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Ufficio federale di topografia swisstopo

Istruzione

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Catasto RDPP DATA Extract

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1 Introduzione

La presente istruzione disciplina lo schema XML e JSON dell'ATA-Extract del Catasto delle restrizioni di diritto pubblico della proprietà. La struttura dell'ATA-Extract è definita nel modello quadro.

Il DATA-Extract previsto dal modello quadro al capitolo 6.5 Estratto del Catasto contiene i singoli dati RDPP relativi a un determinato fondo. Esso costituisce un prodotto intermedio del Catasto RDPP, a partire dal quale è possibile generare l'estratto statico e/o dinamico.

Il contenuto del DATA-Extract si orienta all'istruzione «Catasto RDPP – Contenuto e rappresentazione dell'estratto statico»; gli elementi contenuti nel cap. 3 dell'istruzione «Catasto RDPP – Contenuto e rappresentazione dell'estratto statico» si ritrovano pertanto nello schema del DATA-Extract.

1.1 Basi giuridiche

L'Ordinanza sul Catasto delle restrizioni di diritto pubblico della proprietà (OCRDPP RS 510.622.4) costituisce la base giuridica dell'ATA-Extract.

Art. 10 Estratti

- ¹ Un estratto è costituito da una rappresentazione analogica o digitale di contenuti del Catasto concernenti almeno un bene immobile o un diritto per sé stante e permanente.
- ² I dati concernenti le restrizioni di diritto pubblico della proprietà sono sovrapposti al livello d'informazione «Beni immobili» della misurazione ufficiale.
- ³ Gli estratti informano circa quali contenuti del Catasto vi sono rappresentati e quali contenuti del Catasto sono stati omessi.
- ⁴ L'Ufficio federale di topografia emana istruzioni in merito all'allestimento e alla rappresentazione di estratti.

Art. 13 Servizio di ricerca

L'Ufficio federale di topografia swisstopo consente l'accesso ai Catasti cantonali attraverso un servizio di ricerca ai sensi dell'articolo 36 lettera b OGI.

Inoltre il modello quadro per il¹ Catasto RDPP stabilisce espressamente il reperimento degli estratti catastali tramite i web service.

Sulla base dell'articolo 10 capoverso 4 OCRDPP l'Ufficio federale di topografia emana la presente istruzione concernente il DATA-Extract.

1.2 Obiettivi

L'istruzione disciplina lo schema XML e JSON dell'ATA-Extract e costituisce un'integrazione del modello quadro per il Catasto RDPP (che definisce la struttura dei dati).

1.3 Abbreviazioni

Elenco delle abbreviazioni utilizzate nel presente documento

Abbreviazione	Denominazione completa
MU	misurazione ufficiale
Numero UST	Numero UST del Comune
EGRID	numero di identificazione federale dei fondi
JSON	JavaScript Object Notation
OGI	Ordinanza sulla geoinformazione
RDPP	Restrizione di diritto pubblico della proprietà
Catasto RDPP	Catasto delle restrizioni di diritto pubblico della proprietà
OCRDPP	Ordinanza sul Catasto delle restrizioni di diritto pubblico della proprietà
DDP	Diritto per sé stante e permanente
URL	Uniform Resource Location

¹ www.cadastre.ch/rdpp > Modelli di dati > Modello quadro

Abbreviazione	Denominazione completa
URI	Uniform Resource Identifier
XML	Extensible Markup Language

2 Spiegazioni di carattere generale

2.1 Principi di base

Il Catasto RDPP è un catasto pubblico e ufficiale e deve poter essere pertanto interrogato direttamente da sistemi di terzi.

La presente istruzione tratta il DATA Extract.

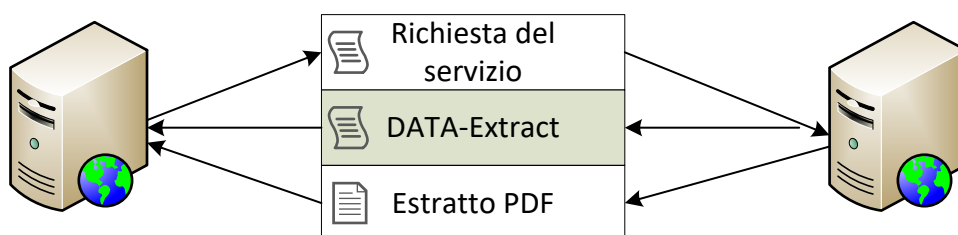


Figura 1: Rappresentazione schematica della funzione dell'estratto descritto

Di conseguenza al capitolo 6.5 Estratto del Catasto del modello quadro è esplicitamente indicato il riferimento delle informazioni attraverso un DATA-Extract.

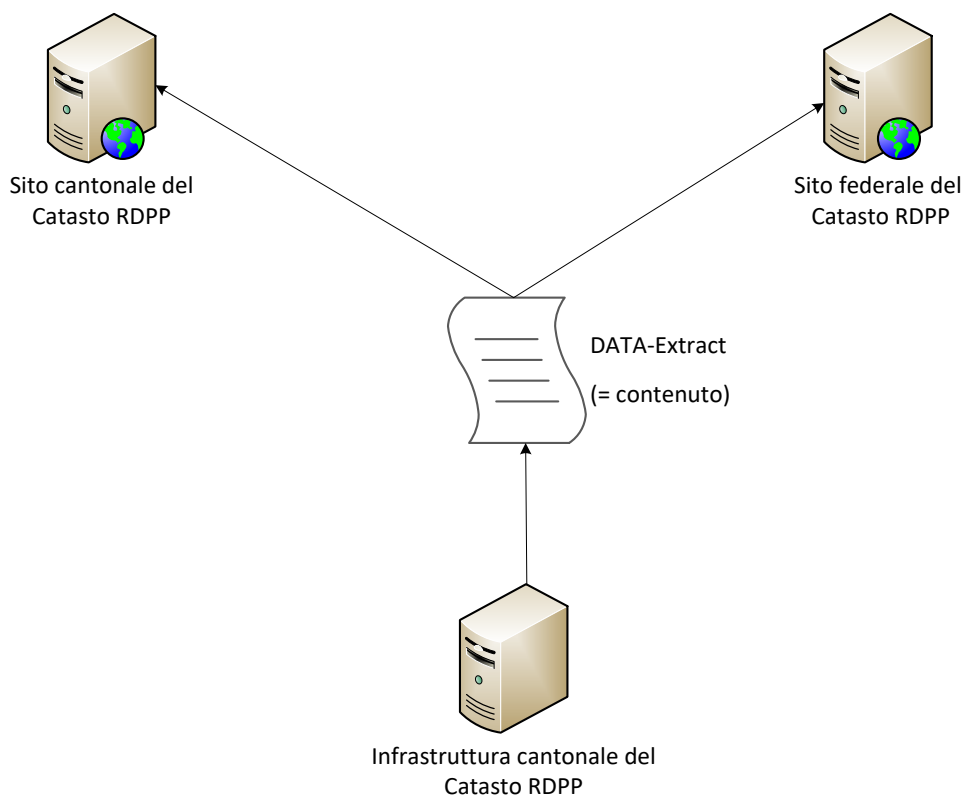


Figura 2: Esempio di realizzazione dell'DATA-Extract

3 Descrizione del modello di dati

Il modello di dati per il DATA-Extract è descritto al capitolo 6.5 Estratto del Catasto del modello quadro. Trattandosi di un'interfaccia tecnica, il modello è redatto in lingua inglese (un unico modello per tutta la Svizzera).

