

West Brattleboro Apartments

925 and 929 Western Avenue



A dendrochronological examination

by

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The two 19th century buildings located at 925 and 929 Western Avenue in West Brattleboro I will refer to as the “West Brattleboro Apartments”. They were renovated in 2002 in a project funded by the Brattleboro Area Community Land Trust (<http://www.baclt.org/projects.html>). I took the opportunity provided by the renovation project to collect wood samples from material that was being discarded. While the amount of material available was more than sufficient for my purposes, I was unable to select material prior to its removal from the buildings in most cases. Thus the context remains unknown for many samples. Approximately 80 pieces were collected, some of which turned out to have come from the same timber and thus were redundant. About 1/3 of the material collected was oak and the remainder was hemlock and a little spruce. The majority of the material, about 3/4, came from #929 and the balance from #925.

The hemlock and spruce samples were dated against previously developed local chronologies. The oak material was compared to chronologies developed by Ed Cook of the Lamont-Doherty Earth Observatory at Columbia University. The dates suggested by this comparison were consistent with the dates obtained for the hemlock and spruce samples and are thus expected to provide the basis for development of a local oak tree-ring chronology.

The front 2 ½ story portion of #929 provided many samples from oak and hemlock framing timbers, posts, and sheathing boards. Bark, or “cutting” dates from this material were consistently 1836 with a single date of 1835 and one of 1837. This suggests a construction date of 1837 for this portion of the structure. All timber and boards from this portion were either hewn (posts, beams), or sawn on an “up-and-down” mill, consistent with this date.

The northwest two-story section in the rear was constructed of circular sawn material in a balloon-frame construction style. Boards and framing material dated to the 1860s and a single cutting date of 1872 was obtained from this material suggesting construction in 1873.

The “shed style” addition on the northeast end was sheathed in up-and-down sawn boards suggesting construction prior to 1850. No material was obtained that clearly originated in this section of the structure, thus no construction date is offered.

