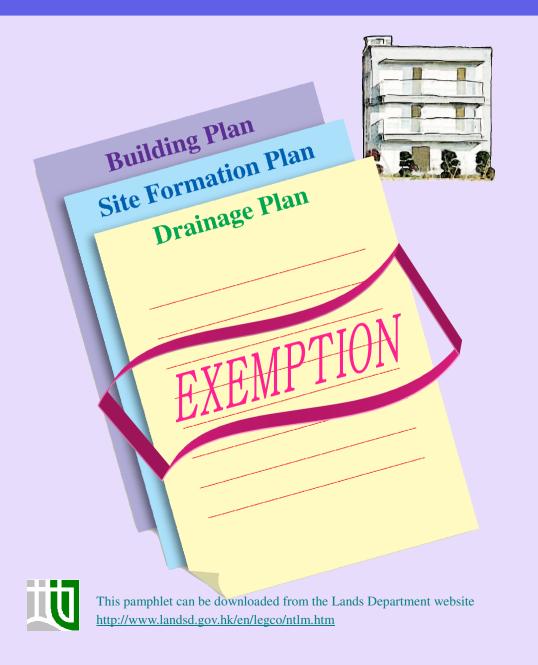
# Building New Territories Exempted Houses

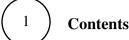
## Building New Territories Exempted Houses





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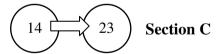
2 Introduction



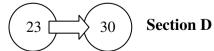
Building New Territories Exempted Houses under the Buildings Ordinance (Application to the New Territories) Ordinance, Chapter 121



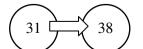
Guidelines to Apply for Certificates of Exemption in the Construction of New Territories Exempted Houses



Technical Requirements for Critical Structural Elements in the Construction of New Territories Exempted Houses



Green and Amenity Facilities



**Appendices** 

#### Introduction

This pamphlet gives guidance information for **indigenous** villagers to build small houses. Such information is also applicable to the redevelopment of village houses in the New Territories.

The pamphlet outlines the maximum dimensions of a New Territories Exempted House and provides general guidelines on how to apply for Certificates of Exemption. It also contains technical requirements for the construction of the critical structural elements of New Territories Exempted Houses. This pamphlet is not intended to create any legal rights or obligations. However, such guidelines and information may be subject to revision from time to time.

The pamphlet is divided into the following sections:

SECTION A: Building New Territories Exempted Houses

under the Buildings Ordinance (Application to the New Territories) Ordinance Chapter 121

the New Territories) Ordinance, Chapter 121

**SECTION B**: Guidelines to apply for Certificates of

Exemption in the Construction of New

Territories Exempted Houses

**SECTION C**: Technical Requirements for Critical Structural

Elements in the Construction of New

Territories Exempted Houses

SECTION D: Green and Amenity Facilities

Any person who wishes to apply for Certificates of Exemption may obtain application forms from New Territories District Lands Offices free of charge or download from Lands Department's website: http://www.landsd.gov.hk/en/forms/index.htm.

#### **SECTION A**

Building New Territories Exempted Houses under the Buildings Ordinance (Application to the New Territories) Ordinance, Chapter 121

1. Exemptions permitted under the Buildings Ordinance (Application to the New Territories) Ordinance, Chapter 121

A New Territories Exempted House in the New Territories may be constructed to a height of not more than 8.23 m (27 ft.).

- Criteria to be observed
  - (a) The building may not exceed three storeys;
  - (b) The roofed-over area may not exceed 65.03 m<sup>2</sup> (700 sq.ft.);
  - (c) The thickness of each load-bearing wall of the building:-
    - (i) in the case of a <u>reinforced concrete wall</u> shall not be less than 175 mm (6.89 in.);
    - (ii) in the case of a <u>brick wall</u> of the lowest storey shall not be less than 340 mm (13.39 in.);
    - (iii) in the case of a <u>brick wall</u> of any higher storey shall not be less than 225 mm (8.86 in.);

- (d) The use of column and beam concrete frame construction is acceptable subject to the dimensions referred to in para. 2(c)(i) and para. 4(c) of this section being complied with; and
- (e) All retaining walls including any structure retaining earth or fill are considered to be site formation works not building works.
- 3. Determination of the height of the building
  - (a) Height means the perpendicular height of the building measured from the level of its lowest point at ground level to the level of the highest point of its roof (See Appendices I-III).
  - (b) In determining the highest point of a roof, no account shall be taken of:
    - one stairhood if it has a roof area of not more than 7.44 m<sup>2</sup> (80 sq.ft.), a height of not more than 2.14 m (7 ft.) and is erected and used solely to provide protection from rain and sun for a stairway used to gain access to the roof of the building;
    - (ii) any parapet on the roof if the height is not more than 1.22 m (4 ft.); or
    - (iii) one water storage tank if it has a roof area of not more than 2 m<sup>2</sup> (21.52 sq.ft.), a height of not more than 1.22 m (4 ft.) and is installed at any point on the roof other than on a stairhood (See Appendix I).