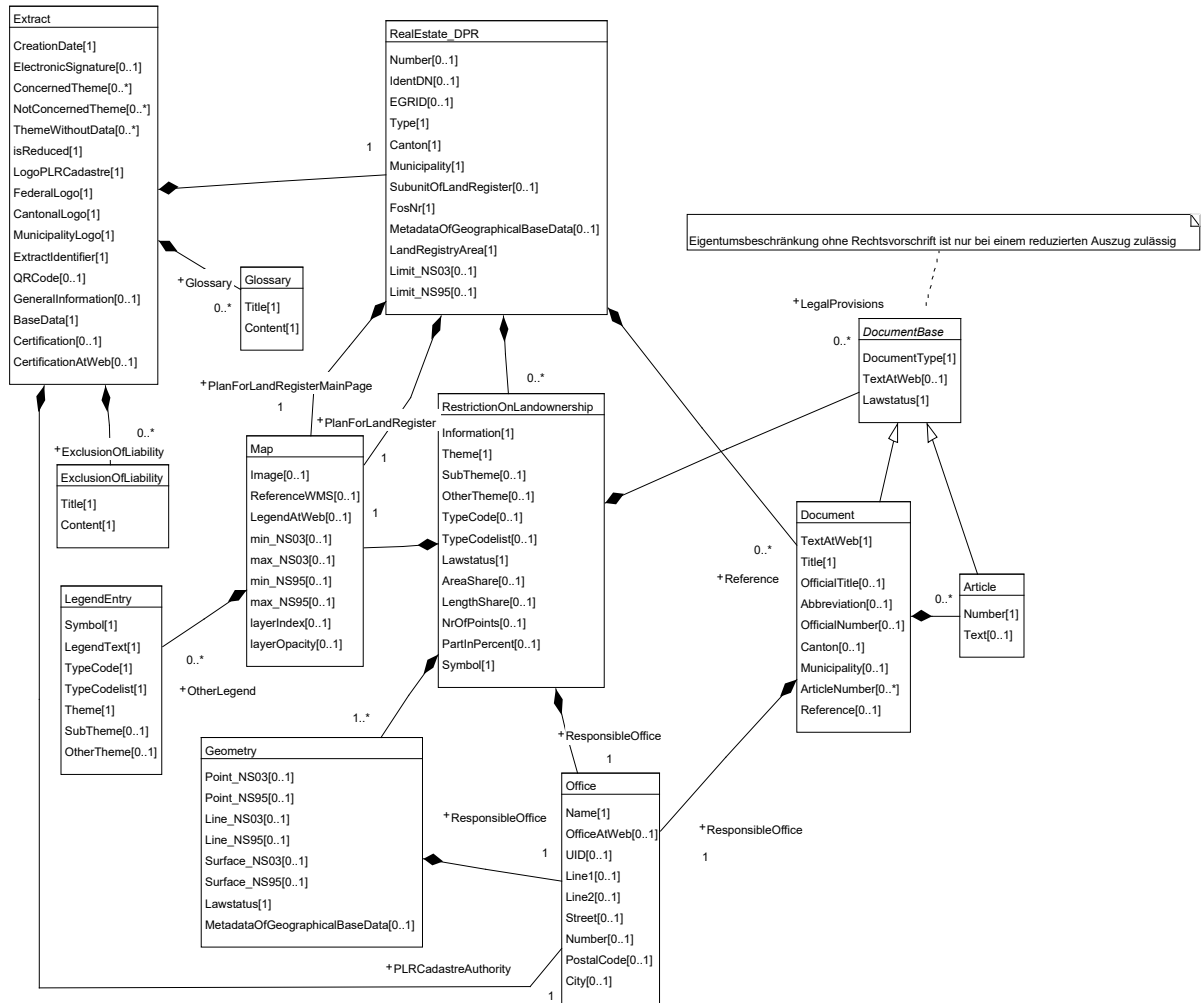


Figura 3: Diagramma delle classi UML secondo il modello quadro (in inglese)

Per facilitarne la comprensione il diagramma UML viene riportato qui anche in italiano:

