



RICS International Construction Measurement Standards (ICMS) Data Standard

Version: 1.0

Date: September 7 2018

Author: Andrew Knight

Release Notes

The RICS International Construction Measurement Standards (ICMS) data standard is an XML schema allowing users to capture, denote and share data on construction cost measurements in accordance with the ICMS coalition published 'International Construction Measurement Standards: Global Consistency in Presenting Construction Costs'.

RICS Data Standards

All RICS data standards are implemented via XML .xsd files that reference shared .xsd files containing definitions of common types and common enumerations that are used in one or more of the data standards such as ICMS, International Property Measurement Standards (IPMS) and International Land Measurements (ILMS). Complete documentation of all the elements and enumerations in the schema is available via an additional document on rics.org. RICS can provide support on the implementation of the XML schemas and mapping between ICMS and other cost structures. For further information and technical details please contact datastandards@rics.org.

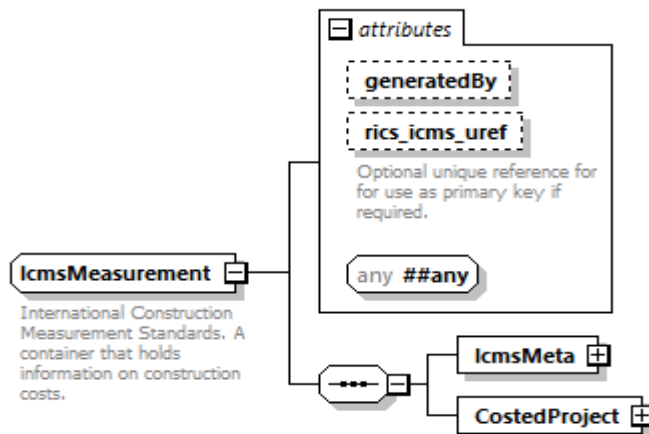
Use of Enumerations

The ICMS data standard provides lists of known values for many attributes and elements where a list or set of data may be chosen from, for example, ICMS tunnelling method definitions. In this instance, the enumeration, found in the enumeration schema, is defined by the type:

KnownTunnellingMethodEnum. In this instance the enumeration, found in the enumeration schema, is defined by an enumeration that contains the list of known methods: "cutAndFill", "tunnellBoringMachine", "drillAndBlast" and "immersed". These lists are useful for software developers but it should be noted that the schema allows for extensions of this data via the use of *TunnellingMethodType* which is defined as the superset of a string and *KnownTunnellingMethodEnum*, therefore technically allowing any string value. This pattern is followed throughout the data standard and serves to provide implementors of the standard with strong hints as to what values should be expected despite allowing freedom to submit any data where allowed by the ICMS standard.

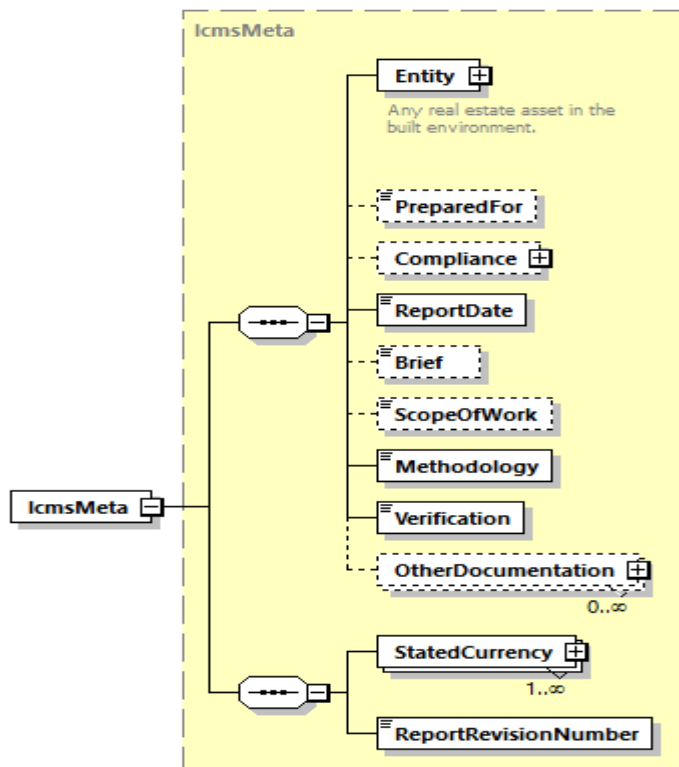
Overview

The XML schema ICMS comprises a top-level element *ICMSMeasurement*, which contains a *CostedProject* and *IcmsMeta* element.



The *IcmsMeta* element contains details of the *Entity* being measured and the process of how it was measured. At its simplest, this *Entity* is an address and description, together with an optional reference identifier and attribute specifying the entity's *primaryUse* (generally used for buildings and one of either *Office*, *Residential*, *Industrial*, *Retail* or *MixedUse*).

