

POINT PINOS LIGHTHOUSE

RENOVATION OF ENTRANCE DOORS

Renovation of entrance doors and surrounding jamb/trim at Point Pinos Lighthouse, Pacific Grove. Work carried out by Brid Caveney Construction, a licensed (B1) contractor specializing in historical/period renovations as per instruction from Museum of Natural History Directory, Paul (Pat) Finnegan.

BACK (ALARM) DOOR

- Removed: Thursday, January 18th, 2007
- Temporary hollow core door used during renovation period.

CONSTRUCTION

- Door is constructed with whole heart, clear redwood, and in estimating door age, is very likely first growth.
- Door size: 6'9" x 2'10" x 1 3/4"
- Construction is conventional stile and rail, with two (2) inset flat panels at bottom and six (6) split lights at top.
- Panels and glass lights held in with redwood molding strips with ogee detail (5/8" x 1/4").

CONDITION

- All glue joints in door are compromised. Glass and panel moldings have rotted out.
- As door has sagged badly on leading edge, furring strips have been added to top edge (3/4" to 1/4") and leading edge (1/2" to over 33 7/8") 1/4", over 80 1/4". (Note to me.. how does this fit in???? Ask Paul...see the original p.2)
- Door is being used "inside out." Glass and panel stops are on exterior of door.
- Door has 4" x 4" steel "butt" type hinges. Hinge pins are frozen (rusted) solid in hinges and bottom pin is broken.
- On removal, it was found that the door, at some point in time had 5" hinges. When the 4" hinges were installed, someone had filled the 1" void with some form of bondo, or wood putty/spackle.
- Several attempts had been made to "shore" up the separated stile and rail joints, by nailing with what appear to be mild steel "horseshoe" type nails.
- Due to the location of the door (so close to the ocean) and the lack of paint on these "repairs," the nails have rusted out and basically exploded in the redwood.
- The sash bar for the lights is broken/fractured in four places and none of the "butt" joints on sash bar to stiles/rails are intact/glued.
- On stripping the glass stops, it was found that as the door had sagged to the leading side, the glass had become wedged in the openings and had basically become a "stressed member" of the door stopping it from further sagging.

ACTION TAKEN

- All glass/panel stops removed and new stock milled from whole heart, clear, kiln dried redwood (by Knapp Mill & Cabinet).
- All existing (accessible) nail/screw holes with distempered/rusty metal, "dug" out and cut back to sound material. All holes "pour filled" with a slurry mix of rock hard putty.
- On all stile and rail joints, door drilled and two (2) 8" x 3/8" birch dowels installed.
- 3/32" holes drilled into all glue joints, and Aliphatic Titebond II) glue, pressure injected into joints. 3/32" holes then plugged with birch dowel rod.
- Sash bars repaired and all joints re-glued and pinned with stainless brad nails.
- After one week of glue drying time, door sent to get paint stripped by Alex Wilkinson in Seaside. Door to stripper February 5th, 2007.
- Back from stripper, February 9th, 2007
- All old hinge screw holes plugged with birch/redwood/cedar plugs, and "Dutchmen" glued in voids where 5" hinges had been fitted.
- 4" x 4" solid brass Baldwin hinges installed.
- February 20th, 2007: Door pre-fitted. Top and leading edge furring strips replaced with whole heart, clear, kiln dried redwood.

TREATMENTS

- After drying time from paint stripping, and further repairs, door given three (3) heavy coats of linseed oil (boiled) and turpentine, (mixed 50/50).
- After five days drying time, door given one coat of oil based primer paint.
- After three days drying time, panel stops installed and glass lights set. On the grounds of safety, the new glass lights are 1/8" tempered units.
- Panel stops are caulked to door with water based acrylic (35 year) caulking and fixed with stainless Brad nails.
- Glass is set in door with linseed oil wood sash putty.
- Glass stops are caulked to door/glass as per panel stops.

FINAL FINISH

- Two full coats acrylic enamel semi-gloss exterior paint.
- Note: Exterior color was selected by scanning a chip of the original paint found under the interior lockset. Color is called Rainy Afternoon.

HARDWARE

- Existing surface mount interior lockset re-used, with white porcelain pulls (knobs) that were liberated from other doors belonging to the lighthouse.

