

SOSI Vegkropp

Sammenligning med IFC Road

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Innledende tanker/konklusjoner

- SOSI Vegkropp (basert på utdrag av OGC/LandInfra) – innhold:
 - Vegkroppen
 - Terrengoverflater (og andre flater)
- IFC Road
 - Dekker mange flere sider av et vegprosjekt
 - De delene som overlapper med SOSI Vegkropp ser ut til å være «ganske like»
- Spørsmål:
 - Vil en slik «del-løsning» som SOSI Vegkropp er, være nyttig?
 - Ett første skritt på vegen?
 - (Hvordan kan de to initiativene, *SOSI Vegkropp* og *IFC Road* støtte hverandre?)

Om IFC Road - dokumenter

- WP2 Requirement Analysis Report – 2018-10-11
- WP2 Road Classification – 2018-06-29
- WP2 Road ProcessMapRoad_Diagram – 2018-10-10
- WP3 Conceptual Model Report - 2019-07-05 –
 - mer om denne etterpå

) Author(s):

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Kilder

- IFC Road (Materiell hovedsakelig fra BuildingSmart)
 - Opptak av BuildingSmart-webinar inkl dokumentasjon 29.august 2019
 - Dokument IR-ROAD-WP3_ConceptualModelReport
 - Tilhørende UML-modell som EA_prosjekt
 - HTML-dokumentasjon for IFCRoad (mal som i <https://technical.buildingsmart.org/>)



Conceptual Model Report

InfraRoom

Project: IFC Road

Work Package: WP3

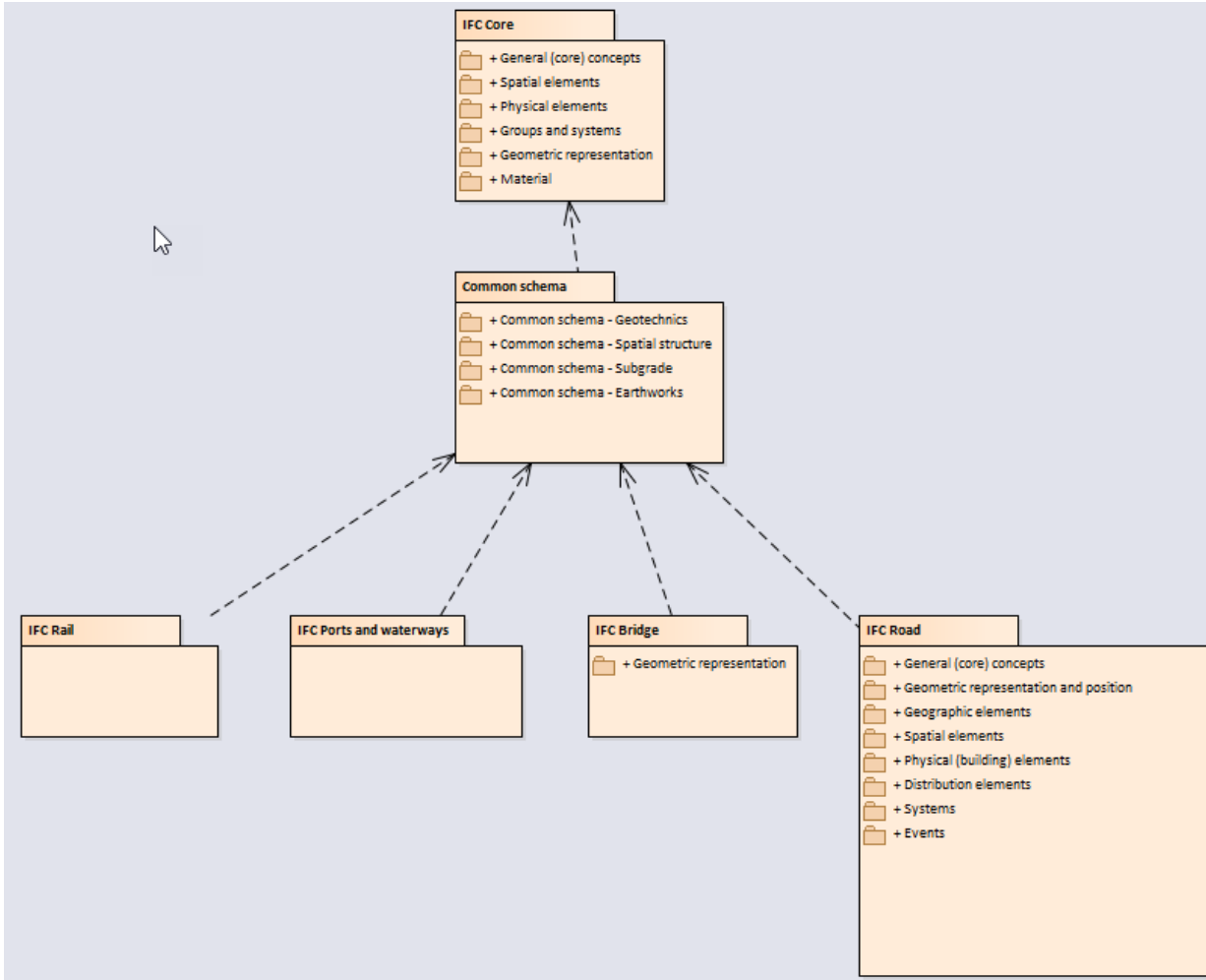
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Version: V1.0