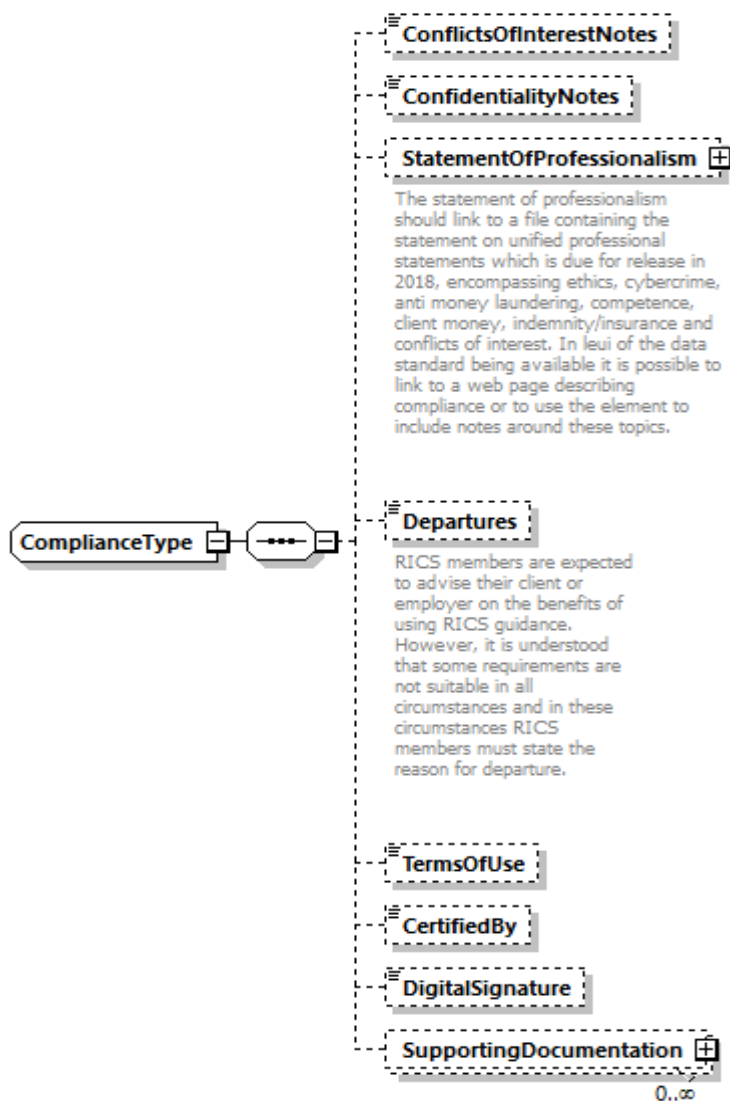
Addresses are specified using the OASIS xAL address specification – and can be specified with a high level of flexibility (see <http://www.oasis-open.org/committees/ciq/>).



Icms Meta

Further details contain information about who the measurement was *PreparedFor*, the *ReportDate*, the *Methodology* of the measurement, and the *StatedCurrency* as defined by the ISO 4217 currency code. Where costs are reported in multiple currencies, the primary currency is defined by *isPrimaryCurrency*, together with the *currencyExchangeRateToPrimary* and *currencyExchangeRateDate* used for conversion.

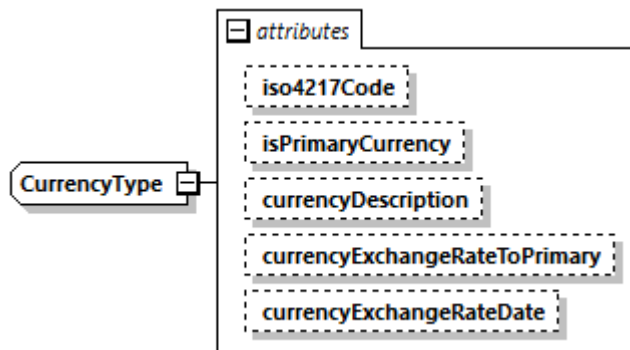
The *Compliance* element within *IcmsMeta* can contain details as to who certified the measurement. The additional elements are *ConflictsOfInterestNotes*, *ConfidentialityNotes*, *DigitalSignature*, *TermsOfUse*, *CertifiedBy*, and the ability to add multiple files with the *SupportingDocumentation* element. *Departures* hold information about the departures from the standard that have been employed in the creation of the report. The *StatementOfProfessionalism* element is used to document the firm or surveyor's stance on professionalism in respect to the Professional Statements around professionalism issued by the RICS. For example, Anti Money Laundering. The associated *link* attribute supports a URI to direct readers to a statement defining compliance.



Currency

StatedCurrency is a multiple occurring element defining the ISO4217 currency code (e.g. USD) and information about whether it is the primary reporting currency, its respective exchange rate to the primary currency, and date of the stated exchange rate.

In the instance where a report is given in more than one currency, at least one currency should be stated with the *isPrimaryCurrency* boolean set as 'true', with all others set to 'false'. Each of the non-primary currency elements should have their *currencyExchangeRateToPrimary* attribute set to the value that multiplies the stated currency to the primary currency. For example, should the primary stated currency be GBP and the secondary stated currency be USD, then the *currencyExchangeRateToPrimary* should be '1' for the GBP currency and (approximately at pixel time) '1.30' for the USD exchange rate.



A *ReportRevisionNumber* element is facilitated for version control purposes.

The *OtherDocumentation* element contains information about files which include additional information pertinent to the report. Files may be externally referenced via URIs or internally encoded, by a file encoding method such as Base64.

Costed Project

In addition to the *IcmsMeta* element, each *IcmsMeasurement*, must contain one or more *CostedProject* elements. This element contains the top-level project information and the objects that have been constructed (for example, a building, bridge, tunnel etc.).