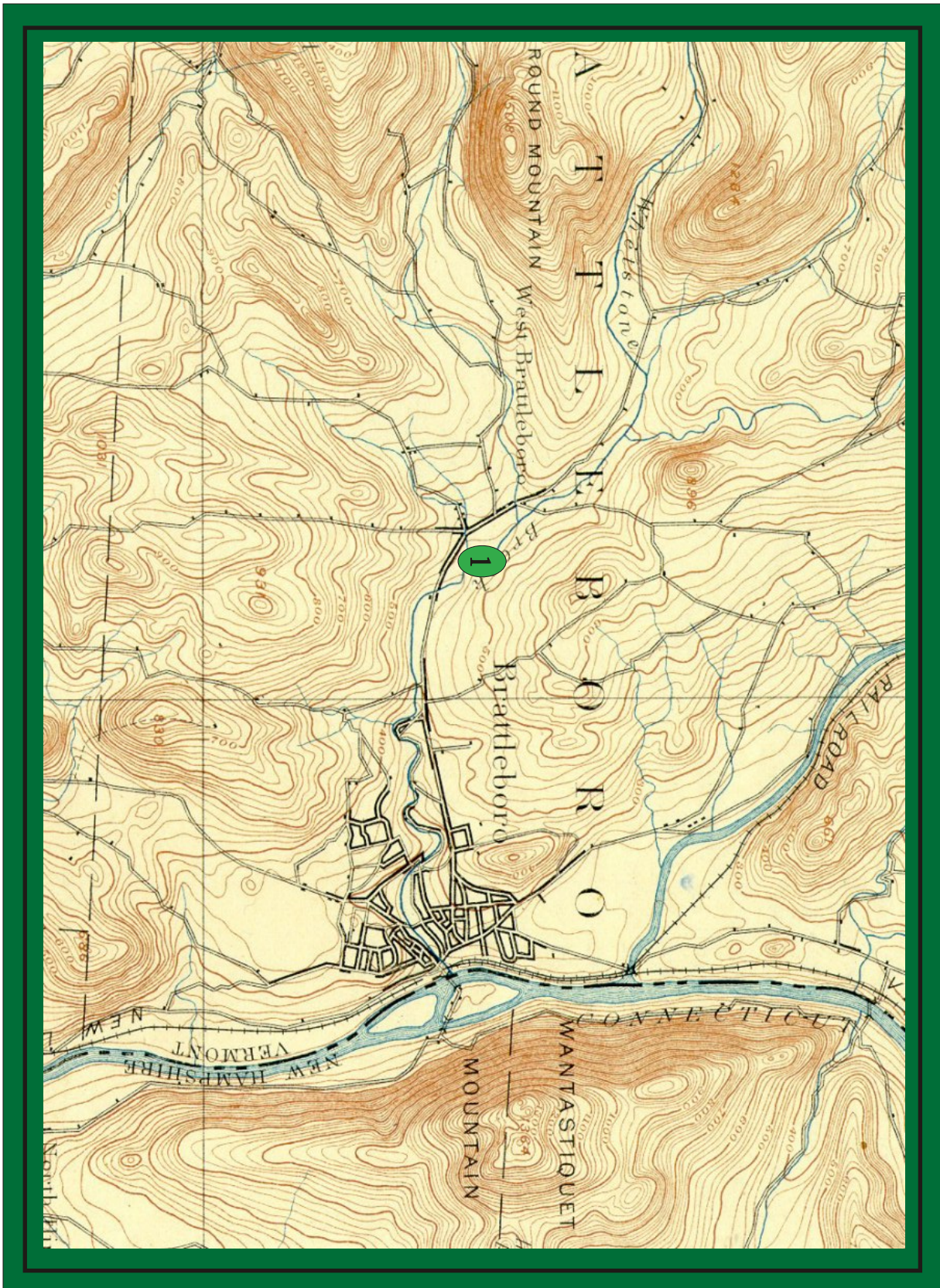
The construction of #925 suggested a complex history of additions and utilization of re-cycled timbers. The southwestern street level room appeared the oldest based on construction style (post and beam, very wide floor boards). The southeastern portion appeared to have been constructed of re-used timbers and had been renovated using slab wood for wall studs. Samples from these dated to 1848 and 1849 (cutting dates). A plaster lath wall exposed behind these slab studs, on the east end of the room, demonstrates an earlier incarnation. This room seemed to have been added to the western end. The timbers used for shoring in the basement were all re-cycled post and beam material of unknown provenance. It was suggested to me that portions of the structures had been moved to the site from elsewhere and this seemed entirely plausible.

I obtained a single core with a bark surface from a ceiling beam in the western room. While it proved to have too few rings to provide a firm date, a possible cutting date of 1799 was suggested. While not definitive, this date seems plausible to me. Additional sampling of the floor support timbers might provide a clear construction date for this portion of the building.

The upper floor of 925 was entirely sheathed in circular sawn material and appeared to me to have been added to the lower structure - perhaps re-using the roof timbers once the frame had been added. The roof, as on #929, was slate over shake. A single board from the upper story had a cutting date of 1866, summer, suggesting construction of the upper level that year. However a single sample, without firm context, is not sufficient to establish this.

