

Road situation



Norwegian Mapping Authority
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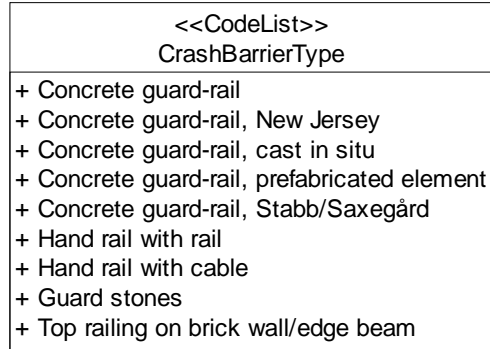
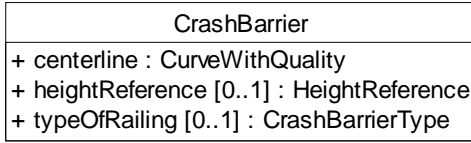
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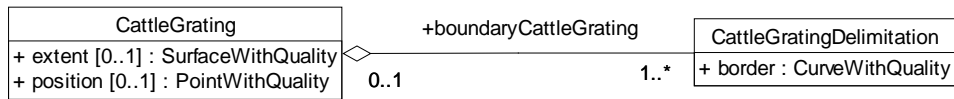
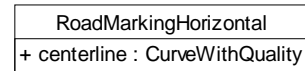
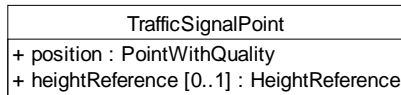
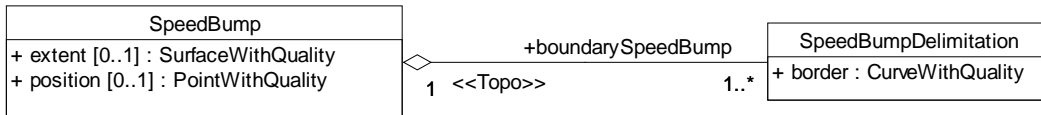
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1.1 Application schema

