

All Fields marked with \* are mandatory.

<b>Change Request #:</b>	359
<b>Assigned OGC Document #:</b>	14-075
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<b>Document Name/Version:</b>	*City Geography Markup Language (CityGML) Encoding Standard / 2.0
<b>OGC Project Document:</b>	*12-019
<p>If this is a revision of a previous submission and you have a Change Request Number, then check here:</p> <input type="checkbox"/> <p>Enter the CR number here: <input type="text"/></p> <p>Enter the Revision Number that you are revising here: <input type="text"/></p>	
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<b>Title:</b>	* [CityGML SWG] Integration of the horizontal and vertical geometric references i
<b>Source:</b>	*Delft University of Technology
<b>Work item code:</b>	
<b>Category:</b>	* C (Functional modification of feature)
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<b>Reason for change:</b>	<p>*</p> <p>The geometry of individual buildings in LOD1 and LOD2 may be represented in a multitude of valid forms within the same LOD. For instance, the top of a LOD1 building may represent the highest point of walls or the height of the eaves. Both in LOD1 and LOD2 the footprint may represent the vertical projection of the roof edges to the ground or the actual footprint on the ground. This is strongly influenced by the acquisition technique. Because different references may cause drastic differences when used for spatial analysis, the knowledge of the geometric references is important. However, CityGML does not enable the storage of such information in the metadata.</p>
<b>Summary of change:</b>	<p>*</p> <p>1) Integrate the INSPIRE Building model geometric references in</p>

	<p>CityGML. The INSPIRE BU provides a list of well defined references (HorizontalGeometryReference, VerticalGeometryReference) that can be integrated in the next version of CityGML.</p> <p>2) Extend the INSPIRE Building Model geometric references with additional codes by reflecting the current practices of the producers of the models. E.g. the INSPIRE's value <code>generalRoof</code> is somewhat ambiguous because it can represent any point on the roof. LiDAR related values such as <code>median</code>, or two thirds, are not supported, so they can be extended and introduced to CityGML.</p> <p>3) Enable multiplicity between the LODs and geometric references. Currently it is not possible to store two LOD1 models of different geometry. This may be beneficial when using the models in applications where the effect of using different geometric references is noticeable.</p>
<b>Consequences if not approved:</b>	Ambiguity and errors in the utilisation of models
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<b>Clauses affected:</b>	<p style="color: red;">*</p> <p>LOD1 and LOD2 buildings</p>
<b>Additional Documents affected:</b>	
<b>Supporting Documentation:</b>	
<b>Comments:</b>	
<b>Status:</b>	Assigned
<b>Assigned To:</b>	CityGML SWG
<b>Disposition:</b>	Referred and Posted