



ROYAL GOVERNMENT OF BHUTAN
MINISTRY OF WORKS AND HUMAN SETTLEMENT

DEPARTMENT OF URBAN DEVELOPMENT AND HOUSING

POST BOX NO. 129, THIMPHU: BHUTAN

"Towards Quality Infrastructure"

1/UPDD/DUDES/Adm/2010/

April 30, 2010

Dasho Dzongdags,
Dzongkhag Administration,
20 Dzongkhags.

Sub: Guidelines for building constructions in rural areas (Draft Copy).

Dear Sir/s,

As a continuing endeavour by the Ministry in promoting and managing human settlements throughout the country we have proposed for guidelines that would facilitate and assist constructions in rural areas. In this regard please find here enclosed with a ***draft copy of the guidelines*** for your comments and necessary contribution that would further strengthen the contents of the guidelines. We would like to request all concerned Dzongkhag Administrations, Departments, Agencies and individuals to kindly submit their comments latest by **May 14, 2010** to the DUDES/MoWHS in writing.

We look forward for your continued support and cooperation.

Note: Annexure 3 and 4 are available online www.mowhs.gov.bt and www.dudh.gov.bt

Yours sincerely,

(Rinchen Dorji)
Director DUDES.

Copy to:

1. Hon'ble Secretary, MoWHS for kind appraisal.
2. Director SQCA, MoWHS with a request to kindly contribute and submit the comments for the above mentioned guidelines.
3. C.E, ESD/DUDES, MoWHS, with a request to kindly contribute and submit the comments for the above mentioned guidelines.
4. C.E, UISD/DUDES, MoWHS, with a request to kindly contribute and submit the comments for the above mentioned guidelines.



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Guidelines for building construction in Rural Areas (Draft).

In view of many haphazard and unplanned constructions in the rural areas the Ministry has been mandated to frame guidelines that will promote unprecedented heritage and culture in the rural areas throughout the kingdom and at the same time facilitate better living standards in these areas. The guidelines shall also take into consideration the safety measures and standards that could be adopted at the time of construction and compatible/preferred methods and techniques for construction in the rural areas.

A.a CONSTRUCTION OF TRADITIONAL BUILDINGS

Construction of new buildings using local materials such as stones, rammed earth, mud blocks, timber shall be encouraged at all times. Following guidelines may be followed at the time of construction;

I. Procedure for building permit:

1. The Dzongkhag administration shall be the competent authority for all administrative approval. The granting of building permit may be decentralized in consultation with the Gewog administration to expedite the approval process.
2. Building application form as adopted by the respective Dzongkhags shall include a copy of ownership certificate or other relevant authentic documents of the applicant at the time of seeking the building permit.

II. Construction Controls:

1. All constructions should be within the registered area of the applicant/plot owner.
2. Use of improved techniques such as stabilized mud blocks and stabilized rammed earth walls shall be encouraged and enhanced.
3. The height of the building shall be restricted to maximum of two floors (G+one floor).
4. The following traditional architectural features shall be **mandatory** in all the buildings;
 - a. Pitch roof with a roof angle between 12 degrees to 15 degrees.
 - b. Rabsey on the upper most floor with all features (appropriate use of cornices and other traditional elements.
 - c. Windows shall be in accordance to the traditional architectural guidelines
5. In view of the importance of the structural stability of the buildings, appropriate bonding materials, bonding techniques, construction materials shall be encouraged.



6. There shall be a minimum of 5 meters between two buildings for safety (especially during emergency such as fire) and at the same time to accommodate roof overhang within the registered area. This will also avoid dispute such as drainage works, septic tanks, etc. falling in neighbours land.
7. Encourage and accommodate fire safety measures such as provision of fire extinguisher within the building.
8. The clear height of the rooms shall not be less than 2700mm in places where cooling with fans are not required (higher altitude). In warmer places where fans are used for cooling (low altitude) the clear height of the rooms shall not be less than 2900mm.
9. Those builders/applicant intending to accommodate air conditioning facilities shall ensure that it does not compromise on aesthetics and safety.
10. In the event of accommodating toilets within the building, appropriate materials shall be used. If wet areas (kitchen and toilets) are proposed as an extension to the main building, the overall traditional aesthetics of the building shall not be compromised. The minimum width of the toilet and kitchen shall not be less than 1200mm and 2200mm respectively.
11. No overhead water tank shall be permitted over the roof.
12. Paintings shall be in accordance to the traditional guidelines.
13. Natural drainage, footpath, community space, shall be enhanced and preserved.
14. Septic tanks and soak pits shall be constructed within the registered area and the sizes shall be in accordance to the **Annexure 1**.
15. Guidelines to Traditional Architecture shall be referred in the event of any discrepancies pertaining to use of traditional details and elements (**Annexure 2**).
16. Guidelines for Rural Housing Project (**Annexure 3**).
17. Guidelines on construction techniques and methods in rural areas framed by SQCA and NCCA shall be referred at the time of construction (**Annexure 4**).

III. Monitoring:

1. The Dzongkhag administration in consultation with the Gewog administration shall be responsible for monitoring the constructions of buildings with timely inspection.
2. The Dzongkhag and the Gewog administration shall assist the building owners in doing the building layout at the site and accordingly verify the construction.
3. Deviations from what is being approved shall not be permitted.