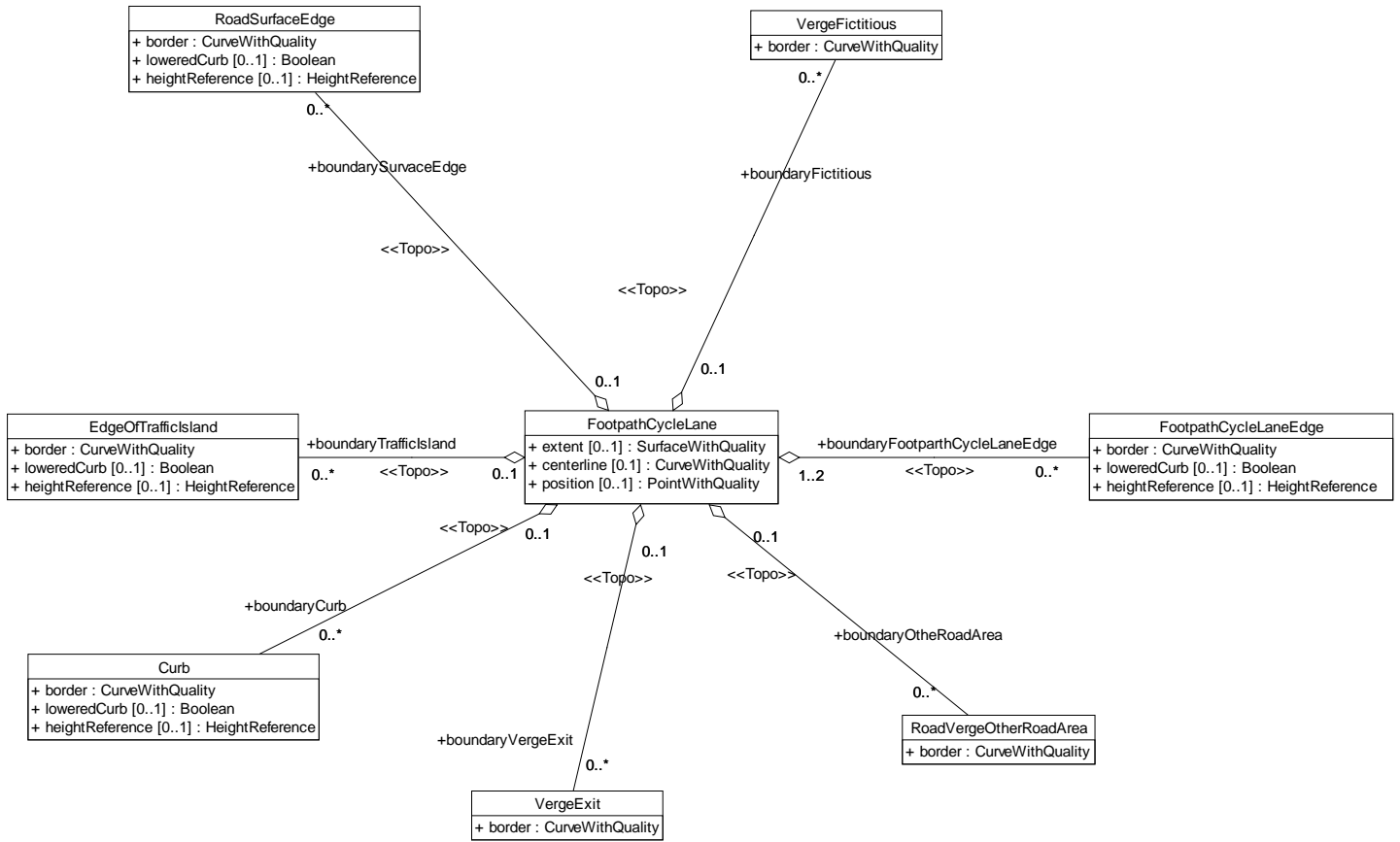
CrashBarrier



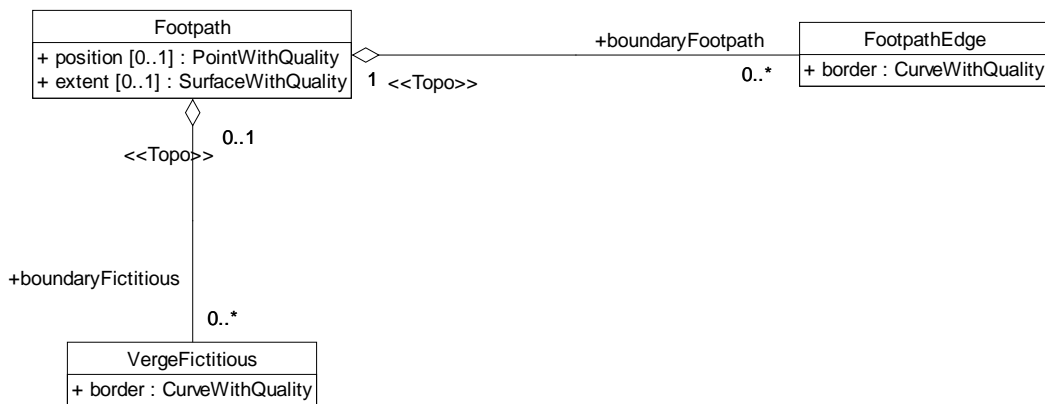
Different road situation featuretypes



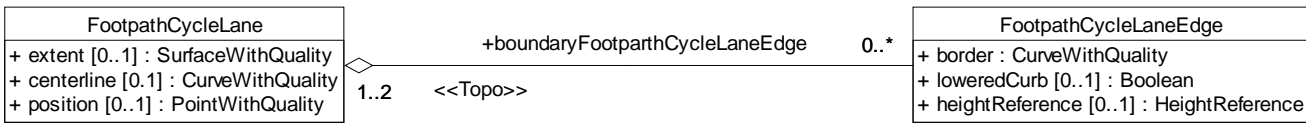
FootpathCycleLand with boundary



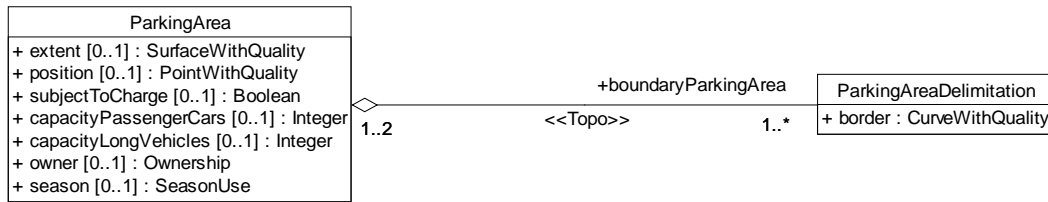
Footpath



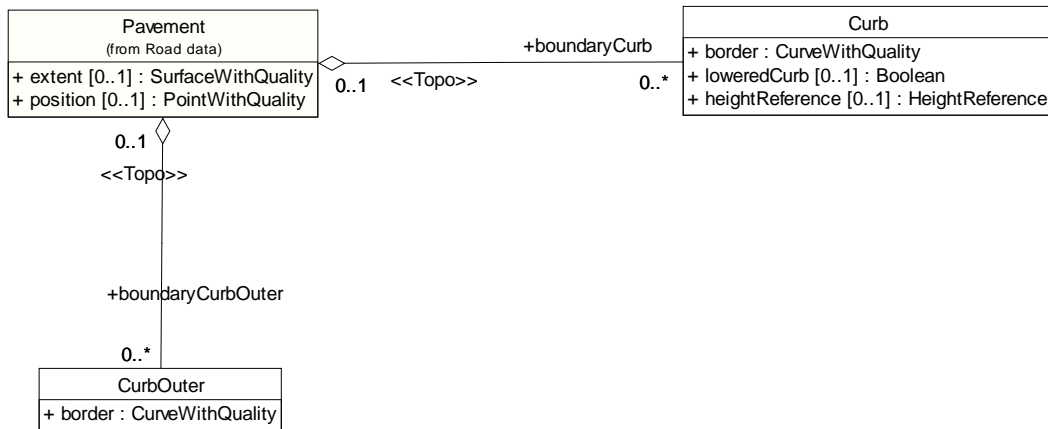
FootpathCycleLane



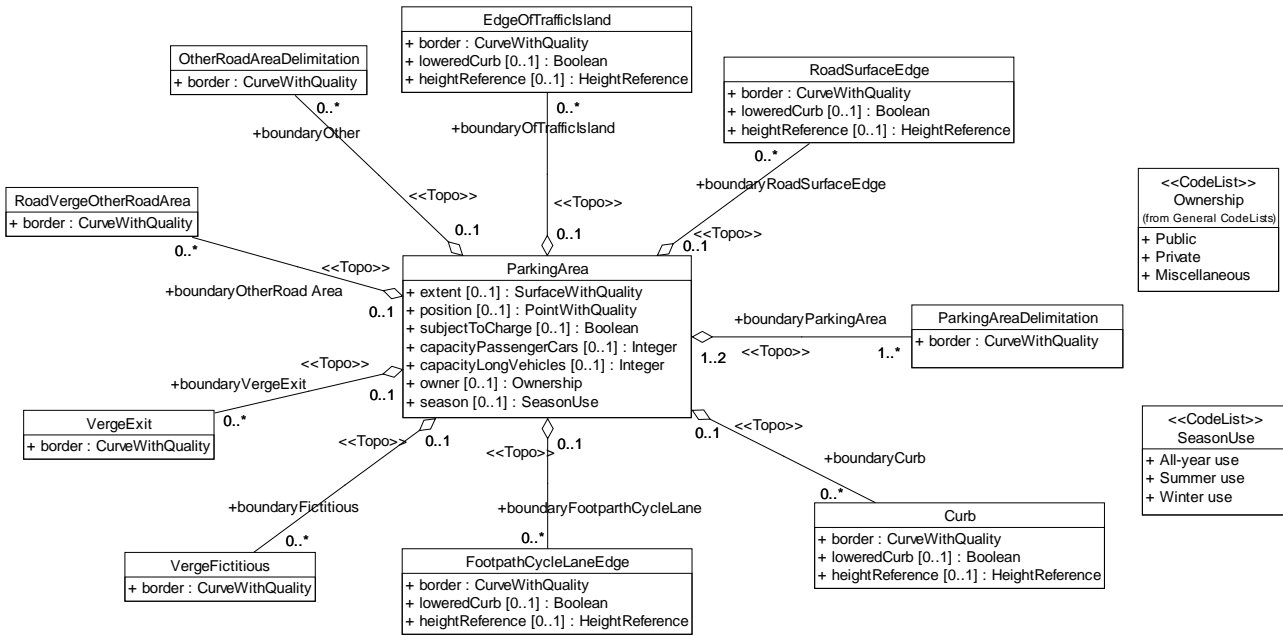
ParkingArea



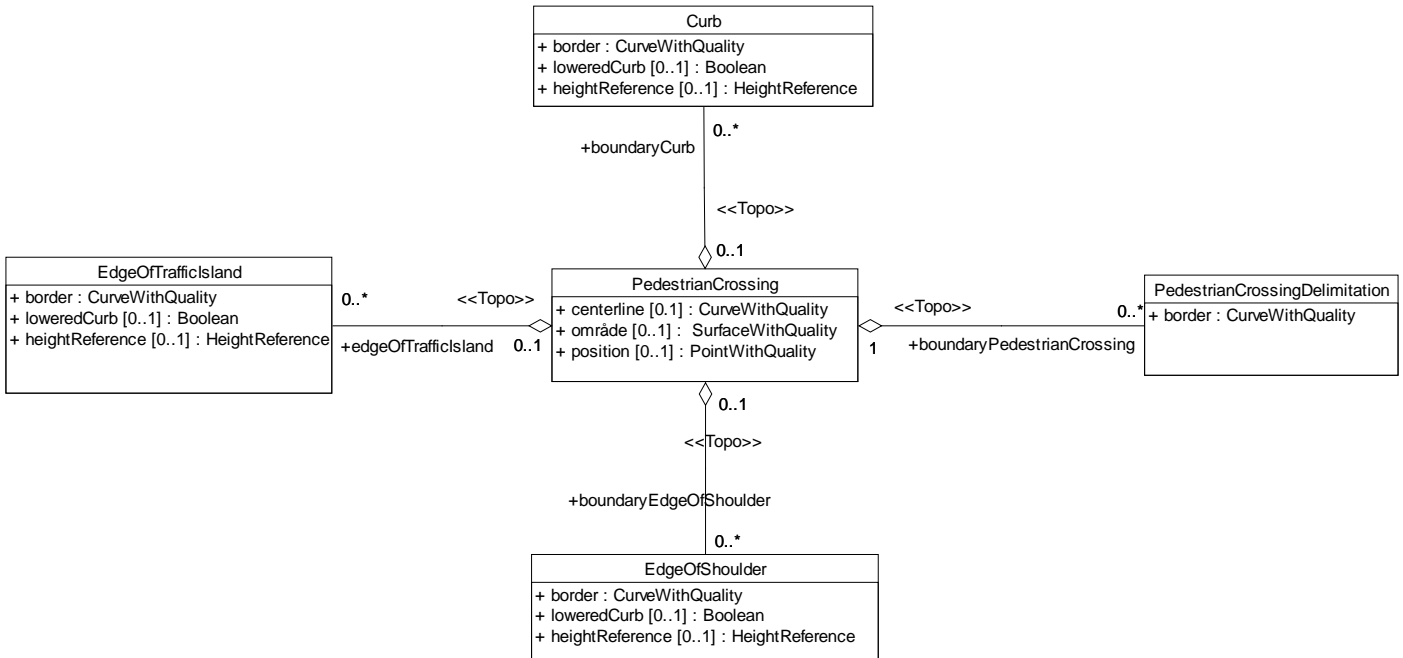
Pavement



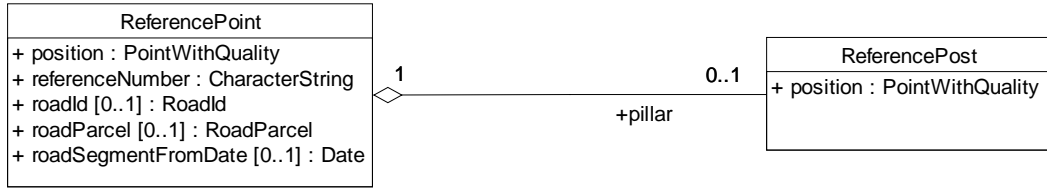
ParkingArea with boundary



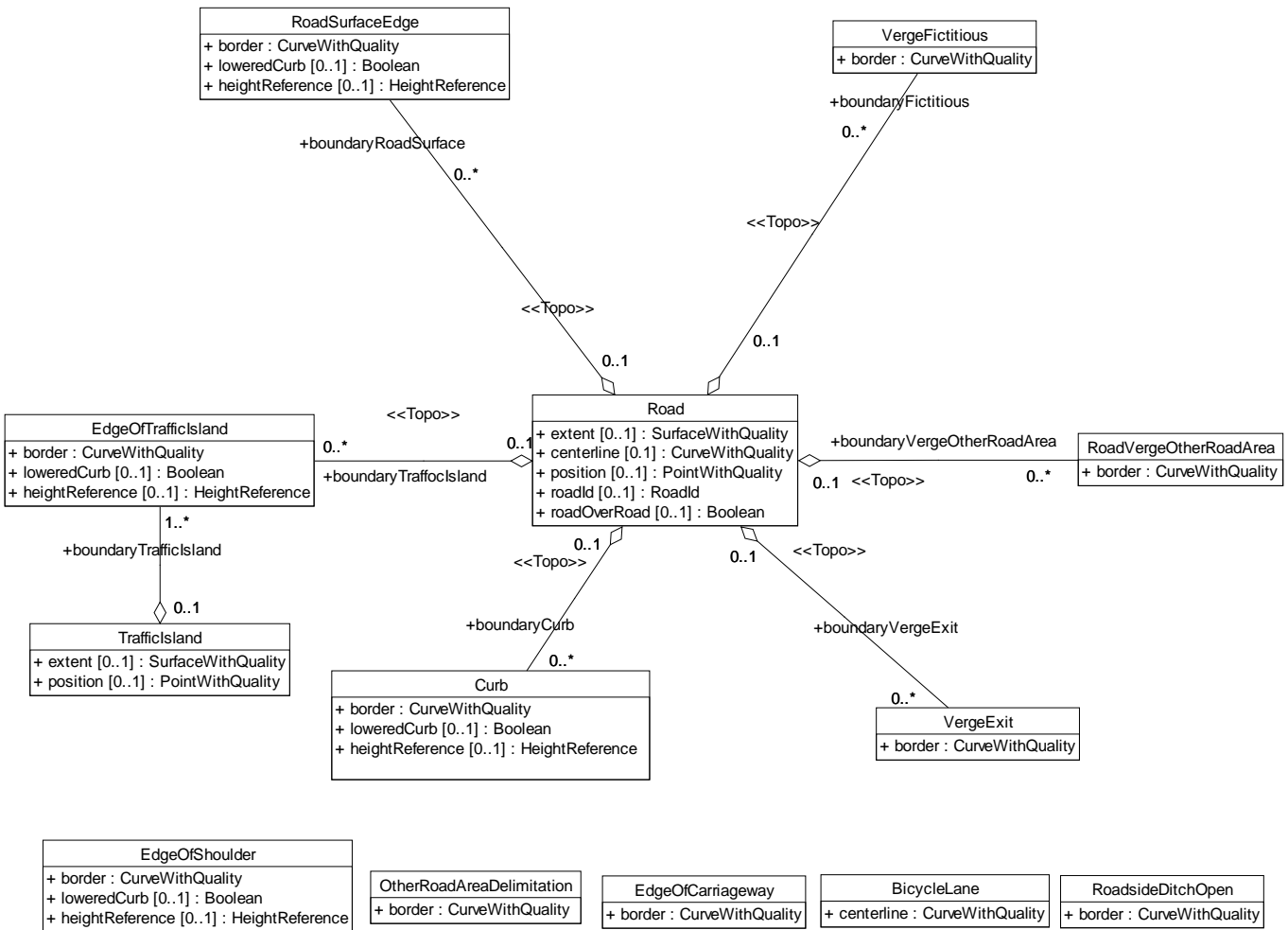
Pedestrian crossing



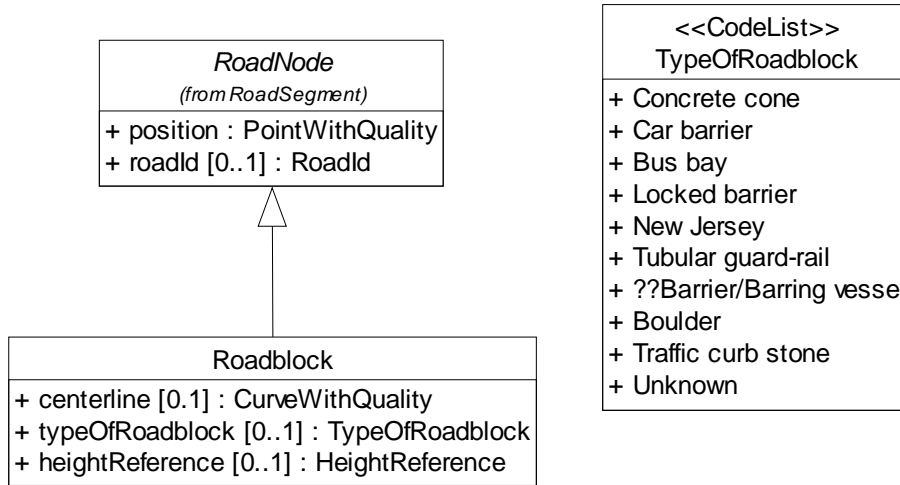
ReferencePost and ReferencePoint



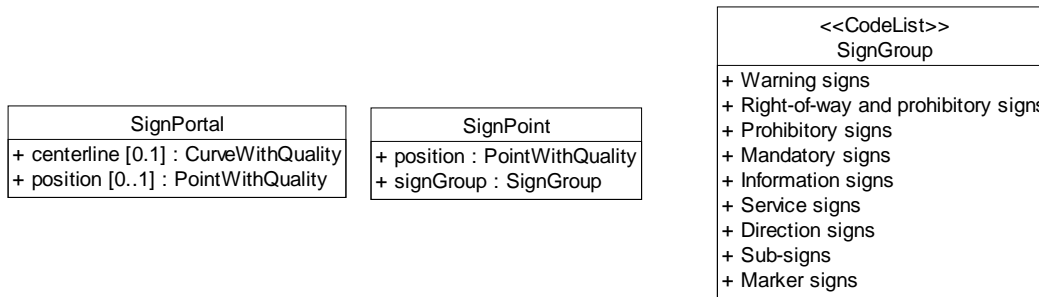
Road and related delimitation features



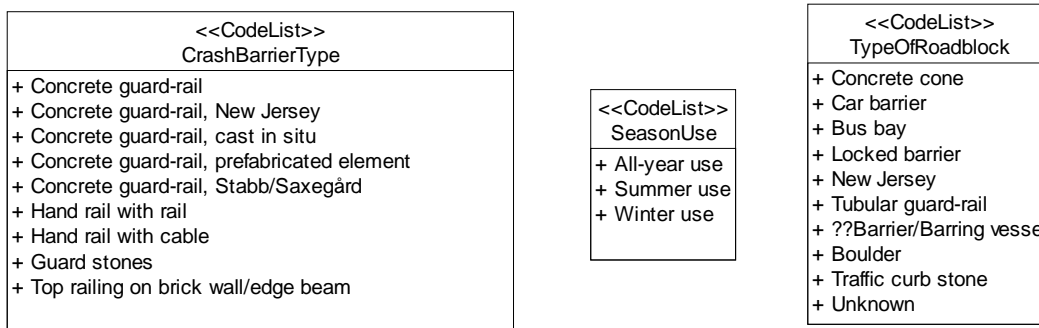
Roadblok



Signs



Codelists



1.2 Descriptions

1.2.1 VergeFictitious

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
