



The Robeson Mills looking from the west bank of the Schuylkill River. Watercolor by Captain Joshua Watton, 1816. Source: The Rural Foundation, Inc.

# The Wissahickon Mills Foundation (WMF) A 501(c)(3) Public Charity

## Report to Foundation Subscribers & Friends and the Robeson Rolling Mill Inspection Report

**GI**  **ING**  
**TUESDAY**

[Please click and donate here:](#)

**[Wissahickon Mills Foundation](#)**

**Appendix – History Highlights:** Deeds found and recently transcribed that documents a Corn Mill was built on the property by 1690, the 1820 Census describing three mills on PCC grounds (a Saw Mill, Nail Factory, Rolling Mill), and two sets of Fredrick Graff drawings of our Waterwheel.

**WMF Board:** Jere Downs, President, Will Abbs, Vice President, Rosemary Rau, Judy Ayala, Griffin Affel, Treasurer

# The Wissahickon Mills Foundation

## 2022 & 2023 Major Actions and Goals

2022: Incorporate and Raise Funds for:

- Creek Retaining Wall Project
- Education Funds
- The 'Sinking Fund' (the 20% tithing of PCC member dues)\*
- Mill Structural Preservation in General (Non-operational)\*

2023 Projects: *(Actual Wall repair in Spring 2024 is the goal)*

- **Wall Design:** \$24k: 50% PCC & 50% WMF
- **Structural Inspection:** J&M Preservation Studios (\$10k all WMF). See report here: [23.09.11 JM Robeson Mill PCC Structural Report v3.pdf \(philacano.org\)](#)

\* Please see the Appendix for background

# Wissahickon Mills Foundation Fund Pools, Sept. 15, 2023

<b>WMF Donations - Expenses &amp; Project Costs &amp; EOY Fund Balances</b>			
Accruals: donations paid Online \$1,210, Wall payments due from PCC and PCC portion of dues: \$6,920 and \$6,624. Projected add'l 2023 Wall Payts \$5,605			
<b>Sum of Donations</b>			
<b>Less Expenses</b>	<b>Column Label</b> <input type="text" value="2022"/>		
<b>Row Labels</b>	<input type="text" value="↑"/>	<b>2022</b>	<b>2023 Grand Total</b>
Gen Preservation		855	12,054
Gen'l Education		100	550
Retaining Wall		23,080	(10,975)
Sinking Fund		7,151	6,624
Williamson Fund		1,200	1,200
<b>Grand Total</b>		<b>32,386</b>	<b>8,253</b>
<p>\$30,000 is in a Money Market Fund and remainder is in PNC Bank Account.</p> <p>In 2023, WMF gave PCC \$12,781 for Porch, Fireplace &amp; Steward Qtrs repairs.</p> <p>In 2024 the remaining \$12,000 Retaining Wall funds will be expended.</p> <p>The Sean Williamson Educational Fund is dedicated to First Responders.</p>			

# Joint Philadelphia Canoe Club & Wissahickon Mills Foundation Retaining Wall Project

## Project Goals

1. Plan the project via a Professional Engineering firm and have all City Historic Commission & State Permits approved.
2. Rehabilitate the bottom four feet of the sixty-foot section of the retaining wall on the Creek that is connected to the Mill's concrete apron.

*Hurricane Ida damaged part of the retaining wall but, more importantly, it revealed that the scouring of mortar in the lowest section was more extensive than realized before the hurricane.*

Views of the Retaining Wall. Unseen: the bottom 4 feet have suffered notable scouring and is missing considerable amounts of mortar.

**1906 Porch added with door, pre-Creek Wall**



**1975 - Wall added c. 1929-1934 & Wheel Pit/Bilge Wall added tbd**



# Joint PCC & Wissahickon Mills Foundation Retaining Wall Project

TranSystems Corp's Estimated Costs Received Nov. 29.

WISSAHICKON MILLS FOUNDATION / PHILADELPHIA CANOE CLUB					
WISSAHICKON CREEK RETAINING WALL STABILIZATION - CONSTRUCTION COST ESTIMATE (FALL 2023)					
ITEM	UNIT	QUANTITY	UNIT COST	TOTAL	NOTES
PORTA-DAM (100 LF X 10' HIGH)	LUMP SUM	1	\$13,960.00	\$13,960.00	PORTA-DAM RENTAL QUOTE
PORTA-DAM (TECHNICAL ASSISTANCE)	LUMP SUM	1	\$4,155.00	\$4,155.00	PORTA-DAM RENTAL QUOTE
LABOR - INSTALL PORTA-DAM	DAYS	8	\$543.60	\$4,348.80	2 LABORERS, 4 DAYS
LABOR - REMOVE PORTA-DAM	DAYS	4	\$543.60	\$2,174.40	2 LABORERS, 2 DAYS
SANDBAGS	EACH	350	\$5.00	\$1,750.00	
12" FILTER SOCK	LF	420	\$5.80	\$2,436.00	LABOR AND MATERIAL INCLUDED
PUMPED WATER FILTER BAG AND PUMP	LS	1	\$2,000.00	\$2,000.00	
WWF ANCHORED SHOTCRETE REINFORCEMENT SYSTEM	SF	240	\$150.00	\$36,000.00	4' X 60'
SUB-TOTAL:				\$66,824.20	
5% CONTINGENCY				\$3,341.21	
TOTAL				\$70,165.41	
SAY				<b>\$70,200.00</b>	

# The Wissahickon Mills Foundation

## 2023 Structural Inspection and 2024-2031 Goals

### 2023: Inspection Summary

- Materials cost projected for 76 projects total \$231,881.
- Project costs range from a few hundred \$ for wood, masonry, or stucco work to \$24,000 for the heads and sills stone repair around windows.
- Design & contractor labor cost load estimated @ 57% of Material cost see next slide).
- **Grand total estimate TBD** after PCC identifies which projects its members can handle (Do-It-Yourself 'DIY' projects that reduce contractor labor cost 'load' noted above).

