

Wst 06 Adaptability and Disassembly

(All buildings)

Aim

To recognise and encourage building constructions and building techniques that support circularity, the possibility of disassembly, and flexibility throughout the service life of the building.

Overview

Assessment type	Available credits	Applicable assessment criteria
Fully fitted	1+1 exemplary	All
Shell and core	1+1 exemplary	All
Shell only	1+1 exemplary	All
Residential: Fully fitted	1+1 exemplary	All
Residential: Partially fitted	1+1 exemplary	All
EU Taxonomy	-	All (See Ref 3.0)

Minimum standards

Rating level	Criteria
-	None

Assessment type specific notes

Reference	Assessment type specific note
-	None

Building type specific notes

Reference	Building type specific note
-	None

Issue specific notes

Reference	Issue specific note
3.0	<p>For EU taxonomy</p> <p>A1-7.1-DNSH 4 and A1-7.2-DNSH 4 - The building supports circularity.</p> <p>The above EU Taxonomy requirements are fulfilled by achieving both credits on this issue.</p>

Assessment criteria

This issue is split into two parts:

- Adaptability and disassembly – One credit
- Exemplary credit – Implementation of action proposals

Adaptability and disassembly – One credit

- 1 During the concept design stage (programhandlingsskedet), a study or workshop shall be conducted in accordance with SS-ISO 20887:2021. The study must:
 - 1.a Document, at minimum, the requirements of M1.
 - 1.b Include a comprehensive review of all principles of adaptability and disassembly, see M2.
 - 1.c Record any outcomes from the study/workshop that have implications for the project's design or technical solutions in an appropriate project management document.
- 2 During the developed design stage (systemhandlingsskedet), appropriate action proposals, based on the study in criterion 1, shall be identified. At least one action proposal per principle and major building element must be developed for the building, see table 43.

Exemplary credit - Implementation of action proposals

- 3 The first credit is achieved
- 4 At least 10 of the identified action proposals are implemented
- 5 Instructions for disassembly and adaptability shall be prepared and incorporated into the asset management process. These instructions shall include design-based information derived from the implemented action proposals and cover:
 - 5.a Methods of disassembly
 - 5.b Material composition
 - 5.c Recycling
 - 5.d Adaptable design features

Checklists and tables

Table 43: Proposed actions per building element, organized according to each principle of disassembly and adaptability

Principles according to SS-ISO 20887		Action proposals for building element			
		Load-bearing structural parts	Exterior finishes	Interior finishes	Installations
Adaptability	Flexibility				
	Possibilities for changes				
	Expansion possibilities				
Disassembly	Ease of access to components and services				
	Independence				
	Avoidance of unnecessary treatments and finishes				
	A business model that supports reuse (circular economy)				
	Simplicity				
	Standardization				
	Disassembly safety				

Methodology

M1: Documentation of requirements

The following requirements must, at a minimum, be documented in compliance with Criterion 1:

- 1 The physical context of the building site
- 2 The cultural context of the building site
- 3 Owner
- 4 Use type
- 5 The building's typology
- 6 Construction technology
- 7 Construction materials
- 8 Size of plot and building
- 9 Projected service life
- 10 Goals for the environment, social aspects as well as economy
- 11 Objectives for construction, function and operation
- 12 Climate change
- 13 Schedule for construction
- 14 Environmental factors that can affect the building's sustainability

For more information see ISO 20887 chapter 4.3.1.

M2: Design principles

M2.1: Design principles for adaptability

Adaptability should be examined according to the method in ISO 20887 chapter 5.2

M2.2: Design principles for disassembly

For more information about the principles of disassembly see ISO 20887 chapter 5.3.

Compliance notes

Reference	Terms	Description
Adaptability and disassembly		
CN1	Study for disassembly and adaptability – timing	<p>If the study on disassembly and adaptability is conducted at a later stage of the project, there is a risk that it will have limited value and practical relevance for the project.</p> <p>However, the study may be carried out at a later stage if the assessor deems it appropriate and there is clear evidence that the strategy has still achieved the intended outcomes.</p> <p>All other requirements within this issue must still be met for credits to be awarded.</p>

Evidence

Criteria	Interim design stage	Post construction stage
Adaptability and disassembly		
1	The project management document as the result of the study/workshop	As design stage.
2	Action proposals based on Table 43	As design stage.
Implementation of action proposals		
4	Drawings or a letter of commitment demonstrating that actions will be implemented in the project	As-built drawings or photographs showing what actions have been implemented.
5	<p>A template for how the disassembly and adaptability instructions should be designed</p> <p>OR</p> <p>A letter of commitment confirming that such instructions will be developed.</p>	<p>Instructions for disassembly and adaptability including</p> <ul style="list-style-type: none"> • Drawings and details with plan for disassembly • Information about disassembly sequence • Information about materials, manufacturers and warranties • Procedures for how the material is to be used, managed and updated during the building's service life. • Components and products have directly available information about their content, size and strength. Also information on warranties, maintenance and disassembly. (E.g. via barcode or RFID tagging) <p>Letter of commitment showing that the instructions have been handed over to the property manager.</p>

Definitions

None

Additional information

None