

Guardrail

A railing is a frame assembly adjacent to human circulation spaces and at some space boundaries where it is used in lieu of walls or to compliment walls. Designed to aid humans, either as an optional physical support, or to prevent injury by falling.

A guardrail is a type of railing designed to guard human occupants from falling off a stair, ramp or landing where there is a vertical drop at the edge of such structures.

IfcElementType	IfcRailing	=IfcExportAs
IfcPredefinedType	GUARDRAIL	=IfcExportType
Suggested Filename:	Guardrail	
Suggested LOD (Design Model)	300	
Suggested Primary Discipline	Architectural	

Source

Property Categories

Classification

BIM Forum	Admin data	Masterformat	05 73 00 : Decorative Metal Railings
IFC 2x3	Code compliance data		06 43 16 : Wood Railings
IFC4 Add2	Construction logistics data		06 63 00 : Plastic Railings
NATSPEC BIM	Cost data		06 81 00 : Composite Railings
NATSPEC Spec	Facilities management data		05 52 00 : Metal Railings
	Geometric data	NatspecWorksection	0467 Glass components
	Manufacturer data		0551 Joinery
	Scheduling data		0552 Metalwork – fabricated
	Spatial and location data	Omniclass Table 21 Elements	21-02 10 80 50 : Stair Railings
	Specification data		21-03 10 90 10 : Interior Railings and Handrails
	Sustainability data	Omniclass Table 22 Work Results	22-05 52 00 : Metal Railings
			22-05 73 00 : Decorative Metal Railings
			22-06 43 16 : Wood Railings

	22-06 63 00 : Plastic Railings
	22-06 81 00 : Composite Railings
Omniclass Table 23 Products	23-17 23 17 11 17 : Stair Railings
	23-17 25 11 : Guardrails
Uniclass Elements	EF_25_55 : Barriers
Uniclass Products	Pr_20_85_07 : Barrier rails
Uniclass Systems	Ss_25_15_60_05 : Balustrade and guarding systems
Unifomat	03 10 90 10 : Interior Railings and Handrails
	02 10 80 50 : Stair Railings

Property	Source	Description
Admin data		
CreatedBy	NATSPEC BIM	The name of the person, organisation or library provider that created the object.
CreatedByURL	NATSPEC BIM	URL hyperlink to the object creator's website.
ModifiedIssue	NATSPEC BIM	To record the last date of issue (version or revision) of the object within an object library. Add the date in the following format <yyyymmdd.no> where the 'no' suffix is equal to the number of times the object has been issued on that date. For example 20180316.01.
Reference	Pset_RailingCommon (IFC4) Pset_RailingCommon (IFC2x3)	Reference ID for a specified type in a project (e.g. type 'A-1'). Also known as Construction type. Provide as an alternative to the name of the object type, if software does not support object types.
Code compliance data		
FireMitigation	NATSPEC BIM	
FireRating	NATSPEC BIM	Fire rating of object. Also known as the FRL (Fire Resistance Level) e.g. 60/60/60.
Fireproofed	BIM Forum	
Construction logistics data		
ConstructionMethod	NATSPEC BIM	
GrossWeight	NATSPEC BIM	
ShippingWeight	NATSPEC BIM	
Status	Pset_RailingCommon (IFC4)	Status of the object, predominately used in renovation or retrofitting projects. Complete value with: NEW, EXISTING, DEMOLISH,

		TEMPORARY, OTHER, NOTKNOWN or UNSET
StoragePlacementOnSite	NATSPEC BIM	
Cost data		
AdditionalTax	NATSPEC BIM	
AssemblyCost	NATSPEC BIM	
AssetAccountingType	Pset_Asset (IFC4)Pset_Asset (IFC2x3)	Asset type for accounting purposes. Complete value with: FIXED, NONFIXED, OTHER, NOTKNOWN or UNSET (PEnum_AssetAccountingType)
AssetInsuranceType	Pset_Asset (IFC4)Pset_Asset (IFC2x3)	Type of insurance rating. Complete value with: PERSONAL, REAL, OTHER, NOTKNOWN or UNSET (PEnum_AssetInsuranceType)
AssetTaxType	Pset_Asset (IFC4)Pset_Asset (IFC2x3)	Type of taxation group. Complete value with: CAPITALISED, EXPENDED, OTHER, NOTKNOWN or UNSET (PEnum_AssetTaxType)
ConceptualCost	NATSPEC BIM	
CostOverRun	NATSPEC BIM	
FutureCostAssumptions	NATSPEC BIM	
InstallationCost	NATSPEC BIM	
InstalledCost	NATSPEC BIM	
PurchaseInformation	NATSPEC BIM	
RecordedActualCost	NATSPEC BIM	
ShippingCost	NATSPEC BIM	
TotalOwnershipCost	NATSPEC BIM	

