

# **TURNER FARM Turner Farm Treatment Costs**

10609 Georgetown Pike Great Falls, Virginia 22066



# Turner Farm Treatment Costs November 10, 2016

WJE No. 2015.3162.4

Prepared for:
Fairfax County Park Authority
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# TURNER FARM TREATMENT PLAN

BUILDING	ESTIMATE TOTAL	WITH 20% CONTINGENCY
FARMHOUSE TOTAL	\$253,735.75	\$304,482.90
GARAGE TOTAL	\$131,395.00	\$157,674.00
EQUIPMENT SHED TOTAL	\$14,115.50	\$16,938.60
CRIB BARN RESTORATION TOTAL	\$39,120.00	\$46,944.00
CRIB BARN REHABILITATION TOTAL	\$64,105.75	\$76,926.90
MILK HOUSE TOTAL	\$28,024.10	\$33,628.92
DAIRY BARN TOTAL	\$70,569.75	\$84,683.70
SILO TOTAL	\$2,115.50	\$2,538.60
TOTAL INCLUDING CRIB BARN RESTORATION	\$539,075.60	\$646,890.72
TOTAL INCLUDING CRIB BARN REHABILITATION	\$564,061.35	\$676,873.62



Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
Architectural					
All exterior wood elements should be clean and repainted on a cyclical basis. In this climate, maintenance cycles for residential grade coatings on wood are typically between seven (7) and ten (10) years and depend heavily on the preparation the substrate received, the exposure, and the bond between the new coating and the existing elements.	6250	sf	\$2.25	\$14,062.50	
Repair deteriorated wood at secondary gable and Repaint. Inspect asphalt shingle roof termination when painting the gable and repair for proper integration, if needed.	6	lf	\$20.00	\$120.00	
Install half-timbered decorative trusses following the pattern of missing paint at the secondary gable.	6	lf	\$20.00	\$120.00	
Finishes analysis on farmhouse (includes windows, doors, plaster on first and second floor, spindle work, and juliet balcony)	16	ea	\$800.00	\$12,800.00	At WJE rates per contract
At doors with broken or missing glazing, replace glass with similar glazing, clean and repair wood where needed, and paint.	15	ea	\$100.00	\$1,500.00	Glazing lites each
Remove boards at the exterior from obscured doors and windows, inspect and address any additional damage not observable from interior.	2	ea	\$150.00	\$300.00	
Replace broken fixed window glazing and replace with an era appropriate pattern/texture on west facade.	1	ea	\$350.00	\$350.00	
Install sealant fillet joint at perimeter of windows	832	lf	\$6.00	\$4,992.00	
Replace damaged screen on west facade first floor window.	1	ea	\$100.00	\$100.00	
Re-secure or replace door handle at the non-historic door of the Kitchen (104) on the west facade.	1	ea	\$50.00	\$50.00	
Engage a local chimney inspector to inspect the interior of the firebox and chimney.	2	ea	\$250.00	\$500.00	
Repair shingles at the northeast corner to ensure roofing is watertight.	6	sf	\$75.00	\$450.00	
Infill fastener holes at window of enclosed porch on the north facade. Paint.	6	ea	\$15.00	\$90.00	
Inspect flashing at Juliet balcony to ensure secure and lapped properly to encourage water shed.	4	hrs	\$169.00	\$676.00	At WJE rates per contract
Repair cracked wood decorative spindle element at Juliet balcony.	3	lf	\$25.00	\$75.00	
Remove miscellaneous horizontal boards at decorative gable shingles above Juliet balcony, fill fasteners holes and paint.	3	ea	\$80.00	\$240.00	
Review the gap between the second floor flashing and porch roof on the north façade up close and determine if it poses a risk for water infiltration due to wind driven rain or snow accumulation. As part of cyclical maintenance, inspect standing seams of metal roof over the porch and repair if needed.	2	hrs	\$169.00	\$338.00	At WJE rates per contract
Install storm shutters at original windows (if archival documentation is found).	12	ea	\$62.50	\$750.00	Windows listed in qty, each window had two shutters
Remove exposed cable at the porch on north facade.	1	ea	\$50.00	\$50.00	
Door from formal dining room to porch should be inspected and repaired when the door can be opened.	2	hrs	\$143.00	\$286.00	At WJE rates per contract; repairs cannot be anticipated until door has been opened and inspected.
Install new WRB as recommended by the insulation block manufacturer to avoid damaging insulations forms.	1250	sf	\$4.25	\$5,312.50	
Install new exterior cladding once WRB is in place sensitive to house design (similar to ship lap)	1250	ea	\$8.00	\$10,000.00	



Recommendations	Quantity	Unit	Unit Price	Cost	Comments
Consider removing wood lattice between the porch columns as it is not a historic feature of the					
home.	11	ea	\$15.00	\$165.00	
If non-original lattice is to remain in place, paint.	352	ea	\$2.00	\$704.00	Assuming 4'x8' each
Install new downspout on north facade at daylighting connection at valley.	1	ea	\$35.00	\$35.00	
Reconnect fallen downspout at southeast corner.	1	ea	\$35.00	\$35.00	
Investigate stained gutter at north facade and ensure any debris is removed to ensure proper drainage.	1	ea	\$50.00	\$50.00	
Replace any deteriorated and damaged wood at non-historic porches on south and west facades.	200	lf	\$8.00	\$1,600.00	
Install new access to south patio.	1	ea	\$550.00	\$550.00	
Install new railings on south patio	45	1f	\$10.00	\$450.00	
Apply sealer or paint to exposed wood.	275	sf	\$2.50	\$687.50	
Apply sealer or paint exposed wood to the exposed wood cellar door.	1	ea	\$45.00	\$45.00	
Clean CMU retaining wall and applying a breathable coating for masonry. Clean and apply corrosion inhibiting coating on reinforcement and install coping cap to protect reinforcing.	50	sf	\$8.00	\$400.00	
Monitor cracks in concrete floor slab at east wall and near mechanical room. Route and seal if no movement is observed.	20	1f	\$25.00	\$500.00	
Repair damage to entry door from porch in the Formal Dining Room (102).	1	ea	\$125.00	\$125.00	
Repair frame at large doors to the Living Room (101). Clean and rest doors on tracks as they were unable to be moved.	2	ea	\$325.00	\$650.00	
Maintain and document hinges at door openings where doors have been removed. If door is to be replaced, look at inventory of doors in the equipment shed for potential replacements.	4	hrs	\$143.00	\$572.00	At WJE rates per contract
Clean and repair wood elements at door frame on the south wall of the Casual Dining Room (103), the left jamb may need to be completely replaced. Repaint.	1	ea	\$125.00	\$125.00	
Remove transom infill at historic door between the Kitchen (104) and Parlor (106) where door has been removed. Install glass to restore transom.	1	ea	\$325.00	\$325.00	Assume 3' x 2'
Clean and repaint door at Closet in Parlor (106).	1	ea	\$48.75	\$48.75	
Reset cabinet adjacent to the fireplace in the Formal Dining Room (102) once structural repairs are made.	1	ea	\$225.00	\$225.00	
Reset cabinet in the north corner of the Casual Dining Room (103) once structural repairs are made.	1	ea	\$225.00	\$225.00	
Document historic window infills in the Formal Dining Room (102), first floor bathroom (105), and second floor bathroom (206).	4	hrs	\$143.00	\$572.00	At WJE rates per contract
Replace broken glazing in the lower pane of a window in the Living Room (101), lower pane in the Casual Dining Room (103), closet window in Bedroom (204), upper left pane of northeast window in Bedroom (201), and top pane of glass on north window in Bedroom (201). Clean and repair wood where needed. Replacement glass should be similar to historic glass existing at the house, if possible.	5	ea	\$50.00	\$250.00	



Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
Clean and repaint all windows. Ensure windows are operational. Once windows have been cleaned, inspect wood for any deteriorated wood elements and repair. Maintain profile and	52	ea	\$125.00	\$6,500.00	
orientation of window elements such as muntin spacing and size.					
Clean and paint all baseboards.	1250	lf	\$1.25	\$1,562.50	
Replace metal sash lift at south window in the Casual Dining Room (103). Utilize other sash lifts intact as an example.	1	ea	\$25.00	\$25.00	
Replace missing glass with similar glazing at the large window on the south wall of the Casual Dining Room (103), clean and repair wood where needed, and paint. Remove board at the exterior and inspect for additional damage not observable from interior.		ea	\$400.00	\$400.00	
Remove baseboard and repair any deteriorated areas below windows on the east wall of the Casual Dining Room (103). Re-install once plaster has been repaired and paint.	31	lf	\$27.00	\$837.00	
Modern windows in Kitchen (104) are exposed wood. Wood should be protected either by clear coating or paint.	2	ea	\$35.00	\$70.00	
Complete interior finishes in Bedroom (204) and Bedroom (207) around windows to obscure insulation and gaps.	5	ea	\$75.00	\$375.00	
Replace window at the Enclosed Porch (208) with a proper fitting window.	1	ea	\$75.00	\$75.00	
Replace all non-historic wood wall finish (particle board) and install new interior finishes with proper interfaces with window.	75	sf	\$75.00	\$5,625.00	
Clean and repair/replace deteriorated wood elements at the historic attic window. Paint.	1	ea	\$48.00	\$48.00	
Repair plaster cracking once structural repairs have been completed.	3750	lf	\$6.00	\$22,500.00	Using 30% of plaster surfaces cracked
Repaint all interior plaster finishes once repaired.	12500	sf	\$3.00	\$37,500.00	Of wall surface (perimeter lf x wall height 10' [est])
Remove and clean spindlework at entryway while plaster repairs are being undertaken. Reinstall spindlework once plaster repairs and repainting is complete.	1	ea	\$350.00	\$350.00	Assume 8' x 4'
Infill penetrations in wood floor of the Hallway (100) and Formal Dining Room (102) with wood filler and finish.	5	ea	\$50.00	\$250.00	Assume NTE 1/2" in diameter
Inspect stained wood flooring for any soft wood that should be repaired. The staining typically occurring near radiators. As such, the radiators may need to be removed to fully inspect and perform any repairs and cleaning.		hrs	\$143.00	\$1,144.00	At WJE rates per contract
Repair crack in wood flooring along south wall in the Formal Dining Room (102) with similar wood species and finish.	12	1f	\$60.50	\$726.00	3/8" wide at widest point
Install baseboard and infill all gaps at the floor at Hallway (100) and Hall transition to ensure they tie back to the structure.	15	1f	\$40.00	\$600.00	
Install proper transitions between rooms throughout the first floor to fill span gaps between floor boards and to make transitions between rooms smooth without a tripping hazard or abrupt change in elevation.		1f	\$21.67	\$195.00	
Re-secure baseboard (skirtboard) at back hall stairs.	5	lf	\$8.00	\$40.00	
Install sealant along top of stair baseboard and paint.	48	lf	\$6.00	\$288.00	
Investigate newel post at second floor back hall stairs to ensure stable, infill gap.	2	hrs	\$169.00	\$338.00	At WJE rates per contract
Repair visible chipping and missing wood in the Parlor (106).	10	sf	\$35.00	\$350.00	



Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
Fix loose and debonded tiles and grout or replace non-historic flooring once appliances are installed. Reset loose tiles and re-grout, or replace non-historic flooring in the Bathroom (205).	675	sf	\$8.00	\$5,400.00	
Repair any cracked tiles and regrout the Bathroom (105).	10	sf	\$750.00	\$7,500.00	
Repair crack in baseboard between stair treads in rear hall stairs.	5	lf	\$40.00	\$200.00	
Remove soft and damaged wood at the hole in the attic floor and repair.	5	sf	\$40.00	\$200.00	
Re-secure faucet cap at shower in the Bathroom (105).	1	ea	\$30.00	\$30.00	
Install backer rod and sealant above medicine cabinet in the Bathroom (105).	3	lf	\$10.00	\$30.00	
Remove abandoned fasteners and patch at the walls of the Bathroom (105).	5	ea	\$25.00	\$125.00	
Install sealant at crown molding joints where they have separated in the Bathroom, paint (105).	10	1f	\$10.00	\$100.00	
Inspect for soft deteriorated wood at the door frame and repair and repaint at the Bathroom (105).	19	1f	\$10.00	\$190.00	
Infill gap at ceiling at the 2000s Kitchen (104) and the original doorway of the house with backer rod and sealant, which allows for this material to be removed in the future (reversible).	3	1f	\$15.00	\$45.00	
Replace non-original interior finishes in the Kitchen (104) once new appliances are in place to address existing holes.	1030	sf	\$4.50	\$4,635.00	Counters and cabinets.
Monitor for active water leaks in the closets for Bedrooms 201 and 202, Enclosed Porch (208), and attic.	16	hrs	\$143.00	\$2,288.00	At WJE rates per contract; could include cost on how much it would take for us to monitor/visit and a line item for data loggers (\$8K to \$10K)
Clean and refinish wood floor in Enclosed Porch (208). Seal.	34	sf	\$20.00	\$680.00	
Contact Department of Agricultural for a list of registered beekeepers to inspect the attic and potentially relocate bees.	1		\$300.00	\$300.00	
Structural					



Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
Based on several of the crack patterns that we observed, gaps at interior finishes, out of plumb window and door openings, and warping of the first floor, it appears that the house may have been racked during lifting operations and we anticipate that inadequate support during lifting of the house or uneven lifting caused a majority of these issues. Deflections were observed in several framing members which indicate the members are potentially being overloaded and it is unknown whether the current support configuration for the farmhouse is adequate without further documentation and analysis. WJE observed wood beam spans that approached 27 feet; a length not commonly spanned by unsupported beams. WJE also observed beams that were not properly braced and wood framing elements that appeared to be taking on load. Although the type and extent of repairs cannot be determined without further investigation, we anticipate that potential repairs include:  • Sistering of wood members that exhibit decay or have been compromised due to notching;  • Installation of supplemental wood members and posts (often metal columns) to address spans that are excessive or load paths that create members which are overloaded; and	1	ls	\$7,500.00	\$7,500.00	Allowance for installation of supplemental structural elements.
Jacking to level the first floor.	1	ls	\$22,500.00	\$22,500.00	
Monitor gaps between interior finishes and cracks in the plaster walls and ceiling for any substantial movement or change but hold off on performing repairs until repairs are made to level the first floor framing as additional movement and cracking may occur as a result of efforts to correct those deficiencies.	1	ls	\$750.00	\$750.00	
Repair wood bridging between first floor joists by installing new bridging where missing and reanchoring disengaged bridging.	1	ea	\$750.00	\$750.00	
Replace deteriorated floor boards on the first floor walking surface.	25	sf	\$40.00	\$1,000.00	
Perform a core sample, or other destructive testing method in coordination with a structural engineer, to determine original foundation.	16	hrs	\$143.00	\$2,288.00	At WJE rates per contract
Mechanical, Electrical, and Plumbing					
The electrical panels in the Farmhouse have inspection stickers applied to the front of the panel indicating that only initial inspections have occurred including temporary electric and gas. Recommend that all construction is completed and final inspections are received for all trades prior to occupancy or use of the structure.	1	ls	\$2,000.00	\$2,000.00	Only obvious work was in the finishing out the basement. This excludes any unknown modifications to the upper floors.
In several locations within the basement and attic, electrical wires are cut off, disconnected, or have exposed wire ends either inside or outside of an approved junction box or panel. Recommend having a skilled electrician survey the building to locate, identify, safe, or remove electrical wiring that does not meet current code requirements. Temporary wiring should no longer be left in place. Panel directories should be corrected and completed.	1	ls	\$1,100.00	\$1,100.00	Exclusive of the work for the item above.
The roof collar around the gas vent flue serving the boiler and water heater leaks water into the attic. Water stains are evident in the attic and daylight can be seen around the flue pipe.	1	ls	\$150.00	\$150.00	



Recommendations	Quantity	Unit	Unit Price	Cost	Comments
The boot or roof collar around the plumbing vent stack leaks water into the attic. Daylight car be seen around the vent boot from inside the attic.	1	ls	\$150.00	\$150.00	
Recommend installing a plug in the gas rough-in for the stove until the stove is replaced to prevent accidental discharge of gas. Additionally, relocate the gas piping penetration from below to the exterior wall to allow flexibility in placement of the stove/oven.		ls	\$500.00	\$500.00	
The boiler appears to have been left operating to prevent freezing conditions over the winter despite the plumbing fixtures being winterized. However, the boiler does not fire, likely due to a faulty ignition module or flame sensor. This exposes the heating system to possible freezing conditions and may jeopardize one or more of the existing radiators. The risk of flooding is minimized with the water service being turned off at the meter. Fairfax County Park Authority should determine if the boiler should be left running, or drained and turned off. Please note that MBP turned off the manual gas valve following visual inspection, but the circulator pump continues to run based on demand from one of the zone valves.	a g S 1 V	ls	\$200.00	\$200.00	
There is an open Tee fitting in the washer rough-in piping at the basement level near the floor This appears to have a rag stuffed in the pipe with obvious signs of past leakage. This tee should be capped or plugged if unused and the rag should be removed.		ls	\$50.00	\$50.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
All electrical panels are dirty and dusty with leftover parts. The panels should be vacuumed and wiped out prior to final inspection.	1	ls	\$50.00	\$50.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
All panels have some screws missing in the covers. Recommend that these are replaced.	1	ls	\$50.00	\$50.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
Breakers have been removed or relocated but blank covers are missing in the open slots Recommend providing blanks for all open breaker slots.	. 1	ls	\$50.00	\$50.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
The panel schedules are outdated and incomplete. Recommend updating prior to final inspection, use, or occupancy.	1	ls	\$300.00	\$300.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
Recommend verifying that all bolted electrical connections are torqued to manufacturer recommended torque values.	1	ls	\$75.00	\$75.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
Though not a residential requirement, the County should verify the requirements of NFPA 70E are met if the structure will be used for commercial purposes.	1	ls	\$50.00	\$50.00	
Storm drain box inlet at basement stairs should be cleaned at least annually. If possible, a screen should be applied on the outlet pipe (into the basement) to prevent leaf trash from entering the basement sump.		ls	\$50.00	\$50.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
Recommend having an electrician review the junction boxes installed in the basement or foundation walls where corrosion is present. It may be beneficial to replace these with plastic boxes due to corrosion.		ls	\$250.00	\$250.00	For replacement.



Recommendations	Quantity	Unit	Unit Price	Cost	Comments
	Quantity	UIIIt	Unit Frice	Cost	Comments
Recommend having an electrician review the installation of wiring near the stove and sink rough-in, including installation of Romex near or through tile flooring, junction box installation, and wire support.	1	ls	\$75.00	\$75.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
The burner section of the boiler should be cleaned to remove dust and corrosion from the tops of the burner and to ensure that the jets are clear.	1	ls	\$75.00	\$75.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
Following correction of the ignition cycle of the boiler, the automatic vent damper operation should be checked. The damper does rotate, but its closed position should be verified when the boiler firing cycle is satisfied to ensure maximum efficiency.	1	ls	\$50.00	\$50.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
The boiler is currently running with a very low system pressure (cold) and the water service has been turned off. Makeup water should be available when the boiler is operating, however, possible unchecked flooding could occur. The pressure regulating valve operation and setting should be checked upon restart of the boiler.		ls	\$50.00	\$50.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
The basement thermostat has been removed from the wall and hangs freely. This may cause a false heat signal, or prevent heating when needed. Recommend the thermostat is mounted and leveled on the exposed framing to ensure that heating reaction is correct.	1	ls	\$75.00	\$75.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
The hot water heater manual gas valve was turned off prior to visual inspection. Recommend that the heater is fully flushed, heat exchanger and pilot is cleaned, and the system is checked prior to beginning operation in the future.	1	ls	\$250.00	\$250.00	
MBP was not able to remove the sewage ejector pit lid to access the pump due to stripped bolts. Recommend that the ejector pump is inspected and operation is ensured prior to placing the basement level waste piping system into operation, including washer rough-in piping and lower level bathroom.	1	ls	\$400.00	\$400.00	Includes new stainless steel bolts.
The flue vent pipe for the basement wood stove enters a damaged (broken) clay thimble less than 12" from combustible subflooring and floor joists for the first level above. Additionally, it is not clear that the clay thimble is rated for zero clearance from combustible materials as it passes through the floor. Recommend that this chimney flue is abandoned at the basement level and the woodstove is removed. If the chimney is allowed to remain, review installation with a code official.	1	ls	\$150.00	\$150.00	For removal of the wood stove.
Pipe insulation at the basement level should be completed to increase the efficiency of the heating and domestic hot water systems.	1	ls	\$1,500.00	\$1,500.00	
There is an existing cistern or well located just east of the outside basement steps, currently covered with an aluminum plate. Although historical, the presence of collected water adjacent to the foundation should be reviewed. Note that it does not appear that the piping in the well is currently active.		ls	\$150.00	\$150.00	Includes water testing.



