



CONSTRUCTION OF LAPAS

Thatch roof regulations – ignore it at your peril!

Many people think of roofing as a simple structure that can be installed with minimum fuss. However, often, a lack of knowledge around the regulations has led to massive failures.

In this article we focus specifically on the regulations surrounding lapas.

The Thatchers Association of South Africa (TASA) gives the following guidance:

Requirements

Building plans must indicate the position of the structure in relation to site boundaries and any other structure on the same premises. The position and height of existing boundary walls are important parameters for consideration during the fire-safety assessment of the proposed structure.

Size and safety

Safety distances

Many lapas are constructed close to or against boundary walls. National Building Regulations stipulate that any thatch roof covering a roof-plan area greater than 20 m² must be constructed at least 4.5 m from any boundary. This is to prevent a fire from spreading to your neighbour. If a thatched lapa has been erected within 4.5 m, further steps must be taken to ensure adequate fire safety.

There are also safety distances between buildings and/or structures erected on the same premises which are determined by the composition of the structure in question. Determining factors that apply here include the combustibility of the roof or walls and the presence and distances of openings of the relevant structures.

These aspects as mentioned must then be considered and addressed by means of a "Rational design" prepared by a competent person for approval by a Local Authority. It must also be made available to the relevant Governing Body and likewise to the relevant Insurance Institution.

If such a structure is within a complex, approval must be obtained from the Governing Body for certain conditions that may exist. It may also include the insurance of the complex, that must be considered. This includes aspects such as safety distances and fire separations where necessary.

The question is therefore: Did the establishment of the relevant lapa meet all the above Statutory requirements and was it approved by the Governing Body and by the Local Authority? Had the establishment of the lapa been before the Regulations offered a solution as contained in SANS 10400-T, Clause 4.12.2?

Solution: In order to find a solution to the problem, the following must be looked at:

1. Can the Regulatory requirements be met, and
2. the insurance requirements are met because they sometimes have requirements that fall outside the normal scope.

Compliance with the Regulatory requirements can be an important consideration for acceptance here. The important consideration is therefore whether all the Regulatory requirements can be met? Should it be possible, this can be done by a "Rational design" looking at all the relevant aspects (fire walls and separating walls and safety distances relating to openings facing the structure) or just meeting the deemed-to-satisfy requirements of Clause 4.12.2 mentioned above.

Safety distances for a combustible roof, like thatch, are based on the fire properties of the roof when burning. The intensity of the burning roof (radiant heat) can be minimized by using an effectively tested fire-retardant treatment system. The system will be classified when tested in terms of the NBR and the classification will then be used to determine the actual safety distance required."

Note that insurance companies may have additional requirements.

Attached lapas

Traditionally, there can be more than one lapa in a single yard, which may be attached to the main house, or a separate structure a few meters away from the house. However, the proposed structures must comply with the requirements in terms of the National Building Regulations and must be approved by the local authority.

Thatched structures attached to any building will change the fire risk of the main building and must be communicated with the relevant insurance institution.

Safety distances

Boundary walls

The National Building Regulations stipulates that any thatch roof covering a roof-plan area greater than 20 m² must be constructed at least 4,5m from any boundary. This is to prevent a fire from spreading to a neighboring property. If a thatched lapa has been erected within 4,m further steps must be taken to ensure adequate fire safety.

Boundary walls and fire preventative measures can be considered for fire safety in case of non-compliance.

Between buildings

Safety distances between buildings and/or structures erected on the same premises are determined by the composition of the structure in question. Determining factors that apply here include the combustibility of the roof or walls, and the presence and distances of openings.

These must be considered and addressed by means of a "rational design", prepared by a competent person for approval by the local authority. It must also be made available to the relevant governing body and insurance institution.

Within a complex

Approval must be obtained from the governing body for certain conditions that may exist, which may also include the insurance of the complex, safety distances and fire separations where necessary.

Legality issues

If a lapa is not shown on any approved municipal drawings, it may be an illegal construction. In the event of an incident and if the correct approvals are not available, an insurance institution may not cover the lapa and its contents.

All lapas or extensions to lapas must be approved by a local authority.

SANS regulations

Compliance with SANS regulations are very important, not only from a Local Authority point of view, but also your insurance, should an incident occur relating to structural integrity, lightning protection and safety distances.

Lapas are required to comply with the SANS 10407:2016 Edition 2 specification pertaining to thatch roof constructions and SANS 10400 (National Building Regulations) with special reference to Part L (structural requirements), Part T (fire requirements) and Part V (chimney requirements).

A lapa must be built according to the design on the building plans, as approved by a registered professional engineer and the local authority. The formal approval must be clearly visible on the design drawings and the drawing must be signed by a competent person, such as an architect or structural engineer.

Most failures or fire incidents occurred resulting from incorrect design. The following can be use as guidance for consideration:

- Structural support (poles minimum 150 mm to 200 mm diameter) not more than **3 meters apart**.
- **Ring beam sizes not less than 150/175 mm measured at the thin ends.**
- At least 1 or 2 tie beams, connected (bolted) to the rafter beams with a queen post, to prevent any lateral movement of the supporting structure.
- Structural connections of the roof trusses **not more than 2.7 meters apart**.
- Incorrect chimney design with no protection to combustible elements such as roof timbers or thatching grass and absence of spark arrestors in the chimneys.

Certification and approvals

A competent person (usually an engineer or similar) must certify that the construction complies with the SANS 10407 specification. They must confirm that the lapa is built as designed and that the workmanship is of a professional standard. An A19 certificate of compliance confirming that the lapa complies with all standards and regulations is then issued.

Without such a certificate, the municipality will not sign off any structure for approval. The building inspector will also issue a completion certificate from the municipality when all requirements have been met.

It is worth noting that no property may be bought or sold without this certificate.

Contractors

The member list published on the TASA website is always kept up to date. It is advisable to always check first that the contractor is indeed a member of the TASA because there are contractors who pretend to be members but are not.

TASA members sign a Code of Ethics and Conduct upon acceptance of membership, in which they undertake to comply with the above regulations. It is advisable to confirm TASA membership of contractors online, as more and more municipalities, banks, insurance institutions and the state (in respect of tenders) require TASA membership.

Solution: TASA gives guidance on the legalities, SANS standards, certificates and approvals required for lapas.



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