∩bፍ

The National BIM Library

BIM Object Guide: Living Roof Systems

Version 1.0

6th November 2013

www.nationalBIMlibrary.com

Contents

1.0 Introduction
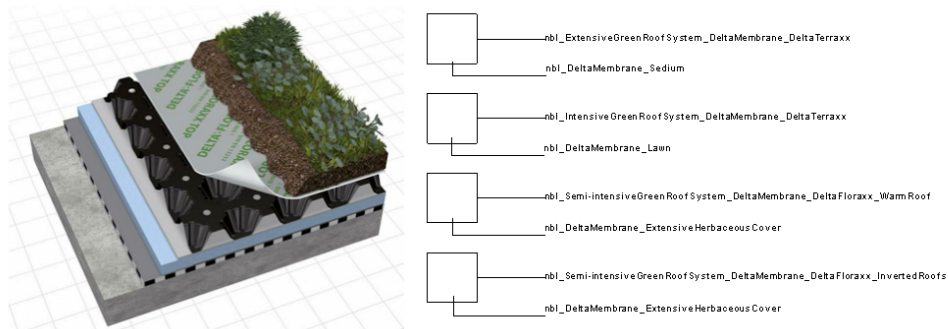
This guide covers the use of Living Roof Systems included within the National BIM Library.

Living Roof Systems

All systems listed below are included in the following file:

nbl_LivingRoofSystems_DeltaMembrane

nbl_ExtensiveGreenRoofSystem_DeltaMembrane_DeltaTerraxx

nbl_IntensiveGreenRoofSystem_DeltaMembrane_DeltaTerraxx

nbl_Semi-intensiveGreenRoofSystem_DeltaMembrane_DeltaFloraxx_WarmRoof

nbl_Semi-intensiveGreenRoofSystem_DeltaMembrane_DeltaFloraxx_InvertedRoofs

1.1 Naming

National BIM Library objects are named to identify their type and configuration. Fields are segregated using an under bar (_) and information within each field is segregated using hyphens (-). Fields are abbreviated to reduce characters and capitals used at the start of each abbreviation to aid readability.

File name and objects are named as below:

File name
Field1 *Author_***Field2** *Category_***Field3** *Manufacturer_***Field4** *Product Range*

Object
Field1 *Author_* **Field2** *Category* **Field3** *Manufacturer_***Field4** *Product_***Field5** *Differentiator*

2.0 Parameters

Parameters included in the Living Roof Systems BIM object are as follows:

2.1 National BIM Library Parameters

Author	The name of the BIM object's author.
BIMObjectName	Name of the BIM object as it will appear in software. Using NBL naming procedure.
Description	The full description of a product or system.
Help	URL of a website where additional help notes are available.
IssueDate	The issue date of this BIM object.
ManufacturerURL	URL of the product or system manufacturer.
NBSDescription	NBS Uniclass title.
NBSNote	Where a second system which is related to the BIM object can be described.
NBSReference	NBS Uniclass section/clause number.
NBSTypeID	A reference to the object for the user if one or more is used within the project.
Uniclass2	Uniclass2 code.
Version	The version number of the BIM object.

2.2 NBS Parameters

InsulatationAttachment   Attribute used to fix insulation.

InsulationType   Material used for insulation in the system

Primer   Material of primer used in the system

RoofType   Type of green roof system.

WaterproofCoveringAttachment   Attribute used to fix waterproof covering

WaterproofCoveringJoints   Jointing type used for waterproof covering

WaterproofCoveringMembrane   Material of waterproof membrane covering.

2.3 Manufacturers Parameters

Geomembrane   Type of geomembrane used stated here.

GeomembraneThickness   Thickness of geomembrane. Measured in [mm].

Geotextile   Type of geotextile used stated here

GeotextileThickness   Thickness of geotextile. Measured in [mm].

Geotextile2   A second geotextile type material used in the system build up. Type of geotextile used stated here

Geotextile2Thickness   Thickness of geotextile. Measured in [mm].

InsulationThickness   Thickness of insulation. Measured in [mm].

MoistureManagement   Type of moisture mangement used stated here.

MoistureManagementThickness   Thickness of moisture management layer. Measured in [mm].