Recommendations	Quantity	Unit	Unit Price	Cost	Comments
MBP was not able to test the quality of water supplied to the farmhouse as it appears that the utility meter has been turned off at the street. MBP recommends water testing prior to any occupancy or use of the facility. Additionally, it may be beneficial to visually inspect the interior condition of the water service piping inside the structure, which is galvanized piping. Galvanized piping is known to corrode from the inside of the pipe and can clog valves or strainers, affect pressure reducing valves, or contribute to contamination of the water system. Replacement of service piping from the meter to the house with plastic piping is recommended if possible or feasible. It should be noted that the frost proof ground hydrant installed outside the barn tested positive for E. Coliform bacteria and lead and it is possible that existing underground piping serving the farmhouse may exhibit similar test results.	1	ls	\$150.00	\$150.00	Water testing only.
The septic system and drain field were evaluated by Five Star Septic and Portables. The distribution box was unable to be definitively located, but it appears to be located under a section of asphalt driveway. Locating this distribution box is recommended. Septic field components are required to be accessible and this portion of the driveway should be removed to allow access and prevent damage to the distribution box and potential damage to the nearby drain field lines.	1	ls	\$5,000.00	\$5,000.00	Demo of the asphalt plus reseeding.
The Farm House septic tank was located and cleaned by a contractor, Five Star Septic, who also located and defined the boundaries of the existing septic field. During a supplemental visit, Five Star Septic attempted to locate the distribution box using a camera and utility locator. The camera was refused at a length of just over 100 feet due to the poor conditions of the existing concrete sewer piping and lack of intermediate cleanouts between the septic tank and distribution box. Five Star Septic recommends that the concrete pipe be replaced due to the damage (breaks or holes) visible on the inspection video.	1	ls	\$33,200.00	\$33,200.00	For cast iron replacement, combined with the next item.
The location, routing and connection of the Garage sewer pipe was investigated on a supplemental site visit. The existing (original) cast iron sewer piping exiting the Garage slightly below grade through the west wall is damaged and the camera was not able to extend more than 18 inches beyond the entry point due to corrosion of the pipe restricting the movement of the camera. This pipe should also be replaced due to its age and condition.	1				Included with above.
The basement bathroom has been installed with some finishes not yet in place. There is a hole under the tub drain into the foundation that should be filled, after the drain connections are tested and confirmed as acceptable by code. The sink waste pipe rough-in has paper stuffed into the pipe as a plug and should be capped pending completion of the installation.	1	ls	\$2,000.00	\$2,000.00	Test and complete connections.
Baseboard heater conditions should be checked prior to use. Several of the pipes are improperly supported and the enclosure covers and end caps are loose and are starting to rust. Piping to the radiators should be insulated, including down the walls.		ls	\$1,200.00	\$1,200.00	Inspection and insulation.



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#### **Turner Farm Treatment Plan**

#### Farmhouse

Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
The cold water pipe to the tub faucet assembly has evidence of a leak near the faucet assembly connection and should be inspected under pressure and corrected. This is visible through the access hatch in the hallway.		ls	\$75.00	\$75.00	
In general, the heating radiators are in good to excellent condition. The system should be evaluated under operating temperature and pressure to verify that no leaks are occurring. Additionally, it may be beneficial to change the manual shutoff (and tempering) valves for thermostatically actuated valves to better control temperature within individual spaces.	1	ls	\$250.00	\$250.00	Excludes thermostatic valves which would run \$200/radiator installed.
At several locations where hot water piping extends to the second floor through occupiable rooms, all thread fittings have been used as couplings. These fittings are not allowed by code on hot water piping and should be replaced with malleable fittings if possible. It is noted that no evidence of leaks is present at either of these fittings.	1	ls	\$500.00	\$500.00	
There is no access door to allow access to the bathtub valve and shower diverter assembly. It is recommended that an access panel is installed through the bedroom wall to allow access for inspection and service.		ls	\$150.00	\$150.00	
Install new distribution box, sleeved conveyance line, and header lines for the septic systems	1	1s	\$5,300.00	\$5,300.00	Distribution box (\$1,600), "sleeved" conveyance line (\$2,500), and header lines (\$1,200)
The access to the boiler, water heater, and sewage ejector pump is limited by installed framing to one access point. Recommend considering installing a framed doorway from the larger basement room to the mechanical equipment area to allow ease of access and removal of the water heater due to the proximity of framing to the existing boiler.	1	ls	\$300.00	\$300.00	

FARMHOUSE TOTAL \$253,735.75



Garage

Recommendations	Quantity	Unit	Unit Price	Cost	Comments
Architectural	J				
Clean and repaint all exterior finishes.	4000	sf	\$3.00	\$12,000.00	
Finishes analysis on garage (includes windows, doors, plaster on first and second floor, spindle work, and juliet balcony)	14	ea	\$800.00	\$11,200.00	At WJE rates per contract
Inspect wood shingles at dormer gables for deterioration and repair.	100	sf	\$2.50	\$250.00	1
Install new patterned wood shingles at south side gable to match existing and half-timbered decorative truss following paint outline (if possible). Paint.	100	1f	\$29.00	\$2,900.00	
Replace broken glass at dormer window.	1	ea	\$300.00	\$300.00	
Inspect area for any deterioration caused by missing wood under dormer and repair (as appropriate). Install new wood and paint.	10	1f	\$250.50	\$2,505.00	
Remove miscellaneous boards and repair/paint underneath wood members unless archival documentation reveals the historic use of these elements.	5	ea	\$80.00	\$400.00	
Install sealant at gap between the first and second floor and at the east facade of the south addition. If gap is too large for a proper sealant profile (generally less than 1 inch is desirable), infill gap with wood and paint.		lf	\$6.00	\$150.00	
Remove boards covering previous doors and windows to allow for observation and inspection.	8	ea	\$20.00	\$160.00	
At all exposed wood, inspect for any soft or deteriorated wood that needs to be repaired and paint.	500	sf	\$150.00	\$75,000.00	
Repair cracks and spalls in parge coat on CMU walls. Repaint after repairs to parge coat are complete.	160	1f	\$35.00	\$5,600.00	Assume 10% cracking of first floor concrete
Remove all abandoned fasteners and patch. Repaint.	10	sf	\$20.00	\$200.00	Numerous small areas throughout
Remove remaining stair reinforcement. Install new stain.	1	ls	\$2,560.00	\$2,560.00	
Remove abandoned concrete supports from previous stairs.	2	ea	\$320.00	\$640.00	
Reinstall stairs or other means of access to upper floor.	1	ea	\$1,800.00	\$1,800.00	Assume between 1st and 2nd floors @ 10'
Remove exposed white WRB and inspect wood for any deterioration and repair as needed.	55	sf	\$2.00	\$110.00	
Install WRB and new siding. Paint.	55	sf	\$28.00	\$1,540.00	
Observe from interior if type of exposed flashing can be determined. Some flashing materials are not intended to be exposed to UV for extended periods.	3	hrs	\$143.00	\$429.00	At WJE rates per contract
Install weather resistive barrier at southwestern corner of missing siding and install new siding.	10	1f	\$25.00	\$250.00	
Remove roof underlayment and inspect the interior for indication on why this may have been installed. Install new roofing.	125	sf	\$14.40	\$1,800.00	Remove and reinstall roof.
Inspect the interior for indication on why roof underlayment was installed along the west facade.	2	hrs	\$143.00	\$286.00	
Re-install lid to cover brick pit.	1	ea	\$100.00	\$100.00	Assume 3' x 1'



