

TOWN OF SUDBURY COMMUNITY PRESERVATION COMMITTEE
PROJECT SUBMISSION FORM

Submitter: Sudbury Valley Trustees (SVT)
Group or Committee Affiliation (if any):

Submission Date: October 28, 2008

Submitter's address and phone number:

Sudbury Valley Trustees
 18 Wolbach Road
 Sudbury, MA 01776
 978-443-5588

Purpose (please select all that apply):

Open Space
 Community Housing
Historic
 Recreation

Project Manager: Laura Mattei

Submitter's email address: lmattei@svtweb.org

Project Name: Wolbach Farm Barn Ramp Restoration

Project Description: *(please see attached project proposal)*

Reconstruct ramp at rear of historic Wolbach Farm barn: The Wolbach Farm house and barn is located within the Sudbury Center Historic District and is listed on both the state and national historic registers. The Wolbach Farm barn and field are the most prominent features viewed by visitors and residents entering Sudbury from the south, on Route 27.

Costs:

Fiscal Year	Total Project Cost	CPC Funds Requested	Other Funding Sources (amount and source)
2010	\$ 76,000	\$38,000	SVT will seek additional funding through the state historic commission and private foundations.
2011			
Total	\$ 76,000	\$ 38,000	

How does this project meet the General Criteria and Category Specific Criteria for CPC projects (see attached)?

General Criteria:

- Consistent with Town's Master Plan goal to maintain pride in town entrances and preserves essential character of the Town as described in the master plan.
- Ramp is deteriorated and requires immediate attention. SVT has an engineered plan that it can implement as soon as additional funds are raised. SVT will conduct additional fundraising. A grant for 50% of the project cost from the CPC will allow us to leverage funds from the State or private foundations.
- Restoration of the barn ramp is linked to more than one CPA purpose (historic) because it is part of protected open space and a part of nature reservation that is used for passive recreation.

Specific Criteria (Historical):

- Protect and preserve a historical building structure, important to the community's agricultural heritage, within the Sudbury Center Historic District.
- The Wolbach house and barn are on both the State and National Historic Registers.
- The public benefits from this project because it is the principal view upon entering Sudbury from the south, on Route 27, and because the property is open to the public for passive recreation.
- SVT has over 50 years of experience in protecting open space in our region. The organization has a Capital Plan to cover maintenance of the Wolbach house, barn and grounds.

Does this project fall within the jurisdiction or interest of other Town Boards, Committees or Departments? If so, please list the boards, committees or departments, whether applications and/or presentations have been made, and what input or recommendations have been given.

This project falls within the jurisdiction of the Sudbury Historic Commission and the Building Department. The Sudbury Historic Commission was notified by email of the project and their responses were shared with Jody Kablack, Town Planner. SVT has been in communication with the Building Inspector and has sent him a copy of the engineer plans and this proposal.

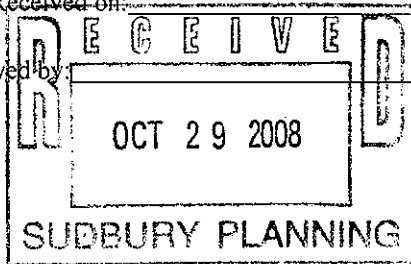
For Community Preservation Committee Use:

Form Received on: _____

Project Presented to CPC on: _____

Reviewed by: _____

Determination: _____



Sudbury Community Preservation Committee

Wolbach Farm Barn Ramp – Proposal for CPC funding

October 28, 2008

The barn and ramp at Sudbury Valley Trustees' (SVT) Wolbach Farm is the most prominent historical and architectural feature in the landscape as one enters the Town of Sudbury from the south, or commutes to Boston on Route 27. Wolbach Farm is located within the Sudbury Center Historic District. It represents Sudbury's agricultural heritage and dates from circa 1850; the Wolbach family purchased the farm in 1916. The main house and barn are listed in the State and National Registers of Historic Places as a contributing property to this historic district. Restoring the ramp serves multiple CPA purposes as it links open space, recreation and historical restoration. The barn is part of a 54 acre permanently protected conservation reservation owned by SVT and adjacent to both federal and municipal conservation land. The property is open to the public for passive recreation, including an interpretive nature trail.

