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Norris Properties  
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**FINDING OF NO SIGNIFICANT IMPACT**  
**TENNESSEE VALLEY AUTHORITY**  
**PHASE 1 EAST REGION CONSOLIDATION – NORRIS PROPERTIES**  
**SECOND SUPPLEMENTAL**  
**ANDERSON COUNTY, TENNESSEE**

In 2013, the Tennessee Valley Authority (TVA) developed an internal Valley-wide real estate strategy to effectively, and efficiently manage the agency-wide real estate portfolio to reduce costs and maximize the financial return on TVA's real estate assets<sup>1</sup> including office space. At present, TVA occupies two properties in the City of Norris, Anderson County, Tennessee as shown in Figure 1-1. TVA could achieve work process efficiencies and cost savings by consolidating similar functions in one physical location.

To meet office space requirements and consolidate the operations in a more efficient and economical manner, TVA is proposing to relocate the Central Laboratories and Services program (formerly known as the Inspection, Testing, Monitoring, and Analysis [ITMA] program) from Summer Place Building, aquatic laboratory (lab) from Walnut Orchard, water quality lab from the Greenway Area Office building (Greenway), and associated equipment storage needs to the Norris Engineering Lab Complex (Engineering Lab). The consolidation effort would require interior renovations to some of the buildings at the Engineering Lab. The consolidation effort would relocate approximately 40 TVA staff and associated vehicles, and 35 boats to the Engineering Lab.

The project is divided into two phases. The *Phase 1 East Region Consolidation – Norris Properties Final Environmental Assessment* evaluates the potential impacts associated with Phase 1, which would be focused on interior renovations of certain structures at the Engineering Lab, and exterior work focused primarily in the southern and eastern portions of the property. Phase 1 exterior actions include the demolition of two small boat sheds and Building I, clearing of trees, installation of lights and cameras for security on the exterior of certain structures, construction of a stormwater detention pond, trenching and groundwork in the vicinity of Buildings B and I, repaving/reconfiguring of parking areas, and construction of a new boat shed(s) in the vicinity of Building I. The first *Phase 1 East Region Consolidation – Norris Properties Final Supplemental Environmental Assessment and Finding of No Significant Impact (FONSI)* also evaluates the removal of up to 750 cubic yards of soil from the Engineering Labs to an existing offsite landfill and up to 2,000 cubic yards of material to the Walnut Orchard site to fill the former basement of a demolished structure. The second *Phase 1 East Region Consolidation – Norris Properties Final Supplemental Environmental Assessment and FONSI, completed February 11, 2020*, evaluates the transport of approximately 37,000 cubic yards of soil from the Engineering Labs to either Walnut

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<sup>1</sup> Title to real property held by TVA is in the name of the United States of America.

Orchard, for leveling the site, or to a landfill and the installation of an underground stormwater chamber system as an alternative to the previously evaluated stormwater pond.

Phase 2 is driven by security updates needed to bring the facility into compliance with current TVA security measures and protocols. Phase 2 would also address additional consolidation related actions that may be necessary as a result of TVA's ongoing evaluation of the condition of the existing facilities and program needs; this includes renovations to various buildings onsite that were unknown at the time of the Phase 1 assessment. This Phase 2 EA will evaluate the potential impacts associated with these additional actions in Phase 2.

### **Alternatives**

In accordance with the National Environmental Policy Act (NEPA), TVA developed and evaluated two feasible alternatives in the Phase 2 EA: Alternative A - the No Action Alternative and Alternative B – Phase 2 Engineering Lab Modification.

Under Alternative A, the No Action Alternative, TVA would continue with the previously evaluated Phase 1 actions as described in the Revised Phase 1 EA and the additional actions evaluated under the first and SEAs. No additional changes would occur at the Engineering Lab beyond the activities identified in those documents. Because many of the consolidation functions to be located at the Engineering Lab would require completion of the Phase 2 activities, this alternative would not meet the project's purpose and need. However, it does provide a baseline comparison for the proposed action alternatives.