Status: FINAL

IfcRoad - Innhold



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Viktige begrep

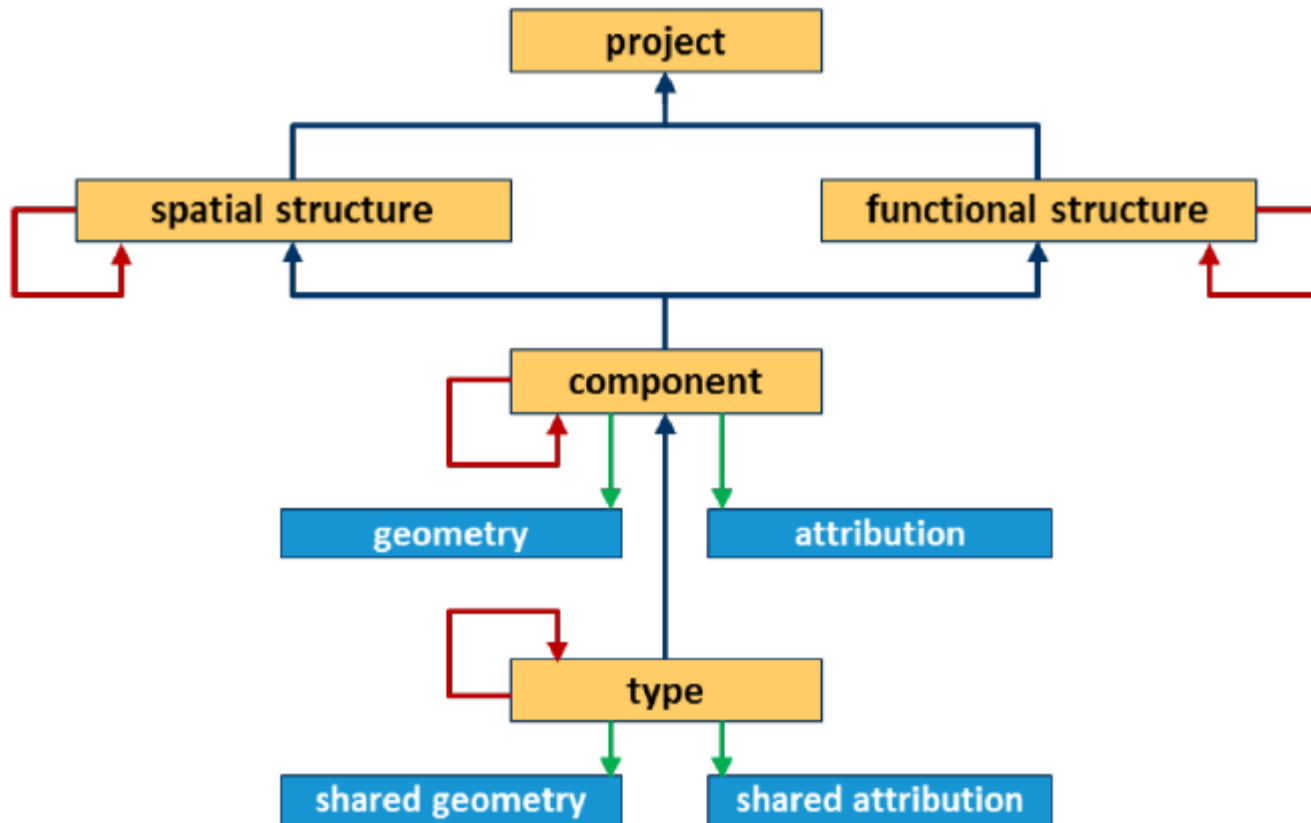


Figure 1 - Main conceptual structure of IFC

- Spatial structure
- Functional structure
- Component
 - Tilhører S/F structure
- Type
 - «byggevare»-håndtering

Prioriteringer

- Ikke funnet noe om framdriftsplan or Prio1 og Prio2

Package	Prio 1	Prio 2
General (Core) concepts	X	
Geometric representation and position	X	
Geographic elements – Geotechnics	X	
Spatial elements – Spatial structure	X	
Spatial elements – Spatial zone		X
Physical (building) element – Pavement	X	
Physical (building) element – Components (priority 1)	X	
Physical (building) element – Components (priority 2)		X
Physical (building) element – Earthworks (priority 1)	X	
Physical (building) element – Earthworks (priority 2) Includes remaining parts (those not in Earthworks (priority 1)) of the sub packages Subgrade and Subsoil and rock treatment		X
Physical (building) element – Supporting elements		X
Physical (building) element – Guard elements		X
Physical (building) element – Signage		X
Distribution elements – Drainage		X
Distribution elements – Lighting, telecom and power		X
Systems		X
Events	X	