Facilities management data		
AcquisitionDate	Pset_ManufacturerOccurrence (IFC4) Pset_ManufacturerOccurrence (IFC2x3)	Date the item was purchased (Format: YYYY-MM-DD).
AssessmentCondition	NATSPEC BIM Pset_Condition (IFC4)	Overall condition rating based on assessment. Rating scale to be agreed prior (e.g. Good, OK , Poor).
AssessmentDate	Pset_Condition (IFC4)	Date of overall condition assessment (Format: YYYY-MM-DD).
AssessmentDescription	Pset_Condition (IFC4)	Qualitative description of the condition.
AssetType	NATSPEC BIM	Complete value with: 'Fixed' or 'Movable'
ComponentID	NATSPEC BIM	
Exclusions	Pset_Warranty (IFC4)Pset_Warranty (IFC2x3)	Items, conditions or actions that may be excluded from the warranty or that may cause the warranty to become void.
ExpectedLife	NATSPEC BIM	Expected serviceable life of object.
InstallationDate	NATSPEC BIM	Format: YYYY-MM-DD.
IsExtendedWarranty	Pset_Warranty (IFC4)Pset_Warranty (IFC2x3)	Complete value with: TRUE or FALSE (IfcBoolean)
ReplacementCost	NATSPEC BIM	Cost to replace product.
WarrantyContent	NATSPEC BIM Pset_Warranty (IFC4) Pset_Warranty (IFC2x3)	Description of what is included in warranty.
WarrantyEndDate	NATSPEC BIM Pset_Warranty (IFC4) Pset_Warranty (IFC2x3)	Format: YYYY-MM-DD.
WarrantyIdentifier	Pset_Warranty (IFC4)Pset_Warranty (IFC2x3)	Identifier assigned to warranty.
WarrantyPeriod	Pset_Warranty (IFC4)Pset_Warranty (IFC2x3)	

WarrantyStartDate	NATSPEC BIM Pset_Warranty (IFC4) Pset_Warranty (IFC2x3)	Format: YYYY-MM-DD.
Geometric data		
AISCShapeTypeSize	BIM Forum	
Area	NATSPEC BIM	
Capacity	NATSPEC BIM	
CrossSectionArea	NATSPEC BIM	
Diameter	Pset_RailingCommon (IFC4) Pset_RailingCommon (IFC2x3)	
GrossVolume	NATSPEC BIM	
Height	NATSPEC BIM Pset_RailingCommon (IFC4) Pset_RailingCommon (IFC2x3)	
Length	NATSPEC BIM Qto_RailingBaseQuantities (IFC4)	
MaximumSize	NATSPEC BIM	
Perimeter	NATSPEC BIM	
PitchAngle	NATSPEC BIM	Angle of item to the horizontal
Size	NATSPEC BIM NATSPEC Spec	
Width	NATSPEC BIM	
Manufacturer data		
Accessories	NATSPEC BIM	Details of available accessories.
	Pset_ManufacturerTypeInformation (IFC4)	Reference applied to product, according to scheme for article