- 4. Separation of adjoining buildings by means of party wall(s)
  - Where a domestic building is divided into separate units by means of one or more party walls each such unit shall, for the purposes of this Ordinance, be considered to be a separate building if any such party wall:-
  - (a) where that building is of a height of not more than 7.62 m (25 ft.), is a load-bearing brick wall of not less than 225 mm (8.86 in.) thick;
  - (b) where that building is of a height of more than 7.62 m (25 ft.) but not more than 8.23 m (27 ft.):-
    - (i) for the height of the lowest storey, is a load-bearing brick wall not less than 340 mm (13.39 in.) thick; and
    - (ii) for subsequent floors, is a load-bearing brick wall not less than 225 mm (8.86 in.) thick; or
  - (c) is a load-bearing reinforced concrete wall not less than 175 mm (6.89 in.) thick.

Note: The above thickness requirements of party wall(s) apply to a domestic building which is divided into separate units by means of party wall(s). Regarding semi-detached house, its party wall's thickness should be the total thickness of the two adjoining load-bearing walls of individual houses. (For example: not less than 350 mm in thick for a party wall made of reinforced concrete material). Please refer to Section A, paragraph 2(c) above for the thickness requirements of the load-bearing walls.

5. Definition of a 'Party wall'

'Party wall' means a load-bearing wall:-

- (a) forming part of a building used or constructed to be used for the purpose of separating adjoining dwellings; and
- (b) which extends continuously:-
  - (i) from the floor level of the lowest floor of the building up to the underside of the roof; and
  - (ii) from an external wall to the external wall opposite; and
- (c) which has no door, doorway, arch, archway, window or other opening constructed in it.

#### 6. Certificates of Exemption

Certificates of Exemption should be obtained from the respective District Lands Office prior to the commencement of any building works. These certificates relate to building works in addition to site formation and drainage works. Failure to obtain the necessary Certificates of Exemption from the District Lands Officer may mean that the building may by default come within the ambit of the Building Authority which may have no choice but to require demolition under section 24(1) of the Buildings Ordinance, Cap. 123 should structures be erected without approved plans. The District Lands Officer of a District in the New Territories is authorized by the Director of Lands to issue such Certificates.

#### 7. Criteria for exemption of building works

Please refer to paragraphs 1 and 2 of this Section for building works exemption criteria.

#### 8. Criteria for exemption of site formation works

- (a) The maximum gradient across the lot from boundary to boundary is not more than 15 degrees;
- (b) The overall gradient of an area bounded by lines 10 m (32.80 ft.) outside the lot boundary in any direction is less than 15 degrees;
- (c) There is no slope within the area 10 m (32.80 ft.) outside the lot boundary steeper than 30 degrees or higher than 1.5 m (4.92 ft.); and
- (d) There is no retaining wall or terrace wall either within the lot or within the area 10 m (32.80 ft.) outside the lot which is higher than 1.5 m (4.92 ft.).

#### 9. Criteria for exemption of drainage works

Individual lot owner is urged to consult the District Lands Office concerned prior to commencement of works to ensure that drainage proposals are acceptable. Individual house lot should be relatively straightforward but groups of houses developed together will need detailed drainage proposals to be approved before a Certificate can be issued.

#### SECTION B

Guidelines to Apply for Certificates of Exemption in the Construction of New Territories Exempted Houses

#### 1. General

- (a) New Territories Exempted Houses, although being relatively simple in their general arrangement and design, possess **critical structural elements** such as cantilevered balconies which are essential to building safety. (**Critical structural elements** include cantilevered balconies and canopies; long span beams (those equal to or exceeding 6 m in span); long span slabs (those equal to or exceeding 4.5 m in span) and foundation footings.)
- (b) Any person who is given approval by a District Lands Officer to construct New Territories Exempted House (e.g. to construct a small house under the Small House Policy or to redevelop a village-type house) must apply for the issue of **Certificates of Exemption** pursuant to the Buildings Ordinance (Application to the New Territories) Ordinance Cap. 121 in respect of building, site formation and drainage works before commencement of the works.
- (c) The Certificate of Exemption in respect of building works includes **technical requirements** aimed at ensuring structural safety of the completed New Territories Exempted House. The guidelines below provide information on how to apply for the Certificates of Exemption and how the construction works should be monitored and supervised.

