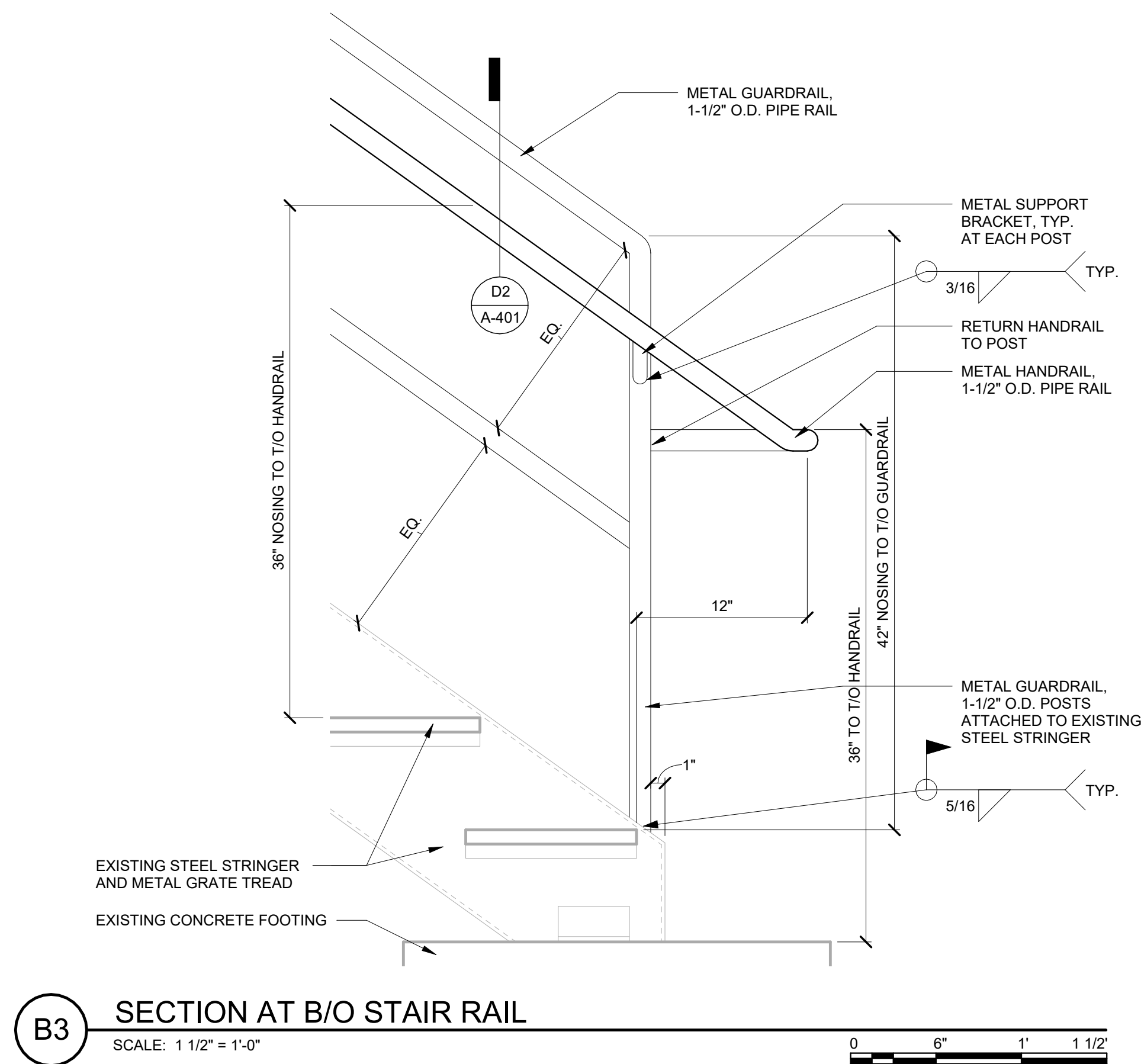