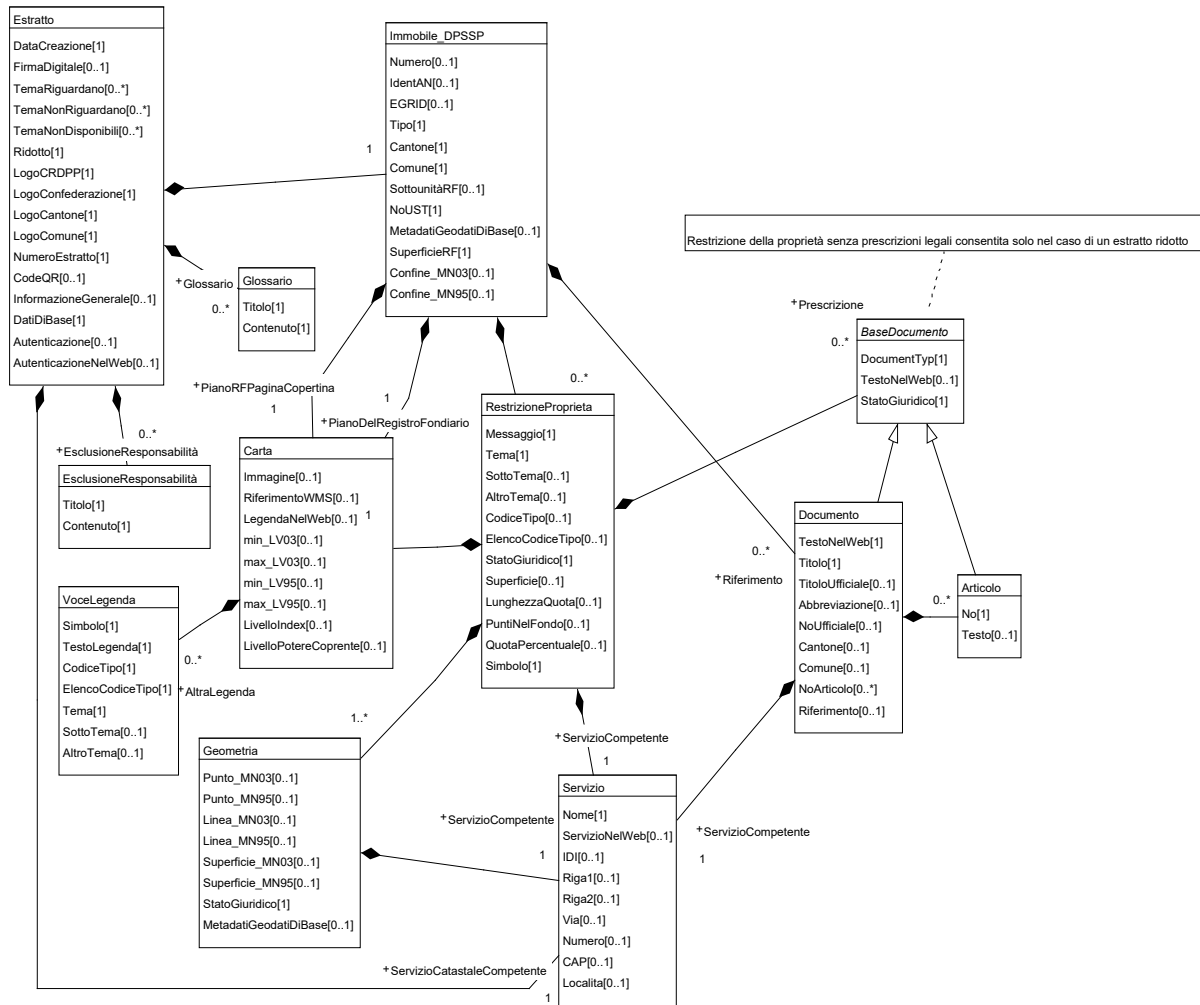


Figura 4: Diagramma delle classi UML secondo il modello quadro (in italiano)

4 Modifiche

La presente istruzione è stata modificata.

Modifiche al 25.08.2017

Le modifiche entrano in vigore per l'1.11.2017

1. Introduzione

Precisazione del rapporto esistente tra il DATA-Extract e l'estratto statico.

2. Descrizione del modello di dati

Adeguamento del diagramma UML in seguito a feedback successivi all'implementazione nei Cantoni di BE, BL, GE, NE, NW/OW.

Allegato A

Rettifica dello schema XML in seguito a feedback successivi all'implementazione nei Cantoni di BE, BL, GE, NE, NW/OW.

Allegato B

Rettifica dello schema JSON in seguito a feedback successivi all'implementazione nei Cantoni di BE, BL, GE, NE, NW/OW.

Allegato A. Schema per il DATA-Extract in XML (in inglese)

Lo schema riportato qui è pubblicato su http://schemas.geo.admin.ch/V_D/OeREB/1.0

```
<?xml version="1.0" encoding="UTF-8" ?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns="http://schemas.geo.admin.ch/V_D/OeREB/1.0/ExtractData"
  xmlns:gml="http://www.opengis.net/gml/3.2"
  xmlns:xmldsig="http://www.w3.org/2000/09/xmldsig#"
  targetNamespace=
    "http://schemas.geo.admin.ch/V_D/OeREB/1.0/ExtractData"
  elementFormDefault="qualified" attributeFormDefault="unqualified"
  version="1.0.3"
  >
  <xsd:import namespace="http://www.opengis.net/gml/3.2"
    schemaLocation="http://schemas.opengis.net/gml/3.2.1/gml.xsd"/>
  <xsd:import namespace="http://www.w3.org/2000/09/xmldsig#"
    schemaLocation="http://www.w3.org/TR/xmldsig-core/xmldsig-core-schema.xsd"/>

  <xsd:element name="extensions">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:any minOccurs="0" maxOccurs="unbounded" processContents="lax"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>

  <xsd:complexType name="WebReference">
    <xsd:simpleContent>
      <xsd:extension base="xsd:anyURI"/>
    </xsd:simpleContent>
  </xsd:complexType>
  <xsd:simpleType name="UID">
    <xsd:restriction base="xsd:normalizedString">
      <xsd:maxLength value="12"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="ArticleNumber">
    <xsd:restriction base="xsd:normalizedString">
      <xsd:maxLength value="20"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="RestrictiontypeCode">
    <xsd:restriction base="xsd:normalizedString">
      <xsd:maxLength value="40"/>
    </xsd:restriction>
  </xsd:simpleType>

  <xsd:simpleType name="CantonCode">
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="ZH"/>
      <xsd:enumeration value="BE"/>
      <xsd:enumeration value="LU"/>
      <xsd:enumeration value="UR"/>
      <xsd:enumeration value="SZ"/>
      <xsd:enumeration value="OW"/>
      <xsd:enumeration value="NW"/>
      <xsd:enumeration value="GL"/>
      <xsd:enumeration value="ZG"/>
      <xsd:enumeration value="FR"/>
      <xsd:enumeration value="SO"/>
      <xsd:enumeration value="BS"/>
      <xsd:enumeration value="BL"/>
      <xsd:enumeration value="SH"/>
      <xsd:enumeration value="AR"/>
      <xsd:enumeration value="AI"/>
      <xsd:enumeration value="SG"/>
      <xsd:enumeration value="GR"/>
      <xsd:enumeration value="AG"/>
      <xsd:enumeration value="TG"/>
      <xsd:enumeration value="TI"/>
      <xsd:enumeration value="VD"/>
      <xsd:enumeration value="VS"/>
      <xsd:enumeration value="NE"/>
      <xsd:enumeration value="GE"/>
      <xsd:enumeration value="JU"/>
      <xsd:enumeration value="FL"/>
    </xsd:restriction>
  </xsd:simpleType>
```



```

    </xsd:restriction>
  </xsd:simpleType>
  <xsd:simpleType name="MunicipalityCode">
    <xsd:restriction base="xsd:integer">
      <xsd:minInclusive value="1"/>
      <xsd:maxInclusive value="9999"/>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:complexType name="Lawstatus">
    <xsd:sequence>
      <xsd:element name="Code" type="LawstatusCode">
        </xsd:element>
      <xsd:element name="Text" type="LocalisedText">
        </xsd:element>
      </xsd:sequence>
    </xsd:complexType>
    <xsd:simpleType name="LawstatusCode">
      <xsd:restriction base="xsd:string">
        <xsd:enumeration value="inForce"/>
        <xsd:enumeration value="runningModifications"/>
      </xsd:restriction>
    </xsd:simpleType>
    <xsd:complexType name="Theme">
      <xsd:sequence>
        <xsd:element name="Code" type="ThemeCode">
          </xsd:element>
        <xsd:element name="Text" type="LocalisedText">
          </xsd:element>
        </xsd:sequence>
      </xsd:complexType>
      <xsd:simpleType name="ThemeCode">
        <xsd:restriction base="xsd:string">
          <xsd:pattern value="LandUsePlans|MotorwaysProjectPlaningZones|MotorwaysBuildingLines|RailwaysProjectPlanningZones|RailwaysBuildingLines|AirportsProjectPlanningZones|AirportsBuildingLines|AirportsSecurityZones|ContaminatedSites|ContaminatedMilitarySites|ContaminatedCivilAviationSites|ContaminatedPublicTransportSites|GroundwaterProtectionZones|GroundwaterProtectionSites|NoiseSensitivityLevels|ForestPerimeters|ForestDistanceLines|(ch\[A-Z]{2}\.[a-zA-Z][a-zA-Z0-9]*)|(ch\[0-9]{4}\.[a-zA-Z][a-zA-Z0-9]*)|(fl\[a-zA-Z][a-zA-Z0-9]*)"/>
        </xsd:restriction>
      </xsd:simpleType>
      <xsd:complexType name="LocalisedUri">
        <xsd:sequence>
          <xsd:element name="Language" type="LanguageCode" minOccurs="0"/>
          <xsd:element name="Text" type="xsd:anyURI"/>
        </xsd:sequence>
      </xsd:complexType>
      <xsd:complexType name="MultilingualUri">
        <xsd:sequence>
          <xsd:element name="LocalisedText" type="LocalisedUri" maxOccurs="unbounded">
            </xsd:element>
          </xsd:sequence>
        </xsd:complexType>
        <xsd:simpleType name="LanguageCode">
          <xsd:restriction base="xsd:string">
            <xsd:enumeration value="de"/>
            <xsd:enumeration value="fr"/>
            <xsd:enumeration value="it"/>
            <xsd:enumeration value="rm"/>
            <xsd:enumeration value="en"/>
          </xsd:restriction>
        </xsd:simpleType>
        <xsd:complexType name="LocalisedText">
          <xsd:sequence>
            <xsd:element name="Language" type="LanguageCode" minOccurs="0"/>
            <xsd:element name="Text">
              <xsd:simpleType>
                <xsd:restriction base="xsd:normalizedString">
                  </xsd:restriction>
                </xsd:simpleType>
              </xsd:element>
            </xsd:sequence>
          </xsd:complexType>
          <xsd:complexType name="LocalisedMText">
            <xsd:sequence>
              <xsd:element name="Language" type="LanguageCode" minOccurs="0"/>
              <xsd:element name="Text">
                <xsd:simpleType>
                  <xsd:restriction base="xsd:string">

