

3 MATERIALS ASPECTS 3.P PREREQUISITE

MA P4 WASTE RECYCLING FACILITIES

EXCLUSIONS One single family domestic building with not more than 3 floors or domestic part of a composite building for one single family with not more than 3 floors.

OBJECTIVE Reduce pressure on landfill sites and help to preserve non-renewable resources by promoting recycling of waster materials.

REQUIREMENT Provision of facilities for the collection, sorting, storage and disposal of waste and recovered materials.

ASSESSMENT The assessment seeks to establish the extent to which facilities are provided to allow for the recycling of waste. The means to facilitate waste recycling is not prescribed as much depends on the design and type of building, and the activities carried out within it.

The Client shall submit documentation and photographic evidence in the form of a report detailing the expected waste streams and estimated quantities for the building (organic, recyclable and non-recyclable), and demonstrate the adequacy of the waste storage, sorting and recycling facilities, appropriate to the type and size of the development, that will encourage and facilitate waste recycling. Separate storage of recycled materials such as metal, plastics, paper, cardboard and glass bottles should be provided.

The assessment shall take into account how a system of waste collection, storage sorting, recycling and disposal can be managed for the buildings, with consideration given to the adequacy of space provisions on individual floors, within the building as a whole, and at local/estate level. Opportunity should exist to manage different waste types, such as organic, non-recyclable and recyclable waste. There should be easy access to facilities for cleaning staff/contractors and/or building users, and for waste recycling and collection companies. The storage area shall be adequately sized to allow for recycling of, as a minimum, paper, glass, plastics, metals and organic materials.

BACKGROUND Well-managed facilities for the recycling of solid waste encourage recycling and result in reductions in the disposal at landfill sites. Buildings should be designed with the provision of facilities for waste separation and sorting, and short term storage at appropriate locations.

PNAP 98 [1] provides details of the basic refuse storage and recovery chambers expected in new buildings.

Reference should be made to IEQ - Section 6.2 of this document with regard to the hygiene aspects of waste disposal.

For a domestic building or composite building on a site of an area of not more than 250 m², the provision of a refuse storage and material recovery room on every floor of a domestic building shall be exempted in BEAM Plus Assessment.

As an indication the space requirements for commercial building, industrial building and a building constructed or adapted for use principally as a church, a school, a carpark or similar buildings, are 2 m² per 1,000 m² of usable floor space.

1 Buildings Department. Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineer. PNAP No. APP-35
<http://www.bd.gov.hk/english/documents/pnap/APP/APP035.pdf>



Circular Letter No.: 2019.165

Issue Date: 29 November 2019

Application: BEAM Plus NB Version 1.1 and 1.2

Effective Date: 29 November 2019

MA P4 Waste Recycling Facilities

1. This Circular Letter should be read in conjunction with BEAM Plus NB v1.1 and v1.2 and all the preceding circulars which are issued prior to this circular, but not yet withdrawn or superseded; and unless specifically stated otherwise in this Circular, the requirements stated in the aforesaid Manual and circulars shall remain valid.
2. The **Technical Circular Letter No. 2014.124 dated 3 December 2014** will be **withdrawn** on the effective date.
3. **The minimum space requirement of the Refuse Storage and Material Recovery Chamber (RS&MRC) shall be calculated based on the following factors:**

Broad Usage	Usage	Factor
Domestic (<i>for habitation use</i>)	Residential	Total usable floor space in 1m ² per 347m ²
	Hotel / Hostel	
Non-Domestic		Total usable floor space in 2m ² per 1,000m ²

10

For the following types of buildings, this prerequisite is not applicable:

- A domestic building designed for occupation by one single family only and with not more than 3 floors designed for habitation;
- The domestic part of a composite building which comprises not more than 3 floors and is designed for habitation by one single family only;
- Special purposes buildings that are not normally occupied or for transient stay other than staff visit for repair and maintenance works (e.g. pump house, substation, sewage treatment plant)

11

4. Appreciated the difficulties in fulfilling the captioned credit for small sites, domestic building or a domestic part of a composite building with a site area of more than 250m² but less than or equal to 500m², (i.e. $250\text{m}^2 < \text{site area} \leq 500\text{m}^2$), the provision of refuse storage and material recovery room (RS&MRR) on every domestic floor shall be exempted from the BEAM Plus Assessment subject to TRC approval on the alternative proposal by the Applicant for the exemption.

12

5. Approved PA projects: For projects that have already completed PA and have certain design and assessment approach approved, the Applicant may opt to adopt the same assessment criteria for FA or voluntarily comply with this Technical Circular. For the avoidance of doubt, the Applicant shall provide PA evidences (e.g. extract of the PA report, documents submitted for assessment in PA, etc) in subsequent assessments to support the intention of using the same assessment methodology as in PA.

A handwritten signature in blue ink, appearing to be "KM So", is positioned above a horizontal line.