#### 2. How to Apply for Certificates of Exemption

- (a) With effect from 8 May 1999, District Lands Officers will only consider the issue of Certificates of Exemption in respect of building, site formation and drainage works upon receipt from an applicant of a **completed application form** (Form CE/1) together with two completed **Letters of Appointment** (Form CE/2 and Form CE/3). These Forms are obtainable from New Territories District Lands Offices.
- (b) An applicant (or an individual acting under his Power of Attorney) applying for Certificates of Exemption in respect of building, site formation and drainage works shall:
  - (i) complete and sign Form CE/1 himself agreeing that no building, site formation and drainage works will commence prior to the granting of the Certificates of Exemption;
  - (ii) appoint a **building contractor and a \*T2 competent person** (or higher qualification) to
    construct the entire building including the critical
    structural elements and ask them to complete and
    sign the Letter of Appointment Form CE/2 and
    submit relevant documents to prove qualifications
    and experience; and

- (iii) appoint a **Registered Structural Engineer** or a **Registered Professional Engineer** (specialized in civil/structural/building work) to monitor the construction of the critical structural elements and ask him to complete and sign the Letter of Appointment Form CE/3.
- (c) If an applicant changes the T2 competent person or the Engineer, he should keep the District Lands Office informed in writing and submit new Letters of Appointment.

#### 3. Issue of Certificates of Exemption

(a) District Lands Officers will normally issue Certificate of Exemption in respect of building works upon receipt of the duly completed Form CE/1, Form CE/2 and Form CE/3. The Certificate of Exemption in respect of building works will, among other things, contain a set of technical requirements for critical structural elements in the construction of New Territories Exempted Houses. A set of technical requirements is contained in Section C of this pamphlet.

<sup>\*</sup>A T2 competent person means a person who possesses a higher diploma or higher certificate in the civil/structural/building disciplines, awarded by universities funded by the University Grants Committee, or the Institutes of Vocational Education or the previous Technical Institutes operated under the Technical Colleges which are approved and/or recognized by the Vocational Training Council and with a total relevant working experience of not less than 3 years.

(b) Certificates of Exemption in respect of site formation and drainage works are normally issued by District Lands Officers together with the Certificate of Exemption in respect of building works. If Certificates of Exemption in respect of site formation and drainage works are not issued by the District Lands Officer due to site constraints, the applicant is required to submit site formation and drainage plans formally to the Building Authority under the terms of the Buildings Ordinance, Cap. 123 for approval. No site formation and drainage works shall commence unless relevant plans have been approved by the Building Authority.

#### 4. Construction of the building

- (a) The T2 competent person shall **supervise** the building contractor in the construction of the entire building including the critical structural elements in accordance with the technical requirements as contained in the Certificate of Exemption in respect of building works.
- (b) The Registered Structural Engineer or Registered Professional Engineer shall **monitor** the construction of the critical structural elements including the cantilevered balconies and canopies, long span beams, long span slabs and foundation footings in accordance with the technical requirements as contained in the Certificate of Exemption in respect of building works.

(c) The respective responsibility of the T2 competent person and the Registered Structural Engineer/Registered Professional Engineer is shown on the Activity List at Appendix IV.

#### 5. Completion of building works

- (a) Upon completion of building works, the T2 competent person and the Registered Structural Engineer/Registered Professional Engineer shall **jointly certify** and submit to the District Lands Officer a **construction completion report** (Form CE/4).
- (b) In the construction completion report, the T2 competent person shall declare that he has supervised the construction of the entire building including the critical structural elements and he is satisfied that they are constructed in accordance with the technical requirements.
- (c) In the construction completion report, the Registered Structural Engineer/Registered Professional Engineer shall declare that he has monitored the construction of the critical structural elements of the building and he is satisfied that all the technical requirements have been met. In addition, he shall also certify that the as-constructed critical structural elements are structurally safe.

(d) District Lands Officers will issue **certificate** of **compliance** (or **letter of no objection to occupy**) upon receipt of the construction completion report and at the same time upon his satisfaction that all other obligations imposed on the applicant have been fully complied with.