1	Class VergeFictitious	fictitious delimitation line for road surfaces				
1.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
1.2	Role (unnamed) TractorRoad		0	1	TractorRoad	
1.3	Role (unnamed) Road		0	1	Road	
1.4	Role (unnamed) FootpathCycleLane		0	1	FootpathCycleLane	
1.5	Role (unnamed) ParkingArea		0	1	ParkingArea	
1.6	Role (unnamed) Footpath		0	1	Footpath	

1.2.2 SpeedBump

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
2	Class SpeedBump	physical measure in roads and/or streets to reduce driving speeds				
2.1	extent	area over which an object extends	0	1	SurfaceWithQuality	
2.2	position	location where the object exists	0	1	PointWithQuality	
2.3	Role boundarySpeedBump		1	N	SpeedBumpDelimitation	Aggregation

1.2.3 SpeedBumpDelimitation

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
3	Class SpeedBumpDelimitation	delimitation of an elevated area on roads and/or streets to reduce driving speeds				
3.1	border	course following the	1	1	CurveWithQuality	

		transition between different real world phenomena			ity	
3.2	Role (unnamed) SpeedBump		1	1	SpeedBump	

1.2.4 CattleGrating

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
4	Class CattleGrating	grid which lies flush with the road surface, and which hinders the passage of animals				
4.1	extent	area over which an object extends	0	1	SurfaceWithQuality	
4.2	position	location where the object exists	0	1	PointWithQuality	
4.3	Role boundaryCattleGrating		1	N	CattleGratingDelimitation	Aggregation

1.2.5 CurbOuter

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
5	Class CurbOuter	delimitation of pavement facing the terrain/houses in a street (not along carriageway)				
5.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
5.2	Role (unnamed) Pavement		0	1	Pavement	