Mr KM So
Chairperson of Standards Sub-committee



BEAM Plus Assessment Tools

BEAM Plus New Buildings & Existing Buildings

Registered Projects

FAQ

- FAQ - General
- FAQ - NB v1.1 and 1.2
- FAQ - NB v2.0
- FAQ - EB v1.1 and 1.2
- FAQ - EB v2.0

e-Form

BEAM Plus Interiors

BEAM Plus Neighbourhood

BEAM Plus Data Centres & Green Data Centres Practice Guide

BEAM Plus Bespoke

BEAM 4/04 & 5/04 Assessment Tool

Technical Circular Letter

iBEAM

Certified Building

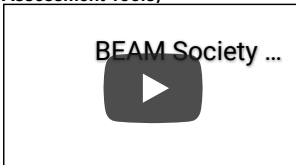
Statistics

Assessment Process

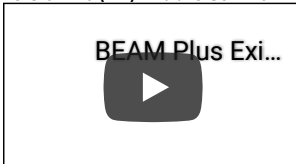
Fees

Case Studies

BEAM Society Limited (BEAM Plus Assessment Tools)



BEAM Plus Existing Building Version 2.0 (EB) - Public Seminar



BEAM Plus New Buildings & Existing Buildings > FAQ > NB v1.1 and 1.2

FAQ - NB v1.1 and 1.2

Site Aspects

SA 2 Local Transport

SA 3 Neighbourhood Amenities

SA 4 Site Design Appraisal

SA 6 Cultural Heritage

SA 7 Landscaping and Planters

SA 8 Microclimate around Buildings

SA 9 Neighbourhood Daylight Access

SA 10 Environmental Management Plan

SA 11 Air Pollution during Construction

SA 12 Noise during Construction

SA 13 Water Pollution during Construction

SA 14 Noise from Building Equipment

SA 15 Light Pollution

Materials Aspects

MA P1 Timber Used for Temporary Works

MA P3 Construction and Demolition Waste Management Plan

MA P4 Waste Recycling Facilities

#122. MA P4, For BEAM Plus New Buildings Version 1.1 and 1.2, could provision of refuse storage and materials recovery chamber (RS&MRC) for development with the minimum total usable floor space of different building types be exempted?

Yes. The exemption of the provision of RS&MRC shall be allowed for (i) the total usable floor space of domestic building or composite building less than 1,320m²; and (ii) the total usable floor space of nondomestic building less than 3,960m². Nevertheless, the applicant shall provide alternative proposal with details on the waste management system to demonstrate how to manage the waste collection, storage, sorting, recycling and disposal within the development.

(Released on 29 November 2019)

#123. MA P4, For BEAM Plus New Buildings Version 1.1 and 1.2, could provision of refuse storage and materials recovery room (RS&MRR) on every domestic floor for residential development be exempted?

Yes. The exemption of the provision of RS&MRRs shall be allowed for a domestic building or composite building on a site of an area of not more than 250m² (i.e. $\leq 250\text{m}^2$), the provision of a RS&MRR on every domestic floor shall be exempted in BEAM Plus Assessment.

(Released on 29 November 2019)

#124. MA P4, For BEAM Plus New Buildings Version 1.1 and 1.2, could the area of refuse storage and

materials recovery rooms (RS&MRRs) provided at residential floors to be counted towards the total area of waste facilities provided in the development?

No. The total provided area of RS&MRRs required under PNAP APP-35 at residential floors shall not be included in the RS&MRC space requirement calculation. Nonetheless, additional areas of waste and recycling facilities provided in addition to the statutory required RS&MRR can be counted.

(Released on 29 November 2019)

#125. MA P4, For BEAM Plus New Buildings Version 1.1 and 1.2, what documentation is required to substantiate the alternative proposal on the provision of waste recycling facilities other than RS&MRC and/or RS&MRR?

To maintain the provision of the waste recycling facilities within the development (under the exemption of RS&MRC and/or RS&MRRs), the alternative proposal shall be provided with details on the estimated waste streams and quantities from the development to justify its location and the adequate size of such provisions. Management plan, accessibility, hygiene and fire protection factors shall also be taken into consideration.

All submissions regarding the alternative proposal of the waste recycling facilities shall demonstrate the requirement as indicate below:

- a) General waste bins and recycling bins shall be provided;
- b) Observe relevant government regulations such as fire and hygiene regulations;
- c) Observe the size and location of the provided waste and recycling bins shall not obstruct any means of escape.

(Released on 29 November 2019)

#126. MA P4, For BEAM Plus New Buildings Version 1.1 and 1.2, what should be provided to demonstrate the provision of waste recycling facility for cluster of low-rise domestic houses where the Refuse Storage and Material Recovery Chamber (RS&MRC) is located at a walking distance of longer than 60m from the farthest houses?

Intermediate waste facilities (IWF) shall be provided with the following considerations:

- a) The walking distance between the RS&MRC/ IWF and the farthest house(s) shall be within 60m;
- b) General waste bin(s) and recycling bin(s) for (i) metal, (ii) plastic, (iii) paper and (iv) glass should be provided; and
- c) IWF should be weatherproof with sufficient size, placed at a safe location and shall comply with relevant government regulations.

(Released on 29 November 2019)

MA 4 Adaptability and Deconstruction

MA 6 Sustainable Forest Products

MA 10 Demolition Waste Reduction

MA 11 Construction Waste Reduction

Energy Use

EU 1 Reduction of CO2 Emissions

EU 2 Peak Electricity Demand Reduction

EU 3 Embodied Energy in Building Structural Elements

EU 7 Air-conditioning Units

EU 9 Energy Efficient Appliances

EU 10 Testing and Commissioning

EU 12 Metering and Monitoring

Water Use

WU P1 Water Quality Survey

WU P2 Minimum Water Saving Performance

WU 1 Annual Water Use

WU 5 Water Efficient Appliances

Indoor Environmental Quality