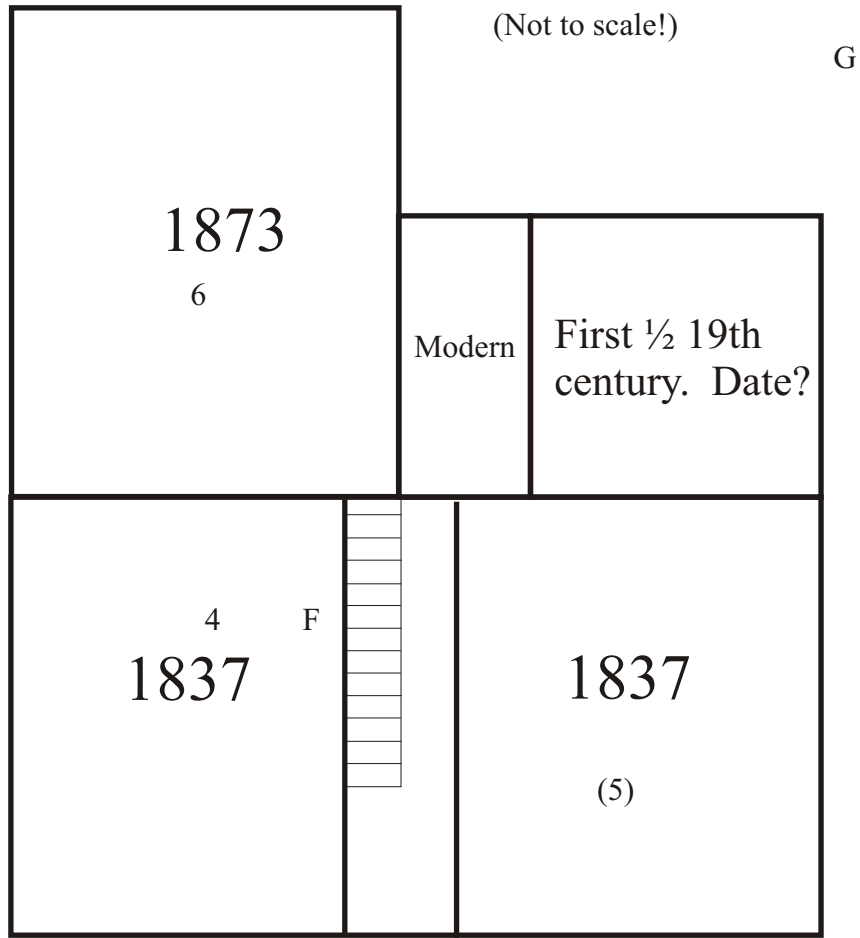


Front and rear views of #929.



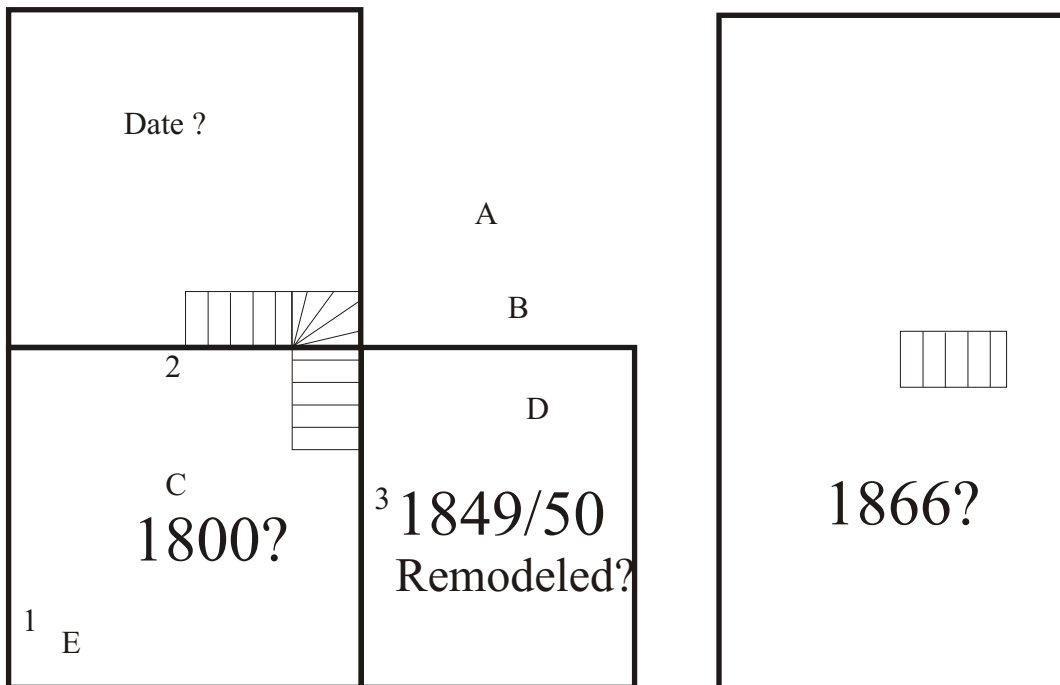
1893 map of the Brattleboro area and the approximate location (1) of the West Brattleboro Apartments.

West Brattleboro Apartments



Ground Floor

Building #2 (929 Western Ave.)



Ground Floor

Upper Floor

Building #1 (925 Western Ave.)