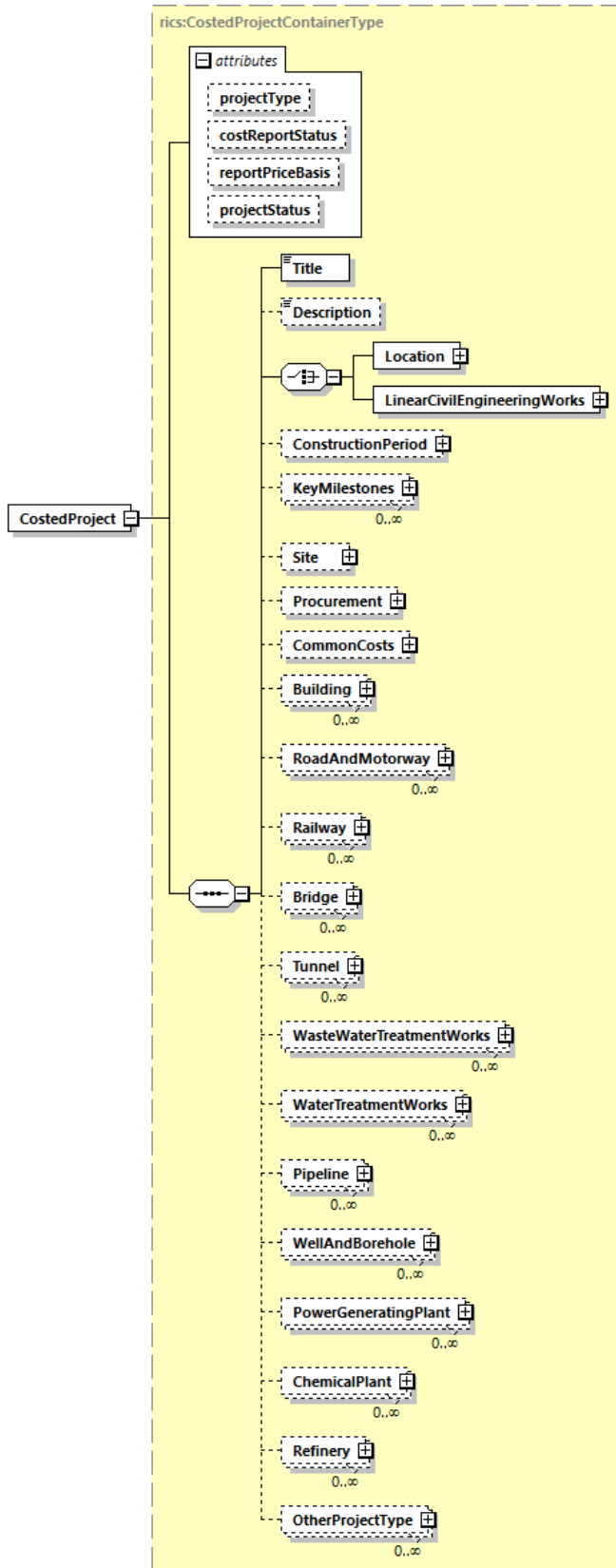
The attributes of a *CostedProject* are as follows:

- *projectType*:
 - This is the type of construction project which generally matches the primary construction object.
- *costReportStatus*:
 - Details the status of the cost report, values available are:
 - *preConstructionForecast*, *atTender*, *duringConstruction* or *actualCostsOfConstructionPostCompletion*.
- *reportPriceBasis*:
 - Details the price basis, either fluctuating or fixed.
- *projectStatus*:
 - The status of the programme. Values may be:
 - *initiationAndConcept*, *design*, *constructionAndCommissioning* or *complete*.

Elements within the *CostedProject* include the project's *Title* and *Description* which are standard strings. In addition, the project should have a *Location* or *LinearCivilEngineeringWorks* element which details a start and endpoint in xAL format for projects with no single address location.

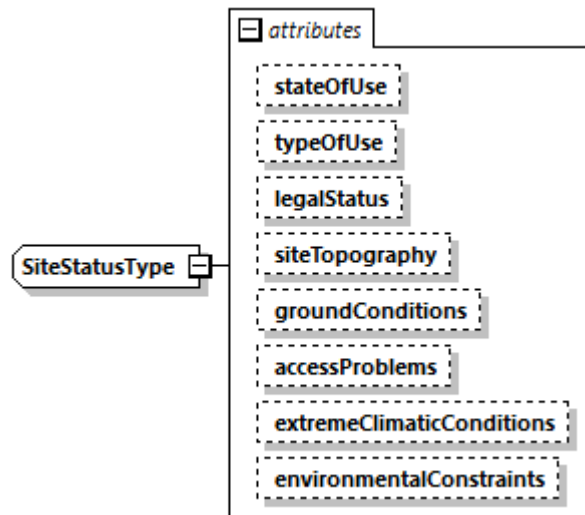
The *ConstructionPeriod* element features a *Duration* (which should be valued in months) and the *DateFrom/To* which also contain attributes to specify how the dates have been defined. *DateFrom* may specify *definedBy* as *startOfDemolitionAndSitePreparation* (or any other value if required) and *DateTo* has an attribute *stateTo* which may be set to *completionOfCommissioning* or any other value as required.

KeyMilestones elements can be added to the report which feature a *Description* and a *Date*.



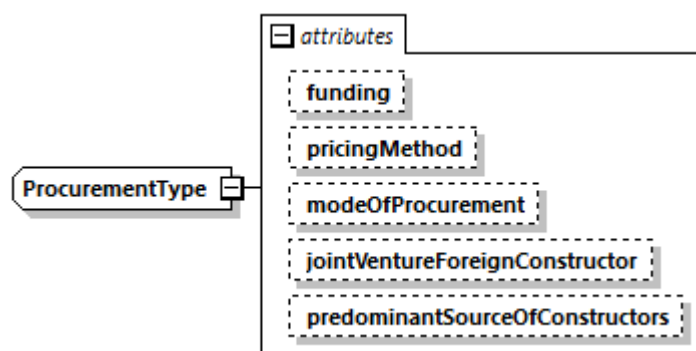
Site & Procurement

The *Site* element features a set of attributes as below. Each attribute has a set of values that are taken from the ICMS Standard and can be found in the enumerations section of the data standard.



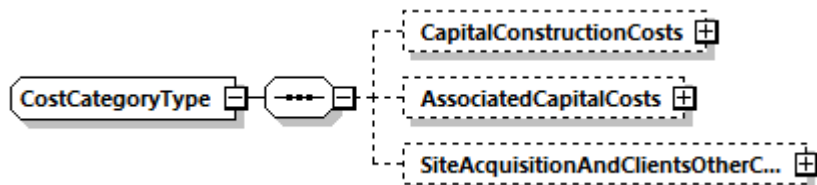
Each of these attributes are optional, but it should be noted that although the *Site* element is optional, there may only be a maximum of one *Site* entry per *CostedProject* element.

The *Procurement* element is similar to the *Site* element, namely it is one singleton element that has a number of attributes associated that define the procurement features of the project. Each of the acceptable values of the attributes can be found within the enumerations section of the data standard.



