



Vermont Agency of Transportation

Project Delivery Bureau - Environmental Section

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Memorandum

To: Vermont Advisory Council on Historic Preservation
From: Judith Williams Ehrlich, VTrans Historic Preservation Officer
Jeannine Russell, VTrans Archaeology Officer
Copy: Laura Trieschmann, State Historic Preservation Officer
Elizabeth Peebles, State Architectural Historian
Regarding: Proposal to Remove T-Hangars at Franklin County State Airport in Highgate, Vermont
Date: January 10, 2025

VTrans purchased a property in 2023 immediately adjacent to the Franklin County State Airport in Highgate. The property contains three older T-hangars, which were in a deteriorated condition when VTrans acquired it. After evaluating them, VTrans determined that the T-hangars should be removed. The three buildings are not used, in poor condition, and suffer vandalism as they are in an isolated location away from the regular activities that take place at the airport.

As part of a previous project with the Federal Aviation Administration (FAA), VTrans hired the consulting firm Mead & Hunt to complete a Resource Identification study of the Franklin County State Airport. The scope of work for the resource identification effort included conducting archival research on the history of the Airport and its surrounding area, developing a historic context for the Airport property, photographing the resources at and near the airport, identifying building use and architectural style, and evaluating whether each resource appears eligible for inclusion in the National Register of Historic Places (National Register). In addition, Mead & Hunt evaluated the overall airport as a potential historic district. Mead & Hunt recommended that there are three buildings near the airport property study area that are eligible for the National Register: the three ca. 1935 T-Hangars that are now proposed to be removed. The consultants recommended that the overall airport itself is not historic. No additional historic resources were identified in the study area.

The three c.1935 T-hangars are located south of the main airport grounds, are associated with the early development of the airfield, known at that time as the Missisquoi Airport, and are recommended significant under National Register evaluation *Criterion C: Architecture* as early wooden examples of this property type. A "T-hangar" is named based on the shape of the building, the footprint of which resembles a letter "T". Based on the information provided in the resource identification report, VTrans concurred that T-Hangars 1, 2, and 3 are considered historic and eligible for listing in the National Register. VTrans and FAA submitted a Section 106 memo for the project to the Vermont Division for Historic Preservation that included eligibility information for the three hangars and on February 28, 2022, Laura Trieschmann, State Historic Preservation Officer, concurred with the Section 106 memo, confirming that the three hangars were indeed historic. The three T-hangars were not impacted by that project.

Removal of the T-hangars is anticipated to be funded with state dollars only so VTrans has considered the potential impacts to the historic resources per the requirements of 22 VSA 14. Per the state statute, VTrans

must afford the Vermont Advisory Council on Historic Preservation an opportunity to review the project as the T-hangars are considered historic and their removal an Adverse Effect. VTrans is therefore seeking consultation with the Vermont Advisory Council on Historic Preservation.

For further details about the airport and nearby properties, please see the attached report from Mead & Hunt titled, “Resource Identification Report, Highgate AV-FY19-012 Airport, Resource Identification, Franklin County State Airport” and dated March 2019.

Since the resource identification survey, we have acquired additional information regarding the condition of the hangars. When the consultants completed the survey in 2019, there was snow on the ground and the T-hangars were difficult to access so the consultants were not able to view them up close. We now understand that the cladding on the buildings is particle board, some of which has a date stamp of 2016, so it is not the original material. As the buildings were constructed ca. 1935 and particle board was not widely used until starting in the 1950’s, one can assume the original siding on the buildings was likely plywood. Once painted, the plywood and particle board would appear similar from a distance.