Garage

Dogommondotions	04:4	T124	II:4 D:	Cost	Comments
Recommendations	Quantity	Unit	Unit Price	Cost	Comments
Temporarily fill penetrations through the building's first floor walls to reduce water infiltration. Future use of this building will dictate need of re-using these penetrations.	10	ea	\$50.00	\$500.00	Assume NTE 6" square
Re-secure or replace loose non-historic railings on north facade.	1	ea	\$100.00	\$100.00	Railings are at 2 stair treads and approximately 10' long
Remove exposed wood sheathing at first floor south facade and replace with permanent siding.	250	sf	\$8.00	\$2,000.00	
Structural Structural					
Access the interior of the second level and roof and perform a review of the framing. Connections between the first level and second level along with the framing should be further documented and evaluated; therefore, we recommend performing a comprehensive engineering investigation to document as-built conditions of the exterior walls and floor framing and perform structural analysis to determine if structural repairs/upgrades are necessary. Although the type and extent of repairs cannot be determined without further investigation, we anticipate that potential repairs include: • Sistering of wood members; • Installation of supplemental structural members; and • Modifications to existing structural members.	1	ls	\$3,500.00	\$3,500.00	At WJE rates per contract
Review lintels for corrosion induced section loss and replace if necessary; otherwise, remove existing paint and corrosion from steel lintels and paint with a corrosion inhibiting coating.	42	1f	\$30.00	\$1,260.00	
Perform isolated repointing and crack repairs to CMU walls following comprehensive engineering evaluation of structural framing and subsequent repairs, if required.	25	1f	\$25.60	\$640.00	
Mechanical, Electrical, and Plumbing					
The electrical panels in the Farmhouse have inspection stickers applied to the front of the panel indicating only initial inspections have occurred including temporary electric and first gas. Recommend that all construction is completed and final inspections are received for all trades prior to occupancy or use of the structure.	1	ls	\$150.00	\$150.00	
A dual breaker was shut off, but left in place. Wires connected to the breaker extended outside of the enclosure and were cut off, leaving a potential hazard. Recommend removing the wires from the breaker immediately.		ls	\$50.00	\$50.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
All electrical panels are dirty and dusty with leftover parts. The panels should be vacuumed and wiped out prior to final inspection.	1	ls	\$50.00	\$50.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
All panels have some screws missing in the covers. Recommend that these are replaced.	1	ls	\$640.00	\$640.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.



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### **Turner Farm Treatment Plan**

Garage

Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
Breakers have been removed or relocated but blank covers are missing in the open slots. Recommend providing blanks for all open breaker slots.	1	ls	\$50.00	S50 00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
The panel schedules are outdated and incomplete. Recommend updating prior to final inspection, use, or occupancy.	1	ls	\$50.00	L \$50.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
Recommend verifying that all bolted electrical connections are torqued to manufacturer recommended torque values.	1	ls	\$75.00	\$75.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
Though not a residential requirement, the County should verify the requirements of NFPA 70E are met if structure will be used for commercial purposes.	1	ls	\$50.00	\$50.00	
Install new sewer line with cleanout	1 ls	ls	\$2,100.00	\$2,100.00	

**GARAGE TOTAL** \$131,395.00



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# **Turner Farm Treatment Plan**

**Equipment Shed** 

Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
Architectural	V				
Re-secure siding to frame in areas where the siding is out of plane or bowed.	25	sf	\$5.00	\$125.00	Assume 5% of wall surface
Perform repair patches where siding has been compromised and treat corroded areas.	20	sf	\$8.00	\$160.00	
Paint metal siding	480	sf	\$3.00	\$1,440.00	
Remove vegetation, clean, and inspect metal roof. Perform repairs where needed and treat any corrosion.	450	sf	\$1.50	\$675.00	Cost for repairs cannot be quantified as condition is unknown
Paint or coat to protect metal roof.	450	sf	\$3.00	\$1,350.00	
Remove windows and discard. Salvage any windows that may have any historical value for muntin example. Reinstall new windows once building repairs have been completed.	4	ea	\$100.00	\$400.00	
Repair door framing and install new door once building repairs have been completed.	1	ea	\$275.00	\$275.00	
Replace missing wood fascia board on west facade.	10	lf	\$50.00	\$500.00	
Inventory materials in the center stall as they may prove to be salvageable replacement materials for other areas. It may also be advantageous to store them with the salvaged patio wood in the farmhouse cellar as documentation of previous fabric.		hrs	\$143.00	\$858.00	At WJE rates per contract
Contact Department of Agricultural for a list of registered beekeepers to inspect the interior spaces and potentially relocate bees.	1	ls	\$300.00	\$300.00	
Structural					
Excavate the soil below the shed and create short foundation walls to hold the wood structure off the ground, thereby limiting future deterioration of the wood framing due to moisture.	1	ls	\$3,200.00	\$3,200.00	
Perform repairs to the timber sills or replace as necessary.	1	ls	\$1,280.00	\$1,280.00	
Consider installing a new floor system commensurate with the building's function in lieu of tongue and groove floor planks.	450	sf	\$6.25	\$2,812.50	
Perform isolated repairs to the wall framing and rafters.	1	ls	\$640.00	\$640.00	
Mechanical, Electrical, and Plumbing					
Remove existing electrical service and wiring.	1	ls	\$100.00	\$100.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.