```

```

        </xsd:restriction>
    </xsd:simpleType>
</xsd:element>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="MultilingualText">
    <xsd:sequence>
        <xsd:element name="LocalisedText" type="LocalisedText" maxOccurs="unbounded">
        </xsd:element>
    </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="MultilingualMText">
    <xsd:sequence>
        <xsd:element name="LocalisedText" type="LocalisedMText" maxOccurs="unbounded">
        </xsd:element>
    </xsd:sequence>
</xsd:complexType>
<xsd:simpleType name="Area">
    <xsd:restriction base="xsd:integer">
        <xsd:minInclusive value="0"/>
        <xsd:maxInclusive value="999999999"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="Length">
    <xsd:restriction base="xsd:integer">
        <xsd:minInclusive value="0"/>
        <xsd:maxInclusive value="999999999"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="RealEstateType">
    <xsd:restriction base="xsd:string">
        <xsd:enumeration value="RealEstate"/>
        <xsd:enumeration value="Distinct_and_permanent_rights.BuildingRight"/>
        <xsd:enumeration value="Distinct_and_permanent_rights.right_to_spring_water"/>
        <xsd:enumeration value="Distinct_and_permanent_rights.concession"/>
        <xsd:enumeration value="Distinct_and_permanent_rights.other"/>
        <xsd:enumeration value="Mineral_rights"/>
    </xsd:restriction>
</xsd:simpleType>
<xsd:complexType name="Office">
    <xsd:sequence>
        <xsd:element name="Name" type="MultilingualText">
        </xsd:element>
        <xsd:element name="OfficeAtWeb" type="WebReference" minOccurs="0"/>
        <xsd:element name="UID" type="UID" minOccurs="0"/>
        <xsd:element name="Line1" minOccurs="0">
            <xsd:simpleType>
                <xsd:restriction base="xsd:normalizedString">
                    <xsd:maxLength value="80"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:element>
        <xsd:element name="Line2" minOccurs="0">
            <xsd:simpleType>
                <xsd:restriction base="xsd:normalizedString">
                    <xsd:maxLength value="80"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:element>
        <xsd:element name="Street" minOccurs="0">
            <xsd:simpleType>
                <xsd:restriction base="xsd:normalizedString">
                    <xsd:maxLength value="100"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:element>
        <xsd:element name="Number" minOccurs="0">
            <xsd:simpleType>
                <xsd:restriction base="xsd:normalizedString">
                    <xsd:maxLength value="7"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:element>
        <xsd:element name="PostalCode" minOccurs="0">
            <xsd:simpleType>
                <xsd:restriction base="xsd:normalizedString">
                    <xsd:maxLength value="4"/>
                </xsd:restriction>
            </xsd:simpleType>
        </xsd:element>
        <xsd:element name="City" minOccurs="0">

```

```

    <xsd:simpleType>
      <xsd:restriction base="xsd:normalizedString">
        <xsd:maxLength value="60"/>
      </xsd:restriction>
    </xsd:simpleType>
  </xsd:element>
  <xsd:element ref="extensions" minOccurs="0"/>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="DocumentBase">
  <xsd:sequence>
    <xsd:element name="DocumentType">
      <xsd:simpleType>
        <xsd:restriction base="xsd:token">
          <xsd:enumeration value="LegalProvision"></xsd:enumeration>
          <xsd:enumeration value="Law"></xsd:enumeration>
          <xsd:enumeration value="Hint"></xsd:enumeration>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="TextAtWeb" type="MultilingualUri" minOccurs="0">
    </xsd:element>
    <xsd:element name="Lawstatus" type="Lawstatus"/>
    <xsd:element ref="extensions" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Glossary">
  <xsd:sequence>
    <xsd:element name="Title" type="MultilingualText">
    </xsd:element>
    <xsd:element name="Content" type="MultilingualMText">
    </xsd:element>
    <xsd:element ref="extensions" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="ExclusionOfLiability">
  <xsd:sequence>
    <xsd:element name="Title" type="MultilingualText">
    </xsd:element>
    <xsd:element name="Content" type="MultilingualMText">
    </xsd:element>
    <xsd:element ref="extensions" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="LegendEntry">
  <xsd:sequence>
    <xsd:choice>
      <xsd:element name="Symbol" type="xsd:base64Binary">
      </xsd:element>
      <xsd:element name="SymbolRef" type="xsd:anyURI">
      </xsd:element>
    </xsd:choice>
    <xsd:element name="LegendText" type="MultilingualText">
    </xsd:element>
    <xsd:element name="TypeCode" type="RestrictiontypeCode"/>
    <xsd:element name="TypeCodelist" type="xsd:anyURI"/>
    <xsd:element name="Theme" type="Theme"/>
    <xsd:element name="SubTheme" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="60"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element ref="extensions" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Article">
  <xsd:complexContent>
    <xsd:extension base="DocumentBase">
      <xsd:sequence>
        <xsd:element name="Number" type="ArticleNumber"/>
        <xsd:element name="Text" type="MultilingualMText" minOccurs="0">
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="Geometry">
  <xsd:sequence>
    <xsd:choice minOccurs="0">