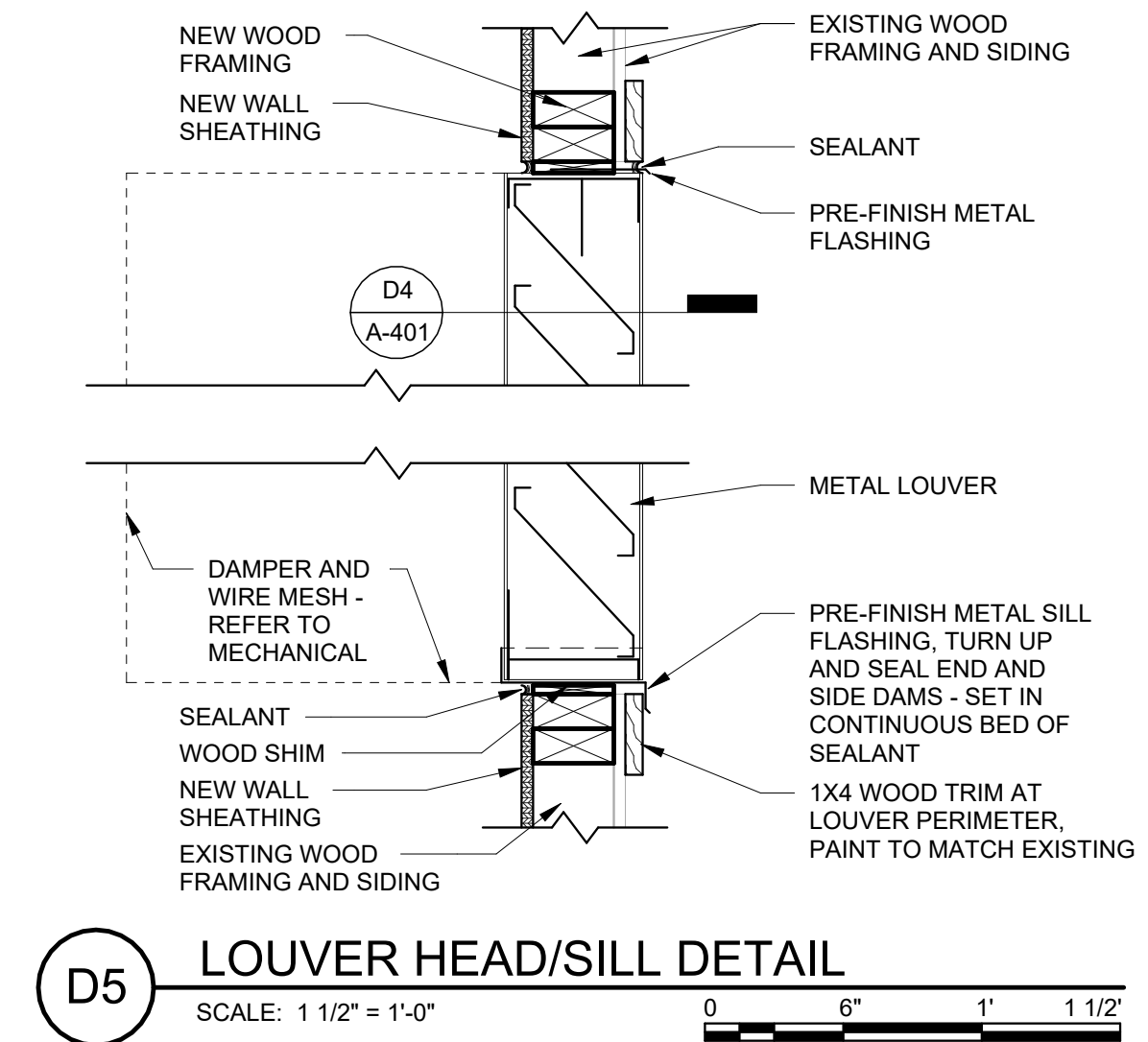
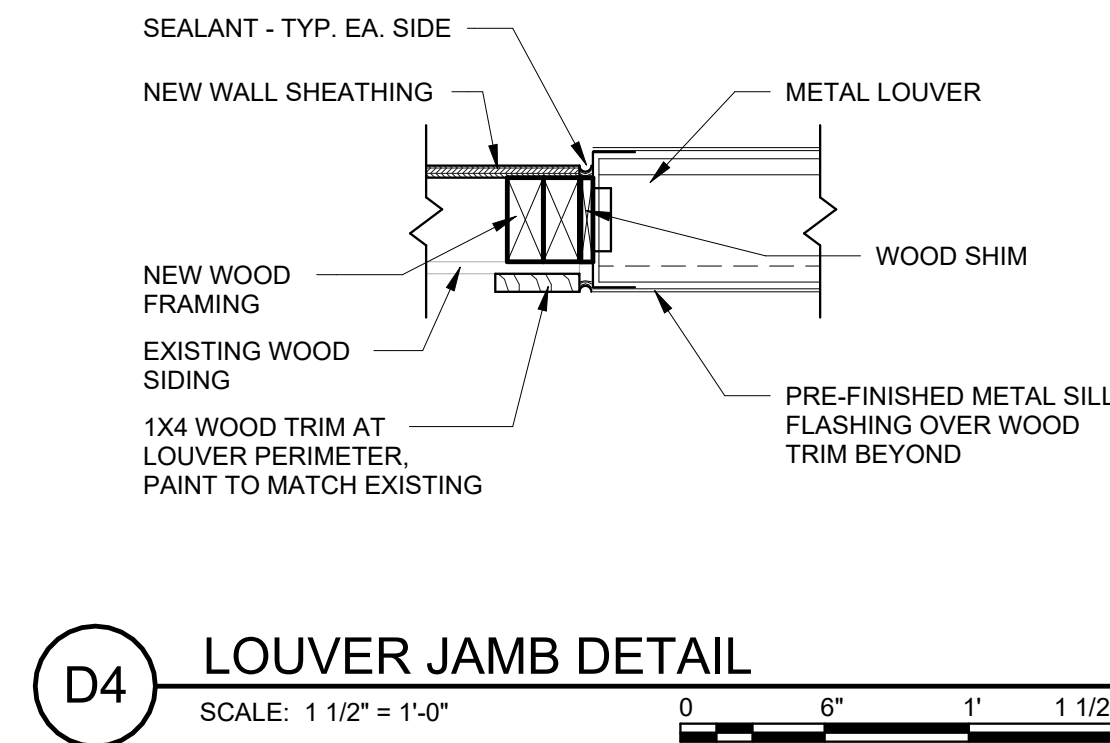