Key to sampling numbers:

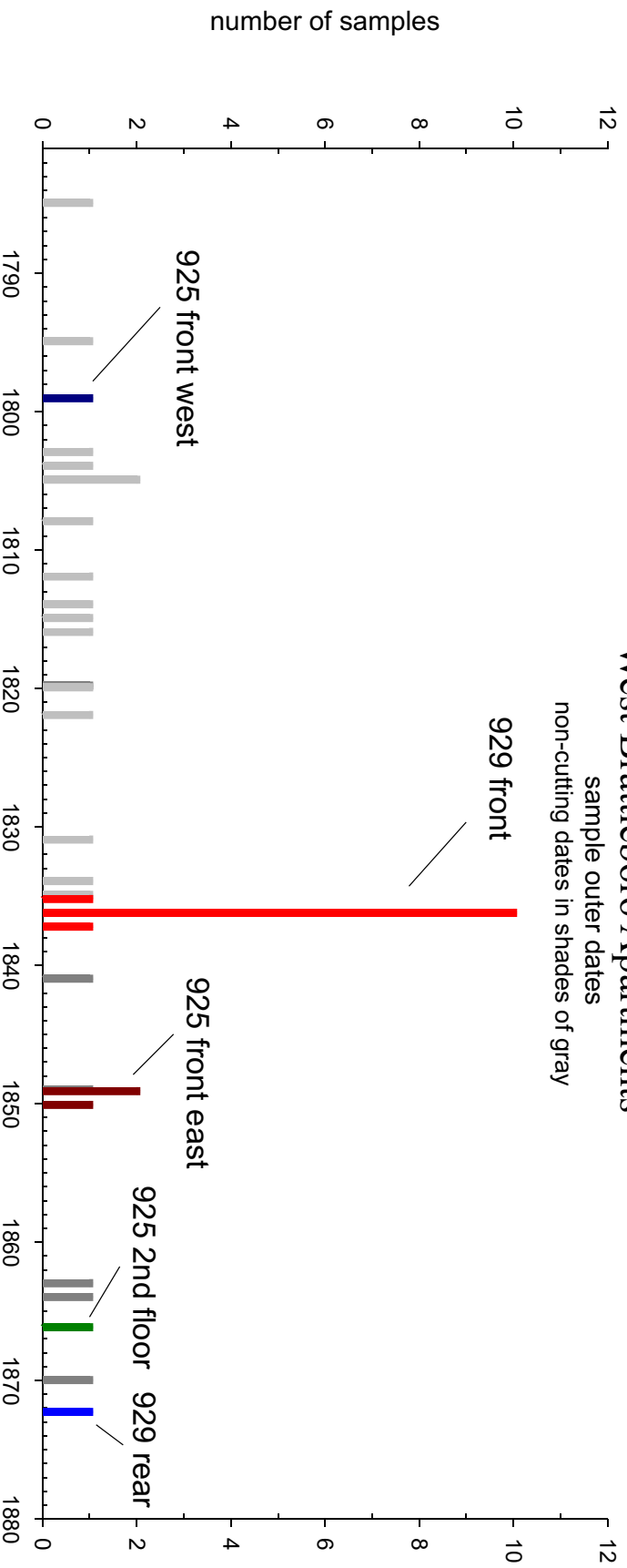
1. Oak brace 1569-1720. No cutting date.
2. Short core from ceiling support beam. Possible cutting date of 1799.
3. Cores and pieces from slab wall studs cut in 1849 and 1850.
4. General context of oak joists and frame timbers cut in 1836.
5. Beam end from basement. Cut in 1836. No context.
6. General context of circular sawn boards dating to the 1860s and early 70s.



“W” carved in slab wood stud cut in 1849, east room of 925.