1.2.6 PedestrianCrossing

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
6	Class PedestrianCrossing	marked crossing of road/street for pedestrians				
6.1	centerline	course followed by the central part of the Object	0	1	CurveWithQuality	
6.2	område	objektets utstrekning	0	1	SurfaceWithQuality	
6.3	position	location where the object exists	0	1	PointWithQuality	
6.4	Role boundaryPedestrianCrossing		0	N	PedestrianCrossingDelimitation	Aggregation

	ianCrossing				on	
6.5	Role boundaryCurb		0	N	Curb	Aggregation
6.6	Role edgeOfTrafficIsland		0	N	EdgeOfTrafficIsland	Aggregation
6.7	Role boundaryEdgeOfShoulder		0	N	EdgeOfShoulder	Aggregation

1.2.7 FootpathCycleLane

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
7	Class FootpathCycleLane	lane for pedestrians and cyclists along or near a road				
7.1	extent	area over which an object extends	0	1	SurfaceWithQuality	
7.2	centerline	course followed by the central part of the Object	0	1	CurveWithQuality	
7.3	position	location where the object exists	0	1	PointWithQuality	
7.4	Role boundaryFootpathCycleLaneEdge		0	N	FootpathCycleLaneEdge	Aggregation
7.5	Role boundarySurfaceEdge		0	N	RoadSurfaceEdge	Aggregation
7.6	Role boundaryVergeExit		0	N	VergeExit	Aggregation
7.7	Role boundaryOtherRoadArea		0	N	RoadVergeOtherRoadArea	Aggregation
7.8	Role boundaryFictitious		0	N	VergeFictitious	Aggregation
7.9	Role boundaryTrafficIsland		0	N	EdgeOfTrafficIsland	Aggregation
7.10	Role boundaryCurb		0	N	Curb	Aggregation

1.2.8 FootpathCycleLaneEdge

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
8	Class FootpathCycleLaneEdge	delimitation of pedestrian and cycle lane along or near a road				
8.1	border	course following the transition between	1	1	CurveWithQuality	

		different real world phenomena				
8.2	loweredCurb	whether or not the pavement is lowered	0	1	Boolean	
8.3	heightReference	coordinate registration carried out at the top or bottom of an object	0	1	HeightReference	
8.4	Role (unnamed) FootpathCycleLane		1	2	FootpathCycleLane	
8.5	Role (unnamed) ParkingArea		0	1	ParkingArea	

1.2.9 ParkingArea

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
9	Class ParkingArea	area for parking of vehicles				
9.1	extent	area over which an object extends	0	1	SurfaceWithQuality	
9.2	position	location where the object exists	0	1	PointWithQuality	
9.3	subjectToCharge	indicates whether the parking lot is subject to a charge or not	0	1	Boolean	
9.4	capacityPassengerCars	the number of marked parking spaces for passenger cars Note: For parking areas without marked spaces, an estimate shall be given of how many passenger cars there is room for	0	1	Integer	
9.5	capacityLongVehicles	indicates the number of marked parking spaces for large vehicles Note: For parking areas without marked spaces, only the number of spaces in the sub-areas that are clearly marked bus/lorry are included.	0	1	Integer	
9.6	owner	owner of area	0	1	Ownership	
9.7	season	describes what time of the year the object is in use Note: the description and categorization/distinction are based on use on snowless ground as opposed to in icy/snowy conditions	0	1	SeasonUse	
9.8	Role		1	N	ParkingAreaDe	Aggregati

	boundaryParking Area				limitation	on
9.9	Role boundaryOther		0	N	OtherRoadAreaDelimitation	Aggregation
9.10	Role boundaryOtherRoad Area		0	N	RoadVergeOtherRoadArea	Aggregation
9.11	Role boundaryVergeExit		0	N	VergeExit	Aggregation
9.12	Role boundaryFictitious		0	N	VergeFictitious	Aggregation
9.13	Role boundaryFootpathCycleLane		0	N	FootpathCycleLaneEdge	Aggregation
9.14	Role boundaryCurb		0	N	Curb	Aggregation
9.15	Role boundaryRoadSurfaceEdge		0	N	RoadSurfaceEdge	Aggregation
9.16	Role boundaryOfTrafficIsland		0	N	EdgeOfTrafficIsland	Aggregation

1.2.10 ParkingAreaDelimitation

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
10	Class ParkingAreaDelimitation	delimitation of area for the parking of vehicles				
10.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
10.2	Role (unnamed) ParkingArea		1	2	ParkingArea	

1.2.11 SignPoint

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
11	Class SignPoint	combination of sign plates, posts and post foundation, etc.				
11.1	position	location where the object exists	1	1	PointWithQuality	
11.2	signGroup	group the sign belongs in	1	1	SignGroup	

1.2.12 SignPortal

No	Name/	Description	Obligation/	Maximum	Type	Constraint
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	Role name		Condition	Occurrence		
12	Class SignPortal	device to hang up signs, technical equipment, etc. above traffic lanes				
12.1	centerline	course followed by the central part of the Object	0	1	CurveWithQuality	
12.2	position	location where the object exists	0	1	PointWithQuality	

1.2.13 TrafficSignalPoint

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
13	Class TrafficSignalPoint	lights of (at least two) different colours which function as a traffic signal				
13.1	position	location where the object exists	1	1	PointWithQuality	
13.2	heightReference	coordinate registration carried out at the top or bottom of an object	0	1	HeightReference	

1.2.14 Road

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
14	Class Road	main traffic artery for motorised vehicles (cars, motorcycles, etc)				
14.1	extent	area over which an object extends	0	1	SurfaceWithQuality	
14.2	centerline	course followed by the central part of the Object	0	1	CurveWithQuality	
14.3	position	location where the object exists	0	1	PointWithQuality	
14.4	roadId		0	1	RoadId	
14.5	roadOverRoad	indication of whether the road is situated above one or several other roads	0	1	Boolean	
14.6	Role boundaryFictitious		0	N	VergeFictitious	Aggregation
14.7	Role boundaryVergeExit		0	N	VergeExit	Aggregation
14.8	Role boundaryVergeOtherRoadArea		0	N	RoadVergeOtherRoadArea	Aggregation
14.9	Role boundaryTrafficIsland		0	N	EdgeOfTrafficIsland	Aggregation
14.	Role		0	N	Curb	Aggregation

10	boundaryCurb					on
14.11	Role boundaryRoadSurface		0	N	RoadSurfaceEdge	Aggregation

1.2.15 OtherRoadAreaDelimitation

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
15	Class OtherRoadAreaDelimitation	delimitation of private driveways, outer edge of open parking spaces in connection with roads, short pedestrian and bicycle paths which do not belong to the main road network (for example small roads in-between buildings)				
15.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
15.2	Role (unnamed) ParkingArea		0	1	ParkingArea	

