

Scope of Work Form

MNHS Grants Office

FOR OFFICE USE ONLY
Grantee: _____
Grant No.: _____
Attachment: _____

PROPERTY NAME: Streetcar Boat MINNEHAHA
PROPERTY ADDRESS: 140 George St. Excelsior, MN 55331

DATE: 15 September 2023
NRHP LISTING NO.: SC100007073

ITEM NO: 1	FEATURE: SHPO Review / Project Sanction	CONST. DATE: 1990-96 Restoration	FUNDING SOURCE(S): <input checked="" type="checkbox"/> GRANT <input type="checkbox"/> OTHER	BUDGET ITEM No.: N/A
<p>DESCRIBE EXISTING FEATURE AND ITS CONDITION</p> <p>"Minnehaha" was listed on the National Register of Historic Places in October 2021.</p> <p>DESCRIBE WORK AND IMPACT ON EXISTING FEATURE</p> <p>Projects for NRHP listed properties are required to be reviewed and sanctioned by MN State Historic Preservation Office (SHPO).</p> <p>PHOTOS: N/A DRAWING SHEET NO.: NN/A ADD'L DOCUMENTATION: NRHP Nomination</p>				
<p>UPDATES AFTER PROJECT IS COMPLETED</p>				

ITEM NO: 2	FEATURE: RFP for Shipwright	CONST. DATE: 1990-96 Restoration	FUNDING SOURCE(S): <input checked="" type="checkbox"/> GRANT <input type="checkbox"/> OTHER	BUDGET ITEM No.: 1
<p>DESCRIBE EXISTING FEATURE AND ITS CONDITION</p> <p>The vessel's hull has four areas of deterioration that currently render her unfit to operate - including cracked ribs, planks with fractures and/or wood rot, etc. Extent of deterioration is beyond remediation and necessitates replacement.</p> <p>DESCRIBE WORK AND IMPACT ON EXISTING FEATURE</p> <p>RFP process for selecting a project shipwright (qualifications and tasks specified in Work Plan & Timetable). Classified listings will be published to solicit competitive bids from qualified shipwrights.</p> <p>PHOTOS: N/A DRAWING SHEET NO.: N/A ADD'L DOCUMENTATION: Classified Ads worksheet</p>				
<p>UPDATES AFTER PROJECT IS COMPLETED</p>				

ITEM NO: 3	FEATURE: Work Site Preparation	CONST. DATE: 1990-96 Restoration	FUNDING SOURCE(S): <input checked="" type="checkbox"/> GRANT <input type="checkbox"/> OTHER	BUDGET ITEM No.: 2
<p>DESCRIBE EXISTING FEATURE AND ITS CONDITION</p> <p>"Minnehaha" is currently laid up in her heated/insulated storage building in Excelsior. Building lacks a steam box for shaping timbers and has no running water or restroom facility. Vessel's size (65 tons, 70' length, etc.) prevent her from being transported to a shipwright's work yard.</p> <p>DESCRIBE WORK AND IMPACT ON EXISTING FEATURE</p> <p>Work site will be staged to accommodate the rehabilitation: tools, materials, steam box constructed for shaping timbers, and rental/placement of an on-site sanitation facility.</p> <p>PHOTOS: N/A DRAWING SHEET NO.: N/A ADD'L DOCUMENTATION: Biff estimate</p>				
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ITEM NO: 4	FEATURE: Framing Ribs: Bilge Compartment	CONST. DATE: 1990-96 Restoration	FUNDING SOURCE(S): <input checked="" type="checkbox"/> GRANT <input type="checkbox"/> OTHER	BUDGET ITEM No.: 3
<p>DESCRIBE EXISTING FEATURE AND ITS CONDITION</p> <p>3" x 3" frames (ribs) constructed in place by laminating three individual layers of white oak together. Each layer steam-heated then bent to fit the hull's contour. Entire bilge (including ribs) painted. Five (5) frames now cracked/split weakening structural integrity and must be replaced.</p> <p>DESCRIBE WORK AND IMPACT ON EXISTING FEATURE</p> <p>Screws securing hull planks to the frames will be removed. Then existing frames will be removed from inside the bilge by chiseling the broken frame. New frames will be constructed using the same laminating process utilized during the restoration. Hull planks will be secured to the frames use brass corrosion-resitant screws. Replacement material will match existing in size, shape and material.</p> <p>PHOTOS: 3-15, 61 DRAWING SHEET NO.: 4A,4B,4C ADD'L DOCUMENTATION: PhotoKeys, PhotoAlbum, St Paul Shipwright estimate</p>				
<p>UPDATES AFTER PROJECT IS COMPLETED</p>				