Under Alternative B, TVA would complete consolidation of portions of TVA operations to the Engineering Lab located in Norris, Tennessee. Consolidation activities would be anticipated to begin in early 2020 and could last through 2021.

### **Overall site improvements:**

- Possible grade reconfiguration and repaving in the alley behind Buildings C and D as shown in Figure 2.1-1.
- Installation of antennas/cellular repeaters on the roof of Building B or a 30-45 foot radio tower on a concrete pad adjacent to Building D (Figure 2.1-1) along with associated conduit, cables and lighting.
- Trenching, foundation waterproofing, and other corrective measures around the exterior of various buildings (Buildings A, B, C, D, J, N, and junction of Buildings T and Q1) to address water intrusion, which may include construction of retaining walls, concrete gutters, re-grading, or similar methods to divert water.
- Exterior trenching behind Buildings C and D needed to survey and/or update/maintain sewer capabilities, electrical distribution; repair/replacements where needed.
- Connection of the new Boat Shop with the existing sanitation line.
- Limited tree clearing on TVA property to accommodate fences, gates, parking, and for security purposes. Tree clearing extending up to 10 feet on either side of the fences/gates in some areas, although clearing would only occur on TVA property; no trees would be cleared on private property. Several danger trees would be removed, mainly from the west

side of the site. Wood waste would be either transported offsite to an appropriate disposal location or chipped, composted, ground, and/or distributed onsite as mulch.

- Potential repairs, replacements, and/or rerouting of existing water and utility lines and any associated repairs required to surrounding area.
- Landscaping at various locations in the Phase 2 construction area.
- Possible addition of concrete pad(s) to display large artifacts near the site entrance (in front of/behind Building A, in front of Building C or D, and in the triangle near the entrance).
- Possible relocation of a prefabricated modular shed from the Walnut Orchard site to the Engineering Lab site. The shed would be placed in the southern portion of the Engineering Lab property near the boat-shed area or behind Building Q2 to limit the view for the rest of the Engineering Lab district. A concrete pad may be necessary for placement.
- Extension or addition of lit parking areas near Building B, C, and/or D, and in various locations around the property as shown in Figure 2.1-1; repaving in other areas around the campus as needed. Retaining walls / riprap will be added in some areas to support elevation changes.
- Execute proper documentation for existing onsite non-TVA utility lines or utility structures, including but not limited to sewer and water lines, on the Engineering Lab that are not reflected in existing legal documents (such as easements, licenses, etc.).

#### Modifications of site security measures:

- Extension and relocation of the security fencing and gates surrounding the property. The preferred security-fencing configuration is presented in Figure 2.1-1, however final configuration could vary slightly as modifications may be required as project plans are finalized. Trenching would be required for the electrical/fiber options wiring in association with the gates and between the gates and Building B. Existing fence may be removed/relocated/replaced in some areas.
- Addition of security fences and gates, including card readers, cameras, and light poles where required, including at the front entrance, to meet security and access requirements.
- Addition of security gate/card readers, cameras, illuminators in areas of the property not covered by existing systems. Illuminators would be downlights where possible. Light poles may be installed, primarily near entrance.
- Installation of security lights—freestanding or mounted on buildings – with down lighting to be utilized where possible. Most lighting would likely be mounted to buildings; new decorative light poles may be added near the site entrance.
- Provide secondary emergency vehicle access to the site, in the event of fire.

#### Minor renovations to Building A:

- Repairs to doors, vents, and gutters.

- Restoration of the existing fireplace to working condition. If any masonry work is required beyond the interior of the chimney (surrounding the fireplace or the exterior of the chimney) TVA would consult with the State Historic Preservation Office (SHPO).
- Exterior pressure washing and painting.
- In-kind roof repair or replacement.
- Interior and exterior repairs/replacements may be required. If such repairs/replacements are identified as project planning progresses, TVA would consult with the SHPO.