1.2.16 RoadVergeOtherRoadArea

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
16	Class RoadVergeOtherRoadArea	fictitious line which divides a road from				
16.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
16.2	Role (unnamed) Road		0	1	Road	
16.3	Role (unnamed) FootpathCycleLane		0	1	FootpathCycleLane	
16.4	Role (unnamed) ParkingArea		0	1	ParkingArea	

1.2.17 VergeExit

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
17	Class VergeExit	delimitation of road towards private exit road				

17.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
17.2	Role (unnamed) Road		0	1	Road	
17.3	Role (unnamed) FootpathCycleLane		0	1	FootpathCycleLane	
17.4	Role (unnamed) ParkingArea		0	1	ParkingArea	

1.2.18 EdgeOfTrafficIsland

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
18	Class EdgeOfTrafficIsland	delimitation of road against ??traffic separators, central reserves and traffic islands				
18.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
18.2	loweredCurb	whether or not the pavement is lowered	0	1	Boolean	
18.3	heightReference	coordinate registration carried out at the top or bottom of an object	0	1	HeightReference	
18.4	Role (unnamed) Road		0	1	Road	
18.5	Role (unnamed) TrafficIsland		0	1	TrafficIsland	
18.6	Role (unnamed) PedestrianCrossing		0	1	PedestrianCrossing	
18.7	Role (unnamed) FootpathCycleLane		0	1	FootpathCycleLane	
18.8	Role (unnamed) ParkingArea		0	1	ParkingArea	

1.2.19 RoadMarkingHorizontal

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
19	Class RoadMarkingHorizontal	horizontal lines with information for road-users				

	zontal					
19.1	centerline	course followed by the central part of the object	1	1	CurveWithQuality	

1.2.20 CrashBarrier

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
20	Class CrashBarrier	barrier located along shoulder. Note: Also used as a central reserve				
20.1	centerline	course followed by the central part of the object	1	1	CurveWithQuality	
20.2	heightReference	coordinate registration carried out at the top or bottom of an object	0	1	HeightReference	
20.3	typeOfRailing	type of railing	0	1	CrashBarrierType	

1.2.21 ReferencePoint

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
21	Class ReferencePoint	point on the road which is used as a reference in the road network				
21.1	position	location where the object exists	1	1	PointWithQuality	
21.2	referenceNumber		1	1	CharacterString	
21.3	roadId	compound identifier for a road route	0	1	RoadId	
21.4	roadParcel	description of a parcel of a road route	0	1	RoadParcel	
21.5	roadSegmentFromDate	initial date of validity for road reference (starting date)	0	1	Date	
21.6	Role pillar		0	1	ReferencePost	Aggregation

1.2.22 ReferencePost

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
22	Class ReferencePost	a Norwegian Public Roads Administration reference post along European, national and county highways to indicate distance values in metres				
22.1	position	location where the object exists	1	1	PointWithQuality	
22.	Role		1	1	ReferencePoint	

2	(unnamed) ReferencePoint				t	
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1.2.23 TrafficIsland

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
23	Class TrafficIsland					
23.1	extent	area over which an object extends	0	1	SurfaceWithQuality	
23.2	position	location where the object exists	0	1	PointWithQuality	
23.3	Role boundaryTrafficIsland		1	N	EdgeOfTrafficIsland	Aggregation

1.2.24 RoadsideDitchOpen

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
24	Class RoadsideDitchOpen	open drainage parallel with road				
24.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
24.2	Role (unnamed) Cutting		1	1	Cutting	

1.2.25 EdgeOfCarriageway

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
25	Class EdgeOfCarriageway	indicates limitation of carriageway, i.e. transition between carriageway and shoulder				
25.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	

1.2.26 EdgeOfShoulder

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
26	Class EdgeOfShoulder	edge of drivable road located next to carriageway. Note: also includes space for guard rail, etc.				

26.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
26.2	loweredCurb	whether or not the pavement is lowered	0	1	Boolean	
26.3	heightReference	coordinate registration carried out at the top or bottom of an object	0	1	HeightReference	
26.4	Role (unnamed) PedestrianCrossing		0	1	PedestrianCrossing	
26.5	Role (unnamed) Embankment		1	1	Embankment	
26.6	Role (unnamed) Cutting		1	1	Cutting	

1.2.27 Curb

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
27	Class Curb	delimitation of part of road for pedestrians				
27.1	border	forløp som følger overgang mellom ulike fenomener	1	1	CurveWithQuality	
27.2	loweredCurb	whether or not the pavement is lowered	0	1	Boolean	
27.3	heightReference	indication of whether the registration has been carried out at the top or bottom of an element; e.g. a slope, a wall, etc.	0	1	HeightReference	
27.4	Role (unnamed) PedestrianCrossing		0	1	PedestrianCrossing	
27.5	Role (unnamed) Road		0	1	Road	
27.6	Role (unnamed) FootpathCycleLane		0	1	FootpathCycleLane	
27.7	Role (unnamed) ParkingArea		0	1	ParkingArea	
27.8	Role (unnamed) Pavement		0	1	Pavement	

1.2.28 PedestrianCrossingDelimitation

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
28	Class PedestrianCrossingDelimitation	delimitation of pedestrian crossing				
28.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
28.2	Role (unnamed) PedestrianCrossing		1	1	PedestrianCrossing	

1.2.29 RoadSurfaceEdge

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
29	Class RoadSurfaceEdge	sideways delimitation of surfacing				
29.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
29.2	loweredCurb	whether or not the pavement is lowered	0	1	Boolean	
29.3	heightReference	coordinate registration carried out at the top or bottom of an object	0	1	HeightReference	
29.4	Role (unnamed) Road		0	1	Road	
29.5	Role (unnamed) FootpathCycleLane		0	1	FootpathCycleLane	
29.6	Role (unnamed) ParkingArea		0	1	ParkingArea	

1.2.30 Roadblock

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
30	Class Roadblock	physical blockage of the road				Subtype of RoadNode
30.1	centerline	course followed by the central part of the Object	0	1	CurveWithQuality	
30.2	typeOfRoadblock	indicates type of roadblock	0	1	TypeOfRoadblock	
30.	heightReference	coordinate registration	0	1	HeightReference	

3		carried out at the top or bottom of an object			ce	
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1.2.31 Footpath

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
31	Class Footpath	delimited area intended for pedestrians and which is not connected to a road				
31.1	position	location where the object exists	0	1	PointWithQuality	
31.2	extent	area over which an object extends	0	1	SurfaceWithQuality	
31.3	Role boundaryFootpath		0	N	FootpathEdge	Aggregation
31.4	Role boundaryFictitious		0	N	VergeFictitious	Aggregation