Geometri / Knytting

- EventElement: referanse til ISO 19148:2012 – **det liker vi**
- Geometric representation and position – STEP/IFC-prinsipp - **kjent**
 - Surface – SectionedSurface
- «Alignment» / lineære referanser / **savner referanse til «bSI Aligment Project»**
- OpenCrossProfileDef / **?**

Fra OGC/LandInfra-dokumentet:

The following steps for the new standards activity included:

1. **Subject area identification:** The list of initial subject areas for InfraGML were identified. Additionally, other areas may be identified as possible future extensions.
2. **Use case definition:** Use cases relevant to each subject area were identified and described. This was harmonized with the bSI Alignment Project use cases, the building SMART Alliance (bSA) BIM-GIS use case list, and any forthcoming use case definitions from the ISO TC211 GIS-BIM ad hoc committee.
3. **Conceptual modeling:** A UML Conceptual Model of the initial subject areas was developed, including defining Core functionality. This model was harmonized with the model developed by the bSI Alignment Project.
4. **RFC:** Prior to any GML encoding, a public Request for Comment was issued based upon the UML conceptual model [3]. This RFC requested input from the existing LandXML community (and others), including users as well as software developers. The conceptual model would then be revised accordingly.
5. **GML encoding:** A GML 3.2.1 / 3.3 compatible standard was then to be developed based on the revised UML conceptual model.
6. **Extensions:** Similar steps would be followed for subsequent subject areas.