Substrate   Type of substrate used stated here.

SubstrateThickness   Thickness of substrate. Measured in [mm].

Vegitation   Type of vegitation used stated here.

VegitationThickness   Thickness of vegitation. Measured in [mm].

2.4 IFC Parameters

Note: IFC definitions have been obtained from BuildingSmart IFC2x3 website

(http://buildingsmart-tech.org).

AcousticRating	Acoustic rating for this object. It is provided according to the national building code. It indicates the sound transmission resistance of this object by an index ratio (instead of providing full sound absorption values).
FireRating	Fire rating for this object. It is given according to the national fire safety classification.
IsExternal	Indication whether the element is designed for use in the exterior (TRUE) or not (FALSE). If (TRUE) it is an external element and faces the outside of the building.
Reference	Reference ID for this specified type in this project (e.g. type A-1), provided, if there is no classification reference to a recognized classification system used.
ThermalTransmittance	Thermal transmittance coefficient (U-Value) of a material. Here the total thermal transmittance coefficient through the roof surface (including all materials).
Combustible	Indication whether the object is made from combustible material (TRUE) or not (FALSE).
Finish	Finish selection for this object. Here specification of the surface finish for informational purposes.
FlammabilityRating	Flammability Rating for this object. It is given according to the national building code that governs the rating of flammability for materials.
FragilityRating	Indication on the fragility of the covering (e.g., under fire conditions). It is given according to the national building code that might provide a classification for fragility.
Material	Main material of the covering
SurfaceSpreadofFlame	Indication on how the flames spread around the surface, It is given according to the national building code that governs the fire behaviour for materials.

2.5 COBie Parameters

The following COBie parameters have been included within the Living Roof Systems BIM object and can be used to prepare COBie data schedules:

AccessibilityPerformance	Accessibility issue(s) which the product satisfies.
AssetIdentifier	The asset identifier assigned to an occurrence of a product (prior to handover).
BarCode	The identity of the bar code (or rfid) given to an occurrence of the product.
CodePerformance	Code Compliance requirement(s) which the product satisfies.
Colour	Characteristic or primary colour of product.
Constituents	Optional constituent features, parts or finishes.
Cost	Cost impact of replacement process.
Documentation	Location (Uniform Resource Information) for further product information.
DocumentReference	Location (Uniform Resource Information) for the source or updates to this product information.
Features	Features or other important characteristics relevant to product specification.
Grade	Standard grading(s) to which the product corresponds.
InstallationDate	The date that the manufactured item was installed.
LifeCyclePhase	Life Cycle Phase as defined in ISO 15978.
Manufacturer	The organization that manufactured or assembled the item.
MethodOfMeasurement	Method of measurement.
ModelLabel	The model number assigned by manufacturer.
ModelReference	The name used by the manufacturer.
NominalHeight	Nominal height of product, typically the vertical or secondary characteristic dimension.

NominalLength	Nominal length of product, typically the larger or primary horizontal dimension.
NominalWidth	Nominal width of product, typically the characteristic or secondary horizontal or characteristic dimension.
Process	Specification of process.
ProductionYear	The year of production for the manufactured item.
ReferenceStandard	Reference standard(s) to which the product is compliant.
ReplacementCost	An indicative cost for unit replacement.
SerialNumber	The serial number assigned to an occurrence of a product by the manufacturer.
ServiceLifeDuration	The length or duration of a service life.
ServiceLifeType	The typical service life that is quoted for an artefact under reference operating conditions.
Shape	Characteristic shape of product.
Size	Characteristic size of product.
SustainabilityPerformance	Sustainability issue(s) which the product satisfies.
TagNumber	The tag number assigned to an occurrence of a product.
WarrantyDescription	Description of the warranty.
WarrantyDurationLabour	Duration of labour warranty (years).
WarrantyDurationParts	Duration of parts warranty (years).
WarrantyGuarantorLabour	Organization acting as guarantor of labour warranty.
WarrantyGuarantorParts	Organization acting as guarantor of parts warranty.
WarrantyStartDate	The date on which the warranty commences.

3.0 Abbreviations

Liv   Living

nbl   national BIM library

Rf   Roof

Sym   System