ITEM NO: 5	FEATURE: Waterline Stern Planks (Port & Starboard)	CONST. DATE: 1990-96 Restoration	FUNDING SOURCE(S): <input checked="" type="checkbox"/> GRANT <input type="checkbox"/> OTHER	BUDGET ITEM No.: 4
<p>DESCRIBE EXISTING FEATURE AND ITS CONDITION</p> <p>Two planks immediately below the waterline at the vessel's stern (port & starboard sides) have shrunk beyond the ability to swell watertight; starboard plank also fractured. Planks are Douglas fir; measure 14' long x 6" wide x 1 3/4" thick. Planks steam-heated and bent/twisted to fit the stern's contour. Planks screwed to frames, seams filled with cotton/oakum, and caulk to ensure watertight seal. Both planks require replacement.</p> <p>DESCRIBE WORK AND IMPACT ON EXISTING FEATURE</p> <p>New planks will be fitted using the same construction process as during the restoration. Replacement material will match existing in size, shape and material. New planks will mirror existing appearance/design of the boat's torpedo-stern. New cotton, caulking, primer and matching bottom paint to be applied.</p> <p>PHOTOS: 16-19, 63-65 DRAWING SHEET NO.: 5A, 5B ADD'L DOCUMENTATION: PhotoKeys, Photoalbum, St Paul Shipwright estimate</p>				
<p>UPDATES AFTER PROJECT IS COMPLETED</p>				

ITEM NO: 6	FEATURE: Stern Bottom Planks - 2 on port, 2 on starboard	CONST. DATE: 1990-96 Restoration	FUNDING SOURCE(S): <input checked="" type="checkbox"/> GRANT <input type="checkbox"/> OTHER	BUDGET ITEM No.: 5
<p>DESCRIBE EXISTING FEATURE AND ITS CONDITION</p> <p>Four (4) bottom planks at the stern have extensive rot in multiple places. Severity of rot has eroded half of plank's thickness in spots. Planks are Douglas fir measuring 6-8" wide x 1-3/4" thick. Lengths range from 12' to 20'.</p> <p>DESCRIBE WORK AND IMPACT ON EXISTING FEATURE</p> <p>Replacements will use the same construction process. Every attempt will be made to use identical materials, however limited availability may necessitate use of shorter planks. Replacement will have no effect on hull appearance/design. New cotton, caulking, primer and matching bottom paint will be applied.</p> <p>PHOTOS: 20-49, 65 DRAWING SHEET NO.: 6 ADD'L DOCUMENTATION: PhotoKeys, PhotoAlbum, St Paul Shipwright estimate</p>				
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ITEM NO: 7	FEATURE: Port Rub Rail	CONST. DATE: 1990-96 Restoration	FUNDING SOURCE(S): <input checked="" type="checkbox"/> GRANT <input type="checkbox"/> OTHER	BUDGET ITEM No.: 6
<p>DESCRIBE EXISTING FEATURE AND ITS CONDITION</p> <p>The rub rail serves to keep the hull from coming into contact with the dock and damaging the hull. Underside of existing port rub rail has rotted creating a two-inch gap and allowing the adjacent support timbers to warp out of position. Rub rail is painted canary yellow to match vessel's color. Existing support timber is too short to repair and should be replaced.</p> <p>DESCRIBE WORK AND IMPACT ON EXISTING FEATURE</p> <p>Removal of rotten support timber will require steel rub rail to be unscrewed so timber can be chisled out. Replacement timber will match size, shape and materials of existing timber and will be cut to size. Repaired rub rail will be painted using matching canary yellow paint. Repair will maintain the existing appearance and will be imperceptible to the public.</p> <p>PHOTOS: 50-52 DRAWING SHEET NO.: 7 ADD'L DOCUMENTATION: PhotoKeys,PhotoAlbum,St Paul Shipwright estimate</p>				
<p>UPDATES AFTER PROJECT IS COMPLETED</p>				