```

```

    <xsd:element name="Point" type="gml:PointPropertyType"/>
    <xsd:element name="Line" type="gml:CurvePropertyType" />
    <xsd:element name="Surface" type="gml:SurfacePropertyType"/>
  </xsd:choice>
  <xsd:element name="Lawstatus" type="Lawstatus"/>
  <xsd:element name="MetadataOfGeographicalBaseData" type="xsd:anyURI" minOccurs="0"/>
  <xsd:element name="ResponsibleOffice" type="Office">
  </xsd:element>
  <xsd:element ref="extensions" minOccurs="0"/>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Map">
  <xsd:sequence>
    <xsd:element name="Image" type="xsd:base64Binary" minOccurs="0">
    </xsd:element>
    <xsd:element name="ReferenceWMS" type="xsd:anyURI" minOccurs="0"/>
    <xsd:element name="LegendAtWeb" type="WebReference" minOccurs="0"/>
    <xsd:element name="OtherLegend" type="LegendEntry" minOccurs="0" maxOccurs="unbounded">
    </xsd:element>
    <xsd:choice minOccurs="0">
      <xsd:sequence>
        <xsd:element name="min_NS03" type="gml:PointPropertyType" />
        <xsd:element name="max_NS03" type="gml:PointPropertyType" />
      </xsd:sequence>
      <xsd:sequence>
        <xsd:element name="min_NS95" type="gml:PointPropertyType" />
        <xsd:element name="max_NS95" type="gml:PointPropertyType" />
      </xsd:sequence>
    </xsd:choice>
    <xsd:element name="layerIndex">
      <xsd:simpleType>
        <xsd:restriction base="xsd:integer">
          <xsd:minInclusive value="-1000"/>
          <xsd:maxInclusive value="1000"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="layerOpacity">
      <xsd:simpleType>
        <xsd:restriction base="xsd:double">
          <xsd:minInclusive value="0.000"/>
          <xsd:maxInclusive value="1.000"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element ref="extensions" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="Document">
  <xsd:complexContent>
    <xsd:extension base="DocumentBase">
      <xsd:sequence>
        <xsd:element name="Title" type="MultilingualText">
        </xsd:element>
        <xsd:element name="OfficialTitle" type="MultilingualText" minOccurs="0">
        </xsd:element>
        <xsd:element name="Abbreviation" type="MultilingualText" minOccurs="0">
        </xsd:element>
        <xsd:element name="OfficialNumber" minOccurs="0">
          <xsd:simpleType>
            <xsd:restriction base="xsd:normalizedString">
              <xsd:maxLength value="20"/>
            </xsd:restriction>
          </xsd:simpleType>
        </xsd:element>
        <xsd:element name="Canton" type="CantonCode" minOccurs="0"/>
        <xsd:element name="Municipality" type="MunicipalityCode" minOccurs="0"/>
        <xsd:element name="ResponsibleOffice" type="Office">
        </xsd:element>
        <xsd:element name="ArticleNumber" type="ArticleNumber" minOccurs="0" max-
Occurs="unbounded">
        </xsd:element>
        <xsd:element name="Article" type="Article" minOccurs="0" maxOccurs="unbounded">
        </xsd:element>
        <xsd:element name="Reference" type="Document" minOccurs="0" maxOccurs="unbounded">
        </xsd:element>
      </xsd:sequence>
    </xsd:extension>
  </xsd:complexContent>
</xsd:complexType>
<xsd:complexType name="RestrictionOnLandownership">

```

```

<xsd:sequence>
  <xsd:element name="Information" type="MultilingualMText">
  </xsd:element>
  <xsd:element name="Theme" type="Theme"/>
  <xsd:element name="SubTheme" minOccurs="0">
    <xsd:simpleType>
      <xsd:restriction base="xsd:normalizedString">
        <xsd:maxLength value="60"/>
      </xsd:restriction>
    </xsd:simpleType>
  </xsd:element>
  <xsd:element name="TypeCode" type="RestrictiontypeCode" minOccurs="0"/>
  <xsd:element name="TypeCodelist" type="xsd:anyURI" minOccurs="0"/>
  <xsd:element name="Lawstatus" type="Lawstatus"/>
  <xsd:element name="AreaShare" type="Area" minOccurs="0"/>
  <xsd:element name="LengthShare" type="Length" minOccurs="0"/>
  <xsd:element name="NrOfPoints" minOccurs="0">
    <xsd:simpleType>
      <xsd:restriction base="xsd:integer">
        <xsd:minInclusive value="0"/>
        <xsd:maxInclusive value="10000000"/>
      </xsd:restriction>
    </xsd:simpleType>
  </xsd:element>
  <xsd:element name="PartInPercent" minOccurs="0">
    <xsd:simpleType>
      <xsd:restriction base="xsd:decimal">
        <xsd:minInclusive value="0.0"/>
        <xsd:maxInclusive value="100.0"/>
      </xsd:restriction>
    </xsd:simpleType>
  </xsd:element>
  <xsd:choice>
    <xsd:element name="Symbol" type="xsd:base64Binary">
    </xsd:element>
    <xsd:element name="SymbolRef" type="xsd:anyURI">
    </xsd:element>
  </xsd:choice>
  <xsd:element name="Geometry" type="Geometry" maxOccurs="unbounded">
  </xsd:element>
  <xsd:element name="Map" type="Map">
  </xsd:element>
  <xsd:element name="LegalProvisions" type="DocumentBase" minOccurs="0"
    maxOccurs="unbounded">
  </xsd:element>
  <xsd:element name="ResponsibleOffice" type="Office">
  </xsd:element>
  <xsd:element ref="extensions" minOccurs="0"/>
</xsd:sequence>
</xsd:complexType>
<xsd:complexType name="RealEstate_DPR">
  <xsd:sequence>
    <xsd:element name="Number" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="12"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="IdentDN" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="12"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="EGRID" minOccurs="0">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="14"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element name="Type" type="RealEstateType"/>
    <xsd:element name="Canton" type="CantonCode"/>
    <xsd:element name="Municipality">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="60"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
  </xsd:sequence>

