THE APEX FIELD GUIDE • 2026 EDITION

Old Wood Window Restoration Field Guide

An inspection worksheet, condition scorecard, and decision tool for owners of pre-1978 wood windows. Use this before you call a contractor.

USE THIS GUIDE TO

Score the condition of each window, pick the right path (DIY, Pro, or Replace), and brief a contractor in the same language they use.

WHO IT IS FOR

Owners of pre-war Chicago bungalows, greystones, foursquares, Victorians, and any home with original wood windows. Useful to property managers and historic-district homeowners.

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HOW TO USE THIS GUIDE

Print the worksheet pages and walk through your home one window at a time. Photograph anything ambiguous. Use the contractor brief sheet (page 9) to talk to bids on equal terms — replacement-only contractors will not be able to answer the questions on it. That is by design.

01 • WHY RESTORE INSTEAD OF REPLACE

The window in front of you was built when window manufacturers used old-growth pine and fir — wood that is denser, more rot-resistant, and dimensionally more stable than anything available at a lumberyard today. Most failures in a century-old wood window are localized to a single component. The window itself is rarely the problem.

Four reasons restoration is usually the better long-term choice

- **Service life.** A correctly restored historic wood sash is good for another 50–80 years. A mid-grade vinyl replacement is, by design, a 20–25 year product.
- **Air leakage.** In most older homes more energy is lost to air infiltration around windows than through the glass itself. New weatherstripping on an original sash closes the dominant loss path; a poorly installed replacement does not.
- **Material quality.** Replacement parts are not made from old-growth lumber. The replacement is, in real terms, a downgrade in wood quality.
- **Value preservation.** Original wood sashes, divided lights, and art-glass transoms are character-defining features. Homes that keep them appraise better in markets where pre-war architecture is the draw.

THE REPAIR-FIRST PRINCIPLE

Preservation guidance from the U.S. Department of the Interior and state historic preservation offices uses one consistent hierarchy: **retain, repair, replace in kind, replace the unit** — in that order. This guide follows the same logic.

02 • WINDOW-BY-WINDOW INSPECTION WORKSHEET

Print this page once for each window in the project. Fill it in on site. Photograph anything checked — photos save time when you get quotes.

Window location / room	
Sash type	▢ Double-hung ▢ Casement ▢ Awning ▢ Fixed ▢ Other:
Approximate age	▢ Pre-1900 ▢ 1900–1940 ▢ 1940–1978 ▢ After 1978
Balance system	▢ Weights & pulleys ▢ Spring / spiral ▢ Block-and-tackle ▢ Unknown
Glass type	▢ Original (wavy) ▢ Modern float glass ▢ Insulated unit ▢ Art / leaded

Check every condition that applies

- ☐ Sash does not stay up — drops on its own
- ☐ Sash painted shut or stuck in tracks
- ☐ Glazing putty cracked, missing, or pulling away from the glass
- ☐ Glass cracked or broken (single pane)
- ☐ Foggy moisture between two panes of an insulated unit (modern IGU)
- ☐ Visible rot on the bottom rail of the lower sash
- ☐ Visible rot on the sill (the horizontal piece at the bottom of the frame)
- ☐ Visible rot on a side jamb
- ☐ Drafts felt around the sash even when fully closed
- ☐ Paint peeling or alligatored on sash or trim
- ☐ Hardware (lock, lifts, pulleys) broken or missing
- ☐ Window has been previously replaced (it is no longer an original)
- ☐ Stained / leaded / art-glass panel cracked or sagging
- ☐ Frame appears to be racked — sash binds or won't fully close
- ☐ Mold visible inside the frame, between panes, or around the sash

Total conditions checked: ____ Use the score on the next page.

03 • THE CONDITION SCORECARD

Total the conditions you checked on the previous page. Find the row that matches your count, and read across to see the most likely path forward. This is a screening tool — the final call belongs to whoever does the work.

Score	Window condition	Most likely path
0 – 2	Sound. Routine maintenance only.	Weatherstripping refresh, paint touch-up. DIY-friendly.
3 – 5	Minor issues. Localized failures only.	DIY restoration on a single sash, OR call a pro for one visit.
6 – 9	Moderate. Multiple components failing.	Professional restoration. Repair-first is still the right call.
10 – 12	Significant. Sash and frame both involved.	Professional restoration with Dutchman / epoxy work. Get two restoration bids.
13 +	Severe — verify frame is sound before deciding.	Frame intact: restoration possible. Frame failed: in-kind replacement may be justified.

Two scorecard rules that override the count

- **Art-glass present.** If your window has an original stained-glass or leaded transom, never agree to a replacement quote that includes "removal and disposal" of it. Restoration is the only path — regardless of total score.
- **Frame check first.** Push hard on both jambs. If the frame does not flex, the frame is sound — and a sound frame is the foundation of a restoration. The decision becomes about sashes, not the whole window.

