POST FUMIGATION FOLLOW-UP CARE

IT GOES NO FURTHER
CARIBPEST TC SERVICES

Each Pest Control firm will have its own particular initiating approach to actually effecting treatment; For Caribpest adequate documentation is factored as an essential part of our overall of termite management program. Documentation and Photos assists us in preparing for the job and in performing the work. Furthermore, it is valuable in the observation process for compliance weaknesses and Quantifying the needed equipment, tools and materials. It is also serves as an vital reference for pinpointing previously treated areas and refocusing on treating these gaps on our return; a most important record in case correction work becomes necessary after the job has been completed.

The following are some of the important items which we include on the five file forms which Caribpest PCO's use.

CARIBPEST FIELD INSPECTION REPORT

This is the initial form associated with most survey reports and enquiries. The job costing and later planning for the work will be based on this form. It will provide point to point written information and sometimes sketches of the property indicating sites of infestation. The following are just some important points which we includ in the Inspector's Field Report.

- Complete address of building
- Date of inspection
- Inspector's name
- Inspector's license number
- Type of report – original, supplemental, limited, reinspection
- Structure location/area – Hill, seaside, reclaimed, land, soil conditions, accessibility, etc.
- Type of structure – slab, crawl space, plenum, basement
- Type of roof – Wood, concrete, leaks, from water supple or roof
- Type of foundation and relation to grade

- Ventilation in relation to grade
- Porches, steps, patios, garages
- Basement wall structure
- Basement drainage
- Location of wells or cisterns
- Location of conduits and air conditioning ductwork

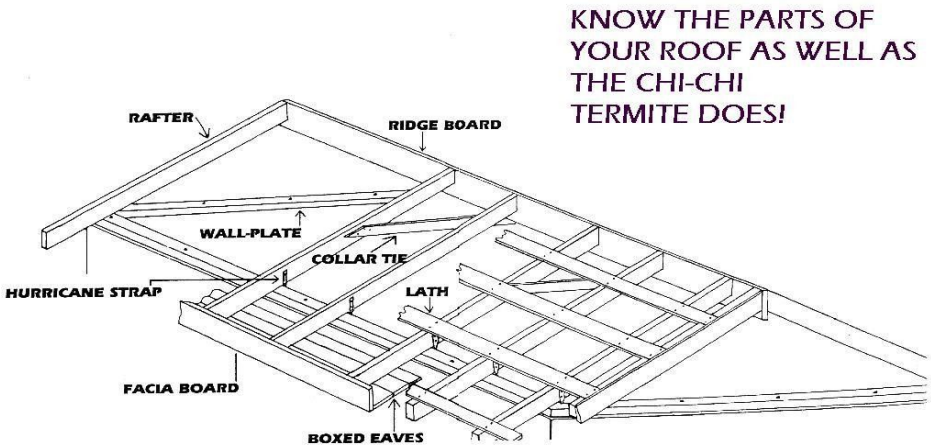
The following items may be supplied as a checklist

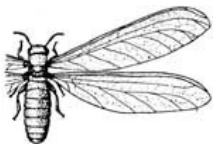
- Occupied and asthma sensitive
- Occupied and not
- Vacant and carpeted
- Vacant and not carpeted
- Siding – stucco, wood, aluminum, concrete, block, brick, other
- Square footage of house

The diagram may be marked with codes to indicate location of any of the following:

- Subterranean termites
- Dry-wood termites
- Fungus or dry rot
- Beetles – other wood pests
- Faulty grade levels
- Earth-wood contacts
- Plumbing or other leaks
- Cellulose debris
- Excessive moisture conditions
- Inaccessible areas
- Areas where further inspection is recommended
- Areas where caution must be used when treating: heat and air conditioning ductwork, well and cistern location, and earth-filled porches, lot drainage, septic fields.

