

White Gardens- Adjusted Treatment Plan for House and Barn- 2021

The Fairfax County Park Authority has made improvements to the house in the recent years, and is preparing for additional improvements to be completed by CY2022. These include wallpaper removal, mold remediation, painting, window and porch roof repairs, public water and sewer connection, and HVAC replacements. To account for these improvements, the associated line items and cost estimates have been removed from the 2017 White Gardens Treatment Plan. Additionally, the Adjusted Treatment Plan utilizes the the Consumer Price Index to account for inflation between 2017 and the first half of 2021.

Structure	Estimated Total for Required Treatment Plan	Estimated Total with CPI Cost Adjustments
House	\$253,206.00	\$270,930.00
Barn (Optional)	\$53,548.00	\$57,296.00
TOTAL	\$306,754.00	\$328,226.00

White Gardens- Adjusted Treatment Plan- House (Required Tasks)

Totals	\$
Total Projected Cost	
Total Actual Cost	
Total Difference	

Totals	\$
Year 1	
Year 2	
Year 3	
Year 4	
Year 5	

ID	Structure	Sub-Category	Description	Year #	Quarter #	Date of Completion	Treatment Plan Cost	Curator Adjusted Cost	Actuals	Notes
	House	Roof - Gutters	Replace missing or damaged gutters and downspouts, and ensure they are draining properly into the subgrade storm water drain leaders to direct bulk water away from the foundation walls. Note that in order to replace hanging gutters in kind, new strap hangers must be installed and secured to the roof rafters beneath the slate shingle roofing such that localized slate shingle removal and reinstallation is necessary.				\$8,250.00			
	House	Windows - Misc.	Remove built-up debris against basement windows, and ensure drains in window wells are working properly. Maintain the window wells to prevent the drains from becoming obstructed.				\$600.00			
	House	Plumbing - Maintenance	Determine if a sump pump or other drainage system is present in the basement and that it is able to properly evacuate water build up. If present, perform remedial work as required to ensure the system is functioning as designed.				\$1,352.00			
	House	Foundation - Cellar/Basement	Remove up to 2 inches deep of deteriorated mortar at CMU and brick joints in basement and replace with a mortar strength similar to the original design intent, such as a Type N Portland Cement mortar (masonry cement is not recommended). Pack open voids in the wall assembly with mortar and repoint deteriorated or open mortar joints.				\$33,000.00			
	House	Roof - Repair	Replace copper valley flashings, chimney cricket and upslope flashings, and intersection flashing between the west wing ridge and the center core eave. Replace the two-piece vent pipe penetration flashings with one-piece lead flashings. Localized slate shingle removal and reinstallation/replacement is necessary to fully access the copper flashings for replacement. Provide waterproof underlayment at these locations integrated with the existing roofing felt underlayment in addition to the copper flashing.				\$8,000.00			
	House	Windows - Misc.	Replace broken glazing lites for windows and doors. Ensure all windows are fully closed and locked to minimize the potential of water infiltration into the interior.				\$550.00			
	House	Doors - Exterior	Restore the exterior wood door assemblies, and ensure the door sashes can freely operate and lock. This includes general cleaning of all components, glazing putty repair/replacement, minor wood repairs, weatherstripping replacement, and repainting.				\$6,400.00			
	House	Electrical - Misc.	Replace missing glass globe on front porch ceiling light fixture.				\$200.00			
	House	Electrical - Misc.	Clean all light fixtures with a damp cloth.				\$500.00			
	House	Electrical - Misc.	Replace burned-out light bulbs with new bulbs.				\$150.00			
	House	Electrical - Misc.	Clean all light fixtures and replace missing glass shades and globes in kind using existing pieces as examples.				\$6,200.00			
	House	Windows - Misc.	Install new blinds to match the existing blinds (still present in Bedroom D) at all window assemblies.				\$1,840.00			
	House	Structural - Walls	Replace the rotten wood stud framing members at Bedroom C and in the southwest corner of the attic above Bedroom C. Use similar wood species and installation techniques as existing members. Partial dutchman repairs may be feasible in lieu of full member replacement depending on the orientation and size of the repair.				\$4,813.00			
	House	Foundation - Cellar/Basement	Monitor the basement for continued water infiltration; if significant water infiltration still occurs after completing the recommendations listed above, the following options may be considered: OPTION B - Install a French drain at the exterior of the foundation wall. This option will require excavation around the perimeter of the foundation wall.				\$4,900.00			
	House	Exterior - Masonry	Replace severely cracked brick units in kind. Remove incipient spalls and unsound material. Minor spalls and chips can be left in place.				\$525.00			
	House	Exterior - Masonry	Prepare and repoint cracked or open mortar joints in the brick masonry at both the house and the greenhouse wall.				\$1,500.00			
	House	Exterior - Masonry	Investigate area of cracked mortar along second floor line on south facade to determine the condition of the embedded steel. If the steel is intact, remove surface corrosion and treat the steel with a corrosion inhibiting coating. Based on the investigation, additional repairs may be recommended, which may include replacement of the steel if significant section loss is observed (not included in the cost estimate shown).				\$2,028.00			
	House	Exterior - Masonry	The exterior stone pavers and brick facades should be cleaned to remove efflorescence, organic growth, metallic staining, residual sealant, and general soiling.				\$4,500.00			
	House	Exterior - Masonry	Remove abandoned fasteners and anchors, and replace the brick or mortar at the penetration location.				\$350.00			