Minor renovations to the Building A & C Connector:

- Potential abatement of asbestos and lead containing materials in the connector to Building A. Existing caulk is known to have asbestos containing materials. If this caulk is abated, windows and/or window seals may need to be replaced.
- Exterior pressure washing and painting.
- In-kind roof repair or replacement.
- Interior and exterior repairs/replacements may be required. If such repairs/replacements are identified as project planning progresses, TVA would consult with the SHPO.

Moderate renovations to Building B:

- Installation of awnings near roll-up doors and/or exterior doors. Non-original exterior doors would be replaced; new lights and security equipment would be added in proximity to the new doors.
- Exterior pressure washing and painting.
- In-kind repair or replacement of trim, doors, windows, roof and gutter systems, etc. as necessary
- Replacement of an existing exterior transformer on the south side of Building B; secondary conduits to be added.
- Installation of new condensing units and concrete pads/platforms; includes disconnects with line-set wall penetrations (placement on both the north and south side of the building).
- Installation of new heating, ventilation, and cooling (HVAC) unit with disconnect and new concrete pad/platform; includes 20x12 exterior duct penetration. Various ducts would be added to support utility and HVAC connections.
- In-kind repairs to both interior and exterior of Building B to address possible termite damage.
- Capping the trench that traverses the office area within Building B.

Major renovations to Building C:

- Life safety and deferred maintenance including but not limited to: interior and exterior lighting, flooring, electrical, low voltage, plumbing, HVAC, and exhaust upgrades and

associated freon disposal, replacement of exterior condenser units and Americans with Disabilities (ADA) compliance.

- Installation of a new HVAC unit with disconnect and associated ducts to the second floor.
- Installation of various ducts to support utility and HVAC connections building wide.
- Installation of a fire sprinkler system. This system would be served by the existing site water main which runs between Buildings A and B. The new fire riser would be located in the Building C basement. The mains would be supported on the exterior walls. A new exterior Siamese fire hose connector may be installed. Actions would include trenching between Building C, the main site road, Building A, and the kiln. Hose bibbs would be added in various locations on the exterior of the building. A new fire department connection would be added.
- Installation of a new code compliant fire alarm system.
- Possible interior and exterior repairs/renovation to the basement to convert the space into a tornado shelter and/or storage space. Replacing/upgrading the existing sump pump with a reliable and redundant duplex system with control panel and alarm.
- Refurbish/renovate the entire interior including walls, flooring, ceiling, and doors.
- In-kind repair or replacement of non-original trim, doors, windows, roof and gutter systems (including the installation of new exterior double doors) and awning. Replacement windows would be consistent with original windows based on existing photographs.
- Installation of a roll-up entrance door or double door on the street (north) side of Building C, including the installation of a retractable fabric awning for the full width of the door. Includes new lighting, security equipment, hose bibb and exterior wood siding. The existing wood infill would be removed and brick used to infill the space around the replacement doors.
- Security improvements including cameras, car readers, and illuminators to be installed both in the interior and exterior of the building.
- Repair or replacement of existing non-original equipment such as the elevator to be code compliant.
- In-kind repair or replacement of brickwork, as needed.
- Modification and replacement of the existing roof and structural elements on the Building C rear basement stairway on the west side of the building. May also include raising elevation of landing at the bottom of the stairs, adding a weatherproof sheeting on the inside of the existing structure, and replacing the existing door.
- Exterior pressure washing and repainting.
- Removal of miscellaneous unnecessary and non-original added features including but not limited to metal brackets.
- New ventilation fan, replacement door, and light by basement.
- Installation of new mounted wall pack lighting units.

- Repair or replacement of the attic louver replacements on north and south elevations of the building.
- New condenser units with line-set penetrations through wall and disconnect (both south and west side of the building).
- Installation of wooden bat box(s) near Building C.
- Sealing of holes near the gutters and roof of the building to prevent entry of bats.