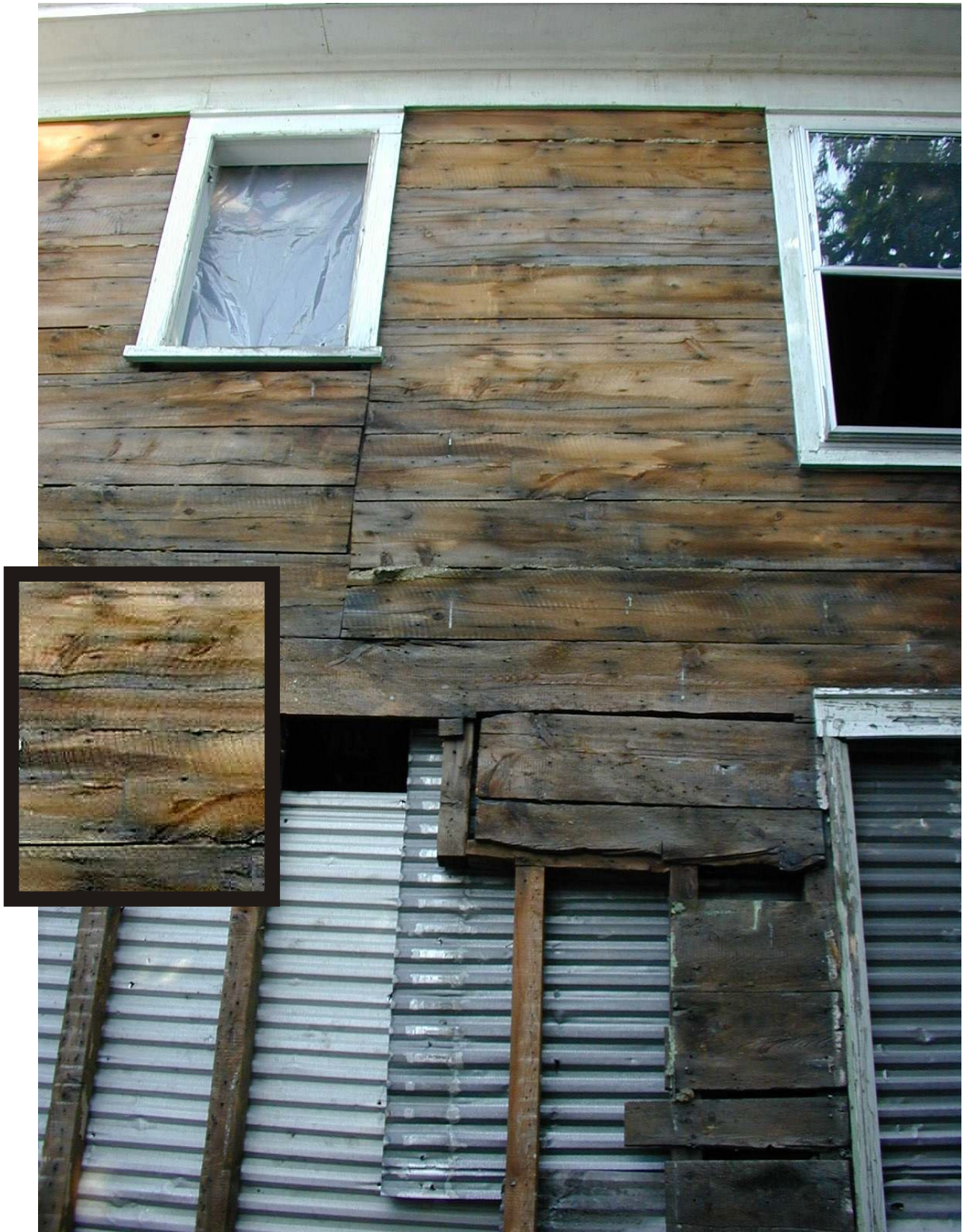
West Brattleboro Apartments

sample outer dates
non-cutting dates in shades of gray





(A.) View of rear of #925 showing re-used timbers shoring up floor.



(B.) View of back of #925 showing circular sawn siding boards that sheath the second story.



(C.) View through the front portion of #925 showing timber frame ceiling and joins in floor.



(D.) Slab wood wall studs cut in 1849 in the east room of #925.



(E.) Re-worked corner post and wall bracing in older section of #925.



(F.) Hemlock split-board lath and oak ceiling joists in #929.



(G.) Rear view of #929. The three sections of the building can be distinguished: the front 2 ½ story section built in 1837, the 2 story rear wing possibly built in 1873, and the “shed” likely added between these two dates.



Samples collected from the West Brattleboro Apartments.