Restoration of the Wolbach Barn ramp fits the goals of the Town's Master Plan to preserve and enhance the "bucolic atmosphere." The Plan specifically emphasizes the importance of maintaining the character of the entrances to the town with "appropriate signage, markers and landscaping," referencing the Route 27 entrance from Wayland specifically.

Sudbury Valley Trustees (SVT) proposes to restore the ramp at the rear of the barn to its historical form. If appropriate funds are raised, SVT will be able to ensure the continued permanent protection of this historic resource. The ramp is currently dilapidated and not safe for use, as declared by the Sudbury Building Inspector and a professional engineer. To preserve this critical historic and aesthetic resource, the ramp must be reconstructed. If SVT can not secure funds to fully restore the ramp, for public safety concerns, we will lose the ramp. Instead, SVT will be required to replace the ramp with a basic exit deck and stairway.

SVT is exploring other funding options, including the Massachusetts Preservation Projects Fund. We believe that support from the CPC will increase our odds of securing additional funding. SVT is prepared to share the cost of ramp reconstruction.

SVT has a capital plan, approved by the Board of Directors, for maintenance of the Wolbach Farm buildings and grounds. The barn and ramp are part of this plan, assuring permanent protection of this historic resource. As a regional land trust, conserving open space and wildlife habitat for over 50 years, SVT is more than qualified to ensure the continued permanent protection.

In May of 2008, we had two contractors submit estimates for reconstruction of the barn ramp, based on an architectural drawing of the proposed reconstruction (drawing by Bill Sterling of Sterling Associates). These estimates came in at \$ 65,000 and \$69,000. At that time, we were looking for a rough estimate so we could decide how to budget for the project. We realized that it was beyond our ability to pay for this reconstruction out of our current capital budget.

Subsequently, SVT hired Ipswich River Engineering, Inc. to design and draft a plan for the ramp reconstruction (see enclosed plans and cover letter), which was required by the Building Inspector. That design was completed October 21, 2008. The engineer's design plan will satisfy our building code requirements. We are asking contractors to resubmit estimates based on the engineer's design plan and specifications.

Details of the Restoration

Our intent is to keep the structure as similar to the historic one as possible; however, we will be making some changes due to current building code requirements. These changes will be mostly internal structural changes that will not alter the outward appearance of the ramp. First, the two field stone pillars, closest to the barn do not have cement foundations. We will repoint them and leave them in place, but will need to add three posts around each pillar to support the structure. The posts will be on the interior so that the outer side of the stone pillars will be fully visible. We need to add steel beams for additional structural support, but these will not be visible except when looking from underneath the ramp. The engineer notes that new code requirements, that will go in effect March 1, 2009, require ramps to have a minimum slope of 12.5%. Such a slope would significantly alter the appearance of the ramp, so we will request a waiver from the Sudbury Building Inspector for reasons of historic preservation (which is allowable under code for state-listed historic structures). Finally, we will need to replace the current handrails with rails that have an extra cross bar to meet safety codes.

Application Enclosures:

1. Photos of barn, including view from Route 27.
2. Contractor estimates (from Oak Tree Management and Able Builders, Inc.)
3. Engineer Design Plan (from Ipswich River Engineering, Inc.)

Sudbury Valley Trustees
Wolbach Farm
Barn Ramp Views



View of barn and ramp from Route 27.



View of barn and ramp from field, near Route 27.



View of ramp at rear of barn.

Able Builders, Inc.