Major renovations to Building C& D Connector:

- Exterior pressure washing and repainting.
- Modifications to the circa 1990s interior of the Building C and D connector.
- Repair and/or replacement of breakers, panels, transformers, and the 1600 amp distribution center in Building C that serves both Buildings C and D (may require both interior and exterior work).
- Installation of a fire sprinkler system would require the addition of hose bibbs in the Building C & D Connector.
- In-kind repair or replacement of non-original trim, doors, windows, roof and gutter systems, etc. (including the installation of new exterior double doors) and awning.
- Security improvements including cameras, car readers, and illuminators to be installed in both the interior and exterior of the building.
- Installation of new mounted wall pack lighting units.

Moderate renovations to Building D:

- Improve the existing Building D entrance/exit on the rear (west) of the building for ADA compliance, with egress ramp and compliant handrails.
- Installation of a fire shutter system over the window located above and adjacent to the proposed egress ramp for code compliance: The preference is to retain all exterior openings and to install a rolling fire shutter. However, if this option is not feasible, TVA would consult with the SHPO.
- Installation of a new emergency exit on the rear (west) side of Building D.
- In-kind repair or replacement of failing double-leaf exterior doors. Repair is preferable, however, if repair is not possible then appropriate replacements would be installed.
- In-kind repairs or replacements to trim, doors, windows, roof and gutter systems.
- Exterior pressure washing and repainting.
- Possible elevation changes behind Building D to address water intrusion issues. Actions could include the removal of existing soil coverings (i.e. pavement, concrete, gravel, etc.), addition of soil, and rerouting of drainage pipes, and associated activities. This could also include possible relocation of utility poles due to height requirements for construction

activities or safety associated with circulation of vehicles around the site. This would likely include repaving and installation of riprap along slopes.

- Potential to demolish or remove a non-original surge tank – a metal chamber located inside and extending above the roofline of the building – and removal of the associated roof/tress structure.
- Removal of miscellaneous unnecessary and non-original added features including but not limited to an exterior ladder and metal brackets.
- Installation of new mounted wall pack lighting units.
- Sealing of holes near the gutters and roof of the building to prevent entry of bats.

Minor renovations to Buildings G and H:

- Deferred maintenance to ensure code compliance.
- Interior and exterior repairs/replacements may be required. Should such modifications be needed, TVA would consult with the SHPO.

Major renovations to Building J:

- In-kind repair or replacement of the roof.
- Removal of the roll-up doors on the north face of the building and replacement with walls and windows. The new walls would be finished with an exterior insulation finish system (EIFS) with a finish coat that would replicate the finish of the existing exterior walls of the building.
- Replacement of existing exterior entry/exit doors with updated doors.
- Replace windows on the north side of the building.
- Installation of new HVAC units and concrete pads/platforms on the south side of the building including new building penetrations and conduit.
- New condenser units with line-set penetrations through wall and disconnect.
- Relocation of the walk-in cooler currently at Walnut Orchard to a location adjacent to the east side of Building J. The cooler would be placed on a newly installed concrete pad under a new shed roof. An additional new concrete pad would be installed adjacent to the cooler pad to house a generator for the cooler.
- Removal of the knee wall on the east side of Building J.

Minor renovations to Building N:

- Exterior pressure washing.
- In-kind repair or replacement of roof.
- Interior and exterior repairs/replacements may be required. Should such modifications be needed, TVA would consult with the SHPO.

Minor renovations to Building T:

- Installation of planking or another cover material over an existing trough formerly used for flow calibration using water velocity. Installation of a cover over the trough would allow this space to be used for storage without removing character-defining equipment.
- Possible interior and exterior painting.
- Possible replacement of interior lighting.
- In-kind repair or replacement of roof.
- Possible installation of new storage shelving.

Minor renovations to Buildings Q1 and Q2:

- Application of an exterior waterproof coating or single ply roofing system to stop water intrusion on Buildings Q1 and Q2.
- Roof repairs where Building B joins the Quonset Huts.
- Repairs to the water lines serving Buildings Q1 and Q2.

