An overview of the Home Building Manual

ANNEXURE C

1.1 Introduction to the Home Building Manual

The Housing Consumer Protection Measures Act of 1999 requires the NHBRC to establish a fund for the purpose of providing assistance to housing consumers where a home builder fails to rectify major structural defects or a roof leak attributable to workmanship, design or materials which has manifested itself within 5 years or 12 months from the date of occupation, respectively. The Minister is required to prescribe Technical Requirements relating to the warranty scheme. The NHBRC is required to publish a Home Building Manual (HBM) which contains the Technical Requirements prescribed by the Minister and guidelines established by the NHBRC to satisfy such requirements. Registered Home builders are required to comply with the provisions of the Home Building Manual and to rectify at their own cost major structural defects or roof leakage in a home caused by the non-compliance with the scheme requirements and occurring within a stipulated period.

The Act does not exempt a person from any provision of the National Building Regulations and Building Standards Act, 1977. Although there are many similarities in the approach between the National Building Regulations and the NHBRC Technical Requirements, the onus is on the owner of a building to satisfy requirements in the case of the former and on the home builder in the case of the latter.

The first 8 parts of the HBM reproduces the NHBRC's Technical Requirements which were published in Government Gazette no……2014. These NHBRC Technical Requirements:

1) define the categories of dwelling units that are excluded and included from the definition of a home and the structures which are included in the definition of a home;

2) establish both performance descriptions and performance parameters for structural strength and stability, serviceability, materials, behaviour in fire, drainage and storm water management and water installations in relation to the warranty scheme as indicated in Figure A;

3) establish requirements for geotechnical investigations to ascertain the design parameters for the foundations of homes and the permitted development of dolomite land for homes;

4) establish procedures for the in principal acceptance of greenfield housing developments for enrolment with or without conditions;

5) establish the framework for the recognition and operation of certification schemes; and

6) establish procedures for the admission to and removal from a Council list of competent persons.

The last 5 parts of the Home Building Manual establishes the manner in which the first 8 parts (NHBRC Technical Requirements) can be satisfied. It:

a) establishes compliance methods to satisfy the performance requirements established in the NHBRC technical requirements i.e. by applying deemed-to-satisfy rules or complying with identified standards;

c) establishes specific procedures for satisfying performance requirements by means of performance based methods i.e. though certification by a certification body, a listed competent person or Agrément South Africa; and

d) establishing requirements for geotechnical investigations, the development of dolomite land and indemnity insurance.

The Concise Guide to the Home Building Manual, which is published separately, not only explains the Home Building Manual but also locates the manual in the broader context of sustainable human settlements with cross references to essential publications such as the National Housing Code, the Housing Project Process Guide (2009) and the Human Settlements Red Book.