#### 6. Buildings without critical structural elements

- (a) Construction of a New Territories Exempted House without any critical structural elements does not require monitoring by Registered Structural Engineer or Registered Professional Engineer so long as the foundation for the New Territories Exempted House is of a raft type construction with 375 mm minimum structural thickness and 0.85% minimum steel of the cross sectional area of the structural concrete in either face and in either direction and the cover to outermost reinforcement bars not less than 40 mm, nor greater than 50 mm. However, supervision by a T2 competent person for the construction of the entire building is still required and he should sign a **construction completion report** (Form CE/5) upon the completion of the entire building.
- (b) Retrospective issue of Certificates of Exemption will not be considered in respect of building, site formation and drainage works of a New Territories Exempted House constructed without first obtaining Certificates of Exemption in compliance with the new guidelines and the technical requirements, unless the criteria for issuing the Certificates of Exemption (including the payment of penalty) have been fulfilled. Any New Territories Exempted House constructed without a Certificate of Exemption in respect of building works shall be subject to enforcement actions.

#### SECTION C

Technical Requirements for Critical Structural Elements in the Construction of New Territories Exempted Houses

#### 1. General

- (a) New Territories Exempted Houses are now conventionally constructed of reinforced concrete with shallow footings. Critical structural elements include cantilevered balconies and canopies; long span beams (those equal to or exceeding 6 m in span); long span slabs (those equal to or exceeding 4.5 m in span) and foundation footings.
- (b) Professional advice should be sought if non-conventional building materials are used, e.g. structural steel; or when deep foundation are involved; or when the foundation are constructed in the vicinity of a slope or a retaining wall; or in case of doubt in complying with these Technical Requirements.

#### 2. Construction Materials

(a) Concrete used should be not inferior to grade 25D as specified in Building (Construction) Regulation, i.e. with a minimum crushing strength of concrete of not less than 25 MPa. Where access and availability can be arranged, the use of ready-mix concrete from suppliers certified under the Hong Kong Quality Assurance Agency (HKQAA) is encouraged for the building structure.

(b) Steel reinforcement bars used should not be inferior to grade 250 and grade 460 specified in Construction Standard CS2 for plain round bars and deformed high yield bars respectively, i.e. with a minimum yield stress of steel bars of 250 MPa and 460 MPa respectively.

#### 3. Material Testing

- (a) Two numbers of standard concrete cubes should be prepared and tested in accordance with the requirements of Construction Standard CS1 when constructing each one of the following parts of the structure: foundation; vertical members for each floor and horizontal members for each floor. The tests should be carried out by a laboratory accredited with the Hong Kong Laboratory Accreditation Scheme (HOKLAS).
- (b) All steel reinforcing bars used should possess a manufacturer's certificate indicating that the requirements given in Construction Standard CS2 with respect to the physical, chemical and mechanical properties of the steel bars have been complied with.

#### 4. Balconies and Canopies

#### (a) Structural Design

- For balconies and canopies with cantilevered projections of span more than 1000 mm, a beam-and-slab type construction should be used instead of cantilevered slab type of construction, where practicable. For beam and slab construction, slabs must be fully supported by beams at all sides and the overall depth of any cantilevered beam should be not less than 300 mm at support. For cantilevered slab projections, the span to overall structural thickness ratio should be not greater than 7 and the structural slab thickness should be not less than 150 mm. The concrete cover to the outermost reinforcement bar should be not less than 40 mm, nor more than 50mm.
- (ii) Cantilevered concrete slabs should be reinforced in both faces and in both directions. Reinforcement bars should be at least 10 mm in diameter and the spacing should be not greater than 150 mm. The main reinforcement bars in the upper and lower sides of a slab respectively should be not less than 0.25% and 0.15% of the cross-sectional area of the structural concrete. Distribution steel should be not less than half of the main steel in cross-section.

- (iii) Main reinforcement bars of the projecting structure should be rigidly fixed to the reinforcement of the supporting member. The reinforcement bars should extend straightly into the far face of the supporting beam before bending, if bending is required to achieve adequate anchorage. Typical details of fixing of steel bars are given in Appendices V and VI for reference.
- (iv) Embedded service pipes and conduits are not permitted in beams. Such embedments are also to be avoided in slabs if possible. If it is impracticable to do so, they should be arranged to run perpendicular to the supporting member.
- (v) Adequate allowance must be made for the superimposed loads due to the screeding, waterproofing materials, heavy parapets, maintenance work and possible ponding resulting from malfunctioning of the drainage system. A table on the minimum required thickness of cantilevered slab balconies and canopies is given in Appendix VII for reference.