Spatial Structure

- Passer med OGC/LandInfra

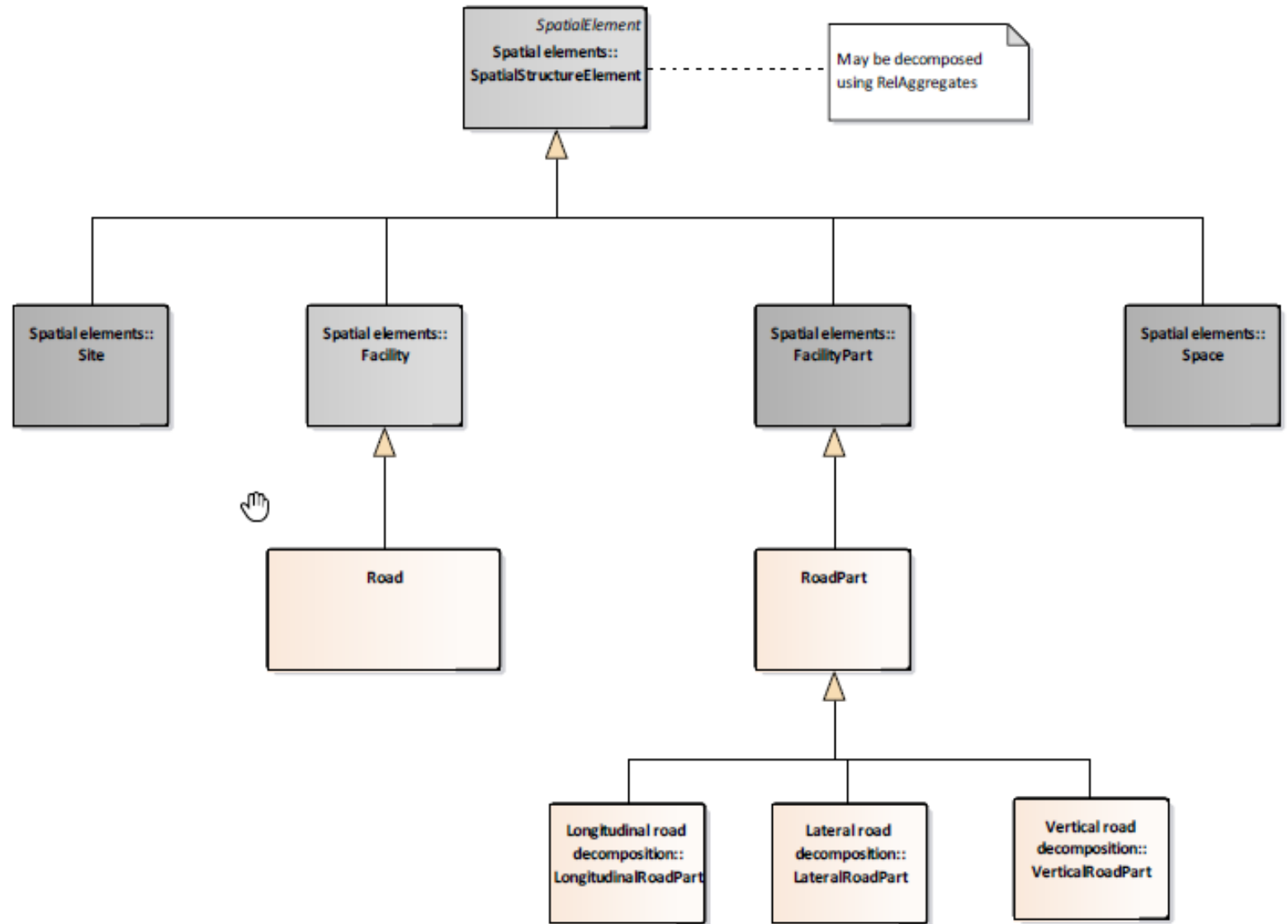


Figure 13 - Spatial (project) structure

Oppdeling av veg - longitudinal

- Road Part /RoadSegment med i LandInfra
- Detaljering ikke dekket i LandInfra