1.2.32 FootpathEdge

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
32	Class FootpathEdge	delimitation of footpath				
32.1	border	course following the transition between different real world phenomena	1	1	CurveWithQuality	
32.2	Role (unnamed) Footpath		1	1	Footpath	

1.2.33 BicycleLane

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
33	Class BicycleLane	separate lane for cyclists indicated by public traffic signs and markings				
33.1	centerline	course followed by the central part of the object	1	1	CurveWithQuality	

1.2.34 CattleGratingDelimitation

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
34	Class CattleGratingDelimitation	delimitation of CattleGrating				
34.1	border	course following the transition between	1	1	CurveWithQuality	

		different real world phenomena				
34.2	Role (unnamed) CattleGrating		0	1	CattleGrating	

1.2.35 Association <<Topo>> FootpathCycleLane-FootpathCycleLaneEdge

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
35	Association FootpathCycleLane-FootpathCycleLaneEdge					
35.1	Role boundaryFootpathCycleLaneEdge		0	N	FootpathCycleLaneEdge	Aggregation
35.2	Role (unnamed) FootpathCycleLane		1	2	FootpathCycleLane	

1.2.36 Association <<Topo>> ParkingArea-ParkingAreaDelimitation

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
36	Association ParkingArea-ParkingAreaDelimitation					
36.1	Role boundaryParkingArea		1	N	ParkingAreaDelimitation	Aggregation
36.2	Role (unnamed) ParkingArea		1	2	ParkingArea	

1.2.37 Association <<Topo>> SpeedBump-SpeedBumpDelimitation

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
37	Association SpeedBump-SpeedBumpDelimitation					
37.1	Role boundarySpeedBump		1	N	SpeedBumpDelimitation	Aggregation
37.2	Role (unnamed) SpeedBump		1	1	SpeedBump	

1.2.38 Association <<Topo>> Road-VergeFictitious

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
38	Association Road- VergeFictitious					
38.1	Role boundaryFictitious		0	N	VergeFictitious	Aggregation
38.2	Role (unnamed) Road		0	1	Road	

1.2.39 Association <<Topo>> Road-VergeExit

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
39	Association Road-VergeExit					
39.1	Role boundaryVergeExit		0	N	VergeExit	Aggregation
39.2	Role (unnamed) Road		0	1	Road	

1.2.40 Association <<Topo>> Road-RoadVergeOtherRoadArea

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
40	Association Road- RoadVergeOther RoadArea					
40.1	Role boundaryVergeOtherRoadArea		0	N	RoadVergeOtherRoadArea	Aggregation
40.2	Role (unnamed) Road		0	1	Road	

1.2.41 Association <<Topo>> Road-EdgeOfTrafficIsland

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
41	Association Road- EdgeOfTrafficIsland					
41.1	Role boundaryTrafficIsland		0	N	EdgeOfTrafficIsland	Aggregation
41.2	Role (unnamed) Road		0	1	Road	

1.2.42 Association TrafficIsland-EdgeOfTrafficIsland

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
42	Association TrafficIsland- EdgeOfTrafficIsland					
42.1	Role boundaryTrafficIsland		1	N	EdgeOfTrafficIsland	Aggregation
42.2	Role (unnamed) TrafficIsland		0	1	TrafficIsland	

1.2.43 Association <<Topo>> PedestrianCrossing-PedestrianCrossingDelimitation

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
43	Association PedestrianCrossing- PedestrianCrossingDelimitation					
43.1	Role boundaryPedestrianCrossing		0	N	PedestrianCrossingDelimitation	Aggregation
43.2	Role (unnamed) PedestrianCrossing		1	1	PedestrianCrossing	

1.2.44 Association <<Topo>> PedestrianCrossing-Curb

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
44	Association PedestrianCrossing-Curb					
44.1	Role boundaryCurb		0	N	Curb	Aggregation
44.2	Role (unnamed) PedestrianCrossing		0	1	PedestrianCrossing	

1.2.45 Association <<Topo>> PedestrianCrossing-EdgeOfTrafficIsland

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
45	Association PedestrianCrossing					

	ng-EdgeOfTrafficIsland					
45.1	Role edgeOfTrafficIsland		0	N	EdgeOfTrafficIsland	Aggregation
45.2	Role (unnamed) PedestrianCrossing		0	1	PedestrianCrossing	

1.2.46 Association <<Topo>> PedestrianCrossing-EdgeOfShoulder

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
46	Association PedestrianCrossing-EdgeOfShoulder					
46.1	Role boundaryEdgeOfShoulder		0	N	EdgeOfShoulder	Aggregation
46.2	Role (unnamed) PedestrianCrossing		0	1	PedestrianCrossing	

1.2.47 Association <<Topo>> Road-Curb

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
47	Association Road-Curb					
47.1	Role boundaryCurb		0	N	Curb	Aggregation
47.2	Role (unnamed) Road		0	1	Road	

1.2.48 Association ReferencePoint-ReferencePost

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
48	Association ReferencePoint-ReferencePost					
48.1	Role pillar		0	1	ReferencePost	Aggregation
48.2	Role (unnamed) ReferencePoint		1	1	ReferencePoint	

1.2.49 Association <<Topo>> Road-RoadSurfaceEdge

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
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49	Association Road- RoadSurfaceEdge					
49.1	Role boundaryRoadSurface		0	N	RoadSurfaceEdge	Aggregation
49.2	Role (unnamed) Road		0	1	Road	

1.2.50 Association <<Topo>> FootpathCycleLane-RoadSurfaceEdge

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
50	Association FootpathCycleLane- RoadSurfaceEdge					
50.1	Role boundarySurfaceEdge		0	N	RoadSurfaceEdge	Aggregation
50.2	Role (unnamed) FootpathCycleLane		0	1	FootpathCycleLane	

1.2.51 Association <<Topo>> FootpathCycleLane-VergeExit

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
51	Association FootpathCycleLane- VergeExit					
51.1	Role boundaryVergeExit		0	N	VergeExit	Aggregation
51.2	Role (unnamed) FootpathCycleLane		0	1	FootpathCycleLane	

1.2.52 Association <<Topo>> FootpathCycleLane-RoadVergeOtherRoadArea

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
52	Association FootpathCycleLane- RoadVergeOtherRoadArea					
52.	Role		0	N	RoadVergeOtherRoadArea	Aggregation

1	boundaryOtherRoadArea				erRoadArea	n
52.2	Role (unnamed) FootpathCycleLane		0	1	FootpathCycleLane	

1.2.53 Association <<Topo>> FootpathCycleLane-VergeFictitious

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
53	Association FootpathCycleLane-VergeFictitious					
53.1	Role boundaryFictitious		0	N	VergeFictitious	Aggregation
53.2	Role (unnamed) FootpathCycleLane		0	1	FootpathCycleLane	

