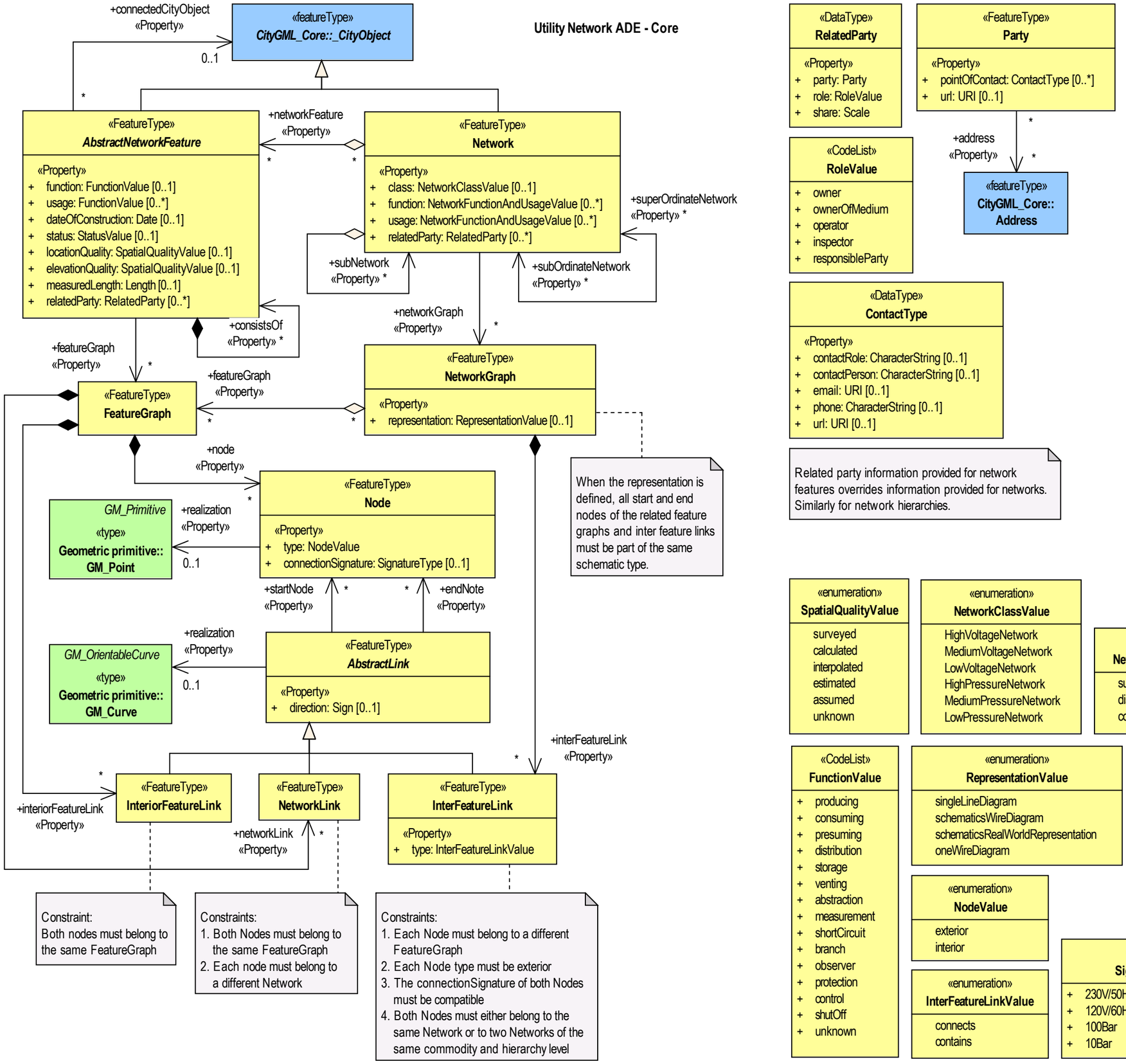
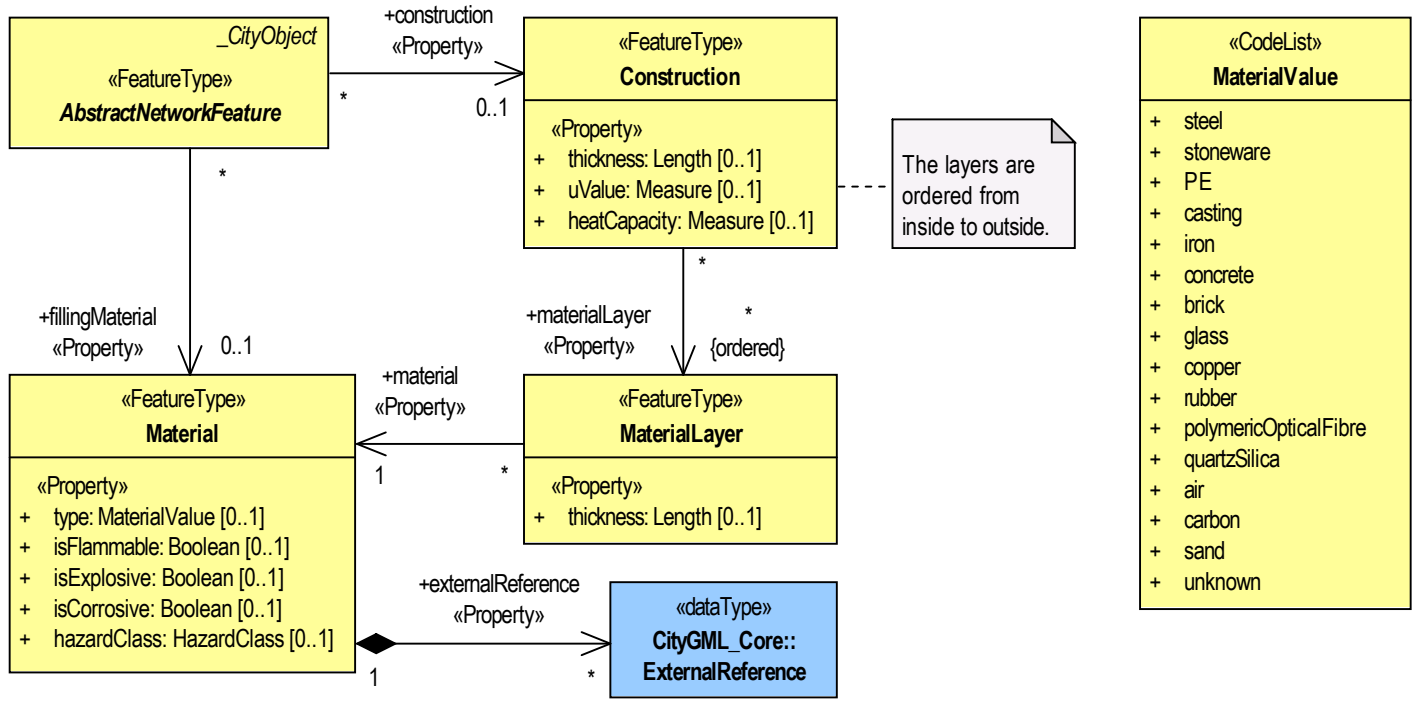
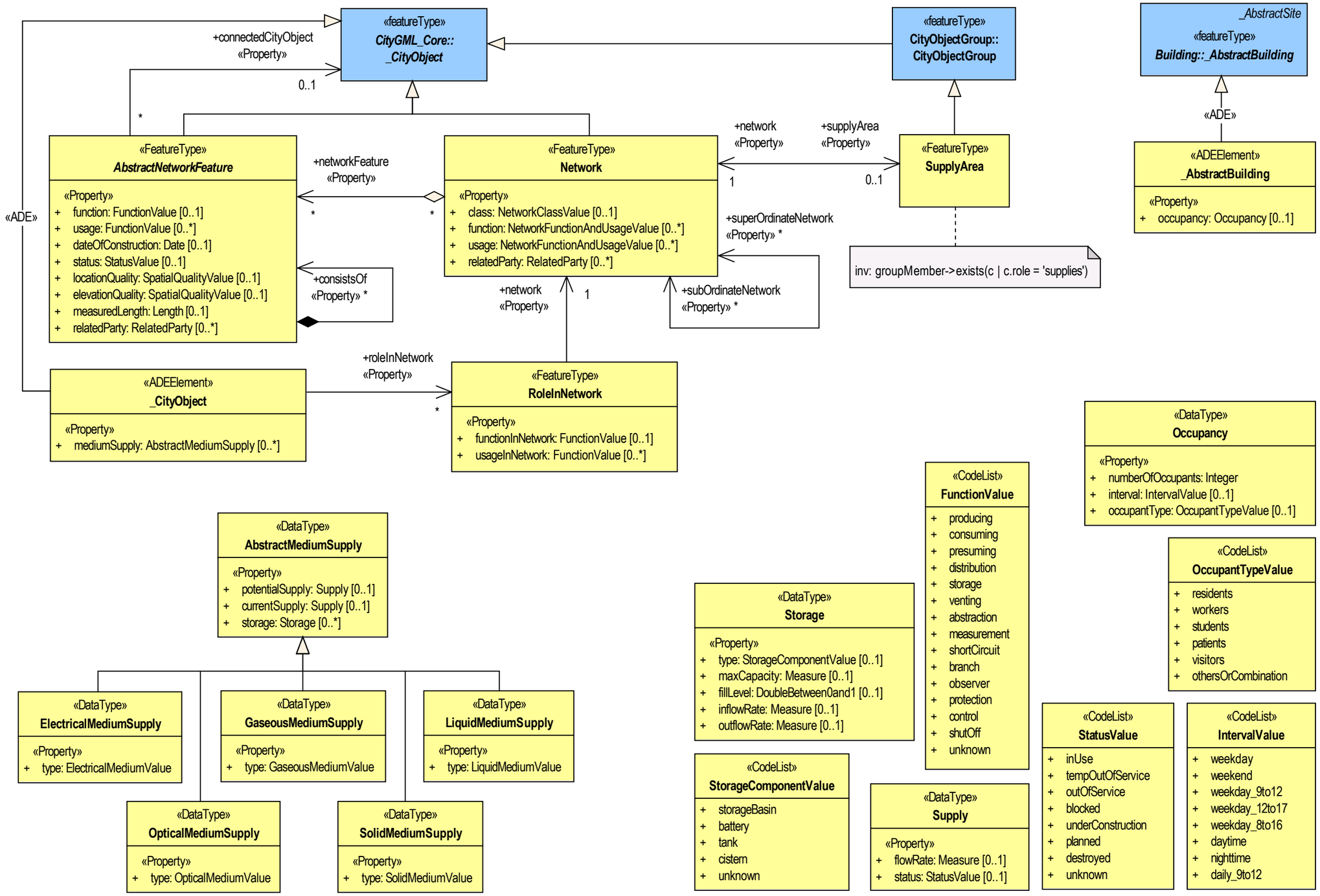

Utility Network ADE - Core
+connectedCityObject
«Property»
0..1
«featureType»
CityGML_Core::_CityObject
«FeatureType»
AbstractNetworkFeature
«Property»
+ function: FunctionValue [0..1]
+ usage: FunctionValue [0..*]
+ dateOfConstruction: Date [0..1]
+ status: StatusValue [0..1]
+ locationQuality: SpatialQualityValue [0..1]
+ elevationQuality: SpatialQualityValue [0..1]
+ measuredLength: Length [0..1]
+ relatedParty: RelatedParty [0..*]
+networkFeature
«Property»
«FeatureType»
Network
«Property»
+ class: NetworkClassValue [0..1]
+ function: NetworkFunctionAndUsageValue [0..*]
+ usage: NetworkFunctionAndUsageValue [0..*]
+ relatedParty: RelatedParty [0..*]
+superOrdinateNetwork
«Property» *
+subNetwork
«Property» *
+subOrdinateNetwork
«Property» *
+consistsOf
«Property» *
+networkGraph
«Property»
+featureGraph
«Property»
«FeatureType»
FeatureGraph
+featureGraph
«Property»
«FeatureType»
NetworkGraph
«Property»
+ representation: RepresentationValue [0..1]
When the representation is defined, all start and end nodes of the related feature graphs and inter feature links must be part of the same schematic type.