#### (b) Drainage Arrangement

- (i) Effective waterproofing should be provided on the top surface.
- (ii) A fall should be laid from the supporting edge towards the outer edge to prevent accumulation of water. The minimum fall should be 1:75.
- (iii) Adequate drainage outlets/down pipes should be provided near the outer edge. The maximum distance between the drainage outlets/down pipes should be not more than 5 metres.

#### 5. Long-span Beams

- (a) Structural Design
  - (i) Long-span beams should have supports on both ends. Span length is taken to be the distance between the centres of the supports or clear distance between the supports plus the depth of the beam whichever is less.
  - (ii) Beam width should be not less than 300 mm. The length of unrestrained compression zone of the beam should not exceed 30 times of the beam width.

- (iii) Beam depth should be not less than 450 mm. The span to depth ratio should be not greater than 15.
- (iv) The concrete cover to the outermost reinforcement bars in the beams should be not less than 30 mm, nor more than 50 mm.

#### 6. Long-span Slabs

- (a) Structural Design
  - (i) Long-span slabs should have supports at least on two opposite ends. Span length is taken to be the distance between the centres of the supports or clear distance between the supports plus the depth of the slab whichever is less.
  - (ii) Slab thickness should be not less than 150 mm. The span to depth ratio should be not greater than 30.
  - (iii) The concrete cover to the outermost reinforcement bars in the slabs should be not less than 20 mm, nor more than 30 mm.

#### 7. Raft or Strip or Pad Footings

- (a) Structural Design
  - (i) All columns should be supported by footings and be connected by a rectangular grid of strap beams at the support end.
  - (ii) A minimum of two trial pits should be carried out to determine the condition of the subsoil and the allowable bearing pressure. Footings must not sit on top soil, loose fill, abandoned foundation or debris.
  - (iii) Footings should be founded at least 1 m below ground surface unless solid rock is encountered.
  - (iv) Raft footings are generally preferred to single pad footings or strip footings. Raft footings should be adopted when the subsoil is medium dense to loose granular soils (which is readily removable by shovelling only) or where there is a high ground water table.
  - (v) Only when the subsoil is compact granular soils (which requires the use of a pick for removal) in dry condition, may single pad footings or strip footings be used.

- (vi) All strap beams, pad footings or strip footings should be not less than 450 mm thick. Details of some typical foundation elements are shown in Appendix VIII for reference.
- (vii) Raft footings should be not less than 375 mm thick.
- (viii) Pad footings should be reinforced at the lower side in both directions. The steel bars provided in either direction should be not less than 1.0% of the cross sectional area of the structural concrete.
- (ix) Strip footings and strap beams should be reinforced longitudinally at both the upper and lower sides. The steel bars provided on either face should be not less than 1.5% of the cross sectional area of the structural concrete and should be bound by stirrups spaced at not more than 0.75 times the overall depth of the footing or beam.
- (x) Raft footings should be reinforced in both faces and in both directions. The steel bars provided in either face and in either direction should be not less than 0.85% of the cross sectional area of the structural concrete.

(xi) Concrete cover to the outermost reinforcement bars should be not less than 40 mm, nor greater than 50 mm.

#### 8. Construction and Workmanship

- (a) All cantilevered balconies and canopies should be cast at the same time and monolithically with the members from which they derive support. If construction joints are unavoidable, they must be located at not less than 300 mm from the supporting members and be free of loose material and dirt before casting. A typical detail of construction joint is shown in Appendix VII for reference.
- (b) Adequate bar spacers should be provided to maintain the position and alignment of the steel reinforcement.

  They should be placed at not more than 150 mm from any edge of the structural element to be concreted and the spacing of all intermediate spacers should not exceed 1 m.
- (c) During concreting, adequate compaction should be given to ensure good quality concrete. Every endeavour should also be made to avoid steel reinforcement bars from being displaced or depressed.

- (d) All proppings to the soffit of the formwork for the balconies and canopies should be maintained for at least 14 days.
- (e) Excavation should always be maintained in a dry condition. A 75 mm thick blinding layer of lean concrete should be laid on top of the subsoil before constructing the footings.

#### SECTION D

#### Green and Amenity Facilities

The green and amenity facilities listed below, whether they currently exist in the village houses or to be installed in new and existing village houses in future, could be allowed to stay or be installed at any time in future, provided that the village house is an exempted village house constructed in compliance with the exemption criteria prescribed in the then Buildings Ordinance (Application to the New Territories) Ordinance, Cap. 322, which came into force prior to 1987, or that a Certificate of Exemption has been issued in respect of the village house in accordance with the current Cap. 121, and such green and amenity facilities conform to the requirements specified below.