1.2.54 Association <<Topo>> FootpathCycleLane-EdgeOfTrafficIsland

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
54	Association FootpathCycleLane-EdgeOfTrafficIsland					
54.1	Role boundaryTrafficIsland		0	N	EdgeOfTrafficIsland	Aggregation
54.2	Role (unnamed) FootpathCycleLane		0	1	FootpathCycleLane	

1.2.55 Association <<Topo>> FootpathCycleLane-Curb

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
55	Association FootpathCycleLane-Curb					
55.1	Role boundaryCurb		0	N	Curb	Aggregation
55.2	Role (unnamed) FootpathCycleLane		0	1	FootpathCycleLane	

1.2.56 Association <<Topo>> Footpath-FootpathEdge

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
56	Association Footpath- FootpathEdge					
56.1	Role boundaryFootpath		0	N	FootpathEdge	Aggregation
56.2	Role (unnamed) Footpath		1	1	Footpath	

1.2.57 Association <<Topo>> ParkingArea-OtherRoadAreaDelimitation

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
57	Association ParkingArea- OtherRoadAreaD elimitation					
57.1	Role boundaryOther		0	N	OtherRoadArea aDelimitation	Aggregation
57.2	Role (unnamed) ParkingArea		0	1	ParkingArea	

1.2.58 Association <<Topo>> ParkingArea-RoadVergeOtherRoadArea

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
58	Association ParkingArea- RoadVergeOther RoadArea					
58.1	Role boundaryOtherR oad Area		0	N	RoadVergeOth erRoadArea	Aggregation
58.2	Role (unnamed) ParkingArea		0	1	ParkingArea	

1.2.59 Association <<Topo>> ParkingArea-VergeExit

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
59	Association ParkingArea- VergeExit					
59.1	Role boundaryVergeE xit		0	N	VergeExit	Aggregation

59. 2	Role (unnamed) ParkingArea		0	1	ParkingArea	
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1.2.60 Association <<Topo>> ParkingArea-VergeFictitious

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
60	Association ParkingArea- VergeFictitious					
60. 1	Role boundaryFictitious		0	N	VergeFictitious	Aggregation
60. 2	Role (unnamed) ParkingArea		0	1	ParkingArea	

1.2.61 Association <<Topo>> ParkingArea-FootpathCycleLaneEdge

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
61	Association ParkingArea- FootpathCycleLaneEdge					
61. 1	Role boundaryFootpathCycleLane		0	N	FootpathCycleLaneEdge	Aggregation
61. 2	Role (unnamed) ParkingArea		0	1	ParkingArea	

1.2.62 Association <<Topo>> ParkingArea-Curb

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
62	Association ParkingArea- Curb					
62. 1	Role boundaryCurb		0	N	Curb	Aggregation
62. 2	Role (unnamed) ParkingArea		0	1	ParkingArea	

1.2.63 Association <<Topo>> ParkingArea-RoadSurfaceEdge

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
63	Association ParkingArea- RoadSurfaceEdge					

63.1	Role boundaryRoadSurfaceEdge		0	N	RoadSurfaceEdge	Aggregation
63.2	Role (unnamed) ParkingArea		0	1	ParkingArea	

1.2.64 Association <<Topo>> ParkingArea-EdgeOfTrafficIsland

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
64	Association ParkingArea-EdgeOfTrafficIsland					
64.1	Role boundaryOfTrafficIsland		0	N	EdgeOfTrafficIsland	Aggregation
64.2	Role (unnamed) ParkingArea		0	1	ParkingArea	

1.2.65 Association <<Topo>> Footpath-VergeFictitious

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
65	Association Footpath-VergeFictitious					
65.1	Role boundaryFictitious		0	N	VergeFictitious	Aggregation
65.2	Role (unnamed) Footpath		0	1	Footpath	

1.2.66 Association CattleGrating-CattleGratingDelimitation

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
66	Association CattleGrating-CattleGratingDelimitation					
66.1	Role boundaryCattleGrating		1	N	CattleGratingDelimitation	Aggregation
66.2	Role (unnamed) CattleGrating		0	1	CattleGrating	

1.2.67 Association <<Topo>> Pavement-Curb

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
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				e		
67	Association Pavement-Curb					
67. 1	Role boundaryCurb		0	N	Curb	Aggregation
67. 2	Role (unnamed) Pavement		0	1	Pavement	

1.2.68 Association <<Topo>> Pavement-CurbOuter

No	Name/ Role name	Description	Obligation/ Condition	Maximum Occurrence	Type	Constraint
68	Association Pavement- CurbOuter					
68. 1	Role boundaryCurbOuter		0	N	CurbOuter	Aggregation
68. 2	Role (unnamed) Pavement		0	1	Pavement	

1.2.68.1 <<CodeList>> SeasonUse

Nr	Code name	Definition/Description	Code
1	CodeList SeasonUse	describes which time of the year the object is in use Note: the description and ??categorization/distinction are based on use on snowless ground as opposed to in icy/snowy conditions	
1.1	All-year use		
1.2	Summer use		
1.3	Winter use		

1.2.68.2 <<CodeList>> CrashBarrierType

Nr	Code name	Definition/Description	Code
2	CodeList CrashBarrierType	indication of various types of guard rails	
2.1	Concrete guard-rail		
2.2	Concrete guard-rail, New Jersey		
2.3	Concrete guard-rail, cast in situ		
2.4	Concrete guard-rail, prefabricated element		
2.5	Concrete guard-rail, Stabb/Saxegård		
2.6	Hand rail with rail		
2.7	Hand rail with cable		
2.8	Guard stones		
2.9	Top railing on brick wall/edge beam		

1.2.68.3 <<CodeList>> TypeOfRoadblock

Nr	Code name	Definition/Description	Code
3	CodeList TypeOfRoadblock	indicates type of roadblock	
3.1	Concrete cone		
3.2	Car barrier		
3.3	Bus bay		
3.4	Locked barrier		
3.5	New Jersey		
3.6	Tubular guard-rail		

3.7	??Barrier/Barring vessel		
3.8	Boulder		
3.9	Traffic curb stone		
3.10	Unknown		

1.2.68.4 <<CodeList>> SignGroup

Nr	Code name	Definition/Description	Code
4	CodeList SignGroup	indication of various sign groups	
4.1	Warning signs		
4.2	Right-of-way and prohibitory signs		
4.3	Prohibitory signs		
4.4	Mandatory signs		
4.5	Information signs		
4.6	Service signs		
4.7	Direction signs		
4.8	Sub-signs		
4.9	Marker signs		