+node
«Property»
GM_Primitive
«type»
Geometric primitive::
GM_Point
+realization
«Property»
0..1
«FeatureType»
Node
«Property»
+ type: NodeValue
+ connectionSignature: SignatureType [0..1]
+startNode
«Property»
+endNote
«Property»
GM_OrientableCurve
«type»
Geometric primitive::
GM_Curve
+realization
«Property»
0..1
«FeatureType»
AbstractLink
«Property»
+ direction: Sign [0..1]
+interFeatureLink
«Property»
+interiorFeatureLink
«Property»
«FeatureType»
InteriorFeatureLink
«FeatureType»
NetworkLink
+networkLink
«Property»
«FeatureType»
InterFeatureLink
«Property»
+ type: InterFeatureLinkValue
Constraint:
Both nodes must belong to the same FeatureGraph
Constraints:
1. Both Nodes must belong to the same FeatureGraph
2. Each node must belong to a different Network
Constraints:
1. Each Node must belong to a different FeatureGraph
2. Each Node type must be exterior
3. The connectionSignature of both Nodes must be compatible
4. Both Nodes must either belong to the same Network or to two Networks of the same commodity and hierarchy level
«DataType»
RelatedParty
«Property»
+ party: Party
+ role: RoleValue
+ share: Scale
«FeatureType»
Party
«Property»
+ pointOfContact: ContactType [0..*]
+ url: URI [0..1]
+address
«Property»
«featureType»
CityGML_Core::
Address
«CodeList»
RoleValue
+ owner
+ ownerOfMedium
+ operator
+ inspector
+ responsibleParty
«DataType»
ContactType
«Property»
+ contactRole: CharacterString [0..1]
+ contactPerson: CharacterString [0..1]
+ email: URI [0..1]
