If you have termites in the attic, you are not just looking at cosmetic damage. Roof trusses carry live and dead loads every minute of every day, and when insects hollow out the fibers along a chord or web, capacity drops fast. I have opened attics where a truss looked fine from six feet away, then crumbled under a screwdriver. Truss reinforcement for termite attic wood repair is a structural problem first, a finish problem second. The right sequence is to halt the infestation, stabilize the loads, and then rebuild strength using methods the building code recognizes and an engineer can sign off on.

How termites actually weaken a truss

Termites do not usually eat entire members evenly. They carve galleries that follow softer springwood and avoid latewood. In a 2x4 top chord, that can leave a shell that appears intact, with 30 to 60 percent of the cross section gone inside. Bending capacity scales with section modulus, not just area, so losing material near the outer fibers of a chord hurts more than losing a similar amount near the neutral axis. Nails in connector plates also lose bite as the surrounding wood turns to frass, which can let a metal plate work loose. That is why a truss can seem fine on a calm day then sag after a wind gust or wet snow.

Attics are unforgiving because trusses work as a system. A compromised web can raise forces in neighboring webs, and a weakened top chord can create wave patterns in the roof deck that lead to leaks. The result is a feedback loop of moisture and pests. If you are planning termite attic wood repair, plan for both the system and the specific members.

The first 48 hours after discovery

Here is a simple sequence that keeps people safe and preserves options while you line up termite repair services.

- Call a licensed pest control operator to confirm the species and apply treatment. Do not begin structural work until active termites are addressed.
- Reduce loads if possible. Temporarily relocate stored boxes from the attic and postpone rooftop work like solar array maintenance.
- Install temporary shoring under suspect trusses. Adjustable steel posts with a 4x4 spreader can buy time, especially beneath low points.
- Document and isolate. Photograph each affected truss, mark member locations with painter’s tape, and cordon off rooms below that show cracks or sags.
- Contact a structural professional. Local termite damage repair goes faster when an engineer and a contractor coordinate early, especially if permits are required.

This is also the time to call your insurer. Some policies exclude termite damage repair, but carriers do pay for resulting water damage after a roof failure. Get clarity now.

Why truss reinforcement is a different animal

With stick-framed rafters and joists, you can often sister full-length members on each side and call it a day. Trusses complicate the picture. The metal connector plates, the geometry of webs, and the manufacturer’s original design control how loads flow. Cutting or drilling a truss member, even for a well-intended brace, can make things worse without proper calculations. Many jurisdictions require an engineer’s letter for structural

termite repair in trusses. That is not bureaucracy for its own sake, it is an acknowledgment that trusses are engineered products and that repair details need to restore the load path.

I have seen three common mistakes in termite structural repair for trusses. First, adding short scabs that stop midspan on a top chord and do not cross a panel point. Second, nailing schedule that is too light, which lets the patch act decoratively rather than structurally. Third, ignoring the slipped connector plate that is now bearing on voided wood. Each error leaves you with a reinforced-looking member that has not actually recovered capacity.

Inspection that matters

Set aside time for a slow, methodical inspection. Bring a good headlamp, a scratch awl, and a thin-blade screwdriver. Start at the eaves and work inward. Tap and probe the top chords at panel points and midspans. Check web members near joints, especially where roof leaks have occurred. Look for connector plates with visible gaps, lifted teeth, or rust streaks. An IR camera can help spot moisture paths, but it will not show termite galleries reliably. Mark damaged sections to the nearest panel points. Take measurements so you can order repair lumber that extends past the damage as required.

If you encounter widespread damage across several trusses in a row, slow down. That pattern points to either a chronic leak that attracted pests or an infestation that has been working for years. In either case, temporary shoring becomes a priority under that run.

Temporary shoring without creating new problems

Shoring should transfer load to bearing points you trust. A screw jack on a thin subfloor between joists is not your friend. If access allows, build a temporary stud wall under the trusses, aligned directly above a lower wall or beam. Use 2x6 studs at tight spacing and a double top plate. Bring the wall up gently over a day or two if you are correcting sag. If you crank a jack all at once, drywall can pop, doors can rack, and brittle finishes can crack. Slight, patient adjustments give the structure time to respond.