04 • DIY, PRO, OR REPLACE — DECISION MATRIX

Three reasonable paths exist for any old wood window. Each has a place. The matrix below is meant to help you pick the right one for your situation — not to push you toward any single answer.

	DIY restoration	Professional restoration	Replacement
Best when	Sash is sound, you have time, and you enjoy the work	Original window has value, but the work exceeds DIY	Frame is structurally failed, or the unit is already a non-original replacement
Time investment	16–20 hours per window	Drop-off or in-home service, days not weekends	Crew installs in hours, but lead time is weeks
Per-window cost	$115–185 in materials (after tools are bought)	$650–1,400 for full restoration	$650–2,500 depending on grade
Service life of result	50+ years with proper finish work	50–80 years	20–25 years (vinyl) / 30–40 years (clad)
Historic accuracy	Excellent — original is kept	Excellent — original is kept	Variable — depends on matching profiles and sightlines
Lead-paint risk	You are responsible — strict containment required	Handled by contractor under EPA RRP rules	Handled by contractor under EPA RRP rules
Skill required	Carpentry comfort, patience for glazing	Hire a restoration specialist, not a replacement company	Installation crew — but skill varies widely

WATCH FOR THE WRONG QUOTE

If every contractor you call is quoting replacement and not even mentioning restoration as an option, you are calling the wrong contractors. Replacement-only companies do not offer restoration — they are not equipped to. Find one who does, then compare.

05 • WHAT A QUALITY RESTORATION INCLUDES

Different contractors mean different things by "restoration." When you collect bids, the scope below is what to measure them against — the same scope Apex uses on a full restoration of a double-hung wood sash.

Component	Restoration work
Sash	Removed from the frame, stripped to bare wood where the paint film has failed, epoxy-consolidated where wood is punky, Dutchman-spliced where a rail needs material, and primed with an oil-based primer.
Glazing	Failed putty removed; broken glass replaced with restoration-grade or original wavy glass; new linseed putty bedded under and against the glass; tooled to a clean 45° bevel that sheds water.
Cords or chain	Old sash cord pulled, weights removed and re-hung, new cord (or chain on heavier sashes) knotted at the weight and re-set into the sash. The balance is rebuilt.
Parting bead and stops	Parting bead replaced if cracked or paint-locked. Blind stop and interior stop re-set.
Weather-stripping	Interlocking bronze or spring-bronze installed at the meeting rail, sides, and sill — this is the work that actually closes the air-leakage path.
Frame and sill	Rot consolidated with epoxy where wood remains. Dutchman repair to the sill where wood is gone. Re-primed before sash is re-hung.
Hardware	Sash lock, lifts, and pulleys cleaned, lubricated, and re-installed. Original hardware is kept — it is part of the window's value.
Finish	Two coats of exterior-grade enamel on bare wood, one coat where the existing paint is sound. Painted onto the putty bevel to seal it.

06 • LEAD-SAFE WORK FOR PRE-1978 HOMES

Federal lead-paint rules apply to any home built before 1978. The EPA's Renovation, Repair, and Painting (RRP) rule governs how the work is done — for hired contractors, by law; for DIY, as best practice because the health risk is the same.

If you hire a contractor

- Ask for the contractor's EPA RRP certification number. It is a real number you can verify on epa.gov.
- The work area must be sealed with 6-mil poly plastic — 10 feet beyond the work in every direction.
- HVAC vents in the work area must be sealed during work.
- Dust must be cleaned by HEPA-vacuum, not by sweeping. A wet-wipe cleaning verification is required at job end.
- If a contractor says "lead doesn't apply here," they are wrong — and you should keep looking.

If you are doing the work yourself

- Equipment minimum: N100 respirator, safety goggles, disposable coveralls, nitrile gloves, HEPA vacuum.
- Containment: 6-mil plastic out to 10 feet, HVAC sealed, no children or pregnant occupants in the area.
- Work practices: spray surfaces with water to suppress dust; never eat, drink, or smoke in the work area.
- Cleanup: shower at end of work, wash clothing separately, HEPA-vacuum all surfaces twice plus a wet wipe pass.
- Avoid: open-flame heat guns above 1100°F (lead vaporizes), power sanders without HEPA collection, dry scraping over uncontained ground.

WHY IT MATTERS

The single most lead-contaminated surface in most pre-war homes is the friction surface between the lower sash and the frame. Every time the window is opened or closed, dust is shed onto the sill — where children put their hands. Lead-safe work practices are not paperwork; they are how you keep that dust out of the air during restoration.

07 • CONTRACTOR BRIEF SHEET

Use these questions on every estimate call. If the contractor cannot answer most of them, they are a replacement-only company — not a restoration company. That is useful information either way.