# The Wissahickon Mills Foundation

## 2023 Structural Inspection and 2024-2031 Goals

2024 - 2031 PE Report Costs & Suggested Priorities including Design, Labor & related overhead 'load' (PCC DIY Project selection will reduce):

- High Priority (1-3 years): \$ 75,000
- Medium Priority (3-5 years): \$ 247,000
- Low Priority (5-7 years): \$ 46,000
- High Priority: Eleven projects - Two largest: \$30,000 materials for **Bilge/Wheel Pit to stabilize the kitchen floor** (plus \$13 more rated as Med.) and \$8k for **Steward's Qtrs.** (plus \$3k more Med.)
- Medium: **Window wall support** \$39k materials, **Porch** \$38k, **Interior walls** \$27k
- PCC/WMF may reprioritize; the five groups above = 73% of total.



# The Wissahickon Mills Foundation

## 2023 Structural Inspection and 2024-2031 Goals

	A	B	C	D	E	F	K	L	M
1	<b>Pivot Table Summaries of the file JM ICI Cost Materials w Pictures</b>								
2			Values		Cummu- lative		PRIORIT <input type="text"/>		
3	Sort <input type="text"/>	Component Summary <input type="text"/>	Sum of ID TOTAL COST	Sum of # Projects	Cost %		High	Med	Low
4	<input type="checkbox"/> 1	Wheel Pit & Star Bolts	43,000	13	19%		30,450	12,550	
5	<input type="checkbox"/> 2	Porch	40,475	11	37%		1,869	37,607	1,000
6	<input type="checkbox"/> 3	Windows - Wall	38,590	5	54%			38,590	
7	<input type="checkbox"/> 4	Interior Wall	33,700	19	69%		2,400	26,740	4,560
8	<input type="checkbox"/> 5	Roof	18,325	4	77%			18,325	
9	<input type="checkbox"/> 6	Basement Floor	12,320	1	83%				12,320
10	<input type="checkbox"/> 7	Steward's Qtrs	10,565	7	87%		7,950		2,615
11	<input type="checkbox"/> 8	Misc	10,215	12	92%			6,100	4,115
12	<input type="checkbox"/> 9	Exterior Wall	9,290	9	96%			9,290	
13	<input type="checkbox"/> 10	Exterior Wood	9,000	1	100%			9,000	
14	<b>Grand Total</b>		<b>225,481</b>	<b>82</b>			<b>42,669</b>	<b>158,202</b>	<b>24,610</b>

# The Wissahickon Mills Foundation

Inspection Sample, Medium Priority: Porch (Picture next page & last two slides High Priority)

BUILDING COMPONENT	MATERIAL	OBSERVATIONS	RECOMMENDATIONS	QUANTIT Y	UNIT	PRIORITY	ID TOTAL COST
Porch Structure	Concrete and steel	Cracks throughout. Spalling throughout. Steel W beams (Beams are 1' deep and 6.5" wide) are embedded in concrete causing spalling and jacking. Caulk has been used in cracks. Prior repairs have removed concrete from steel beams and coated with an anti-corrosion product.	The prior repair at the steel beams should be replicated where the steel is still embedded. Remove the concrete below, and coat the beam with an anti-corrosion product. Total 8 beams: 2x 10 LF, 2 x 11 LF, 2 x 125", interior 9 LF, interior 10'-8". Beams are 1' deep and 6.5" wide.	82	LF	Med	\$ 14,436.33

# The Wissahickon Mills Foundation

## Notable Repair top Examples within the Ten Groupings



**Bilge – Wheel Pit** below the Kitchen:  
Repair the east wall facing the Creek (High), Upgrade Columns & dig new Footings - the six columns support the Kitchen Floor (High), + Plus notable masonry work (Med-Low priorities).



**Porch:**  
Various brick, masonry and concrete repairs to the Porch and its floor (these are rated as Medium Priority(3-5 years). Several of the smaller repairs are rated High Priority (see details last pages in the Appendix).



# The Wissahickon Mills Foundation

## Notable Repair Examples within the Ten Groupings



**Windows:**  
Replace the sagging Brick above seven Windows with true headers/steel lintels, and masonry work above these windows and, in one case, below the window. All ranked as Medium Priority.

**Walls:** Various Interior Wall masonry Repairs, e.g., Locker Room Wall near Roof. All rated as Medium except one related to the far-left part of the fireplace that needs Basement support (High priority).



# The Wissahickon Mills Foundation

## 2023 Structural Inspection and 2024-2031 Goals

2024 – 2031 Seven-Year Plan – Initial steps as of September 2023:

- A. PCC Determines which Projects members can complete.
- B. WMF will develop campaigns to help with ‘repair catchup’
  1. ‘Old-timers’ solicitation by Paul Liebman & WMF: Includes four dozen inactive prior members not yet contacted.
  2. General solicitation campaign focused on one or two key projects tbd.
- C. WMF Grant Applications, e.g., Pa. Historical & Museum Commission 50/50 Construction Grant (50% WMF/50% PHMC); not ranked as high probability, other grants being researched.