Green and Amenity Facilities that may be installed in both new and existing New Territories Exempted Houses\*

	ITEM
1	Metal supporting rack for air-conditioning unit (with anti-dripping design), components of split type air-conditioner and lightweight air-conditioner hood, with a projection not exceeding 750 mm from the external wall. Such installation should not project from a balcony or canopy.
2	Roller shutter / folding gate installed on the ground floor for security purpose. No part of the installation should project more than 300 mm from the external wall. A trapdoor not less than 600 mm in width should be provided on the roller shutter for emergency escape purpose.
3	Cage like external metal window grilles should not project more than 500 mm from the external wall. Where any part of the external window grilles projects over accessible pavement and has a clear headroom less than 2.5 m, such part of the window grilles should not project more than 150 mm from the external wall.
4	Retractable plastic or canvas hood affixed to any external wall, with a projection of not more than 500 mm when retracted and 2 m when fully projected from the external wall. The clear headroom should not be less than 2.5 m measured from the ground. Such installation should not project from a balcony or canopy.

	ITEM
5	Small overhang (located above the side door on the ground floor) constructed of steel or aluminum structural elements, metal plates or glass. The overhang should have a clear headroom of not less than 2.5 m measured from the ground and should not project more than 750 mm from the external wall.
6	Canopy constructed of steel or aluminum structural elements, metal plates or glass with a projection not exceeding 750 mm from the external wall. Such installation should not project from a balcony or canopy.
7	Small size antenna, television dish antenna, solar energy heater or solar energy equipment installed on the main roof or roof of stairhood for use of the occupants of the New Territories Exempted House on which it is installed. The total gross weight of the facilities should not exceed 700kg. If the facilities are installed on the main roof, the average loading imposed should not exceed 150kg/m². If the facilities are installed on the roof of stairhood, the average loading imposed should not exceed 75kg/m². Such facilities should not be installed on canopy. A household-scale solar water heating system of normal size comprises one or more solar collector(s) and a water tank.

	ITEM
8	Easily demountable, <b>open and uncovered rooftop gardening trellis</b> made of timber, aluminium or other lightweight metal framework with spacing between horizontal supports or intermediate bars of not less than 200 mm. The gardening trellis should have a total coverage of not more than 5 m <sup>2</sup> and a height not exceeding 2.5 m measured from the roof level.
9	<b>Signboard</b> of ground floor shop with a total display area including supporting frame of not more than 5 m <sup>2</sup> . It should either be mounted to the external wall or installed as bulkhead at shopfront with a projection not exceeding 600 mm and a clear headroom of not less than 2.5 m measured from the ground.
10	Lightweight <b>exhaust duct</b> (part of mechanical installation) of food premises/restaurants conforming to the relevant licensing requirements. For example, exhaust duct should have a projection of not more than 600 mm from the external wall and a minimum clearance of 2.5 m measured from the ground.

	ITEM
11	Partition wall not exceeding 150 mm in thickness erected between the balconies of two adjoining New Territories Exempted Houses, provided that the balconies are of beam-and-slab type construction conforming to the 'Technical Requirements for Critical Structural Elements in the Construction of New Territories Exempted Houses'.
12	<b>Unenclosed</b> , easily and readily demountable or retractable <b>rooftop awning</b> not permanently fixed to the roof and made of aluminium or other lightweight metal framework and plastic or canvas cover sheeting, with a coverage of not more than 5 m <sup>2</sup> when fully opened and a height not exceeding 2.5 m measured from the roof level.
13	Amenity facilities mounted on or affixed to the external wall, such as shrine shelters, lamp posts and lighting installations (including those installed on the rooftops, parapets, and overhangs), that are small-scale and do not cause obstruction.