Exterior bracing can help for gable end trusses, especially if wind loads concern you while repairs are underway. Simple diagonal braces from the gable to a neighboring truss tighten the plane.

Coordinating treatment and repair

Treat first, then repair. A good pest operator will typically recommend a soil treatment or bait system for subterranean termites, and a targeted application for drywood termites. For structural members, borate sprays or rods can protect new wood. Many of us in the trade like to treat the cavity behind a damaged section before closing it up. After termite treatment, keep your receipts and treatment map. Inspectors and insurers ask for them during termite damage restoration and they are useful years down the line if you sell.

If you already treated and now have cosmetic issues, such as wall or ceiling scarring from drilling, set those aside for later. Termite drywall repair after termite treatment is best done after you complete reinforcement. You avoid patching twice.

Reinforcement strategies that work

There is no single fix, because damage varies. What follows are proven approaches we use in termite wood repair for trusses, along with when each shines.

- Full-length sistering of chords with dimensional lumber or LVL. When the outside half of a top chord is honeycombed along a long run, add a new member that spans from panel point to panel point or, better, from heel to peak, depending on layout. We rip LVL to match depth and fasten with a robust schedule: construction adhesive between faces, then staggered bolts or structural screws, often 6 to 8 inches on center in pairs, closer near high-moment regions. Sistering both sides is ideal if clearances permit, because it recenters the load and reduces eccentricity.
- Plywood or OSB gussets at panel points. If cracks or termite voids are concentrated at joints, large gusset plates on both faces restore continuity. We use 3/4 inch plywood gussets, sized generously to capture both members beyond the damaged area. The nail or screw schedule needs to be dense and even, with edge distances respected. Glue matters here. A dry fit first, then high quality adhesive, then pressing the plate tight while you fasten, yields a monolithic feel.
- Flitch reinforcement for localized chord damage. For a 12 to 24 inch section that is compromised but accessible, a steel plate sandwiched between wood plies can deliver strength without bulk. You route shallow pockets for plate clearance around metal connectors, then through-bolt the assembly with washers and nuts. This is more work but shines where bearing lengths are short and you need compact stiffness.
- Web replacement with new members that meet original geometry. Termite damage often softens diagonal webs. Replacing the web entirely, from connector plate to connector plate, with new lumber fastened using field gussets, preserves triangulation. Minor misalignments change forces, so cut accurately. If the original metal plate teeth no longer bite, clamp the new web to both chords with gussets rather than trying to reuse the old plate alone.
- Heel and bearing repairs with load transfer blocks. At the heel, termites can hollow out the bearing seat. Here we add side plates to the top and bottom chords, coupled with a load transfer block that lands directly over the wall plate. Where possible, we install a bearing shim pack to redistribute load evenly, checked with a feeler gauge so you are not point loading a single spot.

These strategies combine. On a recent job near the coast, we paired full-length LVL sistering on two top chords with plywood gussets at three joints and replaced one diagonal web. The truss regained stiffness, and the engineer who stamped the plan was happy with measured deflection under known loads.

What fasteners and adhesives really do

Plenty of failed repairs come down to fasteners. Toenails into punky wood do not help. Where galleries exist, predrill if you suspect splitting, and aim for solid meat by angling screws to cross intact fibers. I like structural screws with large heads designed for engineered lumber. They sink cleanly and carry shear. Through bolts, washered and snugged, are excellent at midspans for sistering, but be mindful of edge distances and spacing so you do not create a row of stress risers.

Adhesive is not a crutch, but it does a lot of work when used correctly. A thin, continuous layer of polyurethane or high quality construction adhesive fills micro gaps and spreads load. Squeeze-out should be consistent. If you do not see it, you probably did not apply enough.