		Use space below for your notes





WE GET TO KNOW YOUR ROOF

You know it. Your timber has a natural, one way destination. To Dirt and to Dust. You used it above ground. But termites are nature's way of reclaiming it's property. The termite invasion is to return above ground wood into honey and substance that can be recycled.

These blind and toothless creatures keep our structures from remaining sturdy when it has timber that is prone to rot. Their abdomen contains a special microbe that turns cellulose into energy and waste. Later the same day, a 365 day 24/7 never seen, egg laying Queen, about the size of your thumb sends another 10,000 feeders for more edible wood. This disappears from the heart of wood within 24 hours of attack to support thousands of new, daily eggs and hundreds of new rain-flies.

Roofs are composed of five major, very termite prone connections:

1 – from the wall to the wall plates
2 – to the rafters from the wall plate
3 – to the ridge board from the rafters
4 – then to the laths from the rafters
5 - the nailed zinc or ply sheets from the lath frame (with various coverings)

If these connections are not 100% pressure-treated with Wolman-salt or properly sodium borate coated, it will result in partial damage or complete loss of the roof to termites.

Rainfly termites can fly in and establish nests in roofs or block cavities; thereafter they move up to and through the voids of walls and then straight to the Wall plates, roof eves, travelling alongside or in conduits in walls, PVC ducts to kitchen cupboards of under tubs and baths. They also elevate nests from under soil or establish full colonies if conditions are favorable, to avoid ground pest control treatments. (see diagram 3)

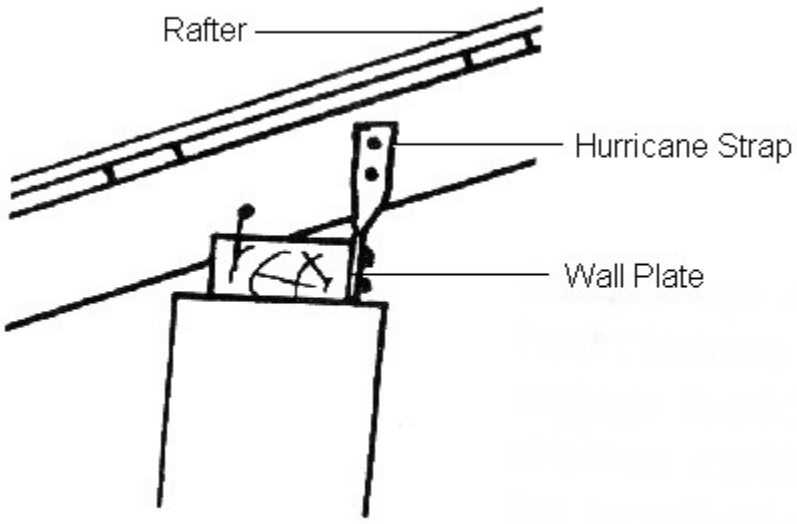
Wallplates

The wall plate is that wood beam that lies directly on top of blocks, it is the first connection between the walls and the rest of the roof and it forms a frame on which the other sections of the roof sit. It must therefore be the first to be secured with special treatment, then later along with the rest of the wooden frames and infrastructure of the building must be done, or an entire termite-weakened roof will lift or shift during hurricanes or earth tremors. These can cause cracks to appear, creating new highway opportunities for termites and entry crevices for swarming rain-flies.

In roofs, wall plates are held down to the block work usually with long bolts (0.5 inches x 8 inches) with washers, approximately four feet apart. The bolts should be sodium treated and placed at least 5 inches into the belt beam, leaving at least 2 inches of the bolt remaining above the belt beam to fit the wall plate. Bent reinforcing steel should not be used because it can be straightened during a hurricane and when this happens, the wall plate will lift from the top of the building. Continuous lengths of borate treated timber should be used to make the wall plates and each piece should be fastened with at least 2 bolts or fixings and properly caulked with termite treated compound.