VTrans considered whether this change in materials would impact the National Register eligibility determination and concluded that despite the change, the buildings still appear very similar to how they appeared originally, particularly from a distance, and should still be considered historic. In addition, we reviewed the types of buildings at each of the publicly owned airports in the state to determine if there are any other historic T-hangars on these properties. The survey determined that there are T-hangars at the Franklin County State Airport, Caledonia County State Airport, and Middlebury State Airport. In addition to the resource identification at the Franklin airport, VTrans previously hired consultants to also complete resource identification surveys of the Caledonia and Middlebury airports in association with past projects and, based on those surveys, concluded that there are no historic resources at either airport, including the T-hangars. DHP reviewed these determinations and concurred with VTrans’ findings. Therefore, the three T-hangars near the Franklin airport are the only ones that remain in Vermont from this early aviation era. Because they are the last of what may have once been a common type, they would be considered historic despite a change in cladding.

Airport Code	Airport Name	# T Hangars
MPV	Edward F. Knapp State Airport	0
FSO	Franklin County State Airport	6
CDA	Caledonia County State Airport	8
RUT	Rutland-Southern Vermont Regional Airport	0
EFK	Northeast Kingdom International Airport	0
5B1	John H. Boylan State Airport	0
6B0	Middlebury State Airport	2
MVL	Morrisville-Stowe State Airport	0
VSF	Hartness State Airport	0
DDH	William H. Morse State Airport	0

VTrans is concerned that these recently acquired and deteriorating, isolated buildings pose an ongoing threat to safety. As shown in the photos below, vandals have torn off siding to gain access. Because the state has no functional need for the buildings and they are not in use, they are not monitored on a regular basis. In addition, the slab floors are cracked and crumbling and the siding has been completely replaced with particle board, which does not hold up well over time and is not as strong as plywood, the likely original cladding material. State funding is limited and is generally not available to repair buildings that no longer serve any function. Therefore, VTrans is seeking to remove the deteriorating buildings to improve the overall safety at this state-owned property. The concrete slab foundations will remain in place.

Because removing the historic T-hangars would be considered adverse, VTrans understands that mitigation may be required and proposes to complete a Historic Resources Documentation Package that addresses all three buildings.

Archaeological Considerations:

The project area is located adjacent to the Franklin County Airport property on a level terrace south of the existing runway and other associated structures. Soils consist of Missisquoi loamy sand with 0-3% slopes. Youngman Brook is located approximately 0.9 miles to the north and the Missisquoi River is located approximately 0.8 miles to the south and wraps around to the west approximately 1.31 miles from the project.

Numerous previously recorded sites are located within 1.5 miles of the project, however, most of them are situated directly along the Missisquoi River or within close proximity to the river. Two of the closest sites are VT-FR-0376, located approximately .6 miles to the northeast along the edge of an old quarry and within close proximity to Youngman Brook. The site was comprised of an isolated find consisting of one flake from one test pit. No other Pre-Contact cultural material was found during the investigation. The other site is an historic farmstead VT-FR-0337, located within the northwestern portion of the airport property that consisted of a cellar hole, well, and other outbuilding foundation remains.

Several previous archaeological studies have been conducted on the airport property over the years as a result of previous projects including turf runway construction, hangar and garage construction, a new access road, and weather installation systems. None of these resulted in the identification of Pre-Contact sites. The most recent studies were conducted by NE Arch in 2021 as the result of two large projects that were part of an overall airport master plan. These were given the project numbers AV FY20-005 and -006. FY20-006 consisted of tree clearing on the northern end of the airport and runway widening extending to the west of the existing runway. FY20-005 consisted of runway expansion south beyond the existing runway (refer to NE Arch's Phase 1 End of Field letter "*Archaeological Phase 1 Survey of the Highgate AV-FY20-005 VTrans Franklin-Highgate Airport Project, Highgate, Franklin County, Vermont*" December 6, 2021). NE Arch was hired by VTrans to review an area of over 390 acres for both projects that also included a residential parcel south of VT 78 outside the airport property for some potential tree clearing to provide the required cleared area within the vicinity of the airport per FAA regulations.