**EQUIPMENT SHED TOTAL** 

\$14,115.50



Crib Barn

Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
Architectural	Quantity	CIIIt	CIME TITLE	Cost	
Restoration Approach					
Remove vegetation from building.	200	sf	\$0.50	\$100.00	
Remove vegetation from building.	200	81	\$0.50	\$100.00	
Remove side shed lean-to additions.	2	ea	\$640.00	\$1,280.00	Each lean to is approximately 8' tall, 25' long, and 15' wide of basic wood framing and asphalt shingle roof
Install access doors at the crib entry areas of similar wood slat spacing as above the openings.	2	ea	\$325.00	\$650.00	Assume 5' x 3'
Remove modern oriented strand board (OSB) siding. Install wide vertical siding above central bay and spaced slats at the remaining exterior of the structure similar to those in place above crib access doors on south facade.		sf	\$8.00	\$3,600.00	
Remove large modern window above central bay and infill with wide wood vertical siding (similar to the historic siding on the south facade).	1	ea	\$475.00	\$475.00	Assume a 4' x 3' ganged window
Remove areas of deteriorated metal at roof at central bay and perform large patches.	200	sf	\$12.00	\$2,400.00	Standing seam
Install new doors at the south facade at the sides of the central bay.	4	ea	\$575.00	\$2,300.00	Two double doors approximately 10' wide and 8' tall
Rehabilitation Approach	_	10	φ <b>τ</b> ο οο		T
Replace missing wood fascia board on north facade.	7	<u>lf</u>	\$50.00	\$350.00	
At areas where siding is out of plane, investigate interior condition (east lean-to space was locked and west lean-to has modern plywood at the interior). Siding may be able to be reset in place if just simply loose.		sf	\$2.50	\$3,750.00	Assuming 50% of siding is out of plane on lean-tos
Reset large barn door and repair where needed. Evaluate if connection, size, and number of hinges is appropriate for door weight. Paint doors.	1	ea	\$825.00	\$825.00	One half of a double door assembly approximately 10' wide and 8' tall
Consider removing the west lean-to as it is significantly deteriorated from water damage.	1	ea	\$320.00	\$320.00	
Inspect east lean-to to determine condition.	4	hrs	\$169.00	\$676.00	At WJE rates per contract
Reset gutter on west to allow for proper watershed from roof to gutter and install downspout and splash pads directing water away from siding.	25	lf	\$9.50	\$237.50	
Remove plywood at west lean-to, discard.	1500	sf	\$0.75	\$1,125.00	
At west lean-to, investigate condition of wood rafters and perform repairs where needed.	4	hrs	\$169.00	\$676.00	At WJE rates per contract
At west lean-to, remove existing shingles and install new roofing system.	375	sf	\$7.50	\$2,812.50	-
Investigate for soft or deteriorated wood at the vertical closure wood piece between central bay roof and lean-to roofs. Potentially replace entire wood unit with a properly sized member that will completely close gap. Paint.	25	lf	\$12.75	\$318.75	
Removed degraded white building paper and inspect exposed plywood for degradation at south facade.	120	sf	\$10.00	\$1,200.00	



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#### **Turner Farm Treatment Plan**

Crib Barn

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Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
Install new weather resistive barrier and new siding of similar wood species and installation	3000	sf	\$7.50	\$22,500.00	
techniques as central bay at both lean-tos.	3000	51	\$7.50	\$22,300.00	
Once other repairs have been made to this structure, install new doors at the south facade at					
the sides of the central bay, west lean-to, and central bay. Design should be simple unless	/	ea	\$250.00	\$1,000.00	
archival documentation can be found on original doors. Iron pintles (hinges) from previous		•	Ψ <b>2</b> 0.00	φ1,000.00	
doors at the central bay are still in place.					Two personnel doors and one swing double door.
Structural	ı			I	
Perform repairs to original stone foundations. Temporary repairs, stabilization, and shoring or		1	¢17.520.00	¢17.520.00	
jacking of the wood framing will likely be necessary prior to making repairs to the	1	ls	\$17,520.00	\$17,520.00	
foundations.					
Perform replacement of existing timber sills and wood joists. We anticipate that a majority of		1.	\$1,280.00	\$1,280.00	
the floor planks will also require replacement but should be salvaged where deterioration is	1	ls	\$1,280.00	\$1,280.00	
not present.					
Perform isolated repairs to wall framing elements, specifically the bases of vertical elements.	1	ls	\$875.00	\$875.00	
Replace severely deteriorated framing under openings in roof.	1	ls	\$640.00	\$640.00	
Perform isolated repairs to interior wood slats where fractured or deteriorated.	1	ls	\$325.00	\$325.00	
Fasten loose wood planks to loft framing and install new planks where missing. Perform	1	ls	\$320.00	\$320.00	
isolated repairs at wood planks where deterioration is present.	1	18	\$320.00	\$320.00	
Install wooden pegs at mortise and tenon connections where missing.	1	ls	\$500.00	\$500.00	
We anticipate that exterior wood cladding will continue to deteriorate if not addressed.	2880	sf	\$2.25	\$6,480.00	
Consider the installation of a protective exterior coating on the wood cladding.	2000	51	Ψ2.23	ψ0,400.00	
Remove sheet metal installed on the inside of the east bin.	1	ls	\$275.00	\$275.00	
Mechanical, Electrical, and Plumbing			\$640.00	\$0.00	
MBP was not able to access the finished section of the Crib barn where the electrical service					
appears to enter the building. The origin of this service was not able to be established. In the		ls	\$100.00	0.00 \$100.00	All maintenance items should be combined to
unfinished portions of the building, the wiring and fixtures are derelict and should be		10	<b>\$100.00</b>		minimize the overall cost, as each of these is estimated
removed.					separately.

CRIB BARN RESTORATION TOTAL

\$39,120.00

CRIB BARN REHABILITATION TOTAL

\$64,105.75



Milk House

Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
Architectural					
Remove vegetation from building and observe building for any additional damage that was not previously visible.	270	sf	\$1.25	\$337.50	Assuming 50% of roof covered
Clean and inspect all wood trim. Remove soft and deteriorated wood trim and replace/repair.	8	hrs	\$143.00	\$1,144.00	At WJE rates per contract. Quantity of wood trim repairs cannot be quantified until inspection has taken place.
Paint wood trim.	100	1f	\$2.25	\$225.00	
Repoint mortar at chimney to building interface and repair concrete at base. Visually inspect for additional deterioration of chimney to structure once mortar is removed.	20	1f	\$37.50	\$750.00	
Perform isolated repointing of mortar at debonded areas at chimney.	50	lf	\$37.50	\$1,875.00	Assuming 10% of repointing at chimney
Clean exterior concrete masonry block surface with a gentle cleaner once debris and vegetation is removed from the building.	960	sf	\$1.75	\$1,680.00	
Remove pipes on north facade and infill holes or cap pipes and install sealant around pipes at concrete masonry block to reduce water infiltration.	2	ea	\$40.00	\$80.00	Assume 1sf
Remove metal fasteners from the concrete masonry block and patch.	10	ea	\$32.00	\$320.00	
Remove insulation and infill vent at interior to maintain vent location while allowing the infill to be reversible.	1	ea	\$75.00	\$75.00	Assume 1' x 2'
Window on the north facade is not salvageable. Remove existing wood elements and replace with a new window. Window should be wood and match the muntin arrangement similar to windows still in place at the building (e.g. east facade window).		ea	\$225.00	\$225.00	3/3 hung window divided lites
Remove boards from windows and repair areas where fasteners penetrated material when windows are repaired.	4	ea	\$150.00	\$600.00	
Once vegetation is removed from the building, remove interior board and clean and inspect historic window on the east facade. Repair any soft or deteriorated wood. Repaint. This window may serve as a model for additional window replacements or restorations in this building.	1	ea	\$100.00	\$100.00	3/3 hung window divided lites
Remove vegetation from the south door. Remove boards at door to fully clean and inspect wood and glazing. Remove coating from glazing (if possible), replace broken glazing in lower pane. If coating cannot be removed from glass, replace glass. Clean and inspect door frame, which may have some deterioration due to vegetation growth and lack of paint. Perform wood repairs where needed and paint all wood elements.	1	ea	\$450.00	\$450.00	Wide door, assume 4' x 6'
Clean and inspect wood frame at east facade for repair.	2	hrs	\$143.00	\$286.00	At WJE rates per contract
Install new door on east facade.	1	ea	\$250.00	\$250.00	