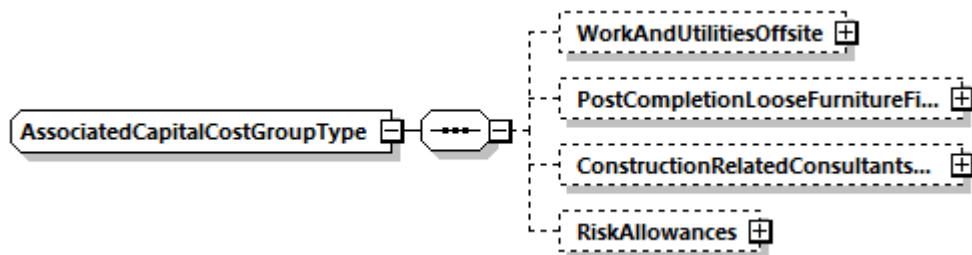
Common Costs

Each *CostedProject* element may have assigned to it a set of common costs as defined in the General Notes of the ICMS standard, note (b), to capture costs that are common to all or most sub-projects and which are better shown separately to permit reallocation in the appropriate way when the specific need arises.



The *CommonCosts* element is a *CostCategoryType*, which is also used within each project and sub-project, and contains three top-level elements: *CapitalConstructionCosts*, *AssociatedCapitalCosts* and *SiteAcquisitionAndClientsOtherCosts*.

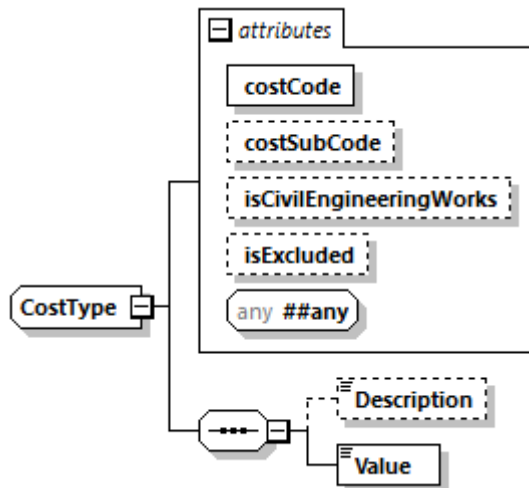
Each of these three elements have a number of cost categories, each of which may have multiple costs within them. For example, the *AssociatedCapitalCosts* element contains the following categories:



Each of these cost categories may contain many *Cost* elements which enable cost declarations to be made within each category.

Costs

The *Cost* element structure is shown below:



The ICMS standard defines a four-level cost hierarchy:

- Level 1: Project or Sub-Project
- Level 2: Cost Category
- Level 3: Cost Group
- Level 4: Cost Sub-Group

The *costCode* attribute is used to capture the top three levels of this hierarchy with the option to use the *costSubCode* attribute to define a further level of granularity at level 4. The *KnownCostCodeEnum* enumeration provides a set of recommended values for the *costCode* attribute in the format 'XX.YY.ZZZ'. As an example, the cost code for 'Road and motorways, Construction Costs, Surface and underground drainage' is represent by 'RM.CC.060'.

The *costCode* and *subCostCode* attributes will support mapping between various coding structures, but if other alternative coding structures are used, the schema will still enforce the correct reporting architecture through the hierarchical element structure.

Given the potential for duplicate cost codes across building and civil engineering project types, to differentiate between a cost code that applies to a Building project rather than a Civil Engineering project, an additional attribute is provide. By default *isCivilEngineeringWorks* is 'false', but should be set to 'true' to denote a cost code that is applicable to Civil Engineering works.

The attribute *isExcluded* should be defined as "true" if the cost exists but is not being reported, as per general note (i) in the ICMS standard.

Additional attributes, denoted by the *##any* attribute may be added to the cost element to support other costing attributes which are not yet required by the ICMS standard.

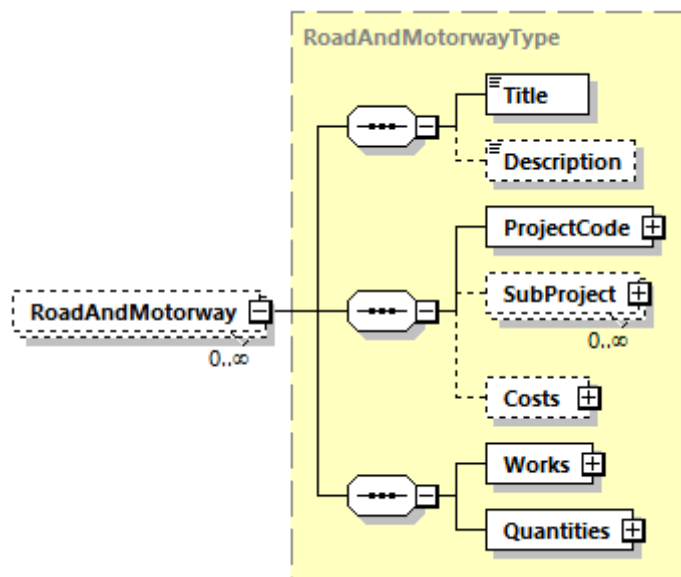
Each cost has an optional *Description* element and a mandatory *Value* element. The *Value* element contains the actual cost value. For example, if the cost of "Evacuation and Disposal" was £25,000 the *Value* element should contain the value "25000".

Costs should be suitably rounded off, as per general note (h) in the ICMS standard.

Projects & SubProjects

Each *CostedProject* contains one or more objects that are defined as being part of the overall project being measured. These objects form the core components of the measurement and may contain sub-projects. The full list of projects and/or sub-projects are shown in the diagram above.

This list of building/infrastructure objects corresponds to the list of projects/sub-projects within Part 2 of the ICMS Framework. Although each element is structured slightly differently with attributes and elements that are specific to the type of project, each has a similar overall architecture as shown below in the *RoadAndMotorwayType*:



Each element contains a *Title* and *Description*, together with a *ProjectCode* element which allows for the definition of an entity to be recorded via an additional standard. The two suggested standards are either "ISO12006-2" or "ISICRev4", the ISO standard of Building construction -- Organization of information about construction works -- Part 2: Framework for classification or the UN's International Standard Industrial Classification of All Economic Activities, Rev.4, respectively.