To strengthen an existing roof, rawl bolts should be drilled into the belt beam and placed four feet apart. Metal straps made from steel sheeting (1 inch x 3/16th) can be placed over the wall plate and fastened to the block work. We sell and install borate treated rods (see below) and nails.

Silicone/epoxy resin*(below epoxy repair)
can be used to re-enforce hollowed sections



Hurricane strap holding down rafter to wall plate.

Diagram 2.

Rafters and Wall Plate Rafters are usually made from 2 inch by 4 inch deep timber that runs from the eaves to the ridgeboard. The rafter is connected to the wall plate and the ridge. Twisted hurricane straps should be installed where the rafters join the wall plate. They should be nailed or screwed to both the wall plate and the rafter, thereby preventing the rafters lifting off the wall plate. Old zinc sheeting cut into strips can be used instead of straps. The sheeting should be cut into 1 inch wide strips and nailed over the rafter and into the wall plate.

By raising the roof to increase the slope, the pressure on the rafters is reduced and by reducing the overhang to less than 18 inches, the roof is more likely to remain intact.

Vulnerable Rafters and the Ridgeboard (up to 25% hollowed rafters can be post treatment injected with solvent hardening silicone.) see below 'dealing with decay'.

- Termites can destroy ceilings and roofs of homes and other wooden structures.
- They are an increasing problem in recent times even in some treated timber, particularly in leaking roofs.
- Precautions can be taken to avoid termite infestation and destruction. Effective controls are available from us.
- Termite infestations moves and spread rapidly. There is not plenty of time. Once an infestation is discovered take the best course of action : First: fumigation and sodium borate residuals after. We will make sure that all corrective measures are done properly and thoroughly.

- In roofs trails are often seen running along and between the clasp of the ridgeboards. The ridgeboard is usually an 8 inch deep piece of board which holds both sides of the roof together at

the top. When high winds pass over a roof, especially one that is flat, an upward suction is created and this will break apart the two halves of the roof at the ridgeboard.

To prevent this damage, a collar tie should be placed between every second or third pair of rafters which will stop the force of the wind pulling apart the two sides of the roof. Alternatively, a steel strap over the top of the rafter can be used.

Lath to Rafters

The laths are placed no more than two feet six inches apart and where possible, 1 inch x 4 inch timber are usually used. The laths are held to each of the rafters with either one screw or two nail fixings (2.5 or 3 inches long). These nails pierce the treated coating of most laths and allow rainflies (winged termites) entry into the heart of laths.

If the laths are too widely spaced on an existing roof, more can be added by lifting the zinc sheeting.