# The Wissahickon Mills Foundation

## 2023 Structural Inspection & Fund Raising Goals

2024 – 2031 Seven-Year Plan:

- D. 2024: Pick two projects: one we might get a Grant in '25 to help with and a second we likely need to fund fully via WMF
- E. Enhance and/or add new "workday" categories: Masonry training and repair.
- F. Share report & project list with pictures and request feedback past Quartermasters and other past Volunteers: [23.09.11 JM Robeson Mill PCC Structural Report v3.pdf \(philacano.org\)](#).

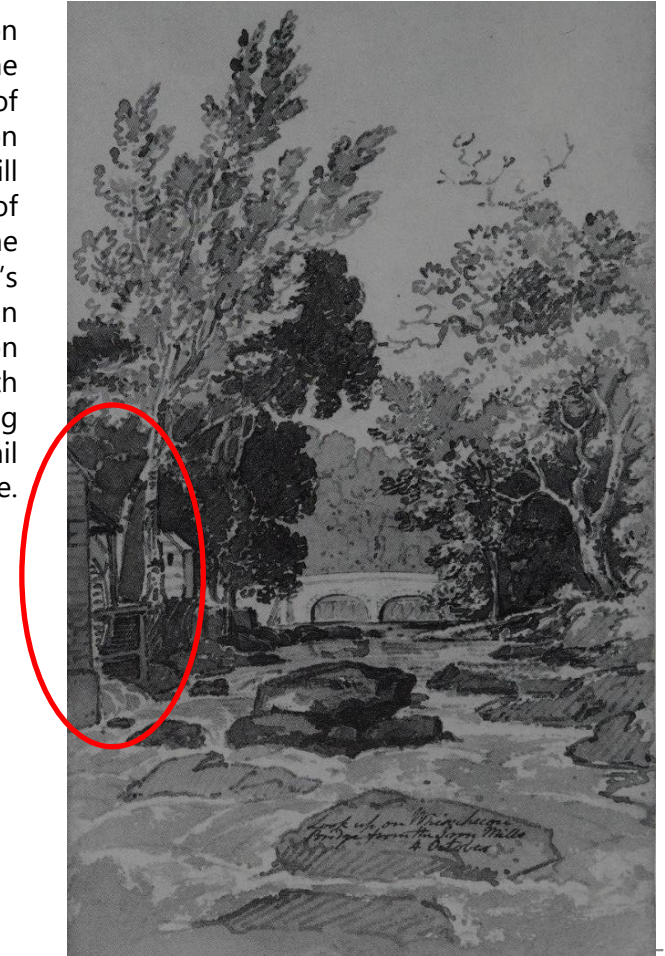
# Appendix

## History update, background on PCC member dues funding the WMF Sinking Fund, WMF Purposes, the Creek Wall Project Report & Key Repairs.



The Robeson Mills looking from the west bank of the Schuylkill River. Watercolor by Captain Joshua Watson, 1816. Source: The Barra Foundation, Inc.

Also Watson in 1816: The NE corner of the Robeson Rolling Mill and a bit of the waterwheel's paddles can be seen on the right with water flowing out the tail race.