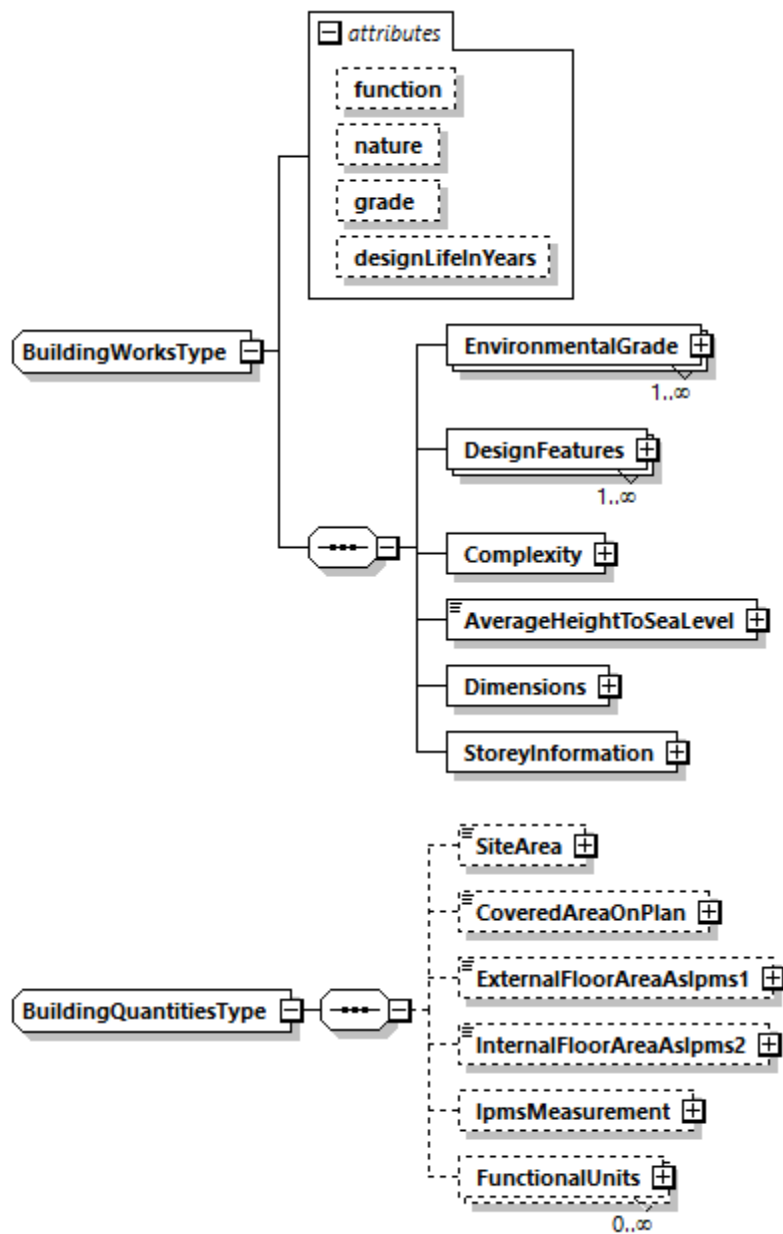
The *SubProject* element allows for full nesting of *CostedProjects*. Whilst in theory, there is no limit to the amount of nesting which can take place, the ICMS standard itself suggests only two levels. As an example, using this structure, it is possible to define a costed project containing a building, which then has a road and a bridge as two sub-projects.

The *Costs* element is identical to the *CommonCosts* element described at the *CostedProject* level, above and supports the documentation of costs at the level of the project and sub-project objects.

Works & Quantities

The *Works* and *Quantities* elements allows for further definition of the project/sub-project and contain attributes describing the object which may be used for benchmarking and other analytical tasks. In addition to summary measurements for IPMS1 and IPMS2, a more detailed set of IPMS measurements can be included using the *IpmsMeasurement* element as defined in the IPMS data standard which is described in a separate document.

For example, the *Building* type project object has the following element structure:



Address Types

With the use of the OASIS XML address specification (xAL) it is possible to define property addresses very precisely. The following examples, taken from the Oasis website, are valid xAL representations:

```
Level 12, 67 Albert Avenue  
Chatswood  
NSW 2067  
Australia
```

```
<AddressDetails>  
<AddressLines>  
  <AddressLine>Level 12, 67 Albert Avenue</AddressLine>  
  <AddressLine>Chatswood</AddressLine>  
  <AddressLine>NSW 2209</AddressLine>  
  <AddressLine>Australia</AddressLine>  
</AddressLines>  
</AddressDetails>
```

```
Level 12, 67 Albert Avenue, Chatswood, NSW 2067  
PO Box: 773, Chatswood, NSW 2057  
Australia
```

```
<AddressDetails AddressType="Primary and Residential">  
<Country>  
  <CountryName>Australia</CountryName>  
  <AdministrativeArea>  
    <AdministrativeAreaName>NSW</AdministrativeAreaName>  
  <Locality>  
    <LocalityName>Chatswood</LocalityName>  
    <Thoroughfare Type="Street">  
      <ThoroughfareNumber>67</ThoroughfareNumber>  
      <ThoroughfareName>Archer Street</ThoroughfareName>  
    <Premise Type="Building">  
      <BuildingName>Egis</BuildingName>  
      <SubPremise Type="LEVEL">  
        <SubPremiseNumber>12</SubPremiseNumber>  
      </SubPremise>  
    </Premise>  
  </Thoroughfare>  
<PostalCode>  
  <PostalCodeNumber>2067</PostalCodeNumber>  
</PostalCode>  
</Locality>  
</AdministrativeArea>  
</Country>  
</AddressDetails>
```