12 Richardson Rd.
Hudson, Ma. 01749
Telephone 978-567-9553
Fax 978-568-8514

James J. Harrington
C.S. License #029473
HIC License #127995

May 9, 2008

Mr. Chris Wilson
Sudbury Valley Trustees
18 Wolbach Rd.
Sudbury, MA., 01776

Re: Barn ramp

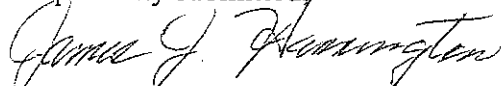
Quotation: \$ 68,952.00

Scope of work: We include the following in our quotation.

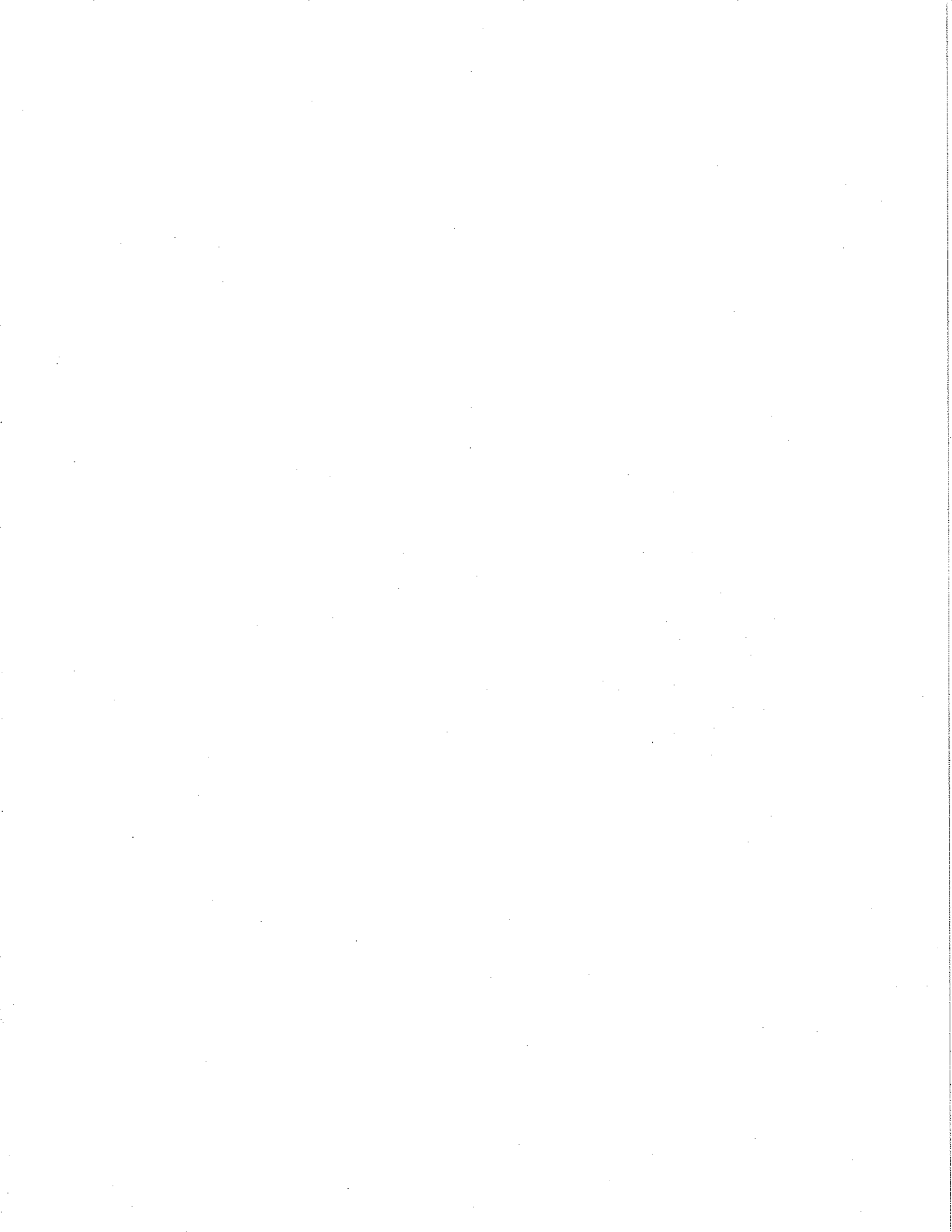
1. Demolition and proper disposal of existing deck and ramp materials.
2. Demolition and removal of existing brick piers and stone pillar. Materials to remain on site.
3. Furnish and install new 12" round concrete piers to 1'-0" above grade.
Furnish and install new footing and foundation for stone pillars.
4. Rebuild stone pillars using existing materials.
5. Furnish and install new deck and ramp using all treated materials based on sketch provided and drawn by Sterling Architects, Inc. with the exception that the railings will be vertical instead of horizontal. (Code requirement.)
Walking surfaces to be 2" X 6" in place of 2" X 10" in order to lessen cupping and twisting.
6. Deck area to be enlarged approx. 5'-0" on each side to allow for additional columns and removal of steel brace from existing barn to deck area.
7. Cost of building permit.
8. Furnish owners with insurance certificate showing proper coverage for liability and workers compensation.