ITEM NO: 8	FEATURE: Remove/replace Cotton, Caulk, Corks	CONST. DATE: 1990-96 Restoration	FUNDING SOURCE(S): <input checked="" type="checkbox"/> GRANT <input type="checkbox"/> OTHER	BUDGET ITEM No.: 7
<p>DESCRIBE EXISTING FEATURE AND ITS CONDITION</p> <p>Existing cotton/oakum and caulking used in the seams between planks is no longer capable of ensuring a watertight seal. Many of the wood plugs used to seal screwholes (securing planks to the rib framing) have lost their seal.</p> <p>DESCRIBE WORK AND IMPACT ON EXISTING FEATURE</p> <p>All loose corks, and all cotton, caulking used to seal (13) 70-foot long seams on both port and starboard sides of the vessel should be removed, seams then cleaned of residual debris, then replaced with new materials. All new materials to be marine grade designed to ensure watertight seal. All new materials will be imperceptible to the public.</p> <p>PHOTOS: 53-55, 70-71 DRAWING SHEET NO.: N/A ADD'L DOCUMENTATION: PhotoKeys,PhotoAlbum,St Paul Shipwright estimate</p>				
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ITEM NO: 9	FEATURE: Sanding, Primer and Bottom Paint	CONST. DATE: 1990-96 Restoration	FUNDING SOURCE(S): <input checked="" type="checkbox"/> GRANT <input type="checkbox"/> OTHER	BUDGET ITEM No.: 8
<p>DESCRIBE EXISTING FEATURE AND ITS CONDITION</p> <p>The hull is currently free of all primer and bottom paint.</p> <p>DESCRIBE WORK AND IMPACT ON EXISTING FEATURE</p> <p>Upon completion of corking and caulking, a final sanding of the hull will be done to ensure the hull surface is smooth and clean. Then three coats of primer will be applied to the entire surface below the waterline, followed by two coats of ablative antifouling bottom paint.</p> <p>PHOTOS: 1-2 DRAWING SHEET NO.: N/A ADD'L DOCUMENTATION: PhotoKeys,PhotoAlbums,St Paul Shipwrights estimate</p>				
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ITEM NO: 1	FEATURE: Reinspection/Resurvey CONST. DATE: 1990-96 Restoration	FUNDING SOURCE(S): <input checked="" type="checkbox"/> GRANT <input type="checkbox"/> OTHER	BUDGET ITEM No.: 9
<p>DESCRIBE EXISTING FEATURE AND ITS CONDITION</p> <p>Upon completion, the rehabilitative work must be reinspected/resurveyed to ensure the vessel's structural integrity is worth of recertification for carrying passengers.</p> <p>DESCRIBE WORK AND IMPACT ON EXISTING FEATURE</p> <p>Inspectors from the MN Department of Labor & Industry and Hennepin County Sheriff's Water Patrol Office will make an on-site inspection to certify the hull is structurally sound. AMS-accredited marine surveyor Capt. Cliff Schmidt will conduct an on-site marine survey of the vessel's integrity.</p> <p>PHOTOS: N/A DRAWING SHEET NO.: N/A ADD'L DOCUMENTATION: S2 survey estimate</p>			
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