```

```

</xsd:element>
<xsd:element name="SubunitOfLandRegister" minOccurs="0">
  <xsd:simpleType>
    <xsd:restriction base="xsd:normalizedString">
      <xsd:maxLength value="60"/>
    </xsd:restriction>
  </xsd:simpleType>
</xsd:element>
<xsd:element name="FosNr" type="MunicipalityCode"/>
<xsd:element name="MetadataOfGeographicalBaseData" type="xsd:anyURI" minOccurs="0"/>
<xsd:element name="LandRegistryArea" type="Area"/>
<xsd:element name="Limit" type="gml:MultiSurfacePropertyType" minOccurs="0">
</xsd:element>
<xsd:element name="RestrictionOnLandownership" type="RestrictionOnLandownership" minOccurs="0" maxOccurs="unbounded">
</xsd:element>
<xsd:element name="PlanForLandRegister" type="Map">
</xsd:element>
<xsd:element name="PlanForLandRegisterMainPage" type="Map">
</xsd:element>
<xsd:element name="Reference" type="Document" minOccurs="0" maxOccurs="unbounded">
</xsd:element>
<xsd:element ref="extensions" minOccurs="0"/>
</xsd:sequence>
</xsd:complexType>
<xsd:element name="Extract" type="Extract"/>
<xsd:complexType name="Extract">
  <xsd:sequence>
    <xsd:element name="CreationDate">
      <xsd:simpleType>
        <xsd:restriction base="xsd:dateTime">
          <xsd:minInclusive value="2009-01-01T00:00:00.000"/>
          <xsd:maxInclusive value="2999-12-31T23:59:59.000"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:element ref="xmlsig:Signature" minOccurs="0" maxOccurs="1"/>
    <xsd:element name="ConcernedTheme" type="Theme" minOccurs="0" maxOccurs="unbounded">
</xsd:element>
    <xsd:element name="NotConcernedTheme" type="Theme" minOccurs="0" maxOccurs="unbounded">
</xsd:element>
    <xsd:element name="ThemeWithoutData" type="Theme" minOccurs="0" maxOccurs="unbounded" >
</xsd:element>
    <xsd:element name="isReduced" type="xsd:boolean"/>
    <xsd:choice>
      <xsd:element name="LogoPLRCadastre" type="xsd:base64Binary" >
</xsd:element>
      <xsd:element name="LogoPLRCadastreRef" type="xsd:anyURI" >
</xsd:element>
    </xsd:choice>
    <xsd:choice>
      <xsd:element name="FederalLogo" type="xsd:base64Binary">
</xsd:element>
      <xsd:element name="FederalLogoRef" type="xsd:anyURI">
</xsd:element>
    </xsd:choice>
    <xsd:choice>
      <xsd:element name="CantonalLogo" type="xsd:base64Binary" >
</xsd:element>
      <xsd:element name="CantonalLogoRef" type="xsd:anyURI" >
</xsd:element>
    </xsd:choice>
    <xsd:choice>
      <xsd:element name="MunicipalityLogo" type="xsd:base64Binary" >
</xsd:element>
      <xsd:element name="MunicipalityLogoRef" type="xsd:anyURI" >
</xsd:element>
    </xsd:choice>
    <xsd:element name="ExtractIdentifier">
      <xsd:simpleType>
        <xsd:restriction base="xsd:normalizedString">
          <xsd:maxLength value="50"/>
        </xsd:restriction>
      </xsd:simpleType>
    </xsd:element>
    <xsd:choice minOccurs="0">
      <xsd:element name="QRCode" type="xsd:base64Binary">
</xsd:element>
      <xsd:element name="QRCodeRef" type="xsd:anyURI">
</xsd:element>
    </xsd:choice>
  </xsd:sequence>

```

```

<xsd:element name="GeneralInformation" type="MultilingualMText" minOccurs="0">
</xsd:element>
<xsd:element name="BaseData" type="MultilingualMText">
</xsd:element>
<xsd:element name="Glossary" type="Glossary" minOccurs="0" maxOccurs="unbounded">
</xsd:element>
<xsd:element name="RealEstate" type="RealEstate_DPR">
</xsd:element>
<xsd:element name="ExclusionOfLiability" type="ExclusionOfLiability" minOccurs="0" max-
Occurs="unbounded">
</xsd:element>
<xsd:element name="PLRCadastreAuthority" type="Office">
</xsd:element>
<xsd:element name="Certification" type="MultilingualMText" minOccurs="0">
</xsd:element>
<xsd:element name="CertificationAtWeb" type="MultilingualUri" minOccurs="0">
</xsd:element>
<xsd:element ref="extensions" minOccurs="0"/>
</xsd:sequence>
<xsd:attribute name="id" type="xsd:ID" use="optional"/>
<xsd:anyAttribute processContents="lax"/>
</xsd:complexType>
</xsd:schema>

```

Allegato B. Schema per il DATA-Extract in JSON (in inglese)

Lo schema riportato qui è pubblicato su http://schemas.geo.admin.ch/V_D/OeREB/1.0

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "$id": "http://schemas.geo.admin.ch/V_D/OeREB/1.0/extractdata.json",
  "fileVersion": "1.0.1",
  "type": "object",
  "anyOf": [{
    "$ref": "#/definitions/Extract"
  }],
  "definitions": {
    "base64Binary": {
      "pattern": "([A-Za-z0-9]{4})+={0,2}"
    },
    "dateTime": {
      "pattern": "[0-9]{4}-[0-9]{2}-[0-9]{2}T[0-9]{2}:[0-9]{2}:[0-9]{2}(. [0-9]{1,3})?"
    },
    "Signature": {
      "pattern": "([A-Za-z0-9]{4})+={0,2}"
    },
    "UID": {
      "type": "string",
      "maxLength": 12
    },
    "WebReference": {
      "type": "string",
      "format": "uri"
    },
    "LocalisedMText": {
      "type": "object",
      "properties": {
        "Language": {
          "$ref": "#/definitions/LanguageCode"
        },
        "Text": {
          "type": "string"
        }
      }
    },
    "LocalisedText": {
      "type": "object",
      "properties": {
        "Language": {
          "$ref": "#/definitions/LanguageCode"
        },
        "Text": {
          "type": "string"
        }
      }
    },
    "LocalisedUri": {
```



```

    "type": "object",
    "properties": {
      "Language": {
        "$ref": "#/definitions/LanguageCode"
      },
      "Text": {
        "$ref": "#/definitions/anyURI"
      }
    }
  },
  "MultilingualMText": {
    "type": "array",
    "items": {
      "$ref": "#/definitions/LocalisedMText"
    },
    "minItems": 1
  },
  "MultilingualText": {
    "type": "array",
    "items": {
      "$ref": "#/definitions/LocalisedText"
    },
    "minItems": 1
  },
  "MultilingualUri": {
    "type": "array",
    "items": {
      "$ref": "#/definitions/LocalisedUri"
    },
    "minItems": 1
  },
  "RealEstateType": {
    "enum": [
      "RealEstate",
      "Distinct_and_permanent_rights.BuildingRight",
      "Distinct_and_permanent_rights.right_to_spring_water",
      "Distinct_and_permanent_rights.concession",
      "Distinct_and_permanent_rights.other",
      "Mineral_rights"
    ]
  },
  "CantonCode": {
    "enum": [
      "ZH",
      "BE",
      "LU",
      "UR",
      "SZ",
      "OW",
      "NW",
      "GL",
      "ZG",
      "FR",
      "SO",
      "BS",
      "BL",

```

```

        "SH",
        "AR",
        "AI",
        "SG",
        "GR",
        "AG",
        "TG",
        "TI",
        "VD",
        "VS",
        "NE",
        "GE",
        "JU",
        "FL"
    ]
},
"MunicipalityCode": {
    "type": "number",
    "minimum": 0,
    "maximum": 9999
},
"LanguageCode": {
    "enum": [
        "de",
        "fr",
        "it",
        "rm",
        "en"
    ]
},
"anyURI": {
    "type": "string",
    "format": "uri"
},
"Area": {
    "type": "number",
    "minimum": 0,
    "maximum": 999999999
},
"Length": {
    "type": "number",
    "minimum": 0,
    "maximum": 999999999
},
"position": {
    "type": "array",
    "items": {
        "type": "number"
    },
    "minItems": 2
},
"positionArray": {
    "type": "array",
    "items": { "$ref": "#/definitions/position" }
},
"PointPropertyType": {

```