EXTERIOR DOOR TRIM CASING

- All the exterior trim had been nailed with mild steel nails and was in bad shape, cracked and broken in several places and nails "exploded" in boards.
- The jamb-stop, on leading side of door casing was also detached from jamb face.
- All members replaced as per original sizes with whole heart, clear, kiln dried redwood.

- All treated with linseed oil and turpentine and painted as per door schedule.
- New aluminum threshold/door bottom (shoe) and rigid type of “balloon” weather stripping fitted.

TRANSOM LIGHT

- Above the door, is + two light transom type non-opening sash.
- On removal, the existing unit was found to be built of sugar pine.
- One pane of glass broken, several parts of sash rotted out, and divider bar broken.
- Unit was copied and built new using whole heart, clear kiln dried redwood by Knapp Mill & Cabinet.
- Treated with same schedule as door and trim, etc.
- New stops milled and installed (by Brid Caveney Construcion).

SYNOPSIS

- On pulling old exterior trim, there was damage (dryrot) found in upper right hand corner of door head, in the ship lap siding, (which is also redwood) and some dormant termite damage in lower right hand siding adjacent to door jamb.
- As the new trip needed sealing to the siding to prevent any further weather intrusion, the damage was filled with rock hard putty.
- The “V” joints on the ship lap siding, behind the new trim were filled with caulk backer rod (foam) and the new trim securely caulked to siding and door casing.
- Job finished Thursday, March 22nd, 2007.

(NB New bell push installed)

POINT PINOS LIGHTHOUSE
FRONT DOOR

Door is situated in porch, which was an addition to original building and faces the ocean.

CONSTRUCTION

- Door is of conventional stile & rail construction and is built from whole heart clear redwood: size = 7'4" x 3'0" x 1 3/4"
- One (1) inset flat panel at bottom and one (1) glass light at top measuring 25 3/4" x 43 1/4"
- Glass top is redwood measuring 5/8" x 3/8" with 1/8 round over detail on one edge.
- Panel stop is 3/8" redwood quarter round.
- Bottom panel is 15 3/4" thick and constructed of more than one piece.

CONDITION

- Overall condition of door is very poor.
- All glue joints on stiles/rails are broken, and joints are separated by as much as 1/2".
- Door is shows signs of sagging on leading edge and is thus out of square.
- Someone previously attempted to "shore things up," by nailing the stile & rail joints back together using mild steel nails. The voids were filled with some form of bondo/filler. Over time the nails have deteriorated and "exploded" causing the surrounding material to become friable.
- On bottom of exterior middle rail, there are signs of rot and missing material. This void has again been filled with bondo/filler.
- Panel is separated in two (2) places.
- Some rot was found on bottom of both stiles and bottom rail.
- All detachable glass/panel stops show signs of rot.
- Door is fitted with 4" x 4" brass hinges with steel pins. Pins have oxidized badly enough to seize in hinges and due to continued operation have broken the hinges.

LOCKS

- Door is fitted with full mortise keyed set in brass.
- Interior and exterior escutcheons are both steel and badly rotten (oxidized).
- 1/4" operating shaft is completely locked in mechanism and the steel pulls (knobs) are both rotted out.

ACTION

Tue, Feb 6th, 2007

- Front door removed and hollow core temporary replacement installed.
- Operating shaft in full mortise lock set so badly oxidized in mechanism, had to cut shaft on both sides of door and drill the remaining "stub" off in order to remove lock.

BOTTOM PANEL

- Two (2) lateral separations full width of panel glued back together with Gorilla Glue.

MIDDLE RAIL

- All rot cut out, full width of rail and 1/1/8" Dutchman, (whole heart, clear, kiln dried redwood) gorilla glued in place.

NAIL HOLES

- All old oxidized metal removed and friable material surrounding holes removed. Holes then "pour filled" with slurry mix of rock hard putty.

STILE/RAIL JOINTS

- All stile and rail joints routed out back to solid material and whole heart, clear, kiln dried Dutchmen installed. All glued with Gorilla Glue and nailed with stainless steel brad nails.
- All stile and rail glue joints drilled with 3/32" holes and pressure injected with Titebond II Aliphatic Glue 3/32" holes plugged with birch dowel rod.
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LOCKSET HOLES

- After discussion with other renovation specialists, and Museum Director, Paul Finnegan, it was decided to dispense with the full mortise lockset, and "Dutchman" (plug) all voids in both faces, and leading edge of the door. Two main reasons were:
(1) The door is only opened from the inside and generally remains open during Lighthouse operating (open to visitors) hours.
(2) To try and preserve the integrity of that area of the door by preventing any further water intrusion either from rain or the constant fog in the immediate vicinity.
- All lockset/deadbolt holes/ mortises filled with "Dutchmen"/plugs. All glued with Gorilla Glue.