Address Types

Chatswood Grove, Block A, Level 2, Suite 1A, 12-14 Malvern Avenue,
Adjacent to Chatswood Chase, Chatswood, NSW 2067, Australia

```
<AddressDetails>
  <Country>
    <CountryName>Australia</CountryName>
  <AdministrativeArea>
    <AdministrativeAreaName>NSW</AdministrativeAreaName>
  <Locality>
    <LocalityName>Chatswood</LocalityName>
  <Thoroughfare>
    <ThoroughfareNumberRange Type="EVEN">
      <ThoroughfareNumberFrom>
        <ThoroughfareNumber>12</ThoroughfareNumber>
      </ThoroughfareNumberFrom>
      <ThoroughfareNumberTo>
        <ThoroughfareNumber>14</ThoroughfareNumber>
      </ThoroughfareNumberTo>
    </ThoroughfareNumberRange>
    <ThoroughfareName>Malvern</ThoroughfareName>
    <ThoroughfareTrailingType>Avenue</ThoroughfareTrailingType>
  <Premise Type="Building">
    <BuildingName>CHASTWOOD GROVE</BuildingName>
    <SubPremise Type="BLOCK">
      <SubPremiseNumber>A</SubPremiseNumber>
      <SubPremise Type="LEVEL">
        <SubPremiseNumber>2</SubPremiseNumber>
      </SubPremiseNumber>
    <SubPremise Type="SUITE">
      <SubPremiseNumber>1</SubPremiseNumber>
      <SubPremiseNumberSuffix>A</SubPremiseNumberSuffix>
    </SubPremise>
    </SubPremise>
    </SubPremise>
    <Premise Type="SHOPPING CENTRE" PremiseDependency="PREMISE"
PremiseDependencyType="ADJACENT TO">
      <PremiseName>Chatswood Grove</PremiseName>
    </Premise>
  </Thoroughfare>
  <PostalCode>
    <PostalCodeNumber>2067</PostalCodeNumber>
  </PostalCode>
</Locality>
</AdministrativeArea>
</Country>
</AddressDetails>
```