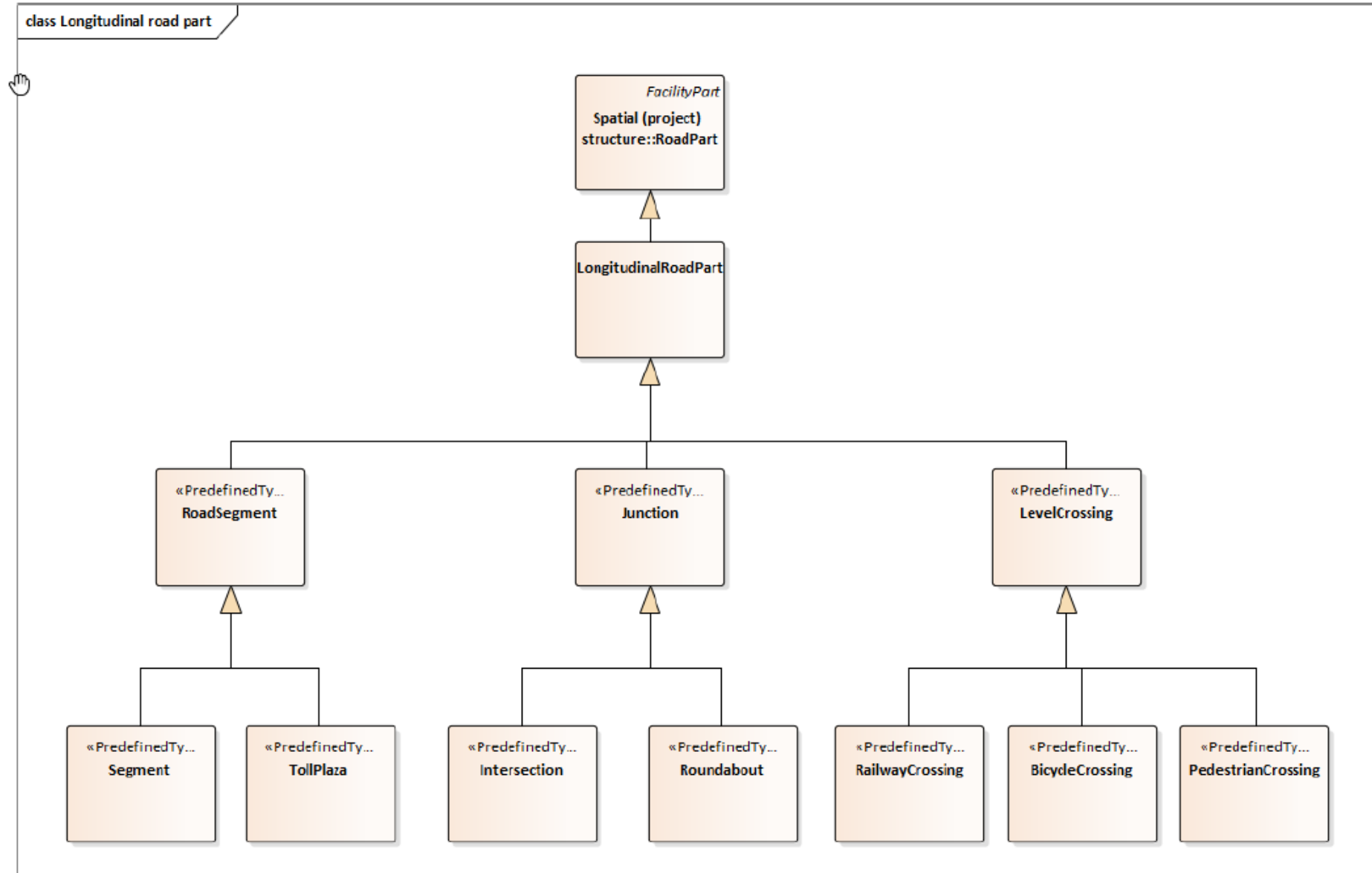
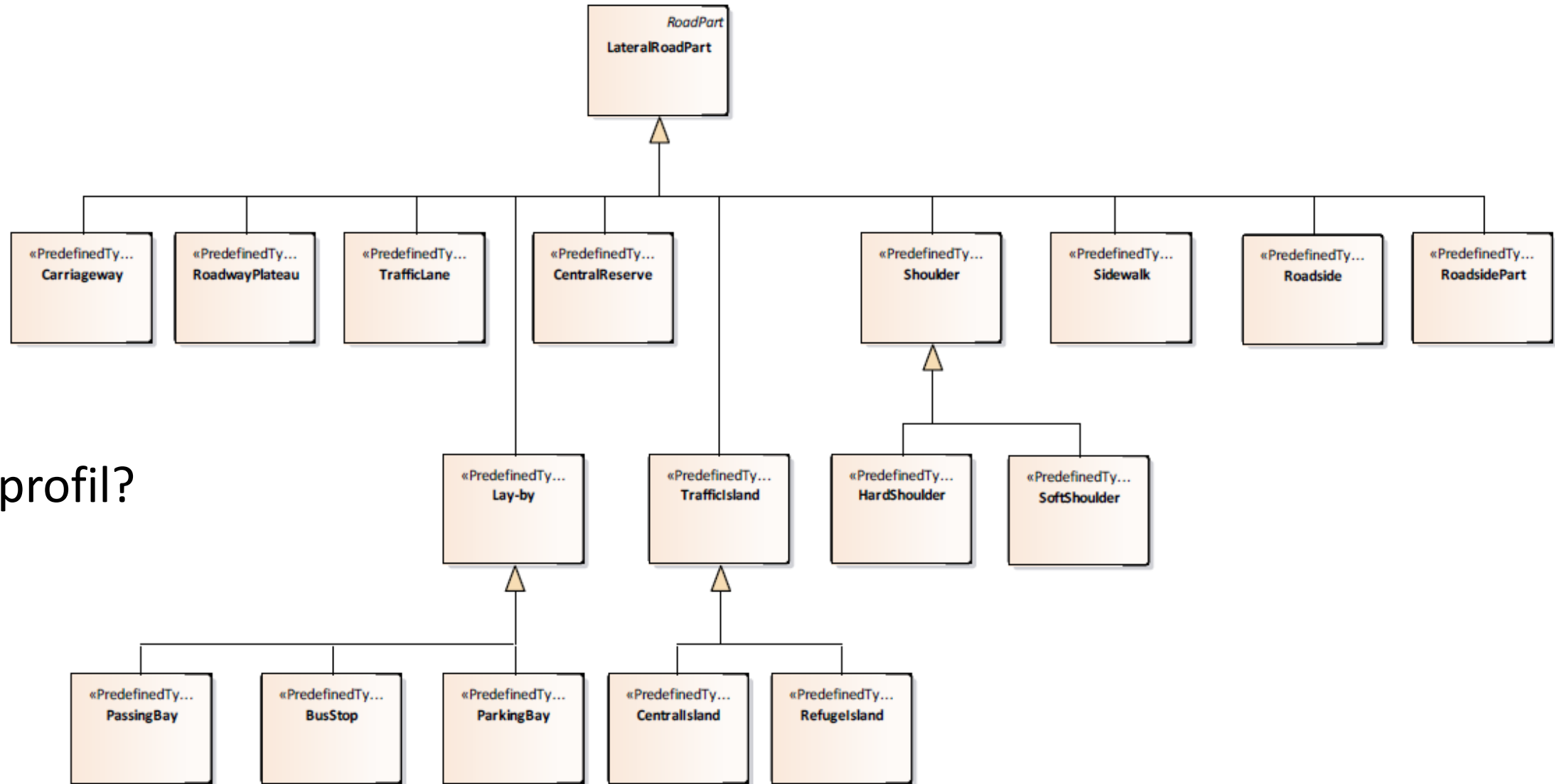


Figure 15 - Longitudinal road part

Oppdeling Lateral (sideveis)



- Normalprofil?

Figure 16 - Lateral road decomposition

Normalprofil??