# Appendix: Boundaries of Robert Turner's 1686 Lease of 50 ½ acres for 101 Years amended on 8 Nov 1690

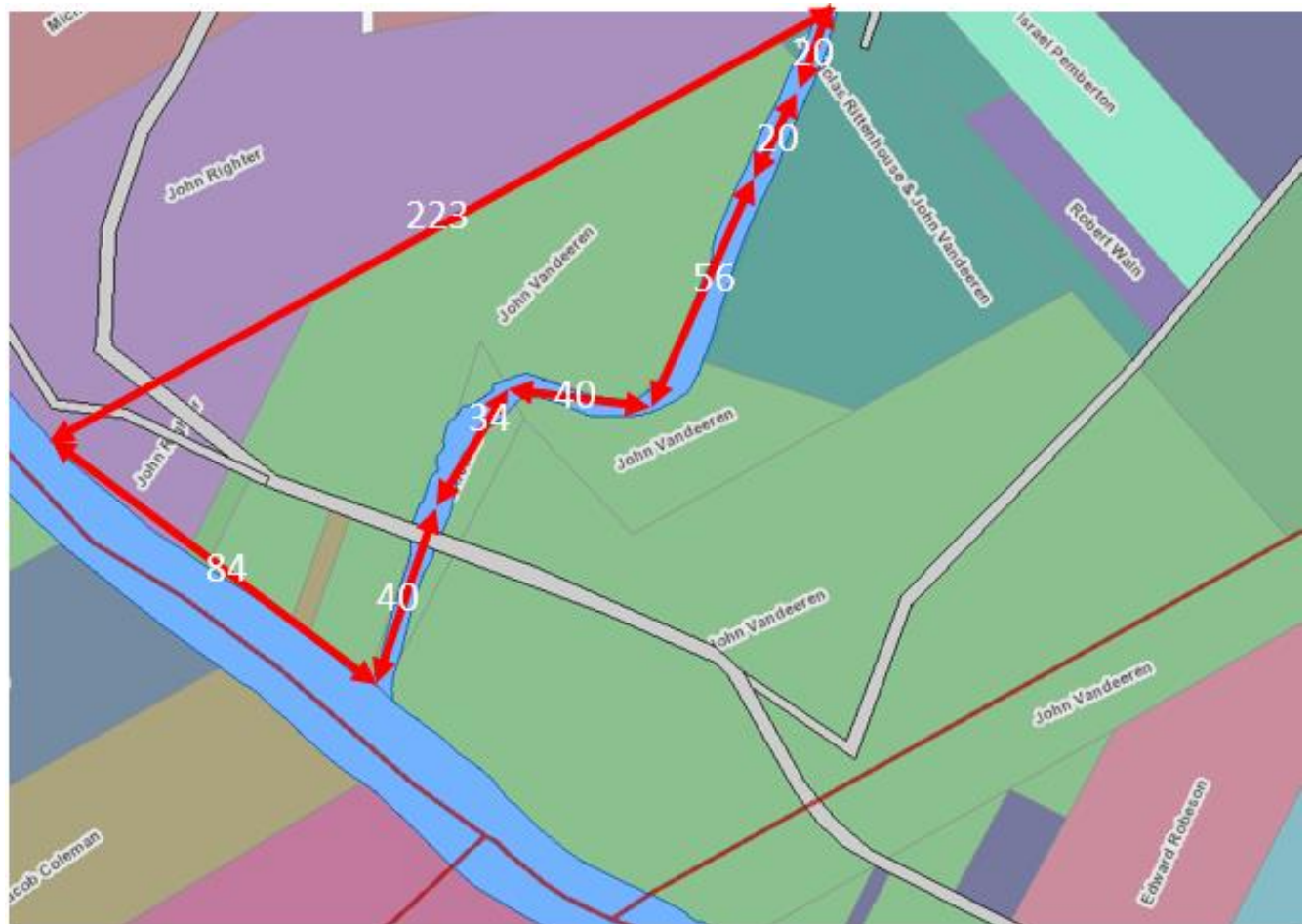
1686 Lessors Joshua Tittery & Richard Townsend add Andrew Robeson & Charles Sanders; 1690 Indenture found in City Archives Oversized Documents & Maps drawers; the 1686, 1690 & 1691 deed boundaries were never transcribed before.

**Leased Land now includes  
“...Saw & Corn Mills...”**

[1690 Nov 8 J Tittery and R Townsend to A Robeson Word to Pdf.pdf \(philacano.org\)](#)

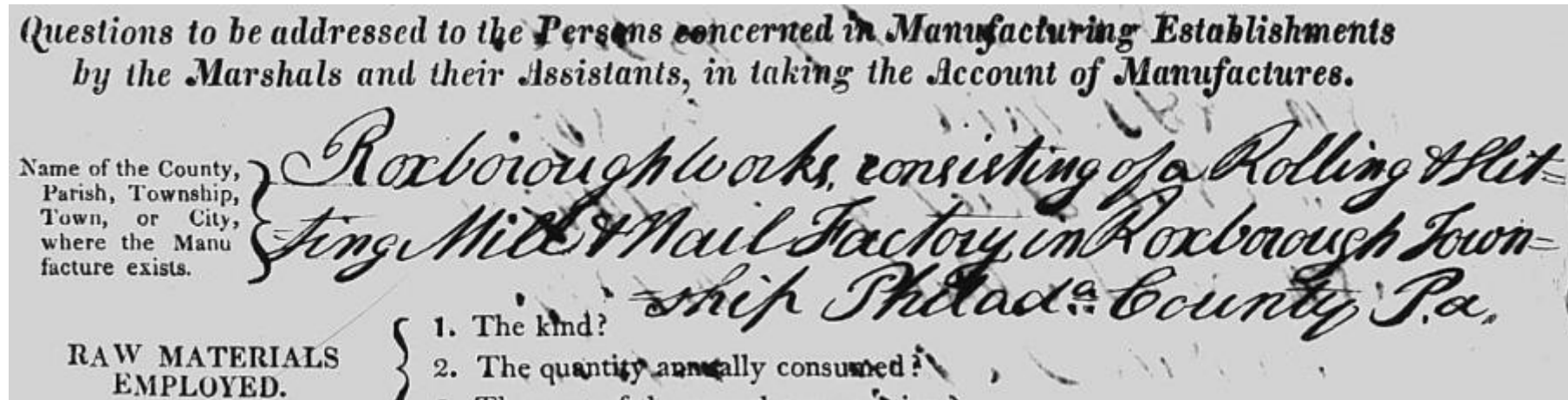
[Boundaries Transcribed: 1691 Apr 4 Tittery and Townsend Lease to Tyzache.pdf \(philacano.org\)](#)

Map overlaid on the Univ. of Penn. “1777 Map” Series:  
<https://maps.archives.upenn.edu/WestPhila1777/map.php>





# Robeson Rolling Mill History: 1820 Census Manufacturing Schedules



Question No. 1. Raw Materials Employed: In **Rolling & Slitting Mill Bar Iron. Nail Factory Hoop Iron.** (Hoops made from the Bar Iron then used for making nails or used for making barrels and wagon wheel hoops.)