```

    "type": "object",
    "properties": {
      "type": { "enum": [ "Point" ] },
      "coordinates": { "$ref": "#/definitions/position" },
      "crs": {
        "type": "string"
      }
    }
  },
  "CurvePropertyType": {
    "type": "object",
    "properties": {
      "type": { "enum": [ "LineString","CompoundCurve" ] },
      "coordinates": { "$ref": "#/definitions/positionArray" },
      "crs": {
        "type": "string"
      },
      "isოსqlmmwkb": {
        "$ref": "#/definitions/base64Binary"
      }
    }
  },
  "SurfacePropertyType": {
    "type": "object",
    "properties": {
      "type": { "enum": [ "Polygon" ,"CurvePolygon" ] },
      "coordinates": {
        "type": "array",
        "items": { "$ref": "#/definitions/positionArray" },
        "minItems": 1
      },
      "crs": {
        "type": "string"
      },
      "isოსqlmmwkb": {
        "$ref": "#/definitions/base64Binary"
      }
    }
  },
  "MultiSurface": {
    "type": "object",
    "properties": {
      "type": { "enum": [ "MultiPolygon","MultiCurvePolygon" ] },
      "coordinates": {
        "type": "array",
        "items": {
          "type": "array",
          "items": { "$ref": "#/definitions/positionArray" },
          "minItems": 1
        },
        "minItems": 1
      },
      "crs": {
        "type": "string"
      },
      "isოსqlmmwkb": {

```

```

        "$ref": "#/definitions/base64Binary"
    }
}
},
"Theme": {
    "type": "object",
    "properties": {
        "Code": {
            "$ref": "#/definitions/ThemeCode"
        },
        "Text": {
            "$ref": "#/definitions/LocalisedText"
        }
    }
},
"ThemeCode": {
    "pattern":
"LandUsePlans|MotorwaysProjectPlaningZones|MotorwaysBuildingLines|RailwaysProjectPlanningZones
|RailwaysBuildingLines|AirportsProjectPlanningZones|AirportsBuildingLines|AirportsSecurityZone
Plans|ContaminatedSites|ContaminatedMilitarySites|ContaminatedCivilAviationSites|ContaminatedP
ublicTransportSites|GroundwaterProtectionZones|GroundwaterProtectionSites|NoiseSensitivityLeve
ls|ForestPerimeters|ForestDistanceLines|(ch.[A-Z]{2}.[a-zA-Z][a-zA-Z0-9]*)|(ch.[0-9]{4}.[a-zA-
Z][a-zA-Z0-9]*)|(fl.[a-zA-Z][a-zA-Z0-9]*)"
},
"DocumentTypeCode": {
    "pattern": "LegalProvision|Law|Hint"
},
"LegendEntry": {
    "type": "object",
    "properties": {
        "Symbol": {
            "$ref": "#/definitions/base64Binary"
        },
        "SymbolRef": {
            "$ref": "#/definitions/anyURI"
        },
        "LegendText": {
            "$ref": "#/definitions/MultilingualText"
        },
        "TypeCode": {
            "$ref": "#/definitions/RestrictiontypeCode"
        },
        "TypeCodelist": {
            "$ref": "#/definitions/anyURI"
        },
        "Theme": {
            "$ref": "#/definitions/Theme"
        },
        "SubTheme": {
            "type": "string",
            "maxLength": 60
        }
    }
},
"Map": {
    "type": "object",

```

```

"properties": {
  "Image": {
    "$ref": "#/definitions/base64Binary"
  },
  "ReferenceWMS": {
    "$ref": "#/definitions/anyURI"
  },
  "LegendAtWeb": {
    "$ref": "#/definitions/WebReference"
  },
  "OtherLegend": {
    "type": "array",
    "items": {
      "$ref": "#/definitions/LegendEntry"
    }
  },
  "min_NS03": {
    "$ref": "#/definitions/PointPropertyType"
  },
  "max_NS03": {
    "$ref": "#/definitions/PointPropertyType"
  },
  "min_NS95": {
    "$ref": "#/definitions/PointPropertyType"
  },
  "max_NS95": {
    "$ref": "#/definitions/PointPropertyType"
  },
  "layerIndex": {
    "type": "number",
    "minimum": -1000,
    "maximum": 1000
  },
  "layerOpacity": {
    "type": "number",
    "minimum": 0.000,
    "maximum": 1.000
  }
},
"Glossary": {
  "type": "object",
  "properties": {
    "Title": {
      "$ref": "#/definitions/MultilingualText"
    },
    "Content": {
      "$ref": "#/definitions/MultilingualMText"
    }
  }
},
"Document": {
  "type": "object",
  "properties": {
    "DocumentType": {
      "$ref": "#/definitions/DocumentTypeCode"
    }
  }
}

```

```

    },
    "TextAtWeb": {
      "$ref": "#/definitions/MultilingualUri"
    },
    },
    "Lawstatus": {
      "$ref": "#/definitions/Lawstatus"
    },
    },
    "Title": {
      "$ref": "#/definitions/MultilingualText"
    },
    },
    "OfficialTitle": {
      "$ref": "#/definitions/MultilingualText"
    },
    },
    "Abbreviation": {
      "$ref": "#/definitions/MultilingualText"
    },
    },
    "OfficialNumber": {
      "type": "string",
      "maxLength": 20
    },
    },
    "Canton": {
      "$ref": "#/definitions/CantonCode"
    },
    },
    "Municipality": {
      "$ref": "#/definitions/MunicipalityCode"
    },
    },
    "ResponsibleOffice": {
      "$ref": "#/definitions/Office"
    },
    },
    "ArticleNumber": {
      "type": "array",
      "items": {
        "$ref": "#/definitions/ArticleNumber"
      }
    },
    },
    "Article": {
      "type": "array",
      "items": {
        "$ref": "#/definitions/Article"
      }
    },
    },
    "Reference": {
      "type": "array",
      "items": {
        "$ref": "#/definitions/Document"
      }
    }
  }
},
"Lawstatus": {
  "type": "object",
  "properties": {
    "Code": {
      "$ref": "#/definitions/LawstatusCode"
    },
    },
    "Text": {

```

```

        "$ref": "#/definitions/LocalisedText"
    }
}
},
"LawstatusCode": {
    "enum": [
        "inForce",
        "runningModifications"
    ]
},
"ArticleNumber": {
    "type": "string",
    "maxLength": 20
},
"RestrictiontypeCode": {
    "type": "string",
    "maxLength": 40
},
"Article": {
    "type": "object",
    "properties": {
        "DocumentType": {
            "$ref": "#/definitions/DocumentTypeCode"
        },
        "TextAtWeb": {
            "$ref": "#/definitions/MultilingualUri"
        },
        "Lawstatus": {
            "$ref": "#/definitions/Lawstatus"
        },
        "Number": {
            "$ref": "#/definitions/ArticleNumber"
        },
        "Text": {
            "$ref": "#/definitions/MultilingualMText"
        }
    }
},
"Geometry": {
    "type": "object",
    "properties": {
        "Point": {
            "$ref": "#/definitions/PointPropertyType"
        },
        "Line": {
            "$ref": "#/definitions/CurvePropertyType"
        },
        "Surface": {
            "$ref": "#/definitions/SurfacePropertyType"
        },
        "Lawstatus": {
            "$ref": "#/definitions/Lawstatus"
        },
        "MetadataOfGeographicalBaseData": {
            "$ref": "#/definitions/anyURI"
        }
    },

```