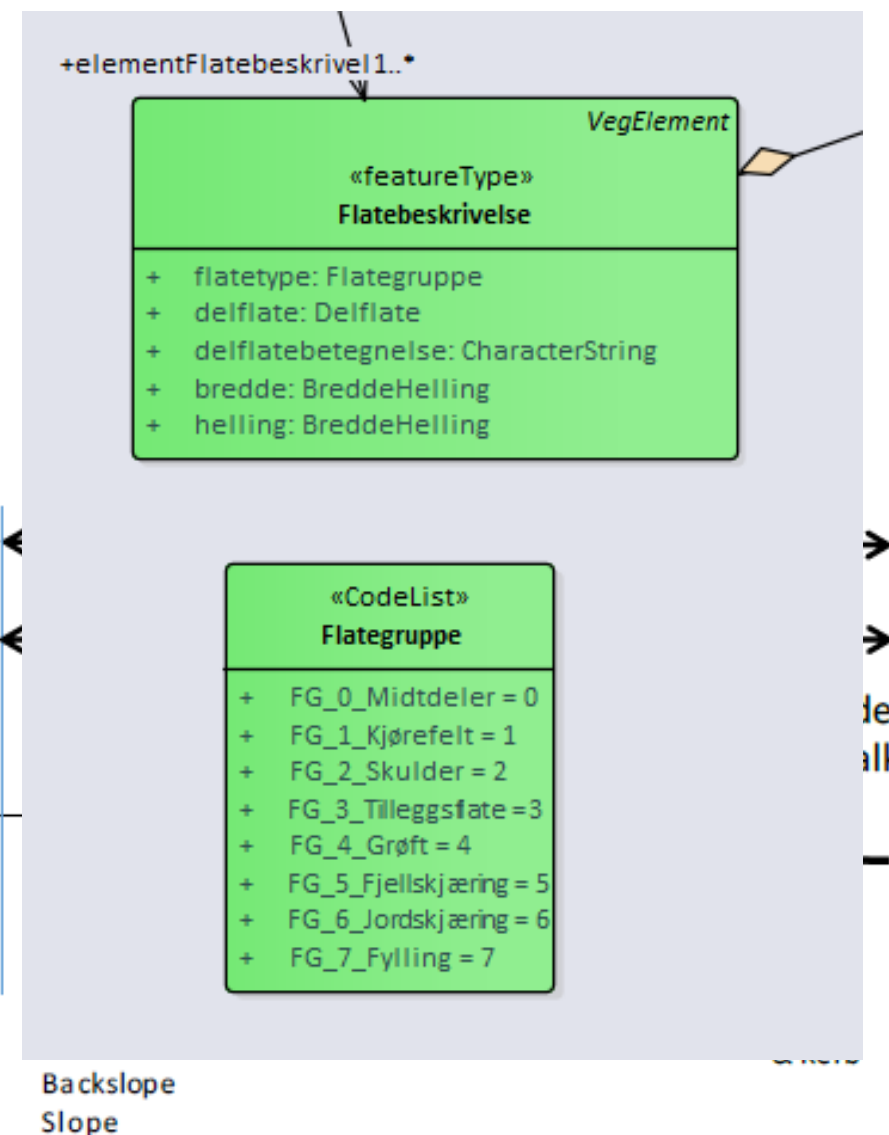
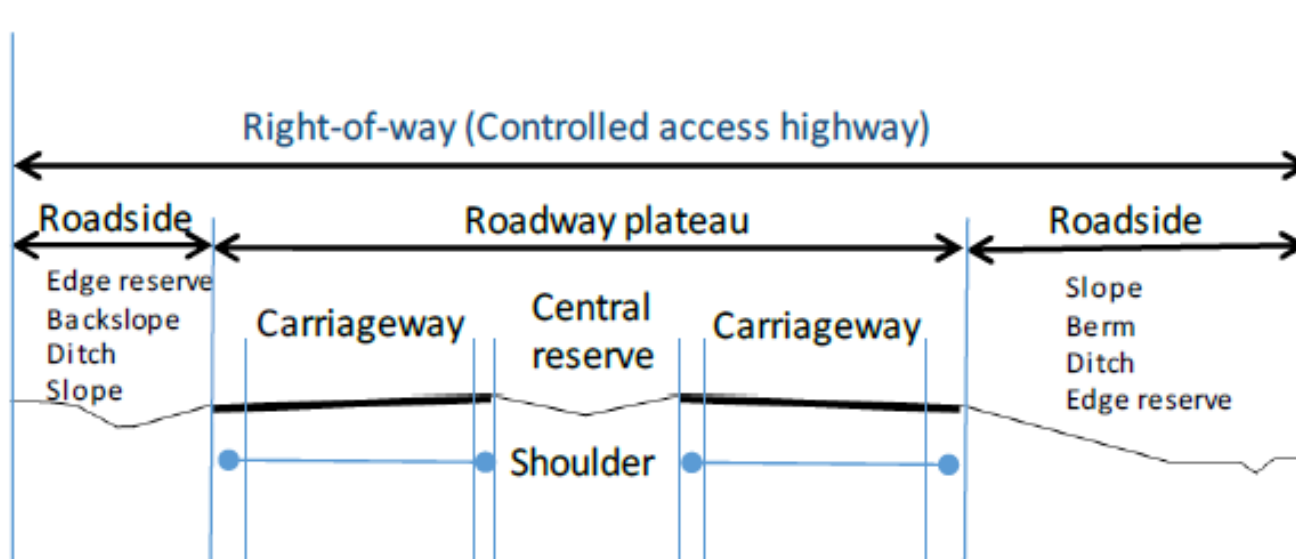


Figure 17 Examples of lateral decomposition

VerticalRoadPart

- ???