House	Exterior - Masonry	Remove the existing coating from the surface of the brick in the window wells. Do not apply a new coating material.				\$875.00			
House	Exterior - Woodwork	Remove existing paint and repaint wood trim at eaves. Replace deteriorated wood trim where required. Some deteriorated wood may be repaired through a partial dutchman approach rather than full replacement.				\$6,000.00			
House	Exterior - Woodwork	Remove all loose, soft, and deteriorated wood at the glass porch soffit and replace in kind.				\$460.00			
House	Exterior - Metal	Replace areas of torn aluminum bird screen at glass porch soffit in kind.				\$100.00			
House	Exterior - Woodwork	Remove loose paint at front entryway and glass porch soffit until sound coating substrate is found. Feather the edges of the surrounding paint and allow wood to fully dry. Prime and repaint.				\$705.00			
House	Exterior - Woodwork	Patch holes in the wood posts at the front entryway with an epoxy wood filler.				\$28.00			
House	Exterior - Walls	The fiber-cement siding should be cleaned to remove organic growth and general soiling. If the manufacturer is determined, follow the manufacturer's typical cleaning recommendations.				\$760.00			
House	Chimney - Maintenance	Perform limited repointing to repair cracked or eroded mortar joints at north and south chimneys as noted in the Masonry recommendations above.				\$4,350.00			
House	Exterior - Trim & Finishes	Reinstall the missing shutter on the south facade (currently located in the north window well). If the shutter is damaged beyond repair, install a new shutter to match the existing shutters in kind.				\$50.00			
House	Interior - Walls & Ceilings	After the prioritized roof flashing repairs are performed, monitor interior areas with existing water damage (particularly Bedroom C, first floor foyer closet, second floor closet, dining room, and Bedroom A) to ensure the repairs addressed the source of the water infiltration.				\$676.00			
House	Foundation - Cellar/Basement	After the prioritized repairs are performed, monitor the basement regularly, particularly after rain events, to ensure the repairs addressed the source of the water infiltration.				\$676.00			
House	Insulation	Ensure the insulation observed at the perimeter of the attic and storage room floors is continuous below the floor boards.				\$1,014.00			
House	Roof - Repair	Remove and reinstall the surface-sealed strip saddle ridge slates set with new adhesive or flashing cement in accordance with industry standards.				\$9,000.00			
House	Roof - Repair	Replace the small slate shingle roofing and copper flashings at the small secondary roof located on the east side of the north chimney. Integrate flashings into sloped chimney surface and counterflashing the flat seam copper roof below. Add copper rake edge flashing.				\$1,000.00			
House	Roof - Repair	Re-secure loose slate and replace broken slate shingles in the roofing field. Utilize the nail-and-bid or slate hook method for securing of isolated replacement slate shingles; the sheet metal strap method utilized for recent repairs is not recommended due to the tendency for the strap to unfold in a relatively short period of time.				\$1,350.00			
House	Roof - Repair	Re-install missing/failed snow guards when slate roof is next replaced in full. Installed snow guard type requires slate shingle removal for reinstallation.				\$3,043.00			
House	Windows - Misc.	Remove the existing exterior perimeter sealant at the wood windows. Install new backer rod and non-staining silicone joint sealant at the interface between the wood window assembly and the surrounding brick.				\$3,300.00			
House	Windows - Misc.	Reinstall the cleaned storm windows and screens if desired; annual cleaning between the storm windows and the original windows is recommended.				\$300.00			
House	Windows - Misc.	Restore the metal window assemblies in the basement window wells, and ensure the window sashes can freely operate and fully sit in the glazing pocket. This includes cleaning, glazing putty repair/replacement, minor metal repairs, weatherstripping replacement and repainting.				\$6,000.00			
House	Windows - Misc.	Remove the existing exterior perimeter sealant at the metal windows. Install new backer rod and non-staining silicone joint sealant at the interface between the metal window assembly and the surrounding brick.				\$650.00			
House	Windows - Misc.	Remove debris from window wells and ensure drains in window wells are working properly semi-annually to prevent accumulation of debris against the windows.				\$200.00			
House	Windows - Misc.	Remove the existing exterior perimeter sealant at the aluminum-framed IGUs. Install new backer rod and non-staining silicone joint sealant at the interface between the storefront window assembly and the surrounding substrates.				\$2,550.00			
House	Windows - Misc.	Remove exterior sealant from the interface between the IGUs and the surrounding aluminum framing. Install a fillet bead of structural grade silicone sealant with appropriate backing material around the perimeter of the IGUs.				\$6,450.00			
House	Windows - Misc.	Replace the corroding ferrous fasteners in the aluminum framing with zinc plated steel fasteners.				\$1,125.00			
House	Windows - Misc.	Clean the IGU assemblies to remove general soiling and surface oxidation.				\$1,444.00			
House	Windows - Misc.	Clean the replacement attic windows at the gable ends to remove general soiling.				\$120.00			
House	Windows - Misc.	Remove the existing exterior perimeter sealant at the vinyl attic windows. Install new backer rod and non-staining silicone joint sealant at the interface between the vinyl window assembly and the surrounding siding.				\$350.00			
House	Interior - Walls & Ceilings	Repair cracked or missing plaster in place by filling cracks or damaged areas with compatible new material. Remove water damaged plaster until sound material is found, and replace in kind.				\$3,500.00			Price adjusted from \$21,000 because repair work is mostly complete
House	Interior - Walls & Ceilings	Clean plaster ceiling in basement to remove microbial growth. If the plaster is soft or otherwise deteriorated, replace in kind. Patch or replace plaster ceiling in the basement where there are holes.				\$2,741.00			