Milk House

Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
Clean and inspect wood and glass on historic door at the small south room with wood deterioration (due to no protection from paint). Door frame has significant wood deterioration near grade and is unable to close. Remove soft and deteriorated wood at frame. Repair or replace (depending on amount of deterioration). If frame needs to be replaced, salvage strike plate for reinstallation in new frame.	2	hrs	\$143.00	\$286.00	At WJE rates per contract. Repairs cannot be quantified until inspection has been completed.
At south door, install new door knob assembly that is era appropriate.	1	ea	\$50.00	\$50.00	
Paint south door.	64	sf	\$2.25	\$144.00	
Reset out of plane roof metal at southwest corner and inspect for any metal deterioration.	5	sf	\$32.00	\$160.00	
Clean roof and inspect for any material loss that was not observable from the ground. Apply corrosion inhibiting coat or paint roof.	540	sf	\$3.00	\$1,620.00	
Remove miscellaneous concrete slab at the east facade that is not connected to the building.	1	ea	\$675.00	\$675.00	
Discard all miscellaneous materials around building. Evaluate if any material holds a potential for historic salvage/replacement materials.	1	ls	\$200.00	\$200.00	
Install vent/louver similar to louver on south facade. Clean and inspect exposed wood. Paint.	1	ea	\$425.00	\$425.00	Assume 1' x 3'. Custom sized unit.
Replace missing fascia board on south facade and paint.	5	lf	\$50.00	\$250.00	
The existing lightning protection creates fire hazard with the rod not being properly ground and directing the charge to the wood, which is flammable. Remove the current assembly and if lightening protection is warranted, reconfigure with a properly anchored and grounded assembly.	1	ea	\$1,200.00	\$1,200.00	
Once vegetation and debris is removed, repoint at concrete masonry block to concrete joint. Time work with the repair, cleaning, and repainting of exterior.	96	lf	\$25.60	\$2,457.60	
Investigate attic space along north facade for any potential locations for water infiltration. Observe conditions along chimney once mortar is removed for repointing. The water damage may be from the immense vegetative growth or a previous leak that is no longer active. Interior finishes may need to be removed and replaced once the condition can be fully observed after vegetation is removed.	6	hrs	\$143.00	\$858.00	At WJE rates per contract
Clean attic space of debris and install hatches at openings in the ceiling.	540	sf	\$4.90	\$2,646.00	
Once vegetation and debris is removed from the interior, clean all interior finishes and evaluate if isolated repairs can be made and walls repainted or if all interior finishes at the walls should be removed and replaced.		sf	\$2.25	\$2,160.00	
Remove water heater as it is corroding beyond its serviceable life.	1	ea	\$100.00	\$100.00	
Once interior and exterior repairs have been made to the walls and windows installed, install perimeter sealant at each window opening between the window frame and the adjacent masonry.		lf	\$6.00	\$480.00	App 3'x5' windows
Remove interior finishes in the north room and replace.	200	sf	\$1.75	\$350.00	



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#### **Turner Farm Treatment Plan**

Milk House

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Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
Clean and inspect wood and glazing at the central window on the west facade. This may require removing the sashes from the frame since the upper sash is out of alignment. Repair if possible and repaint. Repair any deteriorated wood at the frame. Repaint and set back in place.	1	ea	\$475.00	\$475.00	
Upper sash of the southernmost window may be salvageable and should be cleaned and inspected. Lower sash needs to be replaced and should use the window in the west facade as an example for muntins and glazing. Repair deterioration in wood at frame near sill. Remove curtains and discard. Repaint and reinstall window.	1	ea	\$625.00	\$625.00	
Contact Department of Agricultural for a list of registered beekeepers to inspect the attic and potentially relocate bees.	1	ls	\$300.00	\$300.00	
Structural Structural					
Perform isolated partial depth concrete repairs at deteriorated areas of concrete foundation.	1	ls	\$1,125.00	\$1,125.00	Allowance.
Perform isolated grouting and repointing at cracks in CMU exterior walls and mortar joints.	1	ls	\$640.00	\$640.00	Allowance.
Perform isolated repairs to wood roof framing.	1	ls	\$800.00	\$800.00	Allowance.
Install new concrete landing at the east entrance.	1	ls	\$800.00	\$800.00	Assume 10'x3'x6"
Mechanical, Electrical, and Plumbing					
All electrical panels are dirty and dusty with leftover parts. The panels should be vacuumed and wiped out prior to final inspection.	1	ls	\$50.00	\$800.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
Panel developing surface rust inside. Recommend cleaning and repainting.	1	ls	\$100.00	\$0.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.

MILK HOUSE TOTAL \$28,024.10



Dairy Barn

Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
Architectural					
Replace spire at the northernmost and top section of the central cupola ridge ventilator. Use southernmost cupola ridge ventilator as an example.	2	ea	\$1,500.00	\$3,000.00	Decorative spires. Custom fabricated.
Perform patch repairs of metal roof with appropriate materials. Treat exposed and corroding metal (if needed) to arrest corrosion.	35	sf	\$12.00	\$420.00	
Remove unstable corroded metal on east roof and treat exposed edges (if needed) to arrest corrosion. Repair metal loss through new metal patch.	10	sf	\$26.00	\$260.00	
Monitor minor cracks (1/8" or greater) and paint any exposed wood. Some cracks occur near nails, which could be a result of corroding metal or overdriven nails. Replace siding where crack exceeds 1/8" or allows for the potential of water to enter the interior space. If cracks are static and the wood is sound, they may be filled with a sealant to prevent moisture intrusion.	20	1f	\$46.25	\$925.00	
Infill space at window frame to building opening joint with backer rod or other filler material. Install sealant around perimeter of all windows in an effort to improve weatherization.	42	ea	\$54.00	\$2,268.00	2/2
Re-secure loose siding boards.	30	lf	\$8.25	\$247.50	
Investigate cause of gaps between siding boards (interior siding did not allow for observation). If the board gap exists, either reset the boards to close gap ensuring adequate lap with above course, or infill the gap to prevent moisture intrusion. Paint wood infill the same as exterior siding.	15	lf	\$7.50	\$112.50	
Clean and repaint isolated areas of deteriorated paint.	1690	sf	\$2.50	\$4,225.00	Assumed 5% of wall surface
Infill space at gap between siding and foundation with backer rod and sealant. If gap is too wide to obtain a proper sealant profile, install wood infill and paint same color as siding.	30	lf	\$6.00	\$180.00	
Re-secure loose soffit board at east facade.	8	lf	\$12.00	\$96.00	
Infill penetration at northeast corner to reduce water infiltration to the interior.	1	ea	\$25.00	\$25.00	NTE 2" dia
Clean and treat metal elements of hay track to prevent additional corrosion.	100	lf	\$7.75	\$775.00	
Install sealant around perimeter of loft door on north facade. If gap is too wide to obtain a proper sealant profile, install wood infill and paint same color as siding.	10	lf	\$6.50	\$65.00	
Paint exposed wood on the north double sliding doors.	10	sf	\$2.25	\$22.50	
Replace missing wood fascia board on south facade.	5	lf	\$50.00	\$250.00	
Reset fascia board that is out of plan on the south facade.	10	lf	\$22.50	\$225.00	
Investigate cause of corrosion at the edge of metal roofing at the east facade and remove any corroded materials. Paint metal.	5	sf	\$17.00	\$85.00	Corrosion removal and recoating only.
Remove unsound coating at roof and treat metal (if needed). Repaint.	25	sf	\$8.25	\$206.25	į .
Paint exposed wood at the underside of the dormer roof.	10	ea	\$50.00	\$500.00	
Replace cracked glazing at dormer roof.	1	ea	\$75.00	\$75.00	