See here for the form and extended versions of the 14 questions - CTRL-CLICK: [Records of the 1820 census of manufactures \(familysearch.org\)](https://www.familysearch.org/ark:/61903/3:1:3Q9M-CSK3-93?i=100&cc=2)

*(FamilySearch.org is a free site; it does require a sign-on, but it does not send out unwanted emails or notices.)*

1822 water level measurements also document the presence of the **Saw Mill** – see page 2: [1822 Measurements Robeson.pdf \(philacanoe.org\)](https://www.philacanoe.org/1822-Measurements-Robeson.pdf)

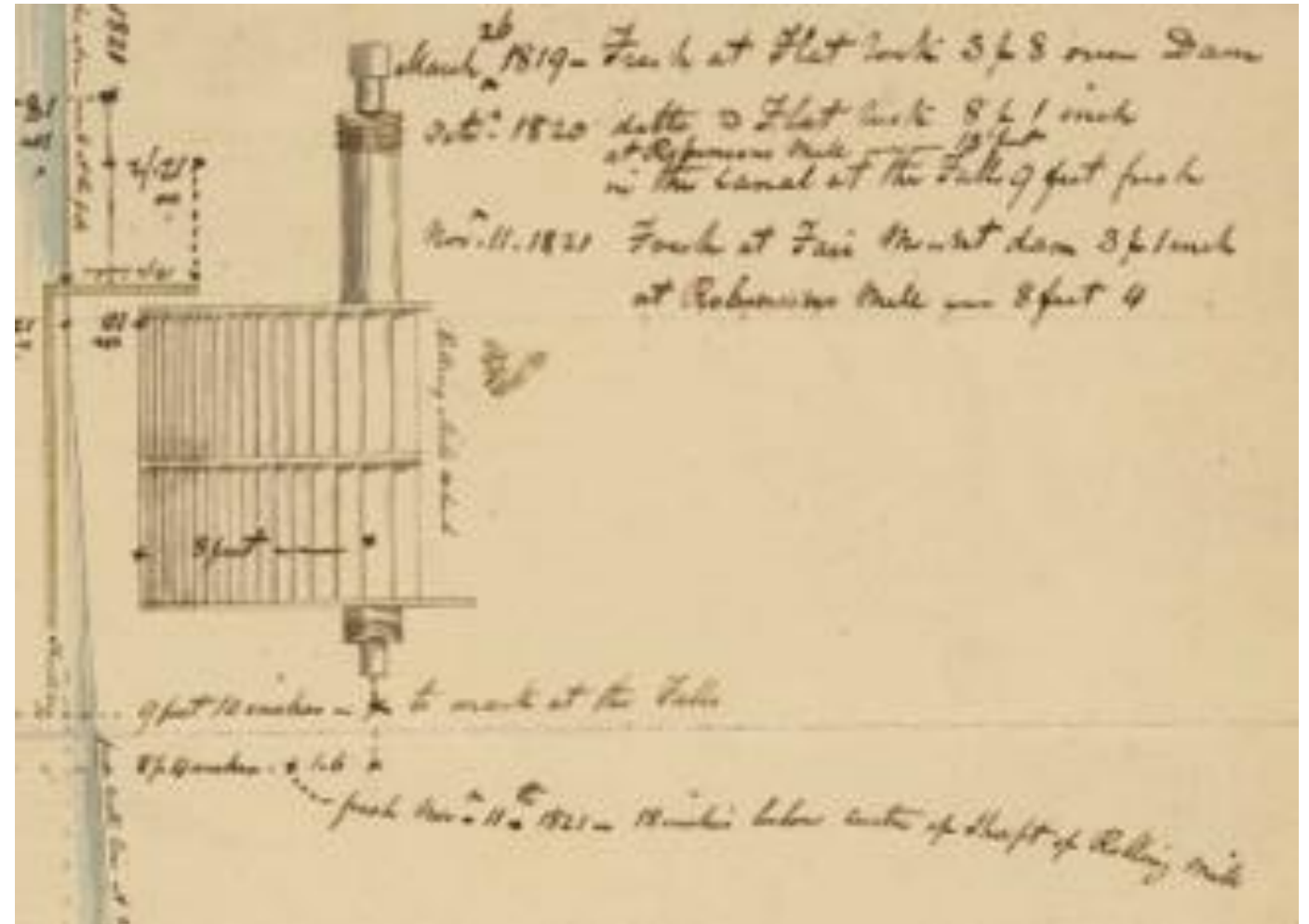
# Robeson Rolling Mill: 1822 Water Wheel Drawing

Frederick Graff Sr. built the Fairmount Dam in 1819-1821. Drawings of the wheel and its height above the Creek were made in 1822 to measure how the dam and later repairs increased River water levels. The wheel was larger: ten feet wide and 16 feet in diameter.

