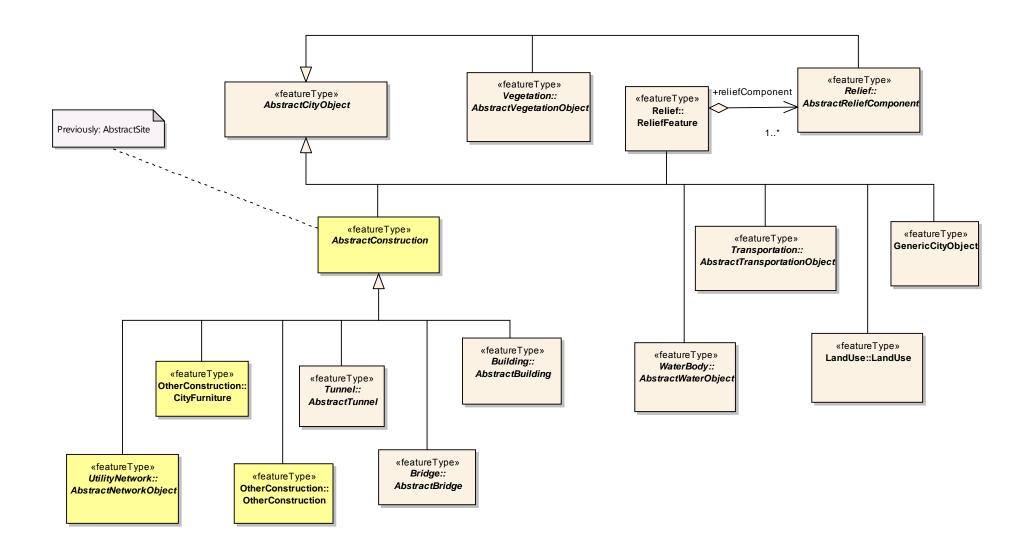
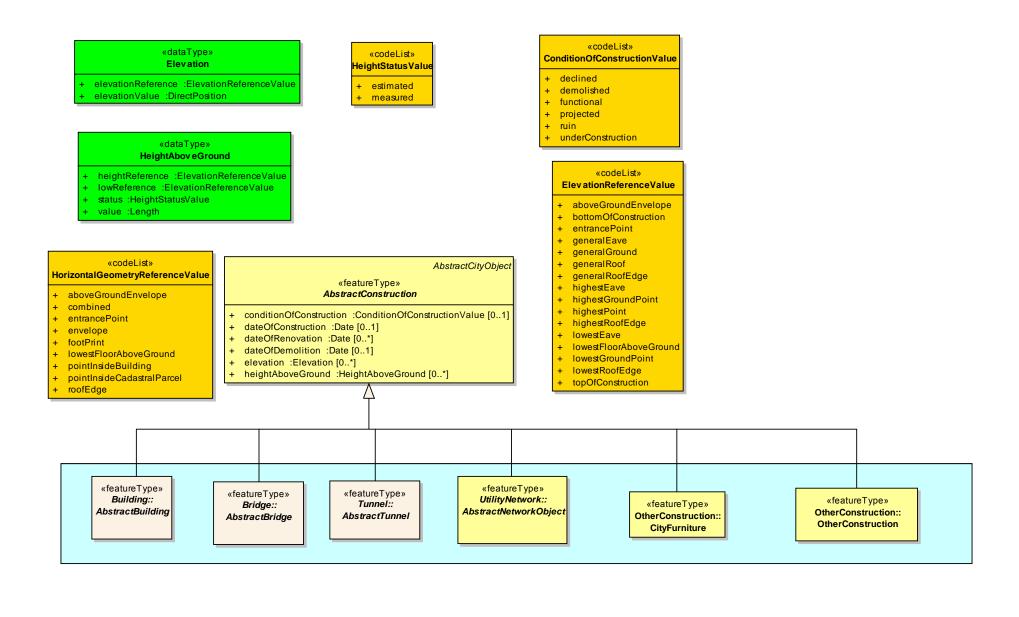
CityGML model for Other Constructions

CityGML SWG WG 9

Version 1.0

October 20th, 2014





AbstractConstruction

«featureType» OtherConstruction

- class :OtherConstructionClassValue
- function :OtherConstructionFunctionValue [0..*]
- usage :OtherConstructionUsageValue [0..*]
- Iod0Geometry :LoD0Representation [0..*]
- lod1Geometry :LoD1Representation [0..1]
- lod2Geometry :LoD2Representation [0..1]
- lod3Geometry :LoD3Representation [0..1]
- lod0ImplicitRepresentation :ImplicitGeometry [0..1]
- Iod1ImplicitRepresentation :ImplicitGeometry [0..1] Iod2ImplicitRepresentation :ImplicitGeometry [0..1]
- lod3ImplicitRepresentation :ImplicitGeometry [0..1]

constraints

{lod0Geometry XOR lod0ImplicitRepresentation}

{lod1Geometry XOR lod1ImplicitRepresentation}

{lod2Geometry XOR lod2ImplicitRepresentation} {lod3Geometry XOR lod3ImplicitRepresentation}

«dataType»

LoD0Representation

- multiPointRepresentation :GM_MultiPoint [0..1] multiCurveRepresentation :GM_MultiCurve [0..1]
- multiSurfaceRepresentation :GM_MultiSurface [0..1]
- terrainIntersection :GM_MultiCurve [0..1]
- horizontalGeomertyReference :HorizontalGeometryReferenceValue [0..1] {id}
- verticalGeometryReference :ElevationReferenceValue [0..1]

constraints

(multiPointRepresentation XOR multiLineRepresentation XOR multiSurfaceRepresentation) multiCurveRepresentation: Must be 2.5 D}

multiSurfaceRepresentation: Must be horizontal(?)}

«dataType»

LoD1Representation

- multiCurveRepresentation :GM_MultiCurve [0..1]
- multiSurfaceRepresentation :GM_MultiSurface [0..1]
- solidRepresentation :GM_Solid [0..1]
- terrainIntersection :GM_MultiCurve [0..1]
- horizontalGeometryReference :HorizontalGeometryReferenceValue [0..1] verticalGeometryReferenceBottom :ElevationReferenceValue [0..1]
- verticalGeometryReferenceTop :ElevationReferenceValue [0..1]

constraints

{multiLlineRepresentation XOR multiSurfaceRepresentation XOR solidRepresentation

(multiCurveRepresentation: Only vertical curve members)
(multiSurfaceRepresentation: Only vertical surface members)

solidRepresentation: Only horizontal (exactly 2) and vertical surface members)

«dataType» LoD2Representation

- multiCurveRepresentation :GM_MultiCurve [0..1]
- multiSurfaceRepresentation :GM_MultiSurface [0..1] solidRepresentation :GM_Solid [0..1]
- terrainIntersection :GM_MultiCurve [0..1]

«codeList»

OtherConstructionClassValue

- + acousticFence
- antenna
- bridge
- chimney cityWall
- monument
- openAirPool protectiveStructure
- pylon
- retainingWall
- solarPanel
- substation
- tunnel

«codeList» **OtherConstructionFunctionValue**

«codeList»

OtherConstructionUsageValue

«dataType» LoD3Representation

- multiCurveRepresentation :GM_MultiCurve [0..1]
- multiSurfaceRepresentation :GM_MultiSurface [0..1] solidRepresentation :GM_Solid [0..1]
- terrainIntersection :GM_MultiCurve [0..1]