A.a RENOVATIONS/EXTENSION ON EXISTING TRADITIONAL BUILDINGS

1. The approval procedure and construction control for renovations and extensions (vertical and horizontal) shall be same as mentioned in **A.a**.
2. At the time of according permit for renovations and extensions on existing traditional buildings structural stability/requirements of the overall building shall not be compromised.
3. The aesthetics and traditional architectural requirements shall be enhanced while proposing extensions and renovations of existing traditional buildings.



B.a CONSTRUCTION OF RCC BUILDINGS

I. Procedure for building permit:

1. The Dzongkhag Administration shall be responsible for all administrative approval of new RCC building/load bearing buildings in the rural areas. In the event of unavailability of competent professional for scrutinizing the building drawings, the Dzongkhag Administration may forward the drawings to the competent authority (MoWHS) for scrutiny of drawings and granting building permit.
2. Building application form as adopted by the respective Dzongkhags shall include a copy of ownership certificate or other relevant authentic documents of the applicant at the time of seeking the building permit.
3. Qualified professionals/designers shall be required to prepare the drawings. As per the notification of the Construction Development Board; the designers are required to submit the valid CDB Certification along with the drawings. However if the registration is under process the designer/s may be asked to submit the proof of qualification as per the circular issued by the Hon'ble Zhabtog Lyonpo.
4. All new concrete buildings proposed in the midst of a traditional village shall be approved/cleared by a committee consisting of Dzongdag, District Engineer, Gup and Mangi Aap after it is presented to them by the designer.

II. Construction Controls:

1. All constructions should be within the registered area of the applicant/plot owner.
2. Use of improved techniques such as stabilized mud blocks and stabilized rammed earth walls shall be encouraged and enhanced.
3. The height of the building shall be restricted to maximum of two floors (G+one floor).
4. The following traditional architectural features shall be **mandatory** in all the buildings;
 - a. Pitch roof with a roof angle between 12 degrees to 15 degrees.
 - b. Rabsey on the upper most floor with all features (appropriate use of cornices and other traditional elements.
 - c. Windows in accordance to the traditional architectural guidelines.
 - d. Minimum of 75% of the wall shall have rabsey.
5. Balconies facing main road shall not be permitted.
6. There shall be a minimum of 5 meters between two buildings for safety (especially during emergency such as fire) and at the same time to accommodate roof overhang within the registered area. This will also avoid dispute such as drainage works, septic tanks, etc. falling in neighbours land.
7. Encourage and accommodate fire safety measures such as provision of fire extinguisher within the building.
8. The clear height of the rooms shall not be less than 2700mm.
9. Those builders/applicant intending to accommodate air conditioning facilities shall ensure that it does not compromise on aesthetics and safety.



10. The minimum room sizes shall be strictly in accordance to Bhutan Building Rules 2002.
11. No toilets/kitchen shall be permitted outside the main building.
12. No overhead water tank shall be permitted over the roof.
13. Deviations from approved drawings shall not be entertained.
14. All architectural features including paintings shall be in accordance to the Traditional Architectural Guidelines Bhutan Building Rules 2002.
15. Natural drainage, footpath, community space, shall be enhanced and preserved.
16. Qualified professionals/designers shall be employed for preparing all commercial oriented proposals such as resorts, hotel, etc. Competent authority shall be grant building permit.
17. Septic tanks and soak pits shall be constructed within the registered area and the sizes shall in accordance to the **Annexure 1**.
18. Guidelines to Traditional Architecture shall be referred in the event of any discrepancies pertaining to use of traditional details and elements (**Annexure 2**).
19. Guidelines for Rural Housing Project (**Annexure 3**).
20. Guidelines on construction techniques and methods in rural areas framed by SQCA and NCCA shall be referred at the time of construction (**Annexure 4**).

III. Monitoring:

1. The Dzongkhag administration in consultation with the Gewog administration shall be responsible for monitoring the constructions of buildings with timely inspection.
2. The Dzongkhag administration shall be vigilant particularly constructions along the National Highways/Road and ensure that overall aesthetics of the building is not compromised. At the same time these buildings shall have rich traditional features/elements.
3. The Dzongkhag and the Gewog administration shall assist the building owners in doing the building layout at the site and accordingly verify the construction.
4. Deviations from what is being approved shall not be permitted.

IV. Promotion Measures:

1. All Dzongkhags shall ensure that there are adequate number of building inspectors to monitor new construction (particularly RCC building) in the rural areas.
2. DUDES/MOWHS shall organize periodic trainings for the building inspectors and artisans.

B.b RENOVATIONS/EXTENSION ON EXISITING RCC BUILDINGS

1. The approval procedure and construction control for renovations and extensions (vertical and horizontal) on existing RCC buildings shall be same as mentioned in **B.a**.



2. While proposing extensions (vertical and horizontal) on the existing RCC buildings, the proposal has to be certified by qualified designers/competent authorities prior to the scrutiny of the proposal. Structural stability/requirements shall not be compromised at any time.
3. The aesthetics and traditional architectural requirements shall be enhanced while proposing extensions and renovations of existing traditional buildings.



5. District Engineers, 20 Dzongkhangs, with a request to kindly contribute and submit the comments for the above mentioned guidelines.
6. EE, ESD/DUDES, with a request to kindly contribute and submit the comments for the above mentioned guidelines.
7. All planners, UPDD/DUDES, with a request to kindly contribute and submit the comments for the above mentioned guidelines.
8. Architect, ESD/DUDES, with a request to kindly contribute and submit the comments for the above mentioned guidelines.