NE Arch identified 9 areas of sensitivity throughout the property including what they refer to as "ASA 4" that comprised an area west of the existing runway extending south to VT 78. While the area containing the hangars is close to ASA 4, it was not included in the overall 2021 assessment as no activities were proposed in this area as part of either of the projects mentioned above. NE Arch excavated 57 test pits as part of the FY20 projects and did not identify any sites as a result of the phase 1 survey. Test pits excavated as part of the FY20-005 project which are closer in proximity to the area of the hangars varied and consisted of fill layers over sterile C horizons in places or layers of A or Ap over thin B horizons and C horizons to an excavated limit of approximately 60 cmbs. C horizons were noted in most test pits at 30cmbs and as shallow as 14cmbs in one test pit.

It is assumed that undisturbed areas east of the APE boundary reviewed during the FY20-006 project would be considered archaeologically sensitive based on the ARA from NE Arch for the FY20 projects and NE Arch mentioned in their Phase 1 report that any despite the lack of sites discovered as a part of these projects, areas within ASA 4 that were not tested as part of the former projects are recommended for testing if further activities were proposed.

Although these airport hangars are located on the level terrace east of ASA 4, it is also noted that there is an existing road extending from the main road to the hangars along the east side of the existing hangar locations.

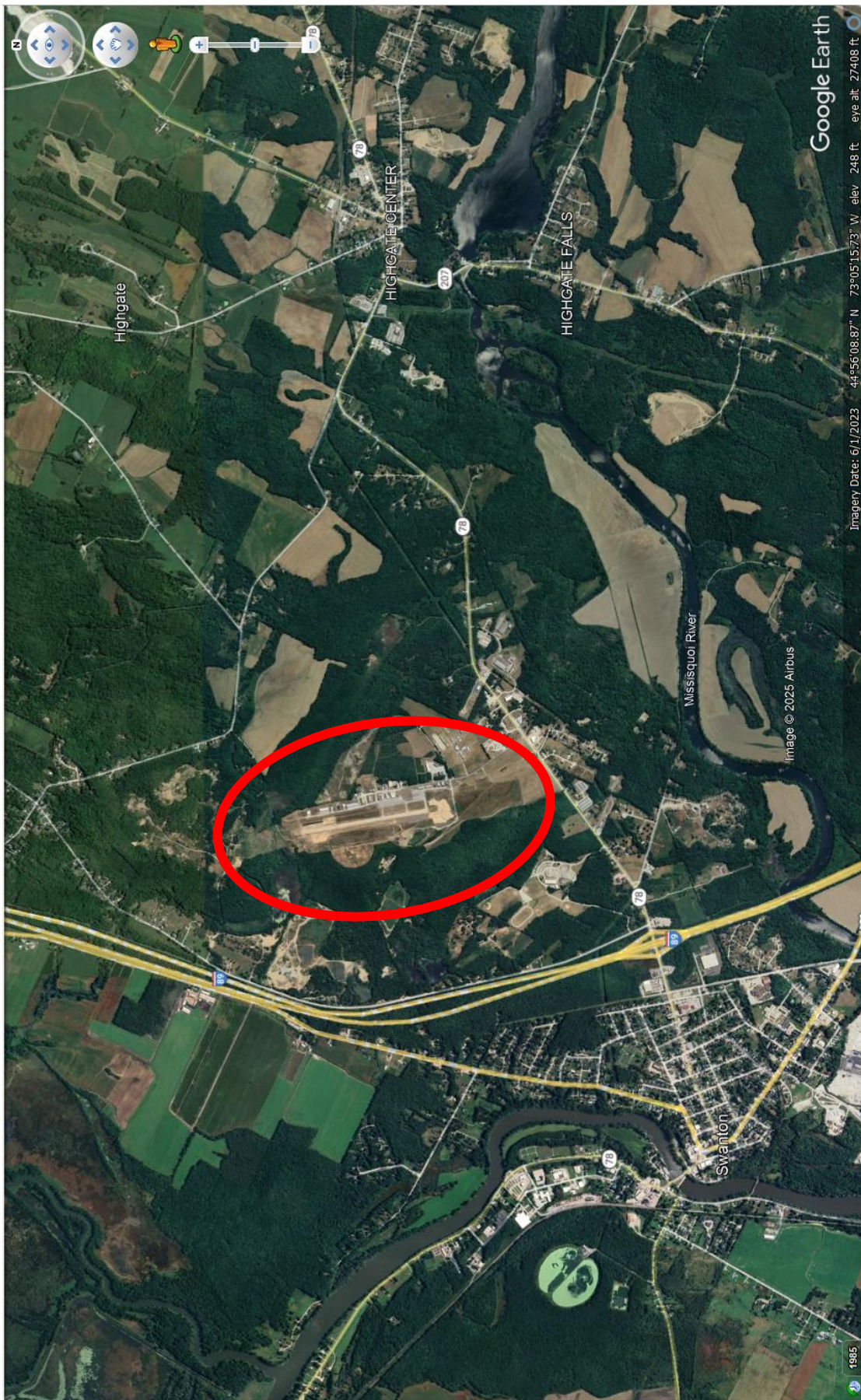
In addition, visual disturbance can be observed from past Google imagery dated 2015 included with this memo, and images from the Mead & Hunt report included in this memo also show the ground immediately outside the hangars and one can see some evidence of disturbance. There would have been previous disturbance associated with the construction of these hangars involving minimal excavation and leveling of the ground within the vicinity of each in order to pour the concrete slab on which these hangars are constructed. In addition, evidence of disturbance can be seen in the closeup Google 2015 image extending from the existing road immediately east of the hangars directly up to and in-between each structure.