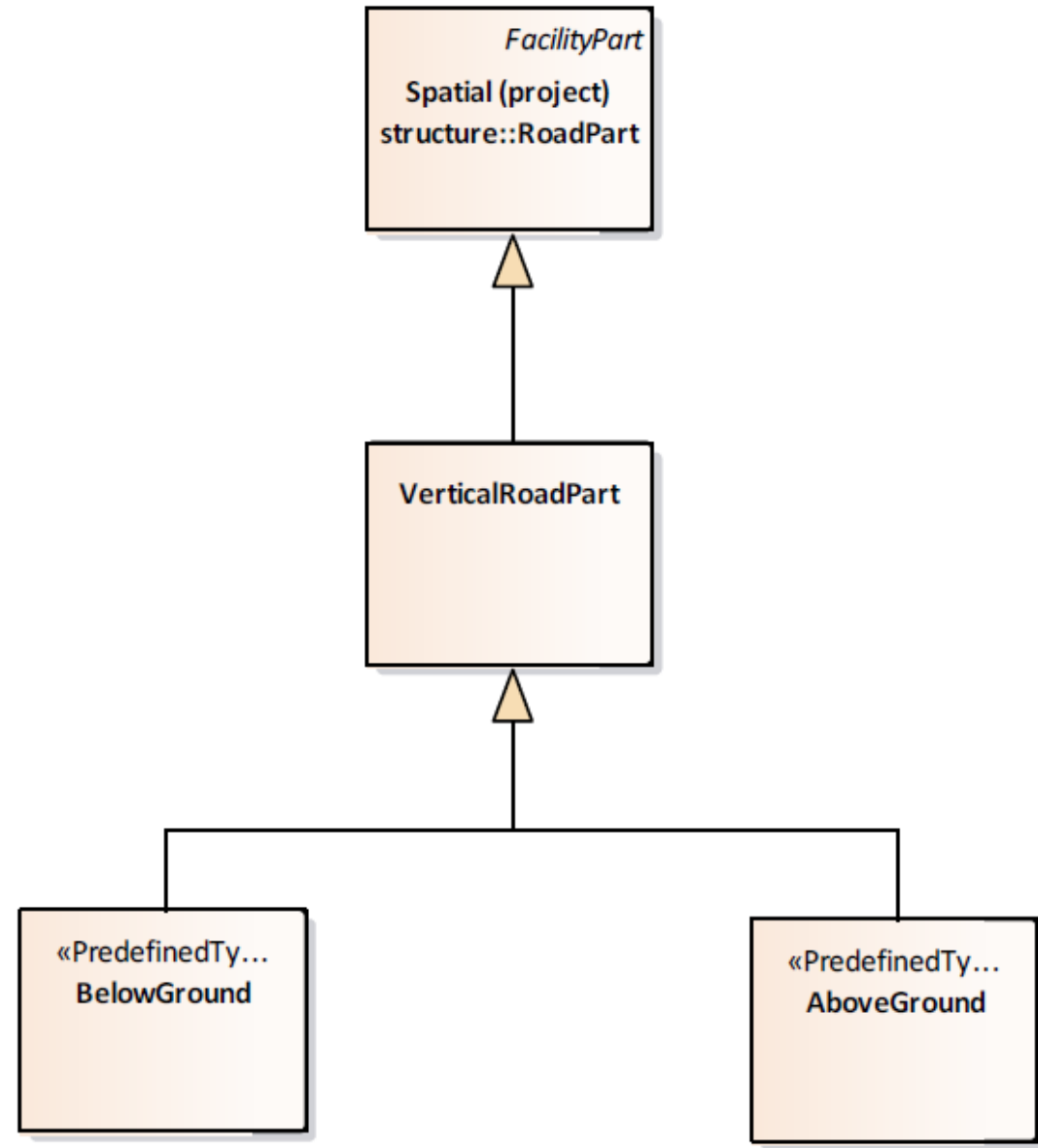


Figure 18 - Vertical road decomposition

class Physical (building) elements

Physical (building) elements

- + General physical (building) elements
- + Pavement
- + Components
- + Earthworks
- + Guard elements
- + Signage

Pavement

- + Pavement

General physical (building) elements

- + Course
- + SumpBuster
- + TrafficCalmingDevice
- + Kerb

Components

- + Components prio 1
- + Components prio 2

Earthworks

- + Earthworks prio 1
- + Earthworks prio 2

Signage

- + Road sign element
- + Delineator/Marker post
- + Gantry/Portal
- + Traffic mirror
- + Traffic sign
- + Traffic signal