GLASS AND PANEL STOPS

- All glass and panel stops removed and new ones milled by Knapp Mill & Cabinet.
- Any other voids/nail holes filled with high quality exterior vinyl spackling paste.
- After three days glue drying time, door taken to paint stripper on Thursday, February 17th, 2007.
- Door back from stripper on February 22nd, 2007.
- Door re-spackled and sanded.
- FEBRUARY 24TH, 2007: Three (3) heavy coats linseed oil and turpentine. Door given three days drying time.
- Inside panel stop/trim installed using Titebond II Aliphatic Glue and nailed with stainless steel brad nails.

DOOR GLASS AND STOPS

- After deliberation, it was decided on grounds of safety to replace glass with 1/8" tempered safety glass.
- Glass is set in door with linseed oil wood sash putty and stops (interior) nailed in with no glue.

PAINT SCHEDULE

- Door has had one (1) coat oil based primer and two (2) coats exterior semi gloss acrylic water based finish paint. N.B. exterior face has actually received three finish coats.
- Door re-hung on March 28th, 2007. New aluminum "saddle" type threshold, aluminum door bottom (shoe) and rigid jamb style balloon weather stripping installed at same time.

DOOR CASTING

- When the porch was built (in 19??) the door casing/jamb, was not sealed to the sub-floor. Furthermore, there is a redwood plinth block type base on the top tread of stairs that returns into the door casing. Where the return "butts" to the casing, it was never sealed properly.
- Due to water intrusion for all this time, the jamb stock was rotted on both lower ends of the stiles.
- On removal of plinth block return pieces, and first 7" or so of jamb stock, it was found that the under floor framing, and porch sub floor were badly rotted out, and very damp.

ACTION

- Jamb stock removed until good sound material discovered (around 7" on each side).
- Because there was not enough funding to continue with a satisfactory repair to the under floor structure, I was told to basically do what I could and "close it up."
- I am extremely disturbed that I was not allowed to affect a true repair to the compromised sub-structure.
- After clearing away as much of the accessible decayed material as possible, I flooded the voids with copper green preservative.
- After a brief drying period, whole heart, clear kiln dried redwood "Dutchmen" were gorilla glued into the voids and fixed with stainless steel brad nails.

JAMB STOCK

- New jamb stock pieces were milled on site.
- Outside members = 1 5/16" x 4 5/8" whole heart, clear, kiln dried redwood.
- Middle members = 1 7/8" x 4 1/8" western red cedar.
- Inside members = 3/16" x 4" redwood
- All members gorilla glued to themselves and to existing jamb stock and new floor Dutchmen, and nailed with stainless steel 2" finish nails.

LOCK KEEPS

- Over the years, the lock keeps have been changed and jamb broken in the area.
- All old material cut out and redwood Dutchmen installed.

NEW LOCK

- A surface mount solid brass lockset, identical to that utilized on the adjacent inside door was renovated and installed using a period porcelain pull (knob).
- The pull (knob) matches the adjacent door, and also the ones I used on the back door.

PAINT SCHEDULE

- As per everything else, linseed oil, a turpentine oil based primer, and two (2) finish coats, on all new repair components, and top of step of stairs.
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SYNOPSIS

- On re-installation of door, it was decided to use a slightly taller profile threshold as the bottom of the door was so uneven with regard to parallel with the floor.
- All new members (repair) caulked to substructure to avoid any further water intrusion.

RECOMMENDATIONS

- The substructure framing, and sub floor assembly in the immediate vicinity of the bottom of the door casing stiles, is clearly compromised.
- As I was not allowed to explore the damage any further than the localized areas I had opened up, it would only be guessing as to how far the damage extends.
- As before mentioned, I was extremely unhappy about covering the problem up without proper remedial treatment. The decision was not mine and I feel am exonerated should any further problems arise.