	ITEM
14	Electricity meter box (on ground floor only) affixed to the external wall and made of concrete or metal, with a size not exceeding 1.2 m x 1.6 m and a projection not exceeding 0.38 m.
15	<b>Liquefied petroleum gas cylinder storage box</b> (on ground floor only) affixed to the external wall and made of concrete or metal, with a size not exceeding 1.2 m (in height) x 1 m (in width) and a projection not exceeding 0.4 m.
16	<b>Prefabricated storage cabinet</b> not permanently fixed to the roof, with a height not exceeding 2 m and a volume not exceeding 3 m <sup>3</sup> . The cabinet should not affect the structural safety and drainage system of the building.
	20

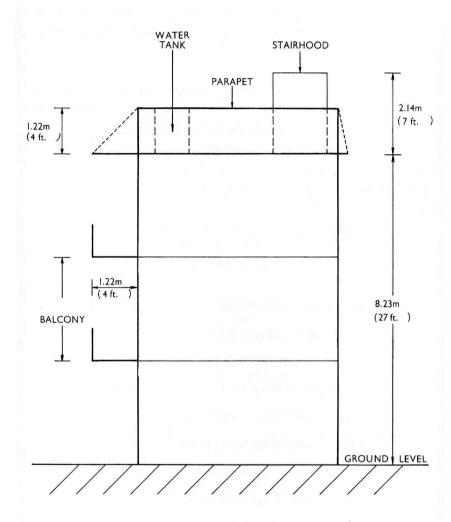
	ITEM			
17	Anti-burglary bars installed on a balcony not projecting beyond the external edge of the parapet on the balcony.			
18	Main entrance metal gate not causing obstruction to the escape route when opened.			
19	Metal drying rack affixed to the external wall with a projection not exceeding 750 mm.			
I	20			

Remark \* Green and amenity facilities shall be regarded as unauthorised building works under Buildings Ordinance (Cap. 123) if they do not conform to the requirements listed above. The Buildings Department will take action against unauthorised building works in accordance with its enforcement policy and priority will be given to enforcement actions against those unauthorised building works having serious non-compliance with the requirements listed above.

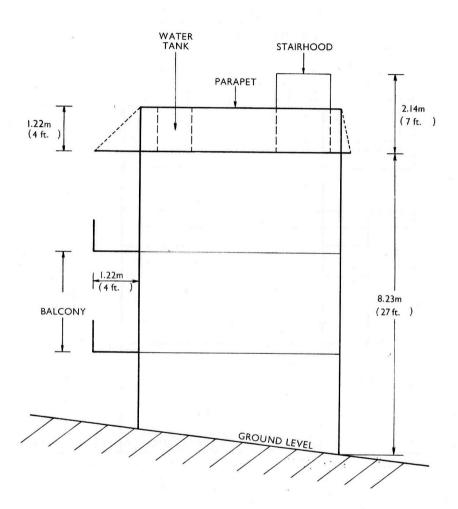
### **Enquiries**

For general enquiries, please call:

District Lands Office/North	2675 1502
District Lands Office/Totti	2073 1302
District Lands Office/Sai Kung	3525 0781
District Lands Office/Sha Tin	2158 4700
District Lands Office/Tai Po	2654 1263
District Lands Office/Tsuen Wan and Kwai Tsing	2402 1164
District Lands Office/Tuen Mun	2451 1176
District Lands Office/Yuen Long	2443 3573
District Lands Office/Islands	2852 4265



Note: This illustration serves only to indicate how the height of a small house should be determined.



Note: This illustration serves only to indicate how the height of a small house should be determined.

# WATER TANK STAIRHOOD PARAPET 2.14m (7 ft. ) 1.22m 8.23m BALCONY (27 ft. ) INTERNAL FLOOR LEVEL GROUND LEVEL

Note: This illustration serves only to indicate how the <u>height</u> of a small house should be determined.

#### Activity List Showing the Respective Responsibility of T2 Competent Person and RSE/RPE in Constructing the Critical Structural Elements

#### General

	T2	RSE/RPE
Preparation of test cubes	1	
Certifying steel used corresponds with manufacturer's certificate	٧	
Examination of test cube results and manufacturer's certificate for steel	٧	٧

#### Foundation

	T2	RSE/RPE
Inspect trial pit for condition of subsoil to determine foundation type	٧	٧
Prior to concreting of foundation, check structural dimensions of foundation; and adequacy, details and cover of steel reinforcement bars	٧	٧
Supervise concreting of foundation	1	

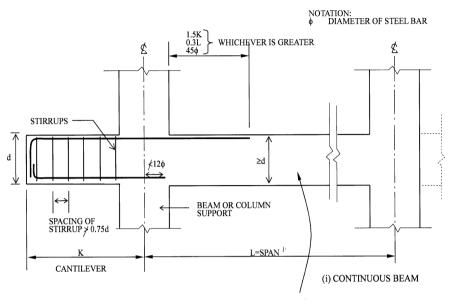
#### Superstructure - cantilevered balcony/canopy

	T2	RSE/RPE
Prior to concreting, check dimensions; adequacy, details and cover of steel; construction joint; and embedded service pipes and conduits	٧	٧
Check propping of formwork	1	
Check drainage arrangement	1	
Supervise concreting	1	√