Metal connector plates and when to supplement

Connector plates are the teeth-studded galvanized plates that hold truss joints together. If termites ate the surrounding fibers, the teeth can lose embedment. In the factory, plates are pressed with tons of force. In the field, we cannot replicate that, so plates that have moved usually get supplemented, not reset. Add wood gussets that span the joint, then pin the existing plate by driving ring-shank nails around its perimeter, not through it. If a

plate is badly rusted from roof leaks, document it and replace the joint capacity with gussets and mechanical fasteners sized per calculation.

When to replace a truss instead of repairing

Repair is not always the best path. Replacement often makes sense when more than 30 to 40 percent of the members in a truss are compromised, when the top chord has continuous damage across several panels including the peak, or when several adjacent trusses share significant damage. In a hip roof with complex geometry, you may swap out a subset rather than all. Replacement means opening the roof deck or ceiling for clearance, installing temporary shoring on both sides, and sliding in a new matched truss. Lead times from truss plants can run a week to several, depending on the region and season.

Tying attic repairs to the rest of the house

Termites rarely respect room lines. If you are already in the attic for termite beam repair, look downline for related issues. Termite sill plate repair and termite floor joist repair show up along wet crawlspaces or basements. I have yet to see serious termite attic damage with a perfectly healthy rim joist at a chronically wet corner. It pays to scan the vertical load path. For example, damaged top chords above an exterior wall may align with softened studs or a chewed sill. Catching that now saves you a second mobilization later.

For owners who ask about termite wall repair and termite subfloor repair after an attic project, timing is everything. Once structure is sound and treatment is in place, move inside to handle drywall, trim, and floor work. Termite drywall repair after termite treatment is straightforward compared to the structure itself. Match texture, prime with a stain-blocking primer if there was any discoloration, and repaint.

Moisture control and ventilation

Most infestations that reach attics came with moisture. Roof leaks at flashing, bath fans venting into the attic, or poorly vented soffits raise humidity. After structural termite repair near the roofline, fix the conditions that invited pests. Replace compromised sheathing, re-flash penetrations, and check that your ridge and soffit vents create a clear, continuous air path. Insulation that got wet should be removed and replaced. Small changes in ventilation can keep the attic dry enough that a wandering colony does not set up shop again.

Codes, permits, and the engineer’s role

Local building departments treat trusses seriously. Many want a repair detail stamped by a licensed engineer when chords or webs are altered. Do not let that intimidate you. A good structural termite repair near me usually starts with a site visit, measurements, and photos sent to an engineer who drafts a simple sketch with notes: lumber sizes, gusset dimensions, screw type and spacing, bearing details, and shoring requirements. Inspectors appreciate clear, labeled photos before close-up, showing each repaired joint or member.

If a contractor suggests skipping permits for significant truss work, that is a red flag. The permit and inspection add a few hundred dollars and a day or two, and they help protect resale value.

Costs and timelines you can expect

Numbers vary by region, roof complexity, and how far you must go to access the work. A typical small termite attic wood repair on one truss with a gusseted joint and a 6 foot sistered chord might run 800 to 1,800 dollars,

including materials and labor. Moderate projects with multiple trusses and LVL sistering can land in the 3,000 to 8,000 dollar range. Large-scale repairs or partial replacement may push into five figures. Termite damage restoration that includes drywall, insulation, and paint expands the budget accordingly.

Timelines reflect coordination. Pest treatment might be done in a day. Drying out from a roof repair can take a week if insulation was wet. Structural reinforcement itself ranges from half Click for more a day for one joint to several days for a run of trusses. Factor in inspection scheduling.

DIY or hire it out

Some homeowners are skilled enough to install gussets or sister a short run on a simple fink truss. If that is you, still start with an engineer’s sketch and have a second set of hands. The moment you are drilling near connector plates, lifting heavy LVL in a cramped attic, or building shoring over finished spaces, you are in professional territory. Search phrases such as termite repair near me, termite damage repair near me, or wood repair contractor termite damage near me will surface local firms, but vet them. Look for contractors who can discuss load paths, fastener schedules, and who have photos of past termite framing repair, not just finish carpentry.



A job that taught me the value of details

A ranch house in a warm valley came to us after someone noticed a subtle wave along the roofline. In the attic, four adjacent top chords had been tunneled along the outer third for about eight feet each. A previous owner had stapled thin scabs over the damage, then covered them with insulation. The metal plates looked fine until we pried lightly and felt two plates move.