See more here (CTRL-CLICK):

[1921 Philadelphia Architects and Buildings \(philadelphiabuildings.org\)](http://philadelphiabuildings.org)

[1939 Philadelphia Architects and Buildings \(philadelphiabuildings.org\)](http://philadelphiabuildings.org)



# Appendix

## History update conclusion

The current version of the **history of the Mill\*** can be read here: [Robeson Rolling Mill - Philadelphia Canoe Club.pdf \(philacano.org\)](#)

For more about PCC's educational history, please use this link: [A Teaching Tradition by Marion Ambros.docx \(live.com\)](#)

*Please report any broken links or link problems to Griffin Affel:*  
[TreasurerWissMills@gmail.com](mailto:TreasurerWissMills@gmail.com)

*\* We retired the name 'Colony Castle' as the Schuylkill Fishing Company's castle is now in Andalusia.*

# Background: 2022 Bylaws motion approved for WMF funding for the Mill “Sinking Fund.”

## **Motion 2:** Article XII. DUES AND FINES

- Proposed additional Section 9: **Contingent upon** the approval of a non-profit, IRS approved 501.c.3, “The Wissahickon Mills Foundation” to support the funding of maintenance of the Club House’s structure, twenty percent (20.0%) of the individual member annual dues will be given to the Mills Foundation and PCC members will become non-voting Subscribers of the Mills Foundation.
- *The 20% dues donations will not be tax deductible to pass IRS criteria, but member separate additional donations above that amount and general public subscriber will be tax deductible, subject to IRS itemization rules.*

# Background: the Foundation's Constitution and Bylaws: Purpose – Preserve the historic Mill's Structure

The specific purpose of this corporation is to maintain the historic aspects “The Mill” as a joint responsibility with PCC, being the

- exterior façade,
- supporting structure, *(e.g., foundation, roofs, windows, floors & related supports)*
- building entrances and porches, and
- the apron on, with the ramp to, the Wissahickon Creek.

The Philadelphia Canoe Club remains the responsibility for maintaining the

- interior of The Mill,
- the plumbing, electrical and related interior support systems,
- the floating docks, the grounds, and the other buildings and sheds used to store equipment, and
- remains co-responsible for the historic aspects “The Mill.”

# Joint Philadelphia Canoe Club & Wissahickon Mills Foundation Retaining Wall Project

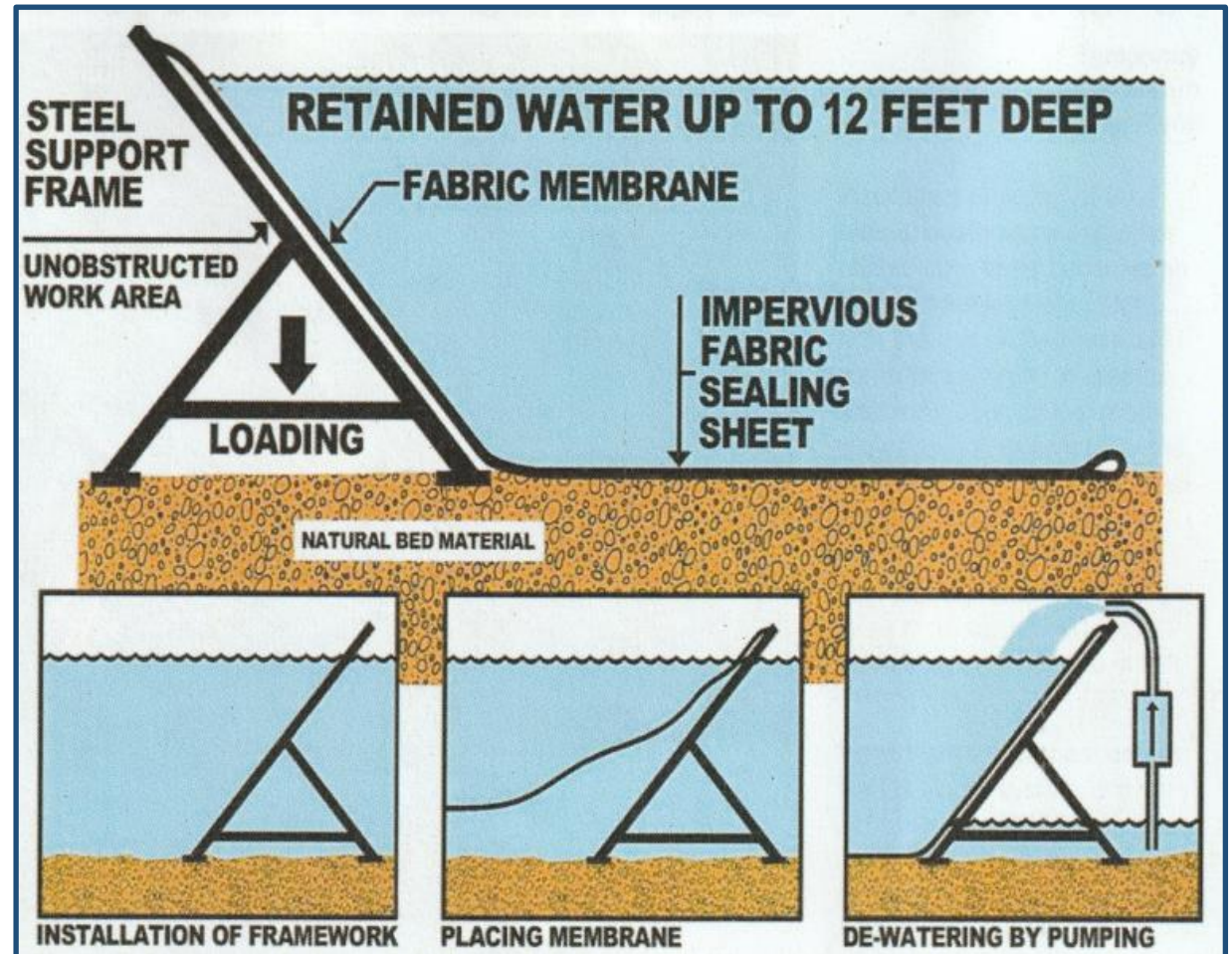
## TRANSYSTEMS

- Investigate a reinforced, anchored shotcrete system as well as a traditional masonry wall reconstruction
- Permits & approvals
- Support vendor selection
- Attendance at construction field meetings