These disturbances combined with the shallow soil profiles from the nearby FY20-005 study from 2021 suggest that the area within and immediately surrounding the hangars is not considered archaeologically sensitive as this area would have been disturbed to a depth that would have removed any cultural soil layers during original construction. However, areas outside the immediate vicinity could still remain sensitive based on the conclusions from NE Arch's ARA and should be avoided during hangar removal. Given that the concrete slabs are to remain in place combined with the limited APE required for removal, the VTrans Archaeology Officer concludes that removal of the hangars will not affect archaeological sites or sensitive areas provided that equipment accesses the hangars using the existing roadway for entrance and egress to the hangars and activities associated with the removal of the hangars be limited to the area outlined in red below. Protective fencing will be required along the limits of this area to prevent equipment from encroaching on potentially undisturbed areas that exist outside the immediate area of the hangars. See image immediately below for recommended fenced area. *If the hangars can be removed during winter on frozen ground, then the stipulation for fencing will not be required.

Thank you for your time and consideration of this request.



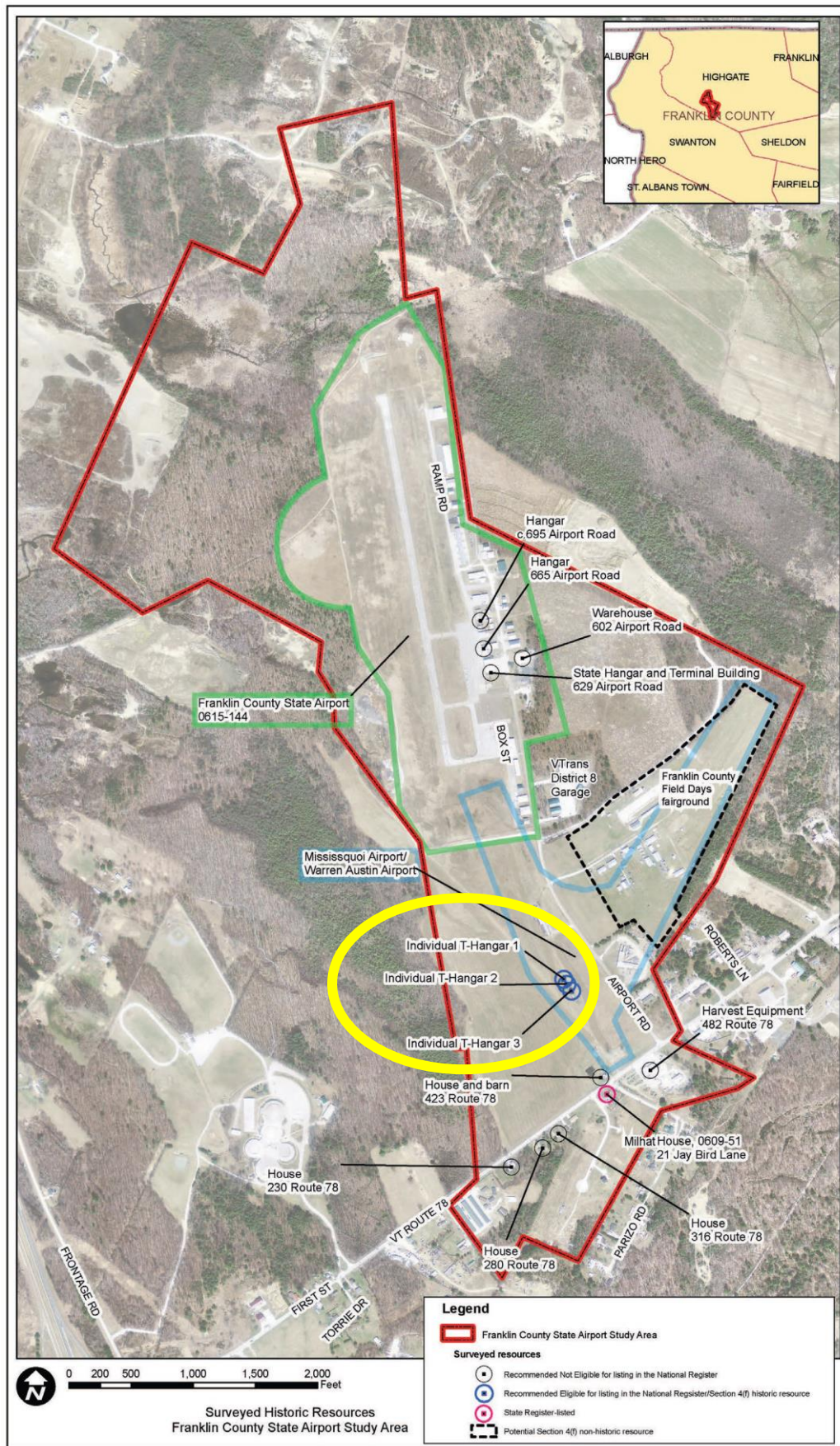
Image showing hangar locations and proposed protective fencing.



Location of Franklin County Airport in Highgate is circled in red. Image from Google Earth.



Location of three T-hangars circled in red. Image from Google Earth.



Map of surveyed above-ground properties with property/building labels. The three historic hangars are circled in yellow. Image from Mead & Hunt report.



Image of three historic T-Hangars along Airport Drive. View facing west. Image from 2019 Mead & Hunt report.



Image of T-Hangar 3 (northernmost). View facing west. Image from 2019 Mead & Hunt report.



View of rear elevation of T-Hangar #1 showing damage from recent vandalism. Image from 2024.



Interior view of one of the T-hangars showing particle board. Condition is similar in all three buildings. Image from 2024.



Interior view of one of the T-hangars showing the deteriorating concrete slab floor. Condition is similar in all three buildings. Image from 2024.



ORC map showing airport with project location (circled in red) in relation to previously recorded sites.



Google Image from 2015 showing the existing roadway and area of hangars. Disturbance can be seen in the areas immediately surrounding the hangars.



Closeup view from Google image (Dec 2015) showing disturbance from road right up to the edge of and in-between each structure.



Google Image from 2021 showing foundations from two other structures as well as the three existing hangars.



Image from Project Manager noting that the concrete slabs are to be left in place.