Dairy Barn

		<b>Unit Price</b>	·	Comments
260	lf	\$2.25	\$585.00	Quantity of wood repair cannot be estimated until inspection is complete
2	hrs	\$143.00	\$286.00	At WJE rates per contract
rain, 20	lf	\$18.75	\$375.00	
and 3600	sf	\$9.00	\$32,400.00	
40	lf	\$31.25	\$1,250.00	Assume min 2" depth
16	hrs	\$143.00	\$2,288.00	At WJE rates per contract
			\$8,000.00	Allowance. Quantity cannot be verified without further survey.
the blace 1	ls	\$850.00	\$850.00	
f the rs as 5	ea	\$57.00	\$285.00	
ting. new 12	ea	\$67.00	\$804.00	
f the s as 3	hrs	\$143.00	\$429.00	At WJE rates per contract. Cost does not include repairs.
ould 100	sf	\$25.00	\$2,500.00	
25	sf	\$63.00	\$1,575.00	
1	ls	\$640.00	\$640.00	
and 36	ea	\$90.00	\$3,240.00	
was e re- crete	ls	\$325.00	\$325.00	
	2 rain, 20 and 3600 40 16 16 16 18 rs as 5 ting. new 12 ff the s as 3 ould 100 25 1 and 36 was e re- 1	2 hrs rain, 20 lf and 3600 sf 40 lf 16 hrs  1 the blace 1 ls f the rs as 5 ea  ting. new 12 ea f the s as 3 hrs ould 100 sf 25 sf 1 ls and 36 ea  was e re- 1 ls	2 hrs \$143.00 rain, 20 If \$18.75 and 3600 sf \$9.00 40 If \$31.25 16 hrs \$143.00  1 the blace 1 ls \$850.00 f the rs as 5 ea \$57.00 ting. new 12 ea \$67.00 f the s as 3 hrs \$143.00  100 sf \$25.00 25 sf \$63.00 1 ls \$640.00 and 36 ea \$90.00  was e re-	2 hrs \$143.00 \$286.00 rain, 20 lf \$18.75 \$375.00 and 3600 sf \$9.00 \$32,400.00 40 lf \$31.25 \$1,250.00 16 hrs \$143.00 \$2,288.00  18 the place 1 ls \$850.00 \$850.00  19 the rs as 5 ea \$57.00 \$285.00  10 the s as 3 hrs \$143.00 \$429.00  10 the s as 3 hrs \$143.00 \$429.00  11 ls \$640.00 \$640.00  12 and 36 ea \$90.00 \$3,240.00  13 was e re-  14 ls \$325.00 \$3,240.00  15 the s as 3 hrs \$143.00 \$429.00  16 the s as 3 hrs \$143.00 \$429.00  17 the s as 3 hrs \$143.00 \$429.00  18 \$640.00 \$640.00  25 sf \$63.00 \$1,575.00  26 sf \$63.00 \$1,575.00  27 sf \$640.00 \$640.00  28 sf \$640.00 \$640.00  29 sf \$640.00 \$640.00  20 sf \$640.00 \$640.00  20 sf \$640.00 \$640.00  20 sf \$640.00 \$640.00  20 sf \$640.00 \$640.00  21 sf \$640.00 \$640.00  22 sf \$640.00 \$640.00  23 sf \$640.00 \$640.00  24 sf \$640.00 \$640.00  25 sf \$640.00 \$640.00  26 sf \$640.00 \$640.00  27 sf \$640.00 \$640.00  28 sf \$640.00 \$640.00



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# **Turner Farm Treatment Plan**

Dairy Barn

Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
All electrical panels are dirty and dusty with leftover parts. The panels should be vacuumed and wiped out prior to final inspection.	1	ls	\$50.00	\$50.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
The ground and neutral bars have a lot of oxidation/corrosion. This appears to be the result of dissimilar metal contact as opposed to water exposure and replacement is recommend.	1	ls	\$100.00	\$100.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
The wire to a two pole breaker was disconnected and capped off, but left in place. The wire cable appears to lead to the non-potable well pump circuit and is also disconnected immediately inside the Dairy Barn (next to the wall where the wire would exit). Recommend removal of unused conductors.	1	ls	\$50.00	\$50.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.
The frost proof ground hydrant installed outside the barn on the east side has been tested and shows contamination (E. Coliform bacteria and lead). This hydrant is already posted as "Non-Potable" and should continue to be. The origin of service for this water was not able to be determined as the power cables that appear to feed the nearby well-head are disconnected on the interior of the Milk House. This is significant because the source should be determined and tested fully to ensure that no other outlets have similar contamination.	1	ls	\$500.00	\$500.00	
Panel developing surface rust inside. Recommend cleaning and repainting.	1	ls	\$75.00	\$75.00	All maintenance items should be combined to minimize the overall cost, as each of these is estimated separately.

DAIRY BARN TOTAL \$70,569.75



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# **Turner Farm Treatment Plan**Silo

Recommendations	Quantity	Unit	<b>Unit Price</b>	Cost	Comments
Architectural					
Install operable closure piece for roof opening to allow for future use.	1	ls	\$675.00	\$675.00	
Install hatch at wall opening near roof to prevent further moisture infiltration.	6	sf	\$41.75	\$250.50	
Green staining at the upper interior portion of the silo may be a result of the open roof. The					
source of moisture will be mitigated once the roof opening is closed. The staining could be					
cleaned, if desired, however it is mostly aesthetic.					
Repair metal roof at secondary roof to stop deterioration and protect ladder enclosure.	1	ls	\$200.00	\$200.00	
Perform isolated concrete repair at base of silo.	5	sf	\$38.00	\$190.00	
Mechanical, Electrical, and Plumbing					
No plumbing, mechanical, or electrical equipment was observed in the Silo. Grounding or lightning protection conductors are incomplete and may need to be re-installed or removed.	1	ls	\$800.00	\$800.00	For removal.

\$2,115.50