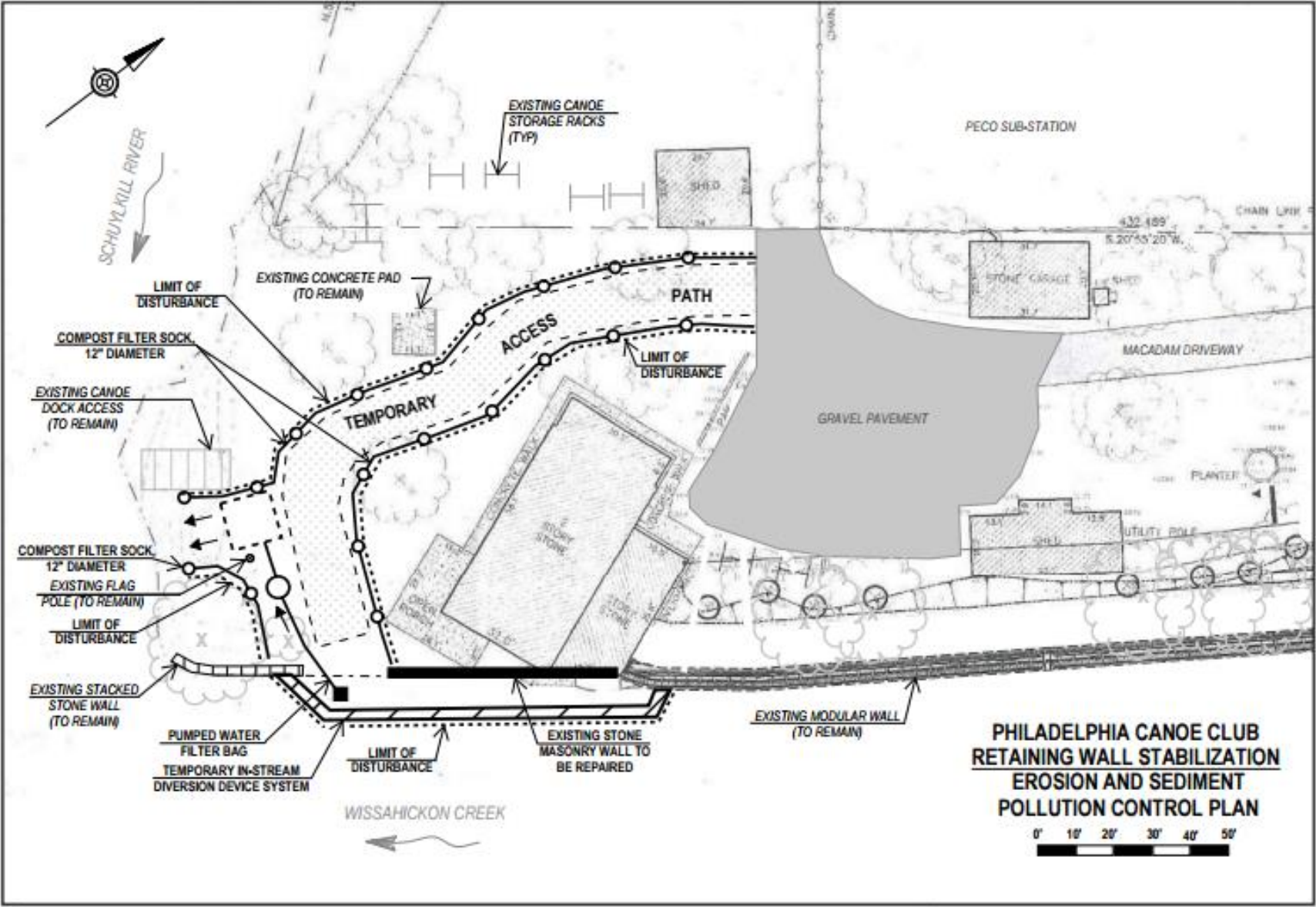
# Joint Philadelphia Canoe Club & Wissahickon Mills Foundation Retaining Wall Project, June 2023 Mtg.

## TranSystems Corp.

- Introduce Mike Cuddy, PE, SVP
- Cofferdam Plan – 100 feet of dam
- Other Questions

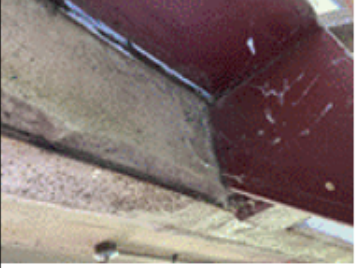





# Joint PCC & Wissahickon Mills Foundation Retaining Wall Project, DEP Approval Granted.












**Appendix: High Priority Repairs WMF to Fund – 2023-2024**  
**Top Items WMF recommends to the PCC Board: One of three slides**