We treated first and set a temporary stud wall under the bad run. The engineer called for 1.75 inch LVL sistering on both sides of the top chords from the heel to two panels past the peak, with 5/16 inch structural screws in a staggered pattern at 6 inches on center near the midspans and 4 inches near the peak. We added 3/4 inch plywood gussets at three joints, glued and nailed as spec’d, and replaced one web member entirely with a new 2x4, double-gusseted. Two connector plates with poor embedment got pinned and backed by the gussets per the detail. The work took three days, plus one more to patch ceiling cracks below and touch up paint. Total structural cost, about 5,800 dollars, and the roofline laser check afterward showed deflection within a quarter inch compared to an intact truss down the line.

What stuck with me was how much the small things mattered. Center punching for clean screw starts so heads seated flush. Laying out the gusset nail pattern with a story stick so spacing stayed consistent. Checking for

squeeze-out to confirm good adhesive coverage. Taken together, those details gave the repair real stiffness.

Edge cases and judgment calls

Not every attic is simple. Cathedral ceilings reduce access. Hip set trusses add layers of geometry. Older houses may not have standard truss profiles. If you cannot reach both faces of a joint, design the repair accordingly and accept that you might need steel on one side to compensate. If you find fire cuts or past notches where someone ran a duct, flag it for the engineer. In one bungalow, we found a king post truss that had been notched at the peak to fit a flue forty years ago. The fix combined a steel saddle plate at the apex and side plies, and we added a new chase for a modern vent so nobody would be tempted to notch again.

Species matters too. Subterranean termites often show mud tubes along the foundation and up to the attic via chases. Drywood termites can fly in and set up directly in the roofline, leaving pellets along the top of drywall or in window sills. Treatment and monitoring differ, but the structural principles of repair remain the same.

Linking structure and finishes without rework

Plan the inside finish work to follow structure. For ceilings, expect hairline cracks around lights or along seams after shoring. Repair them after reinforcement, not before. For walls, look for diagonal cracks over doors or windows that align with truss uplift or settlement. Handle those during termite wall repair only after loads are stable. For floors below an attic repair, if you had to shore through living spaces, protect flooring with panel scraps and moving blankets. If joists were also affected and you performed termite floor joist repair, coordinate plumbing and HVAC adjustments so you do not drill your new sister members to add a pipe later.

Preventing the next round

After you finish termite structural repair, change the conditions that made the attic inviting. Keep a clear three-foot band of visibility near eaves and around scuttle openings. Do not store cardboard against chords. Consider annual inspections for a couple of years. Maintain gutters and flashing. If you replaced roof sheathing in a patchwork, go back after the first heavy rain to verify no leaks at joints. If your area has high termite pressure, ask your pest pro about a maintenance plan. A signed plan looks good in a home file and helps if you ever need to show diligence to a buyer.

How to choose a contractor

When you call a termite damage contractor near me, ask pointed questions. Have they done truss reinforcement after termite infestation, not just deck repair or siding replacement. Can they provide a reference for structural termite repair near me in the past year. Will they coordinate with an engineer and the building department, or do they expect you to. What fasteners and adhesives do they prefer for LVL to SPF interfaces, and why. Good answers suggest real experience.

Many homeowners also like working with firms that offer both termite damage restoration and carpentry. One phone call covers treatment, structural carpentry, and drywall. That is not mandatory, but it simplifies scheduling. If you prefer to split the work, make sure the pest control and carpenter share notes.

Putting it all together

Termite attic wood repair rewards a calm, methodical approach. Confirm the problem, lighten and shore, design a repair that restores the original load path, execute it with care, and then close up the finishes. Whether your project is a small gusset at one joint or a larger sistering job across a run of trusses, the goal is the same: a roof that carries wind, rain, and time without complaint. If you are searching for termite damage repair or termite repair services and you want the work done right, look for a team that treats each truss with the respect it deserves. The attic may be out of sight, but it is never out of duty.