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Change Request #:	**281**
Assigned OGC Document #:	**13-025**
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Document Name/Version:	*City Geography Markup Language (CityGML) Encoding Standard / 2.0
OGC Project Document:	*12-019

If this is a revision of a previous submission and you have a Change Request Number, then check here: ☐
Enter the CR number here:
Enter the Revsion Number that you are revising here:

Title:	* [CityGML SWG] Allow LOD0 footprints that will be determined by the connectio
Source:	*Geonovum
Work item code:	
Category:	* C (Functional modification of feature)

Reason for change:	* Allow LOD0 footprints that will be determined by the connection of the terrain and the building
Summary of change:	* Buildings at LOD0 in CityGML can be represented in two ways; a footprint and a roof edge (in general). Both the LOD0 representation of a building footprint and a roof edge have to be a â��horizontal surfaceâ�� pursuant with CityGML specifications. If a footprint is in reality situated on a slope then the lowest value has to be used (as specified in CityGML). It is also stated that the base in LOD2 must be congruent with the LOD footprint. Although modelling a horizontal surface with footprints has many advantages, this approach also has disadvantages, particularly with buildings where the footprint is not horizontal in reality. These drawbacks have been raised by the OGC CityGML work group and are currently being discussed. They are: a. Buildings on a slope (dike, dune) cannot be modelled as such. The sloping footprint has to be approximated by a horizontal surface b. In order to make sure that in these situations building footprints intersect the terrain, there will almost always need to be vertical surfaces bridging the gap between footprint and terrainâ��s edge. This is at least when working with high resolution as is most often the case in the Netherlands (for example the AHN2). These vertical surfaces are not present in reality and moreover a lot of software cannot work with them. c. Two BuildingParts on a slope which touch each other in a vertex cannot be modelled in a topologically correct fashion. The footprints are modelled with a vertical interval that doesnâ��t exist in real life. In this situation one can choose to put both footprints at the same height. But what should be done with a terrace house on a slope? Neither the artificial differentiations in height nor putting

	all footprints at the same elevation are true to reality.
Consequences if not approved:	
Clauses affected:	* LOD0 Building
Additional Documents affected:	
Supporting Documentation:	Summary of change with 3 additional figures
Comments:	
Status:	Assigned
Assigned To:	CityGML SWG
Disposition:	Referred