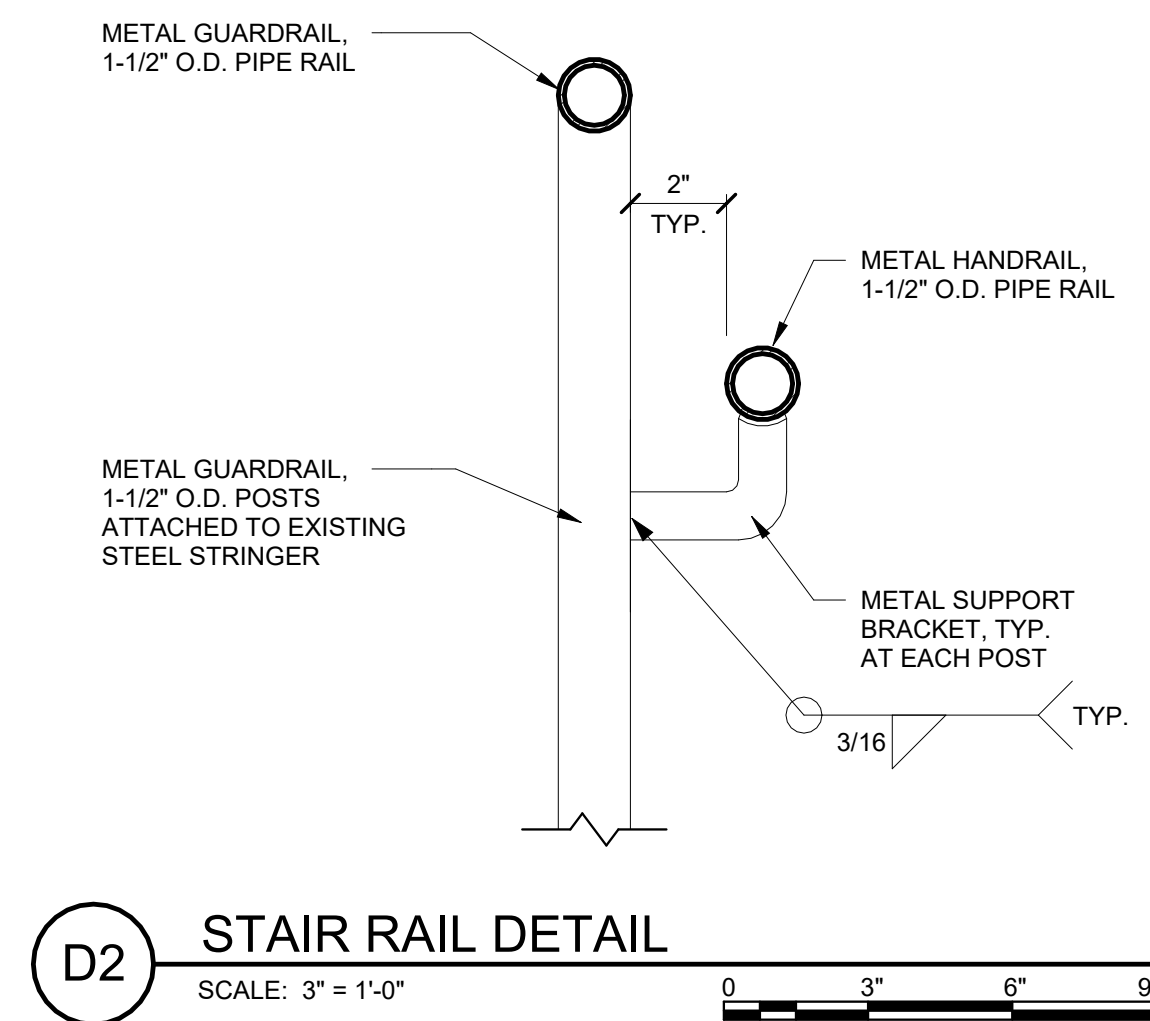