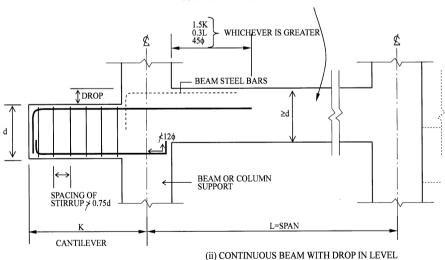
#### Superstructure - long span beams/slabs

	T2	RSE/RPE
Prior to concreting, check structural dimensions; and	1	1
adequacy, details and cover of steel		
Supervise concreting	~	

#### Appendix V

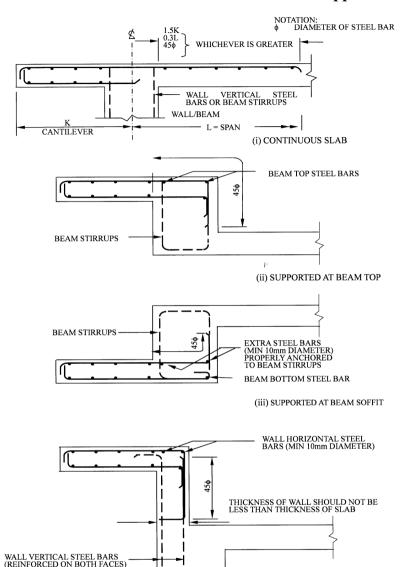


## BEAM TO RUN CONTINUOUSLY BEHIND SUPPORT FOR AT LEAST ONE BAY



TYPICAL DETAILS SHOWING THE ARRANGEMENT OF REINFORCEMENT IN CANTILEVERED BEAMS (WITH AND WITHOUT DROP)

#### Appendix VI



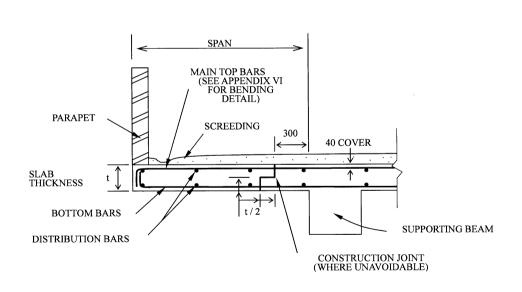
TYPICAL DETAILS SHOWING THE ARRANGEMENT OF REINFORCEMENT IN CANTILEVERED SLABS PROJECTED FROM DIFFERENT TYPES OF SUPPORT

(iv) SUPPORTED BY WALL

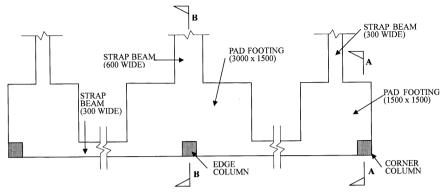
#### **Appendix VII**

Span (mm)	1220		1100		1000	
Avg. screeding thickness (mm)	50	100	50	100	50	100
Min. slab thickness (mm)	175	190	160	175	150	160
Min. / Max. cover to steel (mm)	40 / 50					

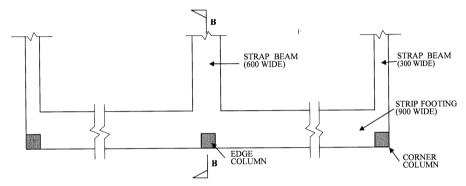
## TABLE SHOWING MINIMUM REQUIRED SLAB THICKNESS OF CANTILEVERED SLAB BALCONIES OR CANOPIES



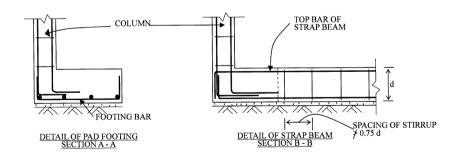
#### SECTIONAL DETAILS OF CANTILEVERED SLAB BALCONIES OR CANOPIES



#### PLAN SHOWING TYPICAL ARRANGEMENT OF PAD FOOTINGS & STRAP BEAMS



#### PLAN SHOWING TYPICAL ARRANGEMENT OF STRIP FOOTINGS & STRAP BEAMS



#### DETAILS OF SOME TYPICAL ARRANGEMENT OF FOUNDATION FOOTINGS & STRAP BEAMS

NOTE: ALL DIMENSIONS ARE GIVEN FOR REFERENCE ONLY