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Change Request #:	235
Assigned OGC Document #:	12-106
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Document Name/Version:	*Geography Markup Language (GML) Encoding Standard / 3.2.1
OGC Project Document:	*07-036
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 Revision Number that you are revising here:	
Title:	* GML Harmonization with SF, SQL/MM and ISO TC211
Source:	*Paul Scarponcini
Work item code:	
Category:	* C (Functional modification of feature)
Reason for change:	* It has been a long time goal to keep SQL/MM, GML, OGC Simple Features and ISO TC211 harmonized. As SQL/MM and TC211 19107 are currently undergoing revision, it is the appropriate time to attempt to fix all known differences.
Summary of change:	* 1) GML BSpline is in error in associating weights with knots instead of with control points so this must be corrected. 2) GML needs to be corrected to state that the start and end angles of a Circle should not be identical and that they should differ by 360 degrees so that the direction of the curve is determinate

	3) GML EllipticalCurve is proposed as a normative replacement for the Ellipse informative type. 4) GML supports clothoids for roadway design but a more complete list of spiral curves for rail design is needed. 5) GML Circle does not support measure (m) coordinate value at the end of the curve. 6) GML Bspline and clothoid do not support measure (m) coordinate values at the start or end of the curve.
Consequences if not approved: ⓘ	Without these changes, GML will not be in harmony with the new revisions of SQL/MM, OGC Simple Features and ISO TC211 19107: 1) and 2) above are errors in GML which need to be corrected; 3) GML only provides an example for closed ellipses which is insufficient for partial elliptical curves, only informative, and inconsistent with the proposed changes to SQL/MM and OGC SF / 19107 4) GML does not support the spiral curve type proposed for SQL/MM and OGC SF / 19107 5) and 6) are deficiencies being corrected in the proposed SQL/MM and OGC SF revisions
Clauses affected: ⓘ	* 10.4.7.7 CircleType, Circle 10.4.7.13 BSplineType, BSpline 10.4.7.14 KnotType, KnotPropertyType 10.4.7.16 BezierType, Bezier 10.4.7.19 ClothoidType, Clothoid E.2.4.7 UML classes (object types) Ellipse example
Additional Documents affected: ⓘ	ISO 19107:2003, Geographic information — Spatial schema OpenGIS® Implementation Specification for Geographic information - Simple feature access - Part 1: Common Architecture, OGC-06-103r3
Supporting Documentation: ⓘ	GML Harmonization Items, ISO/IEC JTC 1/SC 32/WG 4:KRK-024
Comments: ⓘ	
Status: ⓘ	Assigned ⓘ
Assigned To: ⓘ	GML 3.3 SWG ⓘ
Disposition: ⓘ	Referred and Posted ⓘ