

Supawna Meadows Barn



PROJECT

Supawna Meadows Barn
Pennsville, New Jersey

CLIENT

Friends of Supawna Meadows National Wildlife Refuge, Inc.

DATES

November 2007 Structural Assessment
Design and Documentation

DESCRIPTION

The Barn is a part of the Supawna Meadows National Wildlife Refuge and provides a unique seasonal habitat to a large colony of bats. The site is used by the NJDEP, US Fish and Wildlife Services, as well as a number of universities in the research and study of the endangered bat colonies. The degradation of the barn over time and overall structural instability jeopardized the barn's continued use as a bat habitat and place of research.

CHALLENGE

S. Harris Ltd. was retained by the Friends of Supawna Meadows NWR to provide an economical means of stabilizing the barn. The structure consists of stone masonry foundation walls, post and beam timber framing, wood siding, and a corrugated metal roof.

SERVICES

Structural Assessment:

- Survey and inspection of structural framing system;
- Design of a long term stabilization plan for the structure including the phasing and sequence of proposed work;
- Development of a repair schedule identifying specific members for replacement or repair and the quantity of repair;
- Recommendations for improvements and repairs to the roof, facade, and fenestration.

Design and Documentation:

- Preparation of construction documents and specifications detailing the following:
 - Sequencing and repair of fractured columns;
 - Repairs to rotted or inadequately supported column bases;
 - Installation of permanent lateral bracing consisting of tie rods, clevises, and turnbuckles between each bay of the structure;
 - Reinforcement to weakened or damaged timber members;
 - Repairs to the cracked masonry foundation walls.

POINTS OF INTEREST

The barn at Supawna Meadows National Wildlife Refuge supports a maternity colony of some 1,500 little and big brown bats, the only known bat colony in Salem County, N.J.