House	Interior - Walls & Ceilings	Remove loose paint from walls and ceilings until sound coating substrate is found. Sand and feather the edges of the surrounding paint. Prime and repaint. Match original paint color as close as possible.				\$3,588.00			
House	Doors - Interior	Clean and repaint or refinish all doors. Repair wood at joinery and areas of minor damage where needed.				\$6,370.00			
House	Doors - Interior	Re-install the swing door between the kitchen and the dining room. Repair hinges if required to make the door fully operational.				\$100.00			
House	Doors - Interior	Evaluate the original French doors found in the basement to determine if they are salvageable. If salvageable, restore and reinstall the original doors at the east doorway between the living room and the glass porch. If the original doors are not salvageable, replace with similar doors.				\$500.00			
House	Windows - Misc.	Replace the wood lintel above the west basement window. Match the existing in size. Use a wood species that will perform well when exposed to moisture, such as redwood or cedar.				\$350.00			
House	Interior - Masonry	Clean the CMU in the basement and the brick in the glass porch at areas of staining. No cleaning products containing strong acids (e.g., hydrofluoric or hydrochloric acid) should be used on the masonry at any time, as such acids are harmful to persons, animals, and the environment, and can cause damage and staining of the masonry.				\$2,275.00			
House	Interior - Masonry	Remove white coating at CMU in basement				\$9,100.00			
House	Interior - Walls & Ceilings	Remove all wallpaper. Paint walls and ceilings or install new wallpaper to represent the typical interior finishes of the late 1930s				\$7,450.00			Price adjusted from \$37,450.00, because wallpaper removed.
House	Interior - Walls & Ceilings	Replace stained or broken ceiling tiles in glass enclosed porch. Perform testing to confirm whether or not hazardous materials are present in the assembly.				\$875.00			
House	Interior - Misc.	Clean all wood and metal cabinets, staircases, and ornamental wood throughout house. Repair, repaint, or refinish as necessary.				\$3,000.00			
House	Interior - Flooring	Clean and refinish wood floor throughout the home				\$21,000.00			
House	Interior - Flooring	Replace cracked or missing linoleum tiles in the kitchen and Bathroom A with similar materials and pattern to match the existing.				\$360.00			
House	Interior - Flooring	Remove the carpet in Bathroom B. Replace with linoleum floors that are similar to the other linoleum floors.				\$350.00			
House	Interior - Flooring	Replace loose or missing brick pavers in the glass porch and repoint areas of deteriorated or missing mortar joints.				\$125.00			
House	Permitting	Closeout documents and permits				\$1,000.00			
House	Trash Removal	Trash removal				\$1,000.00			
House	Fire and Security System	Temporary Protection				\$500.00			
House	Mechanical - Repair	Demolition				\$500.00			
House	Mechanical - Repair	First floor toilet exhaust				\$350.00			
House	Mechanical - Repair	Second floor bathroom exhaust				\$1,050.00			
House	Mechanical - Repair	Registers and grilles				\$500.00			
House	Mechanical - Repair	Duct cleaning				\$750.00			
House	Mechanical - Repair	Gas range				\$900.00			
House	Mechanical - Repair	Range hood				\$500.00			
House	Mechanical - Repair	Clothes dryer exhaust				\$50.00			
House	Mechanical - Repair	Basement dehumidifier				\$500.00			
House	Mechanical - Repair	Water heater				\$1,400.00			
House	Mechanical - Repair	Insulation - piping				\$750.00			