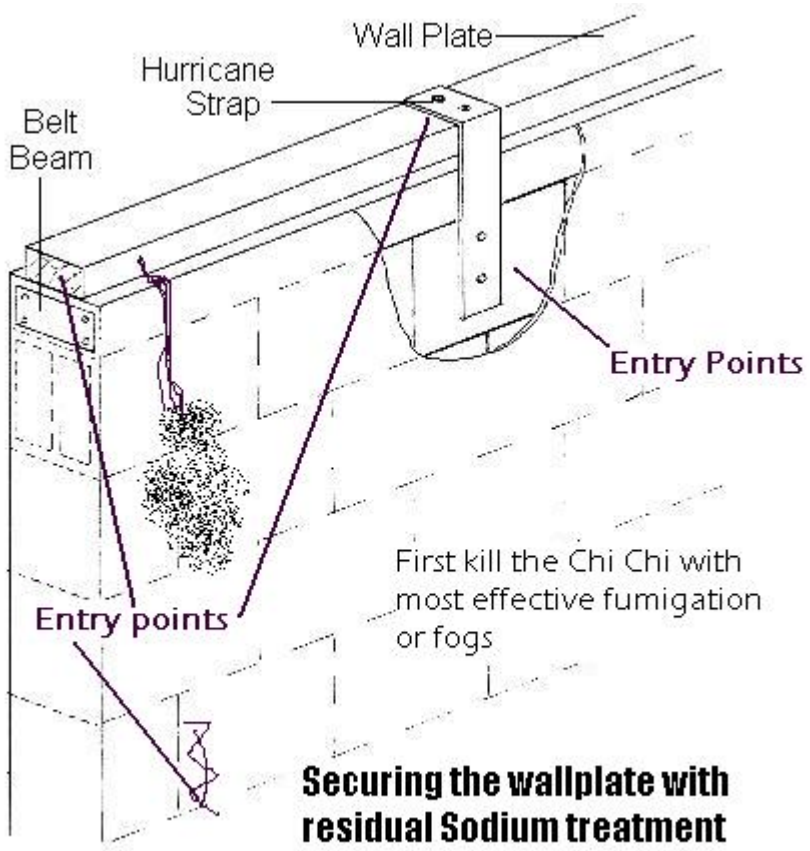


diagram 3.

Shingles, Tiles, Aluminum or Zinc Sheets and Laths

Shingles, tiles or aluminum or zinc sheets protect the roof from wind and rain. They should be properly nailed down with treated nails, particularly at the edge of the roof, using treated zinc nails or screws and BORATE-TREATED fillets to hold the zinc sheeting (wire nails should not be used). One recommended nailing pattern is one nail at every other corrugation along the eaves and ridges, and one nail at every third corrugation in the centre of the roof. Where there is unboxed gable overhang, there should be a nail or screw at every corrugation.

To prevent termite entry into nail holes through zinc and aluminum sheeting it is important to use the correct gauge zinc and the zinc sheets should be of 26 gauge (28 or 30 gauge is too thin).

EDIBLE Eaves and Gable Ends

Termite damage to the eaves and gable ends often starts because these areas are exposed to moisture. Overhangs should be kept as short as possible (less than 18 inches) and board edges and cover strips should be used. Patio roofs should be separate from the main roof or they may cause crossover infestation. Well cleared, treated and ventilated boxed eaves will also help prevent the formation of termite nests and infestation of the roof from branches of trees.

Wood Rot in Construction

We learned earlier about roof infrastructure now the repairing and future precautions.

Dealing With Decay

The first and most important thing to do once decay is discovered is to figure out where the termites came from or where water is coming from. Check for the obvious - roof and plumbing leaks, and missing or punctured flashing. Look for stains, paint peels and drip streaks caused by poor slants. Are eaves wide enough to prevent water from cascading down sidewall's? Are gutters poorly maintained or missing? Do finish grades slope towards or away from the foundation? Are foundation cracks admitting water? Is untreated wood in direct contact with concrete, masonry, or soil? Check to see if crawl spaces have soil covers, and if venting and/or insulation is present, adequate, and properly placed. The same goes for attics and basements. Peeling and blistering paint often signal inadequate interior ventilation, or a missing vapor retarder. Water stains on framing and sheathing inside walls suggest condensation. Remember that to make the termite remedy permanent, you've got to cure the disease -water infiltration, not just treat the symptoms after getting rid of termites mildew, mold, and decay.

Once the source of water has been eliminated, remove as much decayed wood as is practical and economical.

This is especially important with girders, columns, and other critical members whose load-carrying ability may have been compromised. A way of accurately determining the remaining strength of

decayed wood left in place is suggested (WRC Dr. Dwight Robinson). Cut back rotted members to sound wood, keeping in mind that difficult-to-detect incipient decay can extend well beyond visibly rotted areas. When a partially decayed structural member can't be replaced, reinforce it with a "sister" anchored to sound wood. Decayed wood absorbs and holds water more readily than sound wood, so let rotted areas of members not removed dry out before making repairs and closing in. Otherwise, you're just adding fuel to the slow fire.

In damp crawl spaces or other places where water is likely to appear, replace decayed members with preservative treated wood. The major rule governing refurbishing is that treated wood be used for sills and sleepers on concrete or masonry in ground contact, for joists within 18 in. of the ground, for girders within 12 in. of the ground, and for wooden columns embedded in the ground supporting permanent structures such as carports and patios.