+ phone: CharacterString [0..1]
+ url: URI [0..1]
Related party information provided for network features overrides information provided for networks. Similarly for network hierarchies.
«enumeration»
SpatialQualityValue
surveyed
calculated
interpolated
estimated
assumed
unknown
«enumeration»
NetworkClassValue
HighVoltageNetwork
MediumVoltageNetwork
LowVoltageNetwork
HighPressureNetwork
MediumPressureNetwork
LowPressureNetwork
«enumeration»
NetworkFunctionAndUsageValue
supply
disposal
communication
«CodeList»
FunctionValue
+ producing
+ consuming
+ presuming
+ distribution
+ storage
+ venting
+ abstraction
+ measurement
+ shortCircuit
+ branch
+ observer
+ protection
+ control
+ shutOff
+ unknown
«enumeration»
RepresentationValue
singleLineDiagram
schematicsWireDiagram
schematicsRealWorldRepresentation
oneWireDiagram
«enumeration»
NodeValue
exterior
interior
«enumeration»
InterFeatureLinkValue
connects
contains
«CodeList»
SignatureType
+ 230V/50Hz_SinglePhase
+ 120V/60Hz_SinglePhase
+ 100Bar
+ 10Bar

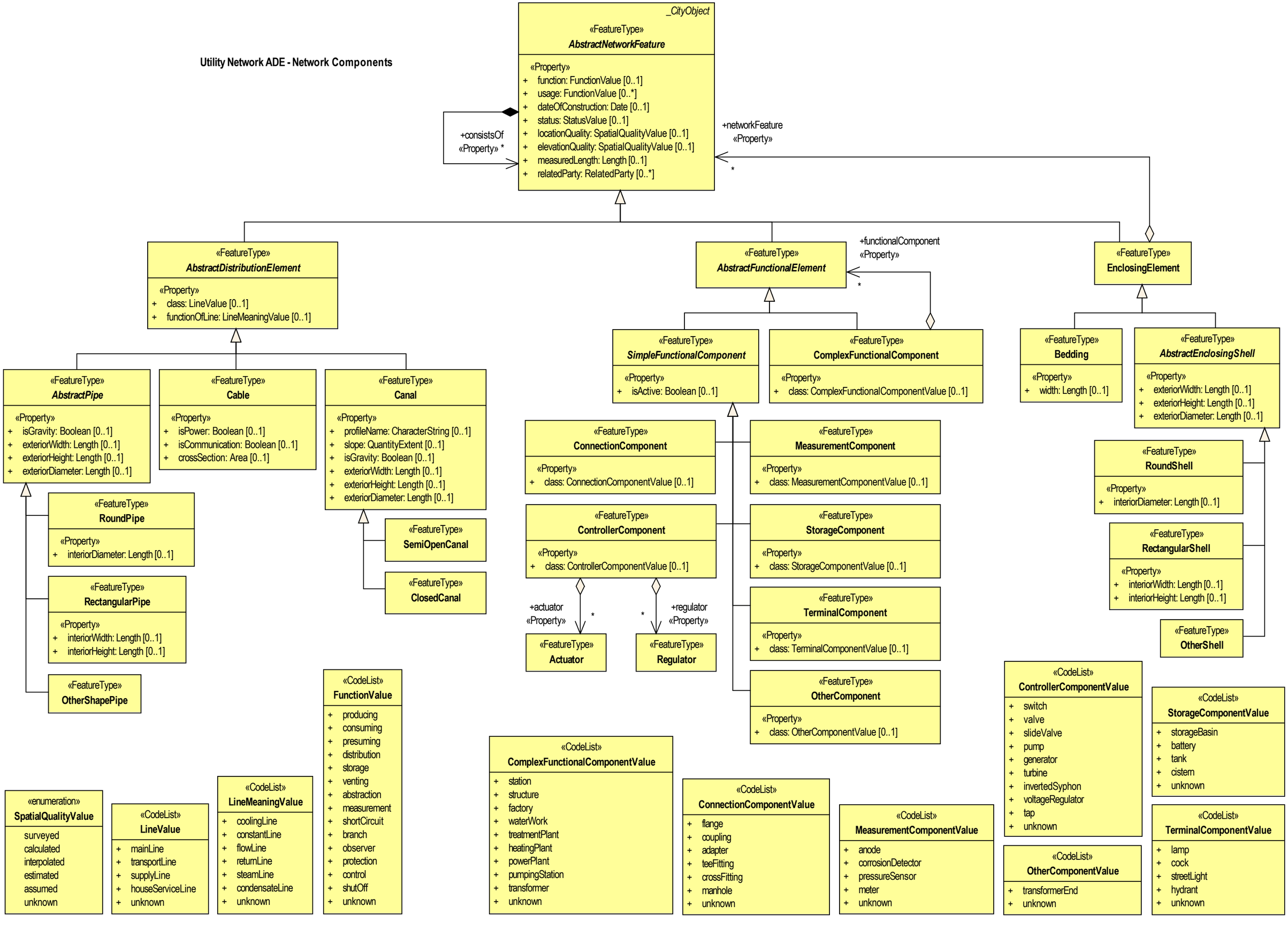
Utility Network ADE - Feature Material



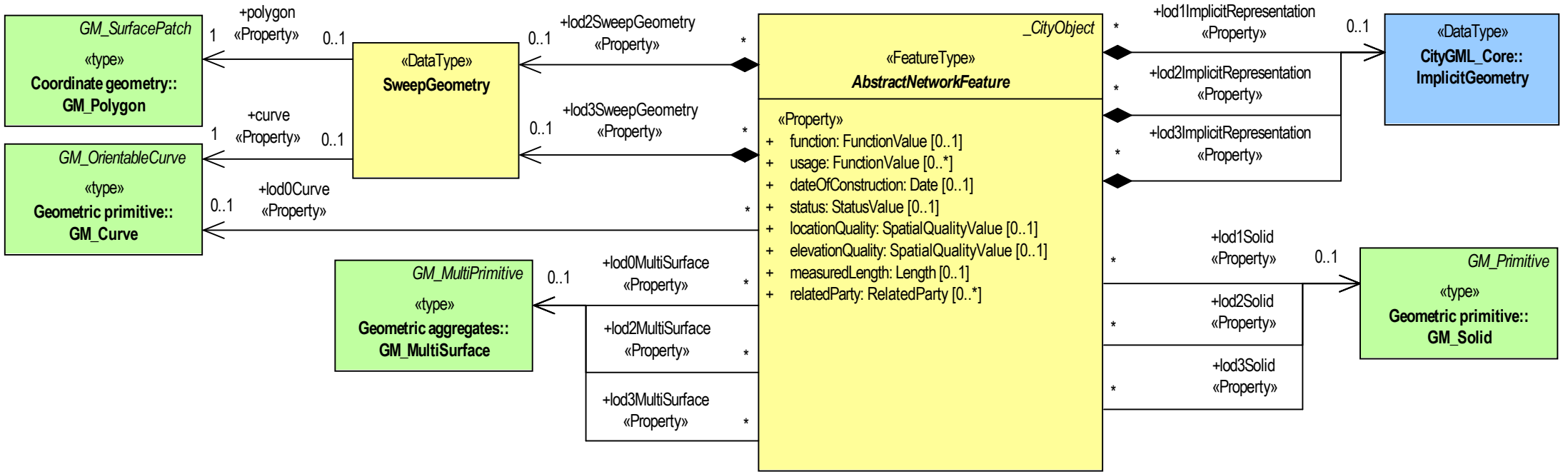
Utility Network ADE - Functional Characteristics



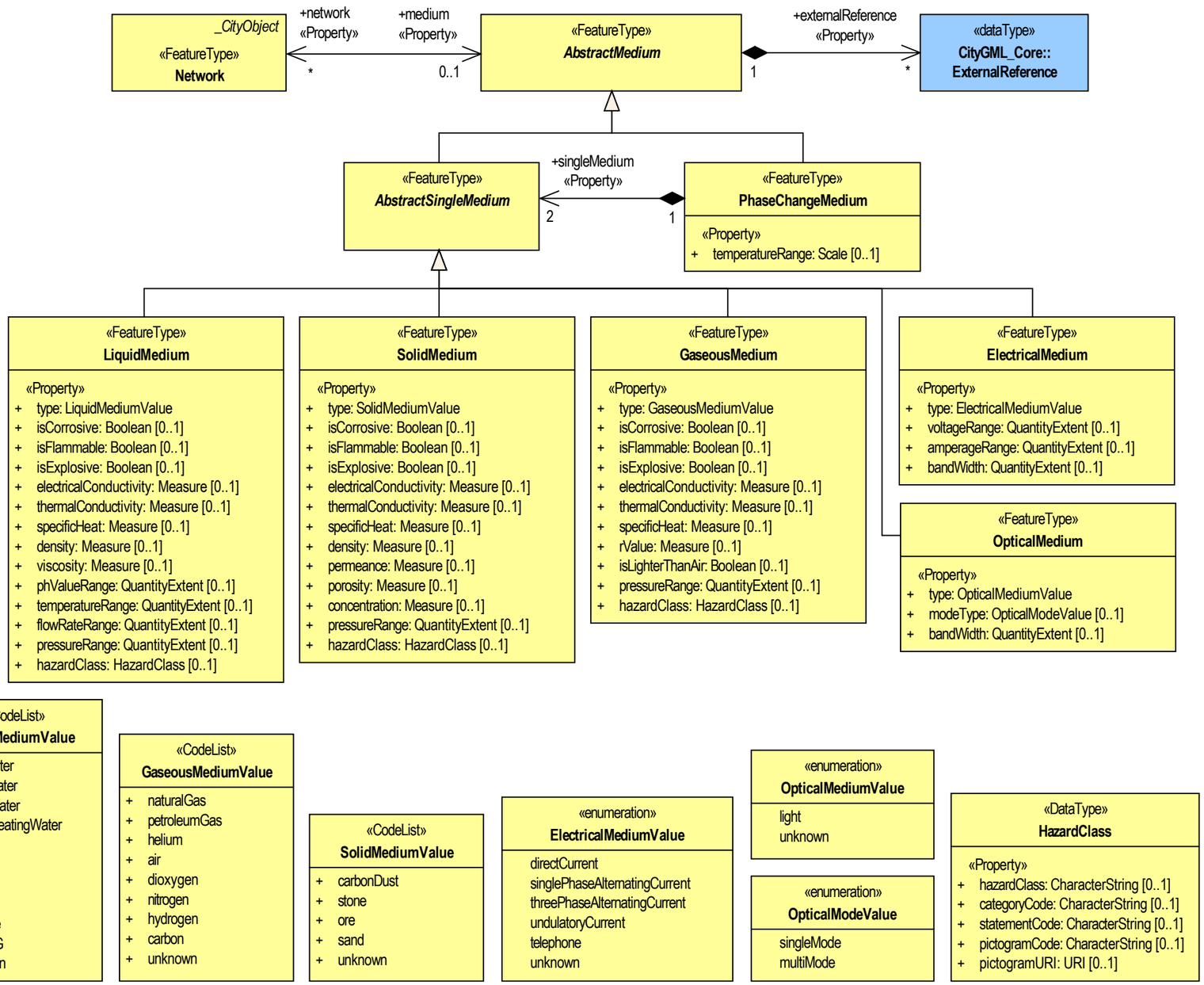
Utility Network ADE - Network Components

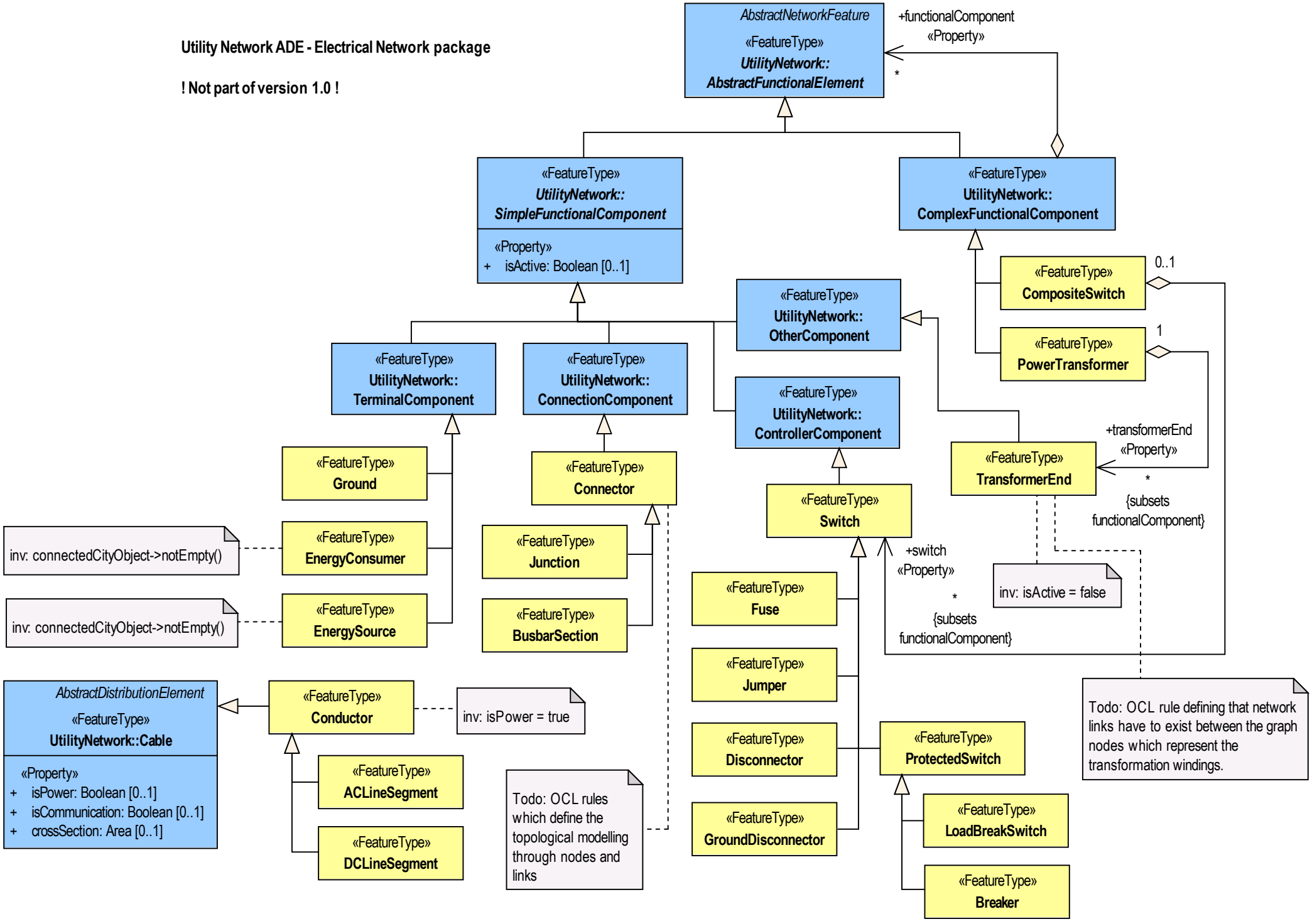


Utility Network ADE - Geometry of Network Components



Utility Network ADE - Network Properties



Utility Network ADE - Electrical Network package

! Not part of version 1.0 !