House	Mechanical - Repair	Kitchen sink and faucet				\$350.00			
House	Mechanical - Repair	Garbage disposer				\$400.00			
House	Mechanical - Repair	Dishwasher				\$700.00			
House	Mechanical - Repair	Laundry sink				\$750.00			
House	Mechanical - Repair	Clothes washer and dryer				\$1,500.00			
House	Mechanical - Repair	Lavatory faucets				\$1,200.00			
House	Mechanical - Repair	Bathub/shower faucets				\$1,800.00			
House	Mechanical - Repair	Toilet flapper and fill valves				\$300.00			
House	Mechanical - Repair	Clean gutters and downspouts				\$250.00			
House	Mechanical - Repair	Splashblocks				\$400.00			
House	Mechanical - Repair	Gas piping				\$500.00			
House	Mechanical - Repair	Demolition				\$250.00			
House	Electrical- Repair	200A, 120/240V 1-phase panelboard + GFI/AFCI CBs				\$1,200.00			
House	Electrical- Repair	60A, 120/240V 1-phase sub-panelboard + GFI/AFCI CBs				\$700.00			
House	Electrical- Repair	60A, 120/240V 1-phase sub-panelboard + GFI/AFCI CBs				\$700.00			
House	Electrical- Repair	Light fixture replacement				\$3,000.00			
House	Electrical- Repair	Toilet room receptacles GFCI				\$975.00			
House	Electrical- Repair	Replace receptacles with grounded type				\$1,200.00			
House	Electrical- Repair	Replace smoke detectors with AC powered type				\$900.00			
House	Electrical- Repair	Support HVAC replacements				\$2,500.00			
House	Electrical- Repair	Add toilet room exhaust, wiring with switch				\$900.00			
House	Electrical- Repair	Add power for dehumidifier				\$250.00			
House	Electrical- Repair	Add power for garbage disposal				\$250.00			
House	Electrical- Repair	Dedicated circuits in kitchen				\$1,000.00			
House	Electrical- Repair	Kitchen GFCI receptacles				\$100.00			
House	Electrical- Repair	Lamp replacement				\$2,250.00			
House	Other	GC Overhead				\$4,908.00			
House	Other	GC Profit				\$5,398.00			
House	Other	Contingencies				\$8,907.00			
House Total						\$253,206.00			
House Total with CPI Cost Adjustment						\$270,930.00			