Guard elements

- + Road guard element
- + Barrier element
- + Fence
- + Noise barrier, sound proof wall, Noise bund
- + Road gate
- + Road safety rail
- + Road restraint systems
- + Pedestrian restraint system
- + Pedestrian parapet
- + Vehicle restraint system
- + Safety barrier
- + Vehicle parapet
- + Crash cushion
- + Terminal
- + Transition

(from IFC Road)

Figure 19 - Physical (building) elements package

Course

3.6.1.1 Class: Course

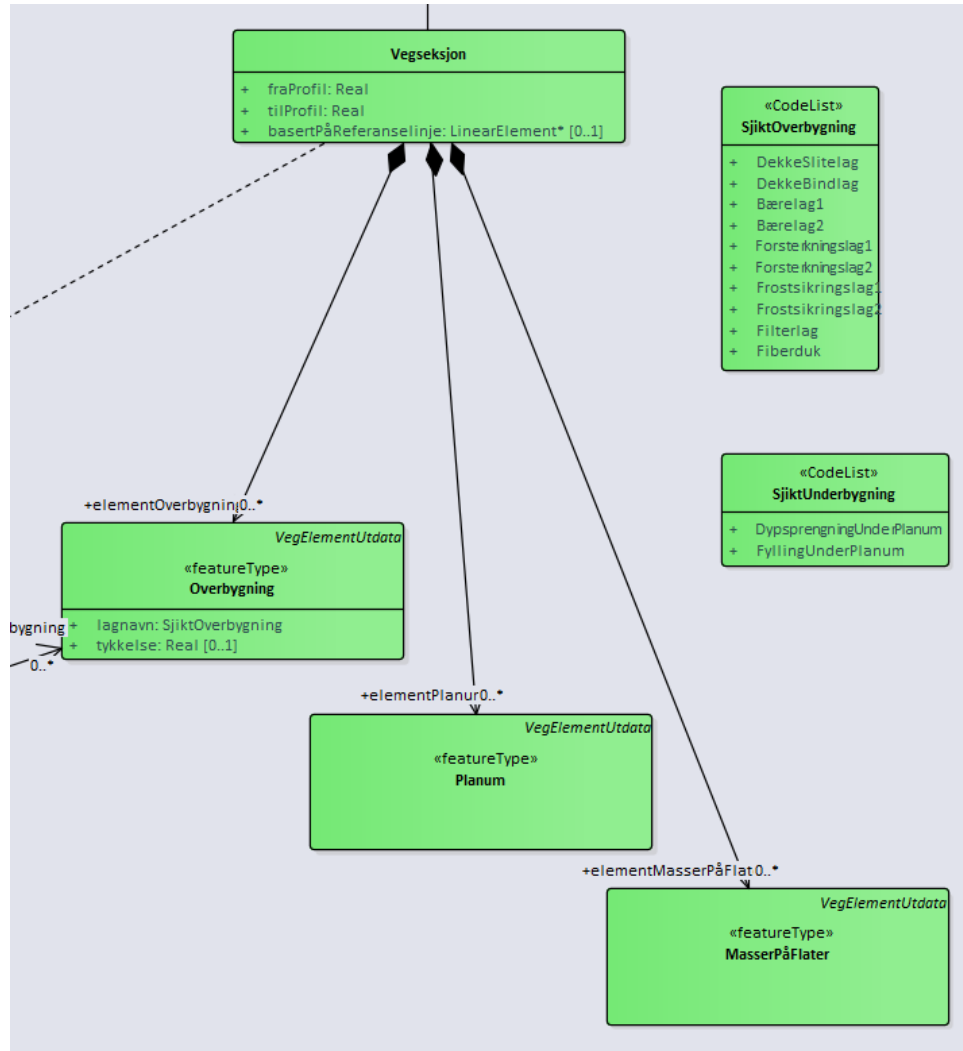
A building element whose length greatly exceeds its thickness and often also its width, usually of a single material laid on site on top of another horizontal or nearly horizontal building element. Structurally a Course does not have capacity to carry loads over open span, or to be removed or replaced as a single unit

NOTE For IFC Road, the following types of courses have been identified but not added to the conceptual model due to the fact that the elements (including terms and definitions) can vary greatly between nations; instead, these would be typical values of the inherited attribute ObjectType:

Typen av Course:

- Paving
- AnticapillaryLayer
- AntifreezingLayer
- BaseCourse
- CappingLayer
- DrainingCourse
- TrackCoat
- LayingCourse
- RegulatingCourse
- Sealing
- SubbaseCourse
- SeparationLayer

NorskInfra sammenlignet med IFC Road/Course - deler



IFC Road - Typer av Course:

- Paving
- AnticapillaryLayer
- AntifreezingLayer
- BaseCourse
- CappingLayer
- DrainingCourse
- TrackCoat
- LayingCourse
- RegulatingCourse
- Sealing
- SubbaseCourse
- SeprationLayer