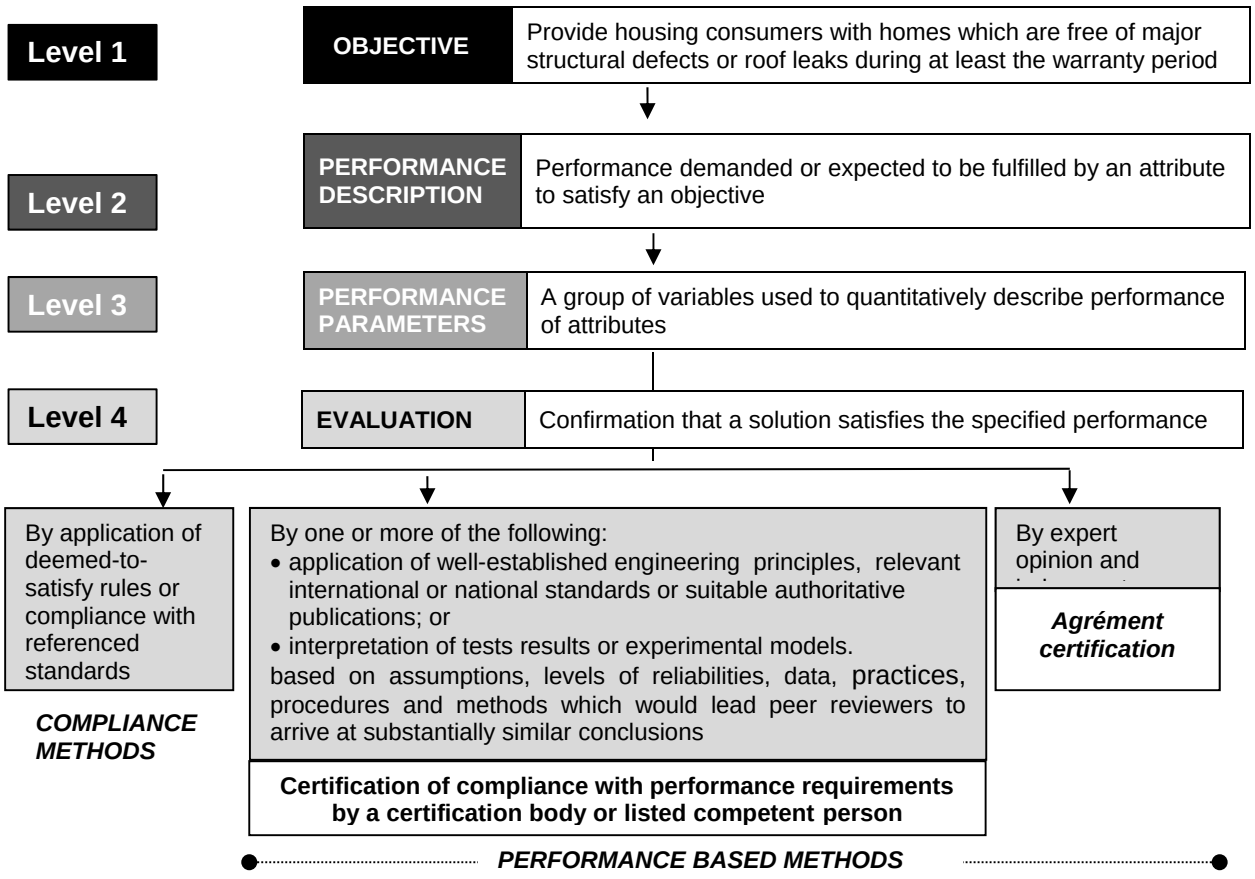

Figure A: Framework for assessing the performance of a system, element or component

1.2 Table of contents

The current contents of the home building Manual is currently as follows:

Part 1: Definitions

1.1 Terms and definitions
1.2 Standards

Part 2: Performance requirements

2.1 Structural strength and serviceability
2.1.1 Performance description
2.1.2 Performance prarameters

2.2 Dampness and weatherproofing
2.2.1 Performance description
2.2.2 Performance prarameters

2.3 Water and drainage installations
2.3.1 Performance description
2.3.2 Performance prarameters

2.4 Materials and components

2.5 Surface water amd groundwater management

2.6 Dolomite land
2.6.1 Performance decsriptions
2.6.2 Performance parameters

Part 3: Evaluation

3.1 Demonstrating compliance with performance requirements
3.2 Agrément certification
3.3 Certification by a certification body or listed competent person
3.4 Test report issued by an accredited SANSA laboratory
3.5 Compliance in respect of materials
3.6 Drawings

Part 4: Site class designations

Part 5: Development of dolomite land

Part 6: Greenfield site developments

Part 7: Approved certification schemes

7.1 General
7.2 Scheme requirements

Part 8: Council list of competent persons

8.1 Admission to and removal from the council's list
8.2 Standard of service required
8.3 Submission of designs and reports for approval

Part 9: Compliance methods

9.1 Structural strength and serviceability
9.1.1 Foundations, floors and staircases
9.1.2. Walls
9.1.3 Roofing assemblies
9.2 Dampness and weatherproofing
9.3 Water and drainage installations
9.4 Surface and gorund water management

Part 10: Performance based methods

10.1 General
10.2 Procedures for Council acceptance of solutions developed by listed competent persons and certification bodies

Part 11: Requirements for geotechnical investigations

11.1 Certification of compliance
11.2 Modifications and additional requriements to parts of SANS 624

Part 12: Requirements for the development of dolomite land

12.1 Certification of compliance
12.2 Independent reviews on dolomite land
12.3 Modifications and additional requirements to parts of SANS 1936

Part 13: Professional indemnity cover

Annexure 1: Specification for below ground water installations to homes

Anenxure 2: Specification for sewers for homes

1.3 Explanatory overview of content

1.3.1 Introduction

This explanatory overview of the content of part and the appendices to of the Home Building Manual indicates the purpose of each part and appendices. It also highlights the differences between the Home Building Manual 1999 and the proposed Home Building Manual 2014. It also, where relevant, touches on the thinking behind the adopted approach.