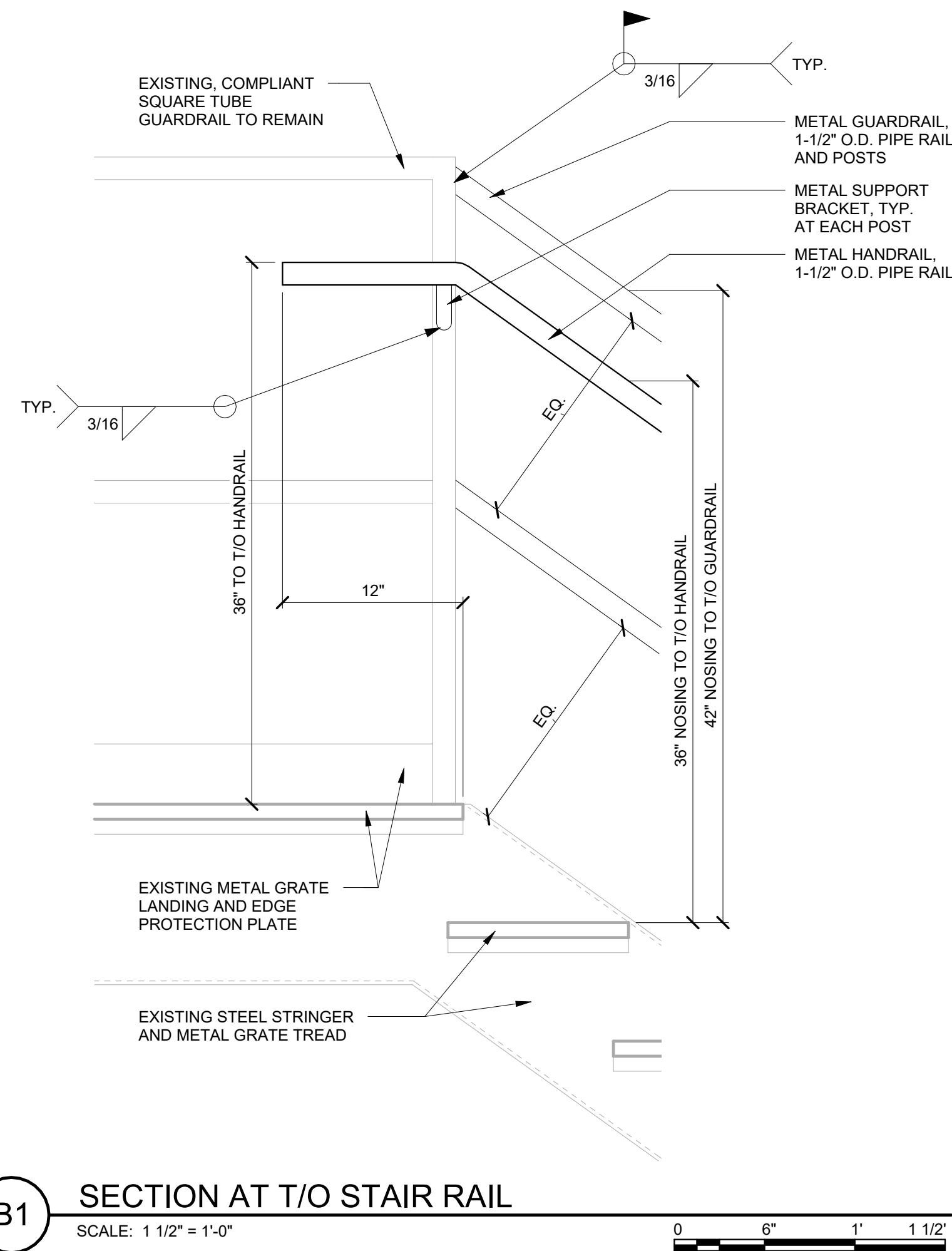