This alternative was identified based on a set of criteria including: cost, efficiency, workplace design, security requirements, sustainability, environmental impacts, and meeting TVA's commitment to demonstrate financial and environmental stewardship.

**Alternatives Considered and Eliminated**

In addition to the alternatives described above, TVA considered three additional alternatives for the Phase 2 activities.

Alternative C – Demolition of Building C: Under Alternative C, TVA considered demolition of Building C. Building C has been in an abandoned status for several years and experienced water intrusion which resulted in the development of mold in the building interior. Some degradation of the structure also occurred while the building was not maintained. Because of the age and degraded condition of the building, TVA considered demolition of Building C. This alternative was eliminated because Building C is a contributing structure to the Norris Historic District and because TVA was able to identify additional consolidation activities, which could utilize the space, allowing for the renovation and restoration of this significant historic structure.

Alternative D – Sale of Buildings A, C, and D: Under Alternative D, TVA considered the sale of Buildings A, C, and D. Under preliminary planning, TVA considered the sale of these structures to minimize the costs associated with restoring the buildings and bringing them up to date with current building and life-safety codes. This alternative was considered but eliminated because all three buildings are contributing structures to the Norris Historic District and because TVA was able to identify additional consolidation activities, which could utilize the space, allowing for the renovation and restoration of these significant historic structures.

Alternative E – Demolition of Building H: Under Alternative E, Building H would be demolished to increase the turning radius for vehicles in the southwest corner of the property. As Building H is a contributing structure to the historic district, this alternative was eliminated from consideration.



## Impact Assessment

After analysis, TVA determined that the following resources would not be affected by the proposed action floodplains, wetlands, aquatic ecology, prime farmland, and recreation as evaluated in the Revised Phase 1 EA (March 2019). Additionally, TVA determined there would be no new impacts to land use, wildlife, vegetation, beyond those evaluated in the Revised Phase 1 EA and Phase 1 Second Supplemental EA.

TVA determined there would be minor and temporary adverse impacts associated with historic and archaeological resources, aesthetics, threatened and endangered species, surface water, transportation, noise, and solid and hazardous waste associated with the Phase 2 activities. These impacts would be associated with the potential for soil runoff, visual changes, presence of construction equipment, increased traffic flow, mobilization of dust, generation of noise and vibration, and increased waste disposal associated with the construction activities. The use of best management practices would minimize these impacts.

## Mitigation

To minimize or reduce the environmental effects of the project evaluated in the Phase 2 EA, TVA would utilize standard operating procedures, best management practices, and mitigation measures. TVA could specifically employ the following mitigation measures:

- If TVA deems replacement of windows, doors, trim, or roof systems are necessary in to any buildings in the district and in-kind replacement is not possible or determines additional moderate renovations to structures or general features of the site not mentioned in this EA are necessary following completion of this analysis, TVA would engage in additional consultation with the SHPO to determine appropriate mitigation for adverse effects.
- The following measures would be taken to ensure that those actions likely to ~~affect the~~ affect the contributing buildings—pressure washing, repointing and repair of brick, and replacement/removal of historic windows and doors—would be in keeping with the SOI's Standards for Rehabilitation:
  - Pressure Washing: Exterior pressure washing should start with a very low pressure (100 psi or below), even using a garden hose, and progressing as needed to slightly higher pressure—generally no higher than 300-400 psi). Scrubbing with a natural bristle or synthetic bristle brushes may also be used. It would also be tested first in an inconspicuous area to ensure it does not damage exterior siding, windows, or masonry.
  - Repointing/Repair of Brick: The new mortar must match the historic mortar in color, texture and tooling. Laboratory analysis may be required to match the binder components and their proportions with the historic mortar. The new mortar must have greater vapor permeability and be softer than the masonry units and the historic mortar. Replacement brick should match in color, texture, and size to blend with the full range of masonry units on a wall rather than a single brick or stone.
  - Replacement/Removal of Historic Windows: Preservation of historic windows should be the first consideration. When repair is not feasible, replacements must not change the historic appearance of windows through inappropriate designs, materials, finishes, or colors which radically change the sash, depth of reveal, and muntin configuration; the reflectivity and color of the glazing; or the appearance of

the frame. Thus, when replacement is required instead of repair, additional SHPO consultation is required to ensure the proposed actions are in keeping with the SOI's Standards for Rehabilitation.