1.3.2 Part 1: Definitions and standards

The definitions that are included in this part do not repeat terms included in the Act. The definition for a “home” includes the inclusions and exclusions permitted in terms of Section 1 of the Act. The inclusions extend the coverage of the Warranty Scheme to homes financed by a state housing subsidy. The term “dwelling unit” which is included in the definition of a “home” in terms of the Act is now defined.

All the defined terms provide clarity on the meaning of terms used in the text of the NHBRC Technical Requirements.

Section 28 of the Standard Act, 2008, permits the provisions of South African National Standards to be incorporated into a law. The referencing of standards in this manner facilitates the incorporation of the provisions of a number of South African National Standards into the NHBRC Technical Requirements in the manner envisaged in the Standards Act.

1.3.3 Part 2: Performance requirements

The NHBRC Technical Requirements need to establish both performance descriptions (performance demanded or expected to be fulfilled by an attribute) and performance parameters (a group of variables used to quantitatively describe performance of attributes) for structural strength and stability, serviceability, materials, behaviour in fire, drainage and storm water management and water installations in relation to the warranty scheme, taking into account overlaps in requirements with the functional regulations contained in the National Building Regulations.

Both performance descriptions and performance parameters are required to fully describe performance (see Figure A). This approach not only enables design rules to be formulated but also establishes the benchmark against which solutions not covered by the design rules can be objectively assessed in a fair and equitable manner.

It is essential that performance is fully described in order to mitigate the NHBRC's exposure.

The specified performance levels are essentially the same as previously contained or implied in the Home Building Manual 1999. New requirements for water services have, however, been introduced.

1.3.4 Part 3: Evaluation

Evaluation deals with the manner in which a home builder can objectively demonstrate that a solution satisfies the specified performance for a system, element or component by means of a compliance method or a performance based method as indicated in Figure A.

The material differences between the proposed requirements and those previously contained in the Home Building Manual are:

a) the introduction of certifications by a certification body (see Part 7) or a listed person (Part 8) as opposed to a person who is simply registered with the required statutory council and is in possession of the prescribed indemnity cover;

b) the introduction of the principle that the failure by a competent person or certification body to provide copies of documents setting out the reasoning for making a determination when called upon to do so is interpreted that the design does not satisfy the performance requirements and the certification was made fraudulently; and

c) confirmation of compliance in a test report issued by an accredited SANAS laboratory;

1.3.5 Part 4: Site class designations

Site class designations have been one of the cornerstones of the risk mitigation measures adopted in the Warranty scheme. The site class designations are the same as those contained in the Home Building Manual 1999.

A requirement has been introduced for a certification body or listed competent person when called upon to justify in writing their classifications or opinions to consumers, home builders and NHBRC inspectors. Failure to provide such a justification is interpreted that the service does not satisfy requirements and the certification was made fraudulently

1.3.6 Part 5: Development of dolomite land

The provisions for the development of dolomite land builds upon and updates the approach adopted in the Home Building Manual 1999 without changing the basic philosophy to hazard management. This approach to the management of the hazards on sites underlain by dolomites to within tolerable limits has recently been validated by the National Department of Public Works. (The Department has analysed some 650 sinkholes, which manifested from 1984 to 2004 in an approximately 3700 hectare urbanized environment, located on dolomite land south of Pretoria and a four year period following the implementation of a comprehensive hazard management system.)

The site class designations are the same as those contained in the Home Building Manual 1999.

The approach to the management of development risk is linked to the provisions of parts of SANS 1936, *Development of Dolomite Land*, which builds upon the conceptual framework

included in the Home Building Manual 1999 and aligns with the Department of Public Works' research outputs and recent experiences in mitigating risk.

1.3.7 Part 6: Greenfield site developments

Part 6 includes the provisions of what is essentially contained in the National Department of Housing's GFSH-2 Specification (September 2002) *Geotechnical Site Investigations for Housing Developments* which was developed for Project Linked Greenfield Subsidy Project Developments. This is achieved by simply referring to 634, *Geotechnical investigations for township development*, a document which is based on GFSH-2 and in replaces it.