ArticleNumber	Pset_ManufacturerTypeInformation (IFC2x3)	number definition defined by manufacturer. Often used as purchasing number.
AssemblyPlace	NATSPEC BIM Pset_ManufacturerTypeInformation (IFC4)	Defines where assembly is to take place. Complete value with: SITE, FACTORY or NOTDEFINED (IfcAssemblyPlaceEnum)
Availability	NATSPEC BIM	
BarCode	NATSPEC BIM Pset_ManufacturerOccurrence (IFC4) Pset_ManufacturerOccurrence (IFC2x3)	Bar code given to occurrence of the product.
BatchReference	Pset_ManufacturerOccurrence (IFC4) Pset_ManufacturerOccurrence (IFC2x3)	Identity of the batch from which the occurrence of the product is taken.
Defects	NATSPEC BIM	To record any defects found.
FabricationSequenceNumber	BIM Forum	
GlobalTradeItemNumber	Pset_ManufacturerTypeInformation (IFC4)	GTIN is an identifier for trade items developed by GS1 (www.gs1.org).
Manufacturer	NATSPEC BIM NATSPEC BIM Pset_ManufacturerTypeInformation (IFC4) NATSPEC Spec Pset_ManufacturerTypeInformation (IFC2x3)	Name of the manufacturer (or assembler).
ManufacturerURL	NATSPEC BIM	URL hyperlink to the manufacturer's website.
ModelLabel	Pset_ManufacturerTypeInformation (IFC4) NATSPEC BIM	The descriptive model name of the product model (or product line) as assigned by the manufacturer of the manufactured item.
ModelLabel	Pset_ManufacturerTypeInformation (IFC2x3)	The model number and/or unit designator assigned by the manufacturer of the manufactured item.
ModelReference	Pset_ManufacturerTypeInformation (IFC4) NATSPEC BIM NATSPEC Spec	The model number or designator of the product model (or product line) as assigned by the manufacturer of the manufactured item.

ModelReference	Pset_ManufacturerTypeInformation (IFC2x3)	The name of the manufactured item as used by the manufacturer.
OrderNumber	NATSPEC BIM	
PointOfContact	Pset_Warranty (IFC4) Pset_Warranty (IFC2x3)	Organization that should be contacted for action under the terms of the warranty.
ProductInformation	NATSPEC BIM	A valid URL hyperlink to further product information, such as technical documentation, installation guides, etc.
ProductType	NATSPEC BIM	
ProductionYear	Pset_ManufacturerTypeInformation (IFC4) NATSPEC BIM Pset_ManufacturerTypeInformation (IFC2x3)	
SerialNumber	Pset_ManufacturerOccurrence (IFC4) NATSPEC BIM Pset_ManufacturerOccurrence (IFC2x3)	Serial number assigned to an occurrence of a product.
Scheduling data		
DeliverBy	NATSPEC BIM	
FabricationTime	NATSPEC BIM	
InstallationSequence	NATSPEC BIM	
InstallationTime	NATSPEC BIM	
LeadTime	NATSPEC BIM	
Spatial and location data		
FloorID	NATSPEC BIM	
GISTag	NATSPEC BIM	

GPSPosition	NATSPEC BIM	
GPSTag	NATSPEC BIM	
SpaceID	NATSPEC BIM	
StoryNumber	NATSPEC BIM	
Specification data		
AESSCategory	BIM Forum	
ASTMMaterialGrade	BIM Forum	
Coating	BIM Forum	
Connections	NATSPEC BIM	
ExteriorFinish	NATSPEC BIM	
Finish	NATSPEC SpecNATSPEC BIM	Specification of surface finish.
InteriorFinish	NATSPEC BIM	
IsExternal	Pset_RailingCommon (IFC4) Pset_RailingCommon (IFC2x3)	Complete value with: TRUE or FALSE (IfcBoolean)
Material	NATSPEC BIMNATSPEC Spec	
MidRail	NATSPEC Spec	
MountType	NATSPEC Spec	
Posts	NATSPEC Spec	
SpecificationCode	NATSPEC BIM	
SpecificationSystem	NATSPEC BIM	
SpecificationTitle	NATSPEC BIM	

TopRail	NATSPEC Spec	
TypicalWeldSpecifications	BIM Forum	
Sustainability data		
CarbonFootprint	NATSPEC BIM	
ItemIsNew	NATSPEC BIM	
ItemIsPartiallyRecycled	NATSPEC BIM	
ItemIsRecycled	NATSPEC BIM	
PostConsumerRecycledContent	NATSPEC BIM	
PostIndustrialRecycledContent	NATSPEC BIM	
PreConsumerRecycledContent	NATSPEC BIM	
RecycledContent	NATSPEC BIM	