ID	LOCATION	BUILDING COMPONENT	MATERIAL	OBSERVATIONS	RECOMMENDATIONS	QUANTITY	UNIT	PRIORITY	UNIT COST	ID TOTAL COST	Pic. Column Sorts IF Property Pic = "Move and Size with cells"
10A	South	<b>Porch Stair</b>	Wood	Material loss in top tread.	Replace top tread, 45" wide.	3.75	LF	Med	\$150.00	\$ 562.50	
10B	South	<b>Porch Stair</b>	Wood	Stairs slant toward building. Existing stringer at building side is cast into concrete.	Add a center stringer, L=6'-3".	6.25	LF	High	\$275.00	\$ 1,718.75	
10C	South	<b>Porch Stair</b>	Masonry	Stairs slant toward building. Existing stringer at building side is cast into concrete.	Install a steel clip with long leg and masonry fasteners into sound concrete to reinforce the connection.	1	EA	High	\$150.00	\$ 150.00	
61	Club	<b>Fireplace</b>	Brick	Fireplace mass is sagging at the south end where there is no support in the boat storage area below. Step cracking inside upper recess on south and north walls of fireplace.	Install CMU (concrete masonry units) in the basement below to support mass, assume 6'x2'x2'	24	CF	High	\$100.00	\$ 2,400.00	

**Appendix: High Priority Repairs WMF to Fund – 2023-2024**  
**Top Items WMF recommends to the PCC Board: 2nd of three slides**

ID	LOCATION	BUILDING COMPONENT	MATERIAL	OBSERVATIONS	RECOMMENDATIONS	QUANTITY	UNIT	PRIORITY	UNIT COST	ID TOTAL COST	Pic. Column Sorts IF Property Pic = "Move and Size with cells"
51C	Steward's Quarters	<b>First Floor Framing</b>	Concrete	(10) steel posts are lally columns. Many of them are situated on a single paver sitting on floor. Pavers at north wall are cracked because floor is uneven and paver is carrying load. Lally columns are approximately 6'-0" tall. Central post west of stairs is leaning and loose and on base.	Replace all pavers with appropriately sized concrete footings. Embed extant posts in concrete footing, 9 posts x 2'x2'x1'.	36	CF	High	\$150.00	\$ 5,400.00	
53	Steward's Quarters	<b>South wall of bathroom</b>	Wood and plaster	Wood studs are rotted. Some displacement. Some reinforcement was added previously, but not to all studs. Horizontal crack in wall in stairwell caused by condition of studs.	Remove (3) rotted studs. Install new 2x studs @ 16" O.C., Ht = 6' approx	3	EA	High	\$550.00	\$ 1,650.00	
51A	Steward's Quarters	<b>First Floor Framing</b>	Steel	2 3/4" x 8 1/4" floor joists @ 16" O.C. run east/west. Floor joists are supported with supplemental steel framing: (3)W4 steel beams span north-south, slung below floor joists, and have surface corrosion. No fasteners between posts and beams. Steel beams end at stairs. Floor joists starting at #7 from the north wall are sistered with more modern 2x material.	Install fasteners so that posts and beams have stable connection. Drill 2 holes per post connection, 6 EA. (Stairs down to basement are in good condition.)	12	EA	High	\$ 75.00	\$ 900.00	

**Appendix: High Priority Repairs WMF to Fund – 2024-2025 Bilge – Kitchen Floor Supports**  
**Top Items WMF recommends to the PCC Board: 3rd of three slides**

ID	LOCATIO N	BUILDING COMPONEI	MATERIAL	OBSERVATIONS <i>(Some Summarization)</i>	RECOMMENDATIONS <i>(Summaries)</i>	QUANTITY	UNIT	PRIORITY	UNIT COST	ID TOTAL COST	
28	East	Wall	Stone	Crack/open joint between newer stone wall at water wheel pit and original north wall of mill.	Rake out vertical joint, 12 LF. Install HeliBar stainless steel reinforcing bar w/HeliBond repair mortar to stitch walls together, along vertical joint.	48	SF	High	\$ 225.00	\$ 10,800.00	
24	East	Wall	Stone	Crack/open joint between original stone wall of mill and newer stone wall at end of water wheel pit.	Rake out vertical joint, 10 LF. Install HeliBar stainless steel reinforcing bar w/HeliBond repair mortar to stitch walls together, along vertical joint.	40	SF	High	\$ 225.00	\$ 9,000.00	
30A	Water Wheel Pit	Footings and posts	Concrete	(6) rectangular footings of various dimensions and depths. Typical 15 1/2"x8"x8". Footings sit on top a concrete floor - a hazard an an area that floods.	Remove existing footings and install properly sized concrete footings to bedrock base, assume 2'x2'x1' x 6.	24	CF	High	\$ 125.00	\$ 3,000.00	
30B	Water Wheel Pit	Footings and posts	Steel	(6) rectangular footings of various dimensions and depths. Typical 15 1/2"x8"x8". See comments 30A.	Install appropriately sized permanent steel posts with post base or cast into concrete. Attach posts to beam above with appropriate beam seat and fasteners.	6	EA	High	\$1,200.00	\$ 7,200.00	
31	Water Wheel Pit	First Floor Framing	Wood	Existing floor joists are 2x12's at 12" O.C. Span is 14'-0" wall to wall. Joists deliberately not installed in existing joist pockets. Two beams, one along each side wall, are (3) 2x12's.	Beam overhanging one support on south end requires bearing on masonry wall. Install blocking to provide full bearing at east elevation.	1	EA	High	\$ 450.00	\$ 450.00	