1.3.8 Part 7: Approved certification schemes

Part 7 introduces an alternative approach to certification by competent persons. It empowers the Council to approve certification schemes proposed by juristic persons who satisfy prescribed criteria. Such schemes are required to register certification bodies (companies or organizations) who employ certifiers (suitably qualified individuals) with demonstrated ability to act in terms of the Technical Requirements to certify sites in terms of site class designations or inherent hazard classes or to certify township services on sites underlain by dolomites for compliance with requirements. Schemes are required to maintain websites which provide the public and home builders with particulars of the names, registrations and other particulars of certification bodies and certifiers and make certificates issued in terms of the scheme accessible to owners and building control officials. Home builders who require certification in terms of the NHBRC Technical Requirements can contract a certification body (company) who, if required, maintains professional indemnity cover, and allocates an employee who is a certifier to undertake certification activities. The certifier issues a certificate of compliance which is made hen available to the Council, home builders and housing consumers.

This approach links companies to certifiers and streamlines the current approval process for building systems which need to be certified by competent persons. A certification body (company) is prequalified to provide a service. The obligations placed on the certifier in many cases are no different to that placed on the competent person in terms of the current Home Building Manual. All that changes is that the company for whom the certifier works is responsible for providing the service and the scheme assesses the qualifications and experience of the person who makes the determination that a system complies with the NHBRC's Technical Requirements.

The schemes will also enable those who have professional designations granted in terms of the National Qualifications Framework Act of 2008 to certify compliance with requirements in respect of components instead of competent persons e.g. roof trusses.

Approved certification schemes will operate in parallel to lists of competent persons as described in Part 8. Home builders will be free to appoint either a certification body or a listed competent person. Market forces will inform such decisions. There is accordingly no cost implications associated with this proposal for either the Council or home builders. There may be reductions in cost due to efficiencies and the engagement of specialists.

1.3.9 Part 8: Council list of competent persons

Any person who is registered with the required statutory council and has the requisite indemnity cover is currently eligible to certify work. The thinking behind this approach is that a competent person will only perform work within the confines of the statutory code of practice governing his or her professional practice. There are several shortcomings in this approach to managing risk.

A new requirement has been introduced for competent persons to be listed by the Council in a specific category in order for them to be able to certify compliance with performance requirements, to certify sites in terms of site class designations or inherent hazard classes or to certify township services on sites underlain by dolomites for compliance with requirements. Applicants need to satisfy certain criteria before being admitted to the list. The Council is also empowered to remove poor performers from the list. This enables the Council to better manage their warranty exposure and regulate the certification of work by such persons.

The admission criteria are essentially the same as those applied by local authorities when accepting the appointment of a competent person in terms of Regulation A19(c) of the National Building regulations.

1.3.10 Part 9: Compliance methods

Part 9 establishes compliance methods for satisfying performance requirements established in Part 2. It does so by reference to by reference to relevant parts of SANS 10400, *The Application of National Building Regulations*, SANS 2001, *Construction Standards* and two NHBRC specifications relating to the construction of wet services for homes

1.3.11 Part 10: Performance based methods

Part 10 establishes requirements in addition to Part 3 associated with the demonstration of compliance with performance requirements through performance based methods in Part 2. It includes procedures for the Council to accept solutions developed by listed competent persons and certification bodies.

1.3.12 Part 11: Requirements for geotechnical investigations

Part 11 establishes additional Council procedures for geotechnical investigations described in Parts 4 and 6. It also specifies:

- the variations which are necessary to align SANS 634 with Council requirements; and
- requirements fo gathering of data to support subsidy variations associated with subsidy housing schemes.

1.3.13 Part 12: Requirements for the development of dolomite land

Part 12 establishes additional Council procedures for the development of dolomite land described in Parts 5 and 6. It also specifies the variations which are necessary to align parts of SANS 1936 with Council requirements.

1.3.14 Part 13: Professional indemnity cover

Part 13 establishes requirements for professional indemnity cover in a manner which enables the Council to recover expenses incurred in rectifying defects covered by such insurance.

1.3.15 Annexure 1: Specification for water installations for homes

There are currenly no suitable national standards which are dedicated to the construction of water installations from the municipal mains or water mains within an interconnected complex to a home. Current standards are incorporated into design standards. As a result,

the NHBRC needs to have a specification which establishes construction rules to ensure compliance with performance requirements by means of compliance methods.

1.3.16 Anenxure 2: Specification for sewers for homes

There are currenly no suitable national standards which are dedicated to the construction of sewers from the municipal mains or sewer mains within an interconected complex to a home. Current standards are incoprorated into design standards. As a result, the NHBRC needs to have a specification which establishes construction rules to ensure compliance with performance requirements.