Note: Piers may need to increase to 16" round and wood material sizes may change pending stamped architectural drawings.

Respectfully submitted,



James J. Harrington, President.





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CONSTRUCTION/PROPERTY SERVICES

One Union Place
Dedham, MA 02026

Tel: 781-893-3000

Fax: 781-320-0666

HIC # 130761

CS # 073392

May 27, 2008

Sudbury Valley Trustees
18 Wolbach Road
Sudbury, MA 01776

Dear Sudbury Valley Trustees,

Thank you for inviting our company to provide an estimate, for new decking.
At 18 Wolbach Road, Sudbury, MA 01776

Cow Ramp 15' 6" x 50'
Upper Deck 6' x 32'

Demo Ramp

- Remove 2x10 decking
- Remove rails and posts (10 posts)
- Remove floor joints
- Remove beams

Demo two stone columns (32x32x12')

- Save rocks if possible

Demo Upper Deck

- Remove decking and posts (8 posts)
- Remove 2x 10 framing and 4x8 perimeter framing.
- Remove to replace 32' siding one row

Remove Carrying Beams

- Remove 16' 6x12 (2)
- Remove two 4x10x8
- Remove one Lam 4x10x16'

Ramp Assembly

- Repair/Re-joint existing brick columns
- Add four columns to center of beams to cut span to 8'. (Brick to match 16"x16")
- Make four 6x12 beams approximately 15' each atop columns
- Beam at stone columns to be 8"x16' I-beams steel poured into concrete columns inside stone work. Add a 2x6 nailer on top for deck joints
- Cut 3/12 slope on beams
- Attach beams to columns using angles and lags
- Lay 2x10x10 joists at 16" with double perimeter (56)
- Attach with simpson Hurricane ties at every beam
- Attach posts (8x8x6') 10 count using angles and lags into columns. Then large steel mending plate from beam to post bottom and two 10" carriage bolts per post.
- **Ramp Deck**
- Sixty five 2x10x16' or One hundred and twenty 2x6x16'
- 1/8" space, nailed with 12" ring galve
- **Ramp Rails**
- Sixteen 2x4x10
- Eight 2x6x10
- Approximately 300 42" ballasts

Upper Deck

- 6'x32"
- **Main Beam- 32' of 6x12 (made from four 2x12)**
- Build two block columns (or stove) in front of existing stone of barn.(16"x16"x8')
- Re-attach corner turn buckles as added support
- Add two 6x12x10' to stone columns back to hangers at Main beam
- **Joists- 24 2x10x6' (160)**
- Add 32' 2x10 double ledger to building two lags every 16"
- Double end joists
- Add hangers to every joist at ledger and main beam (48)
- **Flashing**
- 32' of L-Bent white aluminum behind one row of clapboard.
- **Posts- Eight 65x6x5'**
- Glue and lag to Main Beam
- Carriage bolts two through joists 10"
- **Decking**
- 192 Square feet 2x10 to Match ramp
- **Rails**
- Eight 2x4x8, four 2x4x10, four 2x6x10
- Two 2x6x8, approximately 150 ballisters