```

        "ResponsibleOffice": {
            "$ref": "#/definitions/Office"
        }
    },
    "RestrictionOnLandownership": {
        "type": "object",
        "properties": {
            "Information": {
                "$ref": "#/definitions/MultilingualMText"
            },
            "Theme": {
                "$ref": "#/definitions/Theme"
            },
            "SubTheme": {
                "type": "string",
                "maxLength": 60
            },
            "TypeCode": {
                "$ref": "#/definitions/RestrictiontypeCode"
            },
            "TypeCodelist": {
                "$ref": "#/definitions/anyURI"
            },
            "Lawstatus": {
                "$ref": "#/definitions/Lawstatus"
            },
            "AreaShare": {
                "$ref": "#/definitions/Area"
            },
            "LengthShare": {
                "$ref": "#/definitions/Length"
            },
            "NrOfPoints": {
                "type": "number",
                "minimum": 0,
                "maximum": 10000000
            },
            "PartInPercent": {
                "type": "number",
                "minimum": 0.0,
                "maximum": 100.0
            },
            "Symbol": {
                "$ref": "#/definitions/base64Binary"
            },
            "SymbolRef": {
                "$ref": "#/definitions/anyURI"
            },
            "Geometry": {
                "type": "array",
                "items": {
                    "$ref": "#/definitions/Geometry"
                }
            },
            "Map": {

```



```

        "$ref": "#/definitions/Map"
    },
    "LegalProvisions": {
        "type": "array",
        "items": {
            "type": "object",
            "anyOf": [{
                "$ref": "#/definitions/Article",
                "$ref": "#/definitions/Document"
            }]
        }
    },
    "ResponsibleOffice": {
        "$ref": "#/definitions/Office"
    }
}
},
"RealEstate_DPR": {
    "type": "object",
    "properties": {
        "Number": {
            "type": "string",
            "maxLength": 12
        },
        "IdentDN": {
            "type": "string",
            "maxLength": 12
        },
        "EGRID": {
            "type": "string",
            "maxLength": 14
        },
        "Type": {
            "$ref": "#/definitions/RealEstateType"
        },
        "Canton": {
            "$ref": "#/definitions/CantonCode"
        },
        "Municipality": {
            "type": "string",
            "maxLength": 60
        },
        "SubunitOfLandRegister": {
            "type": "string",
            "maxLength": 60
        },
        "FosNr": {
            "$ref": "#/definitions/MunicipalityCode"
        },
        "MetadataOfGeographicalBaseData": {
            "$ref": "#/definitions/anyURI"
        },
        "LandRegistryArea": {
            "$ref": "#/definitions/Area"
        },
        "Limit": {

```

```

        "$ref": "#/definitions/MultiSurface"
    },
    "RestrictionOnLandownership": {
        "type": "array",
        "items": {
            "$ref": "#/definitions/RestrictionOnLandownership"
        },
        "minItems": 0
    },
    "PlanForLandRegister": {
        "$ref": "#/definitions/Map"
    },
    "PlanForLandRegisterMainPage": {
        "$ref": "#/definitions/Map"
    },
    "Reference": {
        "type": "array",
        "items": {
            "$ref": "#/definitions/Document"
        },
        "minItems": 0
    }
}
},
"ExclusionOfLiability": {
    "type": "object",
    "properties": {
        "Title": {
            "$ref": "#/definitions/MultilingualText"
        },
        "Content": {
            "$ref": "#/definitions/MultilingualMText"
        }
    }
},
"Office": {
    "type": "object",
    "properties": {
        "Name": {
            "$ref": "#/definitions/MultilingualText"
        },
        "OfficeAtWeb": {
            "$ref": "#/definitions/WebReference"
        },
        "UID": {
            "$ref": "#/definitions/UID"
        },
        "Line1": {
            "type": "string",
            "maxLength": 80
        },
        "Line2": {
            "type": "string",
            "maxLength": 80
        },
        "Street": {

```

```

        "type": "string",
        "maxLength": 100
    },
    "Number": {
        "type": "string",
        "maxLength": 7
    },
    "PostalCode": {
        "type": "string",
        "maxLength": 4
    },
    "City": {
        "type": "string",
        "maxLength": 60
    }
}
},
"Extract": {
    "type": "object",
    "properties": {
        "CreationDate": {
            "$ref": "#/definitions/dateTime"
        },
        "Signature": {
            "$ref": "#/definitions/Signature"
        },
        "ConcernedTheme": {
            "type": "array",
            "items": {
                "$ref": "#/definitions/Theme"
            },
            "minItems": 0
        },
        "NotConcernedTheme": {
            "type": "array",
            "items": {
                "$ref": "#/definitions/Theme"
            },
            "minItems": 0
        },
        "ThemeWithoutData": {
            "type": "array",
            "items": {
                "$ref": "#/definitions/Theme"
            },
            "minItems": 0
        },
        "isReduced": {
            "type": "boolean"
        },
        "LogoPLRCadastre": {
            "$ref": "#/definitions/base64Binary"
        },
        "LogoPLRCadastreRef": {
            "$ref": "#/definitions/anyURI"
        }
    },
}

```

```

"FederalLogo": {
  "$ref": "#/definitions/base64Binary"
},
"FederalLogoRef": {
  "$ref": "#/definitions/anyURI"
},
"CantonalLogo": {
  "$ref": "#/definitions/base64Binary"
},
"CantonalLogoRef": {
  "$ref": "#/definitions/anyURI"
},
"MunicipalityLogo": {
  "$ref": "#/definitions/base64Binary"
},
"MunicipalityLogoRef": {
  "$ref": "#/definitions/anyURI"
},
"ExtractIdentifier": {
  "type": "string",
  "maxLength": 50
},
"QRCode": {
  "$ref": "#/definitions/base64Binary"
},
"QRCodeRef": {
  "$ref": "#/definitions/anyURI"
},
"GeneralInformation": {
  "$ref": "#/definitions/MultilingualMText"
},
"BaseData": {
  "$ref": "#/definitions/MultilingualMText"
},
"Glossary": {
  "type": "array",
  "items": {
    "$ref": "#/definitions/Glossary"
  },
  "minItems": 0
},
"RealEstate": {
  "$ref": "#/definitions/RealEstate_DPR"
},
"ExclusionOfLiability": {
  "type": "array",
  "items": {
    "$ref": "#/definitions/ExclusionOfLiability"
  },
  "minItems": 0
},
"PLRCadastreAuthority": {
  "$ref": "#/definitions/Office"
},
"Certification": {
  "$ref": "#/definitions/MultilingualMText"
}

```

```
    },  
    "CertificationAtWeb": {  
      "$ref": "#/definitions/MultilingualUri"  
    }  
  }  
}  
}
```