White Gardens- Tasks Removed from 2017 Treatment Plan

ID	Structure	Sub-Category	Description	Year #	Quarter #	Date of Completion	Treatment Plan Cost	Curator Adjusted Cost	Actuals	Notes
	House	Foundation- Cellar/Basement	Monitor the basement for continued water infiltration; if significant water infiltration still occurs after completing the recommendations listed above, the following options may be considered: OPTION A - Install a waterproofing membrane at the exterior facing side of the foundation walls. This option will require excavation of the soil around the perimeter of the foundation wall, cleaning the masonry from latent dirt, and application of a membrane. This is the most disruptive and costly option, and it does not address water infiltration coming through the east foundation wall that is below the living room.				\$ 60,500.00			Option A for Water Infiltration
	House	Finish Analysis	Perform analysis of CMU				\$ 2,400.00			Removed to reduce cost
	House	Finish Analysis	Perform analysis of brick				\$ 2,400.00			Removed to reduce cost
	House	Finish Analysis	Perform analysis of mortar				\$ 5,700.00			Removed to reduce cost
	House	Finish Analysis	Perform painted finishes analysis (chromochronology)				\$ 2,400.00			Removed to reduce cost
	House	Finish Analysis	Perform paint analysis at painted interior finishes (kitchen and bathroom walls, chair rails, baseboards, doors, etc.), to determine original paint colors.				\$ 8,000.00			
	House	Mechanical Repair	HVAC System 1				\$ 6,500.00			
	House	Mechanical Repair	HVAC System 2				\$ 8,500.00			
	House	Roof- Repair	The effective lifespan of the installed copper roof covering may be extended by application of a reinforced roof coating, targeted treatment of the seams or re-covering the roof with an adhered membrane.				\$ 12,188.00			
	Home	Roof- Repair	Replace the flat-lock soldered seam copper roof above the glass porch in kind, including the built-in gutter liner. The replacement roof should be carefully designed by a qualified roof consultant and installed by an experienced historic roofing contractor to accommodate thermal expansion/contraction of the sheet metal roofing and guttering, and include a waterproof underlayment membrane.				\$ 32,500.00			
	House	Windows - Misc.	Restore the wood window assemblies, and ensure the window sashes can freely operate and fully sit in the sash channel. This includes cleaning, glazing putty repair/replacement, minor wood repairs, weatherstripping replacement, and repainting. Note that exterior storm windows and screens will need to be temporarily removed to perform this recommendation.				\$76,800.00			
TOTAL REMOVED							\$ 217,888.00			

White Gardens-Required Tasks for Barn (Optional)

Improvements to the c.1876 barn located on the White Gardens property are not required for the curatorship of the White Gardens house. However, should the curator desire to use the barn, a minimum investment into priority improvements would be required. These improvements are outlined below and are taken from the 2017 Treatment Plan.

Totals	\$
Total Projected Cost	
Total Actual Cost	
Total Difference	
Totals	\$
Year 1	
Year 2	
Year 3	
Year 4	
Year 5	

ID	Structure	Sub-Category	Description	Year #	Quarter #	Date of Completion	Treamtnet Plan Cost	Curator Adjustment Cost	Actuals	Notes
	Barn	Basement	Remove thin, loose and deteriorated mortar until sound mortar is reached from the exterior and interior suraaces of the fieldstone foundation walls. There may be locations between individual stoen units where mortar is deteriorated or missing a significant depth into the wall. Using am ore fluid mortar mix to fill these voids may be iprotant to the long term stability and water resistance of the fieldstone foundation wall. Remove mortar in limited areasa at a time (exterior only or interior only) and repoint prior to addressing adjacent areas to prevent the wall from becoming unstable.				\$37,500			
	Barn	Basement	Install new gutters and downspouts at the barn roof, and ensure they are draining properly into the subgrade stormwater drain leaders (if stormwater drain leaders not present, install new splash blocks) to direct bulk water away from the fieldstone foundation walls. Note that in order to install new hanging gutters new strap hangers must be installed and secured to the roof rafters beneath the shingle roofing such that localized shingle removal and reinstallation is necessary.				\$4,350.00			
	Barn	Exterior- Wood	Perform partial or full wood dutchman repairs where there are holes in the cladding. Use a wood species that is similar to the existing wood.				\$500.00			
	Barn	Exterior- Wood	All exterior wood surfaces should be cleaned and recoated on a cyclical basis. Remove the existing coatings from all exterior surfaces and repaint. Perform testing to confirm presence of lead based paint.				\$8,663.00			
	Barn	Interior- Structural	Engage a professional engineer to provide a designed repair for the failed pole rafter on the south side of the roof; the installed supplemental dimension lumber is not an engineer solutoon and may be related to the visual sag in the roof surface				\$2,535.00			
Barn Total							\$53,548			
Barn Total with CPI Cost Adjustment							\$57,296.00			