- **Stone Columns**
- Demo and remove two 32'x32'x12' stone
- Dig out loose stone base
- Excavate 8' wide trench to accommodate both columns, 4' deep.
- Tamp/Puck ground. Form a 6'x6'x12" footing. 1.5 yards each add a knot of number four Rebar and a column cage 12" to come up through footing after poured.
- Form square 18"x18"x12' column around I beam and pour to grade(approximately ??? each).
- Bolt one end of 6x12 beam to concrete with rock anchors and angles.
- Stone work from footing up to and above rail (approximately 12')
- Mortar around beams
- Finished column close to 32" original size

Payment Schedule:

\$65,000.00

Sixty Five Thousand dollars

- On Signing \$16,250.00
- On Demo \$16,250.00
- On Decking \$16,250.00
- On Completion \$16,250.00

Additional services will be provided and billed on a time and material basis.
Materials supplied by us are billed 10% over cost. OAK TREE time rates as follows:

- \$60.00 per man hour Finish Carpenter/Cabinet maker
- \$50.00 per man hour General Carpenter
- \$35.00 per man hour Painter/General worker
- \$30.00 per man hour Grounds keeper(three man team)
- Sub Contractors at there rate plus 20%
- Short term service calls are \$120.00 for first man hour

All application and installation will adhere to industry standard and commonly used application techniques.

Price assumes all deck work done at one time

This estimate dose not include: architectural, engineering, prints, stamps. Licensed electrician, plumber, are only as noted. Note: building code issues as well as hidden conditions are not included or accounted for, and will be billed at additional costs.

Estimated time of substantial completion is 2 months from start, pending scope of work, owner concern, insurance company issue, building department delays, acts of god or unforeseen difficulty.

Owner to supply applicable specifications, description, distributor, type of items to be used within cost parameters, we are not designers and are not responsible for special order items

Please stay clear of work area until construction is completed to avoid injury, mishap, or damage.

Owners to remove all valuables and personal possessions, and clear work area before work start (To prevent possibility of any damage).

Services backed with a minimum 1-year limited warranty, covering labor and materials.

(OWNER(s) _____, agree to the following payment terms: As listed in payment schedule. OAK TREE will invoice, via fax, and or mail for any additional services provided. **Payments are due on invoicing.** Described work in contract due as listed in payment schedule.

In the event that any payment shall be in default, and placed with an attorney for collection then OWNER(s) _____, agree to pay all reasonable attorney fees of collection. A finance charge of 1.5 % per month (18% per year) on all sums fewer than five hundred (\$500.00) dollars. And 1% per month (12% per year) on all sums over five hundred (\$500.00) dollars will be added to the then UN paid balance after thirty (30) days from the date of billing.

DO NOT SIGN THIS CONTRACT IF THERE ARE ANY BLANK SPACES

Acceptance and approval by Owner's
Signature(s):

Matt O'Connor OTM

Matt O'Connor, as Agent for
OAK TREE MANAGEMENT

Owner:
SS#:

#04-3433888

Owner:
TIN#:

May 27, 2008

Date

Date



October 21, 2008

Chris Wilson
Sudbury Valley Trustees
18 Wolbach Road
Sudbury, MA 01776

RE: **STRUCTURAL ASSESSMENT REPORT ON THE
EXISTING TIMBER FRAMED RAMP & DECK AT THE
SUDBURY VALLEY TRUSTEE'S BARN**
18 Wolbach Road – Sudbury, Massachusetts
Ipswich River Engineering, Inc. Project No: IR-0221

Dear Chris:

As retained by the Sudbury Valley Trustees (SVT), Ipswich River Engineering, Inc. (IREI) has visited the SVT's Barn in Sudbury to perform a structural assessment and evaluation of the existing timber framed deck and ramp at the rear of the Barn; and to design the required new structural foundations and framing systems to replace the existing deck and ramp.