- [ ] Do you re-glaze with linseed putty, or only with caulk-and-stop?
- [ ] Can you do a Dutchman repair on a rotted bottom rail without replacing the sash?
- [ ] Will you re-cord weights, or do you only convert to spring balances?
- [ ] Can you match my original muntin profile in new wood, or only with applied grilles?
- [ ] Do you carry restoration-grade glass (wavy or cylinder glass) for visible repairs?
- [ ] Will you preserve original hardware (sash locks, lifts, pulleys) and re-set them?
- [ ] Are you EPA RRP certified for lead-safe work? What is your certification number?
- [ ] Do you handle leaded / art-glass repair in-house, or sub it out?
- [ ] What is your service life expectation on a fully restored sash?
- [ ] Will the bid include weatherstripping, or is it an add-on?

Red flags to listen for

- "You really should just replace these." — They are not equipped to restore.
- "We use caulk instead of putty — works the same." — It does not. Caulk fails in 5–8 years; linseed putty lasts 60+.
- "Lead doesn't really apply to your house." — It does, federally, on every pre-1978 home.
- "We'll just toss the stained-glass piece." — Stop the call and find someone else.
- Bid is identical, line for line, to a vinyl-replacement bid. — That is not restoration.

08 • MAINTENANCE AFTER RESTORATION

A correctly restored wood window does not require much. It does require the right small things on a regular schedule — that is what keeps it at 50+ years of service life. Mark this page; pin it inside a cabinet door.

Interval	Task	Why
Annually	Walk every window. Check for cracked paint, lifted putty, or sash binding.	Catches small issues before they become wood damage.
Annually	Vacuum sash tracks and weep holes.	Trapped debris holds water against wood.
Annually	Open and close every sash twice.	Sashes that do not move regularly start to bind.
Every 3 years	Touch up the exterior paint film where it has thinned.	The paint is what protects the linseed putty bevel.
Every 5 years	Re-lubricate sash hardware — pulleys, locks, lifts.	Dry pulleys is the most common cause of broken cords.
Every 10 years	Full exterior repaint of the sash, frame, and putty bevel.	Re-seals the glazing bevel for another decade.
Every 15 years	Inspect linseed putty along the glazing bevel; re-putty failed sections.	Re-puttying a few lights is far cheaper than letting wood rot.

WHAT NOT TO DO

Never paint a sash shut. Never caulk the meeting rail to the sill — water gets in, and now it cannot get out. Never replace original brass or bronze hardware with stamped steel. Never strip paint indoors without containment. These four mistakes account for most of the avoidable damage we see on restored windows years later.

09 • FAQ

How do I know if my window is truly an "original"?

Pull the interior side stop and look into the jamb pocket. If you see a cast iron weight on a rope or chain, the window is original. If you see a spring, a tube, or nothing, the window has already been replaced once — that changes your decision tree.

Will a restored wood window be as energy-efficient as a new vinyl replacement?

Not by U-value alone — but the U-value is not the dominant loss path. A restored sash with new weatherstripping closes the air-leakage gap that costs you the most energy. Pair it with a storm window (exterior aluminum or interior magnetic) and the combined performance is comparable to a mid-grade vinyl replacement, at a fraction of the

embodied carbon.

Is restoration always cheaper than replacement?

Per-window, restoration often costs about the same as a mid-grade replacement up front. The economics tilt sharply in restoration's favor over time: a restored window lasts 50–80 years, a vinyl replacement 20–25. Across one ownership cycle of a pre-war home, restoration is almost always cheaper.

What about historic districts and landmark status?

Most historic-district review boards require repair-first and approve only in-kind replacements when restoration is genuinely not possible. A vinyl insert in a contributing property is almost never approved. If your home is in a designated district (Oak Park, parts of Chicago, Evanston, others), call the local preservation office before any window work.

Can I restore one window at a time?

Yes. A common Apex workflow is one room per visit. Many owners restore the worst-off windows in year one and spread the rest across two or three years.

What if a previous owner already replaced some windows?

Different decision. There is no original wood to preserve in those openings, so the choice becomes whichever new window best fits the building — usually a wood or wood-clad unit that matches the originals next to it, not the cheapest vinyl insert.

My window has mold between the panes — is that a restoration issue?

No — that is a sealed insulated glass unit (IGU) that has failed. The IGU is replaced; the wood sash and frame are kept. It is a common and inexpensive repair, and it does not require replacing the whole window.

WORK WITH A RESTORATION COMPANY

Apex Window Werks restores original wood windows in homes across Chicago, Oak Park, Evanston, Wilmette, Hinsdale, Naperville, and the surrounding suburbs — and serves clients in Wisconsin, Minnesota, and Ohio. Restoration, glazing, weatherstripping, sash-cord and weight-and-pulley service, foggy-pane (IGU) replacement, sill and frame repair, and stained-glass work are core services.

If you have walked through the inspection worksheet and want a second set of eyes on the result, we will give you a free estimate. We will also tell you honestly when restoration is not the right answer — there are cases where it is not.

GET A FREE ESTIMATE
Hire the window repair company you can trust.

SCHEDULE ESTIMATE OR CALL (847) 557-9600

BUSINESS HOURS

Weekdays
8:00 am – 5:00 pm

Saturdays
9:00 am – 2:00 pm

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