Sample Data File

A simple RICS ICMS measurement may look something like this:

```
<?xml version="1.0" encoding="UTF-8"?>
<icms:IcmsMeasurement xmlns:icms="urn:rics:xsdschema:icms:1.0"
xmlns:ipms="urn:rics:xsdschema:ipms:2.0"
xmlns:rics="urn:rics:xsdschema:commontypes:2.0"
xmlns:xal="urn:oasis:names:tc:ciq:xsdschema:xAL:2.0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:rics:xsdschema:icms:1.0 rics-icms-1.0.xsd">
  <icms:IcmsMeta>
    <rics:Entity primaryUse="MixedUse" reference="1001">
      <rics:Description>New 2 storey office block, warehouse, soft
landscaping and paving. Removal of existing buildings in
completion</rics:Description>
      <xal:AddressDetails>
        <xal:AddressLines>
          <xal:AddressLine>Canberra</xal:AddressLine>
          <xal:AddressLine>Australian Capital
Territory</xal:AddressLine>
          <xal:AddressLine>Australia</xal:AddressLine>
        </xal:AddressLines>
      </xal:AddressDetails>
    </rics:Entity>
    <rics:ReportDate>2014-05-31</rics:ReportDate>
    <rics:Methodology>Historic Cost</rics:Methodology>
    <rics:Verification>ExistingVerifiedOnSite</rics:Verification>
    <icms:StatedCurrency iso4217Code="AUD" isPrimaryCurrency="true"/>
    <icms:ReportRevisionNumber>3</icms:ReportRevisionNumber>
  </icms:IcmsMeta>
  <icms:CostedProject projectType="building"
costReportStatus="preConstructionForecast" reportPriceBasis="fixed"
projectStatus="initiationAndConcept">
    <rics:Title>New Offices and Warehouse</rics:Title>
    <rics:Description>New 2 storey office block, warehouse, soft
landscaping and paving. Removal of existing buildings in
completion</rics:Description>
    <rics:Location>
      <xal:AddressLines>
        <xal:AddressLine>Canberra</xal:AddressLine>
        <xal:AddressLine>Australian Capital
Territory</xal:AddressLine>
        <xal:AddressLine>Australia</xal:AddressLine>
      </xal:AddressLines>
    </rics:Location>
    <rics:ConstructionPeriod>
      <rics:Duration>15</rics:Duration>
      <rics:DateFrom>
definedBy="startOfDemolitionAndSitePreparation"/>
      <rics:DateTo stateTo="completionOfCommissioning"/>
    </rics:ConstructionPeriod>
    <rics:Site stateOfUse="brownfield" typeOfUse="urban"
legalStatus="freehold" siteTopography="principallyFlat" groundConditions="soft"
accessProblems="average" extremeClimaticConditions="easy"
environmentalConstraints="easy"/>
  </icms:CostedProject>
</icms:IcmsMeasurement>
```



```
<rics:Procurement funding="private"
pricingMethod="lumpSumStipulatedPrice" modeOfProcurement="designBidBuild"
jointVentureForeignConstructor="false" predominantSourceOfConstructors="local"/>
  <rics:Building>
    <rics:Title>Office and Warehouse</rics:Title>
    <rics:ProjectCode>
      <rics:ClassificationStandard>
        <rics:StandardName>Building Code of
Australia</rics:StandardName>
        <rics:Code>01.04.02 (Commercial offices -
Suburban/Regional B Grade</rics:Code>
      </rics:ClassificationStandard>
    </rics:ProjectCode>
    <rics:SubProject>
      <rics:Title></rics:Title>
      <rics:Location></rics:Location>
    </rics:SubProject>
    <rics:Costs>
      <rics:CapitalConstructionCosts>
        <rics:DemolitionSitePreparationAndFormation>
          <rics:Cost costCode="1.01"
costSubCode="050" isCivilEngineeringWorks="false" isExcluded="false">
            <rics:Description>Demolition of
existing buildings</rics:Description>
            <rics:Value>600000</rics:Value>
          </rics:Cost>
          <rics:Cost costCode="1.01"
costSubCode="060" isCivilEngineeringWorks="false" isExcluded="false">
            <rics:Description>Site surface
clearance</rics:Description>
            <rics:Value>300000</rics:Value>
          </rics:Cost>
          <rics:Cost costCode="1.01"
costSubCode="080" isCivilEngineeringWorks="false" isExcluded="false">
            <rics:Description>Site
formation</rics:Description>
            <rics:Value>320000</rics:Value>
          </rics:Cost>
        </rics:DemolitionSitePreparationAndFormation>
      <rics:Substructure>
        <rics:Cost costCode="1.02"
costSubCode="020" isCivilEngineeringWorks="false" isExcluded="false">
            <rics:Description>Foundations up to
top of lowest floor slab</rics:Description>
            <rics:Value>1086000</rics:Value>
          </rics:Cost>
        </rics:Substructure>
      <rics:Structure>
        <rics:Cost costCode="1.03"
costSubCode="030.010" isCivilEngineeringWorks="false" isExcluded="false">
            <rics:Description>Structural wall
and columns</rics:Description>
            <rics:Value>285000</rics:Value>
          </rics:Cost>
      </rics:Structure>
    </rics:Costs>
  </rics:SubProject>
</rics:Building>
```



```
<rics:Cost costCode="1.03"
costSubCode="030.020" isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>Upper floors and
beams</rics:Description>
  <rics:Value>951000</rics:Value>
</rics:Cost>
<rics:Cost costCode="1.03"
costSubCode="030.030" isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>Roof beams and
slabs</rics:Description>
  <rics:Value>1056000</rics:Value>
</rics:Cost>
<rics:Cost costCode="1.03"
costSubCode="030.040" isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>Staircases</rics:Description>
  <rics:Value>72000</rics:Value>
</rics:Cost>
</rics:Structure>
<rics:ArchitecturalWorks-NonStructuralWorks>
  <rics:Cost costCode="1.04"
costSubCode="020.010" isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>Non-structural
external walls</rics:Description>
  <rics:Value>1957500</rics:Value>
</rics:Cost>
  <rics:Cost costCode="1.04"
costSubCode="020.050" isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>External
doors</rics:Description>
  <rics:Value>108800</rics:Value>
</rics:Cost>
  <rics:Cost costCode="1.04"
costSubCode="030.010" isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>Roof
finishes</rics:Description>
  <rics:Value>560000</rics:Value>
</rics:Cost>
  <rics:Cost costCode="1.04"
costSubCode="040.010" isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>Non-structural
internal walls and partitions</rics:Description>
  <rics:Value>658700</rics:Value>
</rics:Cost>
  <rics:Cost costCode="1.04"
costSubCode="040.060" isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>Internal
doors</rics:Description>
  <rics:Value>141000</rics:Value>
</rics:Cost>
  <rics:Cost costCode="1.04"
costSubCode="040.070" isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>Internal
wiondows</rics:Description>
  <rics:Value>131000</rics:Value>
```




```
</rics:Cost>
  <rics:Cost costCode="1.04"
costSubCode="050" isCivilEngineeringWorks="false" isExcluded="false">
    <rics:Description>Fittings and
sundries</rics:Description>
    <rics:Value>180000</rics:Value>
  </rics:Cost>
  <rics:Cost costCode="1.04"
costSubCode="060.010" isCivilEngineeringWorks="false" isExcluded="false">
    <rics:Description>Floor
finishes</rics:Description>
    <rics:Value>501000</rics:Value>
  </rics:Cost>
  <rics:Cost costCode="1.04"
costSubCode="060.020" isCivilEngineeringWorks="false" isExcluded="false">
    <rics:Description>Internal wall
finishes</rics:Description>
    <rics:Value>258300</rics:Value>
  </rics:Cost>
  <rics:Cost costCode="1.04"
costSubCode="060.030" isCivilEngineeringWorks="false" isExcluded="false">
    <rics:Description>Ceiling