In-place treatment with borates

Dormant fungi can be reactivated when dry, infected wood is re wetted by leaks. Consider calling us for treating infected, but otherwise serviceable wood left in place with a water-borne borax-based preservative that will not only kill active termites, but guard against future infestation as well.

Borates have low toxicity to humans and are even approved for interior use in food processing plants. They don't affect wood's strength, color, or finish ability, don't corrode fasteners, and won't send out gas or pesticide vapors. Widely used in treating new timbers for log homes, they're the preservative of choice for remedial treatment of wood in service. Because of the decay hazard posed whenever wood bears on concrete or masonry, **Solid borate rods** are often inserted into holes bored near contact areas. Should wood ever get wet, the rods dissolve and ward off infection.

Infected wood can be treated with

Sodium Borate or boric Acid an extremely effective cure for a multitude of problems including control of wood rot in homes and boats and it is natures insecticide for control of fleas, roaches, termites, ants, spiders and many other household pests.

AFTER TERMTIE EXTERMINATION, before any repairs or replacement of damaged wood is started, I recommend a thorough, and comprehensive treatment of damaged areas with Boric Acid to eliminate future problems and stop the spreading of insects and organisms

* **Epoxy repair of decayed wood**

Sometimes replacing rotted wood isn't an option. In conserving historic buildings, for example, the goal is to preserve as much of the original "architectural fabric" as possible. Stabilizing deteriorated wood with epoxy is often the only choice. Epoxies consist of resin and hardener that are mixed just before use. Liquids for injection and spatula-applied pastes are available. After curing, epoxy-stabilized wood can be shaped with regular woodworking tools and painted. Epoxies are useful for consolidating rotted wood, restoring lost portions of molding's and carvings, and for strengthening weakened structural members. In the last case, they're used to bond concealed metal reinforcement inside holes or channels cut into hidden faces. Epoxies aren't preservatives and won't stop existing

decay or prevent future infection. They can be tricky to use; follow the manufacturer's mixing, application, and safety instructions to the letter

MAINTENANCE OF STRUCTURES UNDER GUARANTEE. Each and every structural member should be kept sound and free of all types of termites. It should be maintained to prevent moisture from affecting it. Damage and defects that otherwise can lead to the infestation of framework should be corrected. All owners should keep their structures free of all the conditions listed below and promptly take corrective action if such conditioned is determined to exist. Structural compliance violations include but are not limited to the following:

1. After treatment previously infested wood must all be immediately removed and replaced with wood treated by Caribpest. Roof shall be maintained and kept water tight.
2. Exterior surfaces shall not have any holes or broken shifted fiberglass or clay shingles etc.,; loose, cracked, or damaged shingles or siding; missing doors or windows, or other defects in the exterior finish which admit rain, wind, dampness, rodents, insects, or vermin must be corrected.
3. Basements, cellars, and crawl spaces shall be free of standing water and moisture condensation.
4. All wood, including furniture, floorboards, doors, jambs, subfloors, joists, bridging, roof rafters and sheathing, and all other wood in any interior or exterior floor, wall, roof, or other part of the structure, shall be maintained to be free of cracks affecting structural integrity, termite damage, infestation or rot. Any and all damaged or deteriorating materials shall be replaced. If infestation exists in any basement, cellar, or crawl space, such infestation shall be remedied in accordance with industry standards to effectuate the proper removal of such infestation.
5. The construction, moving, owning, or permitting the existence of unsafe building; or any building that is defined as abandoned or a public nuisance by the local parish councils
6. Materials and practices used in reconstruction and residing shall be of standard quality and appearance commensurate with the character of other properties in the vicinity of the to be repaired section.
7. Fences, Trees or walls that are not structurally sound or which are deteriorating, as may be evidenced by leaning, loose, unfilled (cement) or missing limb cavities elements.

[redacted]

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