IREI has reviewed the existing condition of the Barn's timber framed deck and ramp structure and based on IREI's field observations it is IREI's professional opinion that this existing timber framing of the deck and ramp are in a state of severe deterioration and the that structural integrity and capacity of the deck and ramp framing appears to be severely compromised. Therefore, it is IREI's professional opinion that access to, and use of, this existing timber framed ramp and deck structure at the SVT's barn should be blocked and stopped immediately because of the severe deterioration of various portions of the timber framing observed. It is IREI's professional opinion that the structural integrity and adequacy of the existing timber framed ramp and deck structure has deteriorated to a point where it appears to be a danger to public safety and should not be used in any fashion until it has been replaced.

Based on IREI's field observations, the following are IREI's professional observations, opinions and recommendations as related to the visible structural distress and damage to the portions of the existing ramp and deck foundation systems:

- The existing brick piers supporting the existing timber beams were observed to have significant structural distress. In the redesigned ramp and deck structure, the existing six brick support piers have been designated to be removed and replaced in their entirety.
- The two existing field stone pilasters at the upper portion of the existing ramp have been designated to be repointed and to have new concrete caps installed – the existing mortar washes at the tops of the piers are designated to be removed. As IREI discussed with you, since there is no information available on whether there are footings at the base of these two piers; and the fact that these two piers are most likely not reinforced; it is IREI's professional opinion that these two field stone piers

162 Park Street-Suite #203, North Reading, MA 01864
t: 978.664.6925 f: 978.664.6926 www.ireengineering.com

The difference between the ordinary and the extraordinary is the *extra* client service we provide.

cannot be used as structural supports for the rebuilt deck and ramp. These two field stone piers are designated to be repaired and repointed and to be saved as decorative piers given their aesthetic value to the Barn and will be incorporated into the rebuilt deck and ramp structure as non-structural components.

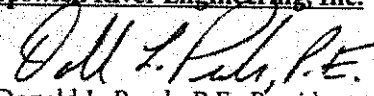
The structural design of the new deck and ramp structure, the spacing of the existing pier foundations, minimizing new foundation piers and footings, and the code required 100 pound per square foot uniform live load has necessitated the use of steel beams to support the deck and ramp timber posts. The steel beams have been designated to have a hot-dipped galvanized finish to provide extended protection from rusting from exposure to the elements.

Based on IREI's review of the Massachusetts State Building Code, Seventh Edition, the slope of the existing ramp appears to exceed the maximum 12.5% ramp slope as designated in the current code for ramps that are not part of a designated means of egress path for a building. Therefore, it appears that the slope of the new ramp structure must be reduced from the slope of the existing ramp. This decreased ramp slope will require that the contractor raise the grade around the end of the rebuilt ramp to accommodate the lower ramp slope and the new end of ramp elevation.

As noted in IREI's current *Agreement For Structural Engineering Services - Agreement No. IR-PA199R*, since IREI is a structural engineering firm, and not an architectural firm, the SVT should forward the PDF copies of IREI's five (5) structural drawings to their Architect's (Sterling Associates, Inc.) so they can review the configuration and adequacy of the proposed railing and guard system, the 12.5% ramp slope (12.5% ramp slope has been based on the assumption by IREI that this ramp is not part of a designated egress path from the Barn - this must be reviewed and confirmed by SVT) and all other applicable architectural issues. IREI recommends that Sterling Associates, Inc. review these IREI's structural drawings for architectural issues/code prior to issuing the structural drawings to contractor's for pricing and submission of drawings to the Sudbury Building Department for application for the Building Permit.

IREI trusts that this preliminary report satisfies the SVT's needs at this time. If the SVT have any questions and/or comments on this report or the structural drawings or need additional information please do not hesitate to call or email. Ipswich River Engineering, Inc. would like to thank the SVT very much for retaining the firm to perform the above referenced structural engineering services.

Respectfully submitted,
Ipswich River Engineering, Inc.


Donald L. Peach, P.E., President