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WPAFB		WRIGHT-PATTERSON AIR FORCE BASE	
 AFC Emersion joint venture			
PROJECT NO:	17100428	PROJECT DATE:	03-30-2025
ENGINEERING CHIEF	W. BACDRAJ	DESIGNED BY:	S. DUFFY
CHECKED BY:	S. DUFFY	DRAWN BY:	A. BODART
COORDINATOR:	A. BODART	DATE:	MAR 2025
FILE NAME: 17100428.DWG			

REPAIR AIRCRAFT FIRE TRAINING FACILITY
F34091
WRIGHT-PATTERSON AFB, OHIO 45433

SHEET
IDENTIFICATION
A-401





In reply, please refer to:
2025-DEL-64733

May 13, 2025

Steven Byington
88 CEG/CEIE
1450 Littrell Road, Rm 9
WPAFB, OH 45433

RE: Aircraft Fire Training Center
Area A, WPAFB, Greene County, Ohio

Dear Mr. Byington:

This letter is in response to correspondence received on April 14, 2025. The comments of the Ohio State Historic Preservation Office (SHPO) are made in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The U.S. Air Force is proposing to rehabilitate the Aircraft Fire Training Center at Wright Patterson Air Force Base. The proposed work includes the modernization of the infrastructure to comply with current requirements for the fire training system. You have requested the comments of SHPO regarding the effects of the proposed undertaking on historic properties.

A check of our records indicates that this property is not listed in the National Register of Historic Places or included in the Ohio Historic Inventory. It is our opinion that it does not meet the minimum criteria for inclusion in the National Register of Historic Places. Therefore, we concur that the proposed rehabilitation will have no effect on historic properties. No further coordination with this office is necessary unless the project changes or an unanticipated discovery of archaeological remains occurs during project construction. In such a situation, this office should be contacted as per 36 CFR 800.13.

If you have any questions, please contact me at kkoehlinger@ohiohistory.org or (614) 298-2000. Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink that reads "Kristen M. Koehlinger".

Kristen Koehlinger, Department Head & Deputy State Historic Preservation Officer for
Resource Protection and Review

"Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs."

RPR Serial No: 1108467