finishes</rics:Description>
    <rics:Value>380700</rics:Value>
  </rics:Cost>
  <rics:Cost costCode="1.04"
costSubCode="070" isCivilEngineeringWorks="false" isExcluded="false">
    <rics:Description>Builder's work in
connection with services</rics:Description>
    <rics:Value>181500</rics:Value>
  </rics:Cost>
</rics:ArchitecturalWorks-NonStructuralWorks>
<rics:ServicesAndEquipment>
  <rics:Cost costCode="1.05"
costSubCode="010.080" isCivilEngineeringWorks="false" isExcluded="false">
    <rics:Description>Air handling and
distribution system</rics:Description>
    <rics:Value>2273500</rics:Value>
  </rics:Cost>
  <rics:Cost costCode="1.05"
costSubCode="020" isCivilEngineeringWorks="false" isExcluded="false">
    <rics:Description>Electrical
services</rics:Description>
    <rics:Value>1553000</rics:Value>
  </rics:Cost>
  <rics:Cost costCode="1.05"
costSubCode="040.010" isCivilEngineeringWorks="false" isExcluded="false">
    <rics:Description>Communications</rics:Description>
    <rics:Value>728000</rics:Value>
  </rics:Cost>
  <rics:Cost costCode="1.05"
costSubCode="050" isCivilEngineeringWorks="false" isExcluded="false">
    <rics:Description>Water supply and
above ground drainage</rics:Description>
```



```
<rics:Value>788700</rics:Value>
</rics:Cost>
<rics:Cost costCode="1.05"
costSubCode="080" isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>Fire
services</rics:Description>
  <rics:Value>266700</rics:Value>
</rics:Cost>
<rics:Cost costCode="1.05"
costSubCode="100" isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>Movement
systems</rics:Description>
  <rics:Value>247000</rics:Value>
</rics:Cost>
<rics:Cost costCode="1.05"
costSubCode="250" isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>Other specialist
services</rics:Description>
  <rics:Value>267500</rics:Value>
</rics:Cost>
</rics:ServicesAndEquipment>
<rics:SurfaceAndUndergroundDrainage>
  <rics:Cost costCode="1.06"
isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>Surface and
underground drainage</rics:Description>
  <rics:Value>165000</rics:Value>
</rics:Cost>
</rics:SurfaceAndUndergroundDrainage>
<rics:ExternalAndAncillaryWorks>
  <rics:Cost costCode="1.07"
isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>External and
ancillary works</rics:Description>
  <rics:Value>1138000</rics:Value>
</rics:Cost>
</rics:ExternalAndAncillaryWorks>
<rics:PreliminariesConstructors-SiteOverheads-
GeneralRequirements>
  <rics:Cost costCode="1.08"
isCivilEngineeringWorks="false" isExcluded="false">
  <rics:Description>Preliminaries,
Contractor's site overheads, general requirements</rics:Description>
  <rics:Value>2653000</rics:Value>
</rics:Cost>
</rics:PreliminariesConstructors-SiteOverheads-
GeneralRequirements>
  <rics:RiskAllowances>
    <rics:Cost costCode="1.09"
isCivilEngineeringWorks="false" isExcluded="false">
      <rics:Description>Risk
Allowances</rics:Description>
    <rics:Value>2438000</rics:Value>
  </rics:Cost>
</rics:RiskAllowances>
```



```
<rics:TaxesAndLevies>
  <rics:Cost costCode="1.10"
isCivilEngineeringWorks="false" isExcluded="true">
    <rics:Description>Taxes and
Levies</rics:Description>
    <rics:Value>0</rics:Value>
  </rics:Cost>
</rics:TaxesAndLevies>
</rics:CapitalConstructionCosts>
<rics:AssociatedCapitalCosts>
  <rics:WorkAndUtilitiesOffsite>
    <rics:Cost costCode="2.01"
isCivilEngineeringWorks="false" isExcluded="false">
    <rics:Description>Work and utilities
off-site</rics:Description>
    <rics:Value>290000</rics:Value>
  </rics:Cost>
</rics:WorkAndUtilitiesOffsite>

  <rics:PostCompletionLooseFurnitureFittingsAndEquipment>
    <rics:Cost costCode="2.02"
isCivilEngineeringWorks="false" isExcluded="false">
    <rics:Description>Post-completion
loose furniture, fittings and equipment</rics:Description>
    <rics:Value>2605600</rics:Value>
  </rics:Cost>

</rics:PostCompletionLooseFurnitureFittingsAndEquipment>

  <rics:ConstructionRelatedConsultantsAndSupervision>
    <rics:Cost costCode="2.03"
isCivilEngineeringWorks="false" isExcluded="false">
    <rics:Description>Construction-
related consultancies and supervision</rics:Description>
    <rics:Value>1380300</rics:Value>
  </rics:Cost>

</rics:ConstructionRelatedConsultantsAndSupervision>
  <rics:RiskAllowances>
    <rics:Cost costCode="2.04"
isCivilEngineeringWorks="false" isExcluded="false">
    <rics:Description>Risk
Allowances</rics:Description>
    <rics:Value>177000</rics:Value>
  </rics:Cost>
</rics:RiskAllowances>
</rics:AssociatedCapitalCosts>
<rics:SiteAcquisitionAndClientsOtherCosts>
  <rics:SiteAcquisition>
    <rics:Cost costCode="3.01"
isCivilEngineeringWorks="false" isExcluded="true">
    <rics:Description>Site
acquisition</rics:Description>
    <rics:Value>0</rics:Value>
  </rics:Cost>
```



```
</rics:SiteAcquisition>

  <rics:AdministrativeFinanceLegalAndMarketingExpenses>
    <rics:Cost costCode="3.02"
isCivilEngineeringWorks="false" isExcluded="false">
      <rics:Description>Administrative,
finance, legal and marketing expenses</rics:Description>
      <rics:Value>671850</rics:Value>
    </rics:Cost>

  </rics:AdministrativeFinanceLegalAndMarketingExpenses>
    <rics:SiteAcquisitionAndClientsOtherCosts>
      <rics:Costs>
        <rics:Works function="commercial" nature="newBuild"
grade="medium" designLifeInYears="40">
          <rics:EnvironmentalGrade>
            <rics:StandardName>NABERS (National Australian
Built Environment Rating System)</rics:StandardName>
            <rics:Grade>Four Star</rics:Grade>
            <rics:Status>targeted</rics:Status>
          </rics:EnvironmentalGrade>
          <rics:DesignFeatures structure="steel"
externalWalls="Tilt-up (precast) concrete panels"
environmentalControl="airConditioning" prefabricationDegree="25"/>
            <rics:Complexity
shapeOnPlan="squareRectangularOrSimilar" design="simple" methodOfWorking="Existing
buildings on site will remain operational during the construction. Staff will move
to new buildings. Old buildings demolished on completion of new 40 to 50 years"/>
            <rics:AverageHeightToSeaLevel unitOfMeasurement="MTR"
location="above">577</rics:AverageHeightToSeaLevel>
            <rics:Dimensions unitOfMeasurement="MTR"
description="Metres">
              <rics:Width>37.640</rics:Width>
              <rics:Length>64.85</rics:Length>
              <rics:Height>6.20</rics:Height>
            </rics:Dimensions>
            <rics:StoreyInformation>
              <rics:StoreyHeight unitOfMeasurement="MTR"
floorId="0">3</rics:StoreyHeight>
              <rics:TypicalStoreyHeight
unitOfMeasurement="MTR">3</rics:TypicalStoreyHeight>

            <rics:StoreyCountAboveGround>3</rics:StoreyCountAboveGround>

            <rics:StoreyCountBelowGround>0</rics:StoreyCountBelowGround>
          </rics:StoreyInformation>
          <rics:Works>
            <rics:Quantities>
              <rics:SiteArea
unitOfMeasurement="MTK">50000</rics:SiteArea>
              <rics:CoveredAreaOnPlan
unitOfMeasurement="MTK">7550</rics:CoveredAreaOnPlan>
              <rics:InternalFloorAreaAsIpms2
unitOfMeasurement="MTK">4770</rics:InternalFloorAreaAsIpms2>
            </rics:Quantities>
```



```
</rics:Building>  
</icms:CostedProject>  
</icms:IcmsMeasurement>
```