- Replacement of Historic Doors: Preservation of historic doors should be the first consideration. When repair is not feasible or possible, replacements must not change the historic appearance of doors through inappropriate designs, materials, finishes, or colors which radically change the sash, depth of reveal, panel and light configuration; the reflectivity and color of the glazing (if present); or the appearance of the frame. Thus, when replacement is required instead of repair and in-kind replacement is not feasible, additional SHPO consultation is required to ensure the proposed actions are in keeping with the SOI's Standards for Rehabilitation.
- To minimize potential impacts to threatened and endangered bat species, tree removal would avoid June and July when Indiana bats and northern long-eared bats are most vulnerable in trees and TVA would implement the identified conservation measures identified in the bat strategy form in Appendix A.
- At least one month prior to renovations, Buildings C and D would be surveyed for evidence of wildlife. Should actively nesting/breeding wildlife be observed in these buildings, avoidance or minimization measures would be put in place (e.g. seasonal restrictions on activities). Additionally, TVA would install exclusion devices on the interiors of Buildings C and D during winter months and place wooden bat box(es) near Building C to provide alternate summer roosting habitat.
- For any existing onsite non-TVA utility lines or utility structures including but not limited to sewer and water lines on the Engineering Lab property that are not documented in existing legal documents (such as easements, licenses, etc.), TVA will work with the appropriate utility company to address and execute proper documentation.

In addition to the mitigation measures specific to the Phase 2 activities described above, TVA could also continue all mitigation measures described previously for ongoing Phase 1 activities including:

- To minimize potential impacts to transportation resources, TVA could travel the transportation route with a representative of the City prior to construction to identify areas of concern that may have occurred between the date of the field investigation and the commencement of the Phase 1 soil transport activities as described in the Phase 1 Second Supplemental EA.
- TVA would designate a point of contact to address any issues that may develop during the hauling and construction operations.
- Once soil transport activities begin, if it is determined that the noise and vibration from truck traffic are a nuisance to the surrounding community or congestion is an issue for drivers during peak traffic hours, TVA could work with the City to adjust the times of hauling operations to avoid additional disturbances.
- To mitigate potential impacts to transportation resources, TVA could compensate the City as necessary to prevent certain damages and to repair damages to infrastructure, if any,

that would directly result or are directly resulting from TVA's activities associated with the transportation of the Engineering Lab soil or construction vehicle activities.

- Compensation associated with repairs following the completion of soil transport and construction activities is limited to repairs needed to bring the infrastructure back up to existing conditions, after impacts resulting from TVA activities.
- To minimize the potential for impacts to utilities, TVA could place steel plates on the roads or could coordinate with the utility providers as needed to place steel plates to minimize the potential for impacts.
- TVA could monitor the potential for vibrations created by any soil compaction activities. Should vibrations be identified from the soil compaction activities, which result in damage to buildings or property in the vicinity, TVA would stop compacting activities until appropriate mitigation measures are identified. Mitigation could include modifying compaction methods, installation of vibration monitors, taking photography, and maintaining documentation of existing damages to structures, if any, monitoring of changes in structures, if any, and/or the potential to provide compensation, as appropriate, should it be determined that structural damage, if any, was a direct result of the vibrations associated with TVA's activities.

### **Conclusion and Findings**

Based on the findings of the Phase 2 EA, which are incorporated by reference, TVA concludes that Alternative B – Phase 2 Engineering Lab Modification would not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required.



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Date Signed