
Voting Information Project Specification Documentation

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Welcome to the Voting Information Project's (VIP) *open XML* and *CSV* format specification. This data format provides an easy way to produce data that lets developers take a voter's address, compare it to street segments, and determine that voter's precinct (or precinct split). Knowing a voter's precinct allows information disseminators (such as [Google](#)) to provide voters with their official polling locations (and early voting sites), ballots (including both candidates and referenda), local election administrations, and election officials.

To see a changelog of all of the updates, please see [the GitHub repository](#).

1.1 XML Specification

- *Getting Started*
 - *Naming convention*
- *Best Practices*
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1.1.1 Getting Started

The actual election information specifies collections of elements, some containing links between each other. The entire set of tags must be encapsulated in a root object named `vip_object`. See the [sample xml file](#) and [xsd file](#) for more details.

Each top-level tag is a container for other fields, described in their own section. The only required top-level tags are the *source object* and the *election object*, each of which must be present exactly once. All other top-level tags can be repeated an unlimited number of times, or not included at all; order of top-level tags does not matter. Each top-level tag is required to have a single attribute, “id”, which is required to be unique in a data file. The id attribute for the state object should be the state’s FIPS number and this is strongly recommended. The id attributes are not required to remain constant for the same piece of semantic data across multiple productions of the feed (e.g. candidate Michael Smith, running for dogcatcher in Iowa, is not required to have the same candidate id attribute each time the state of Iowa publishes data).

In general, subtag data can appear a maximum of one time within each top-level tag object and in any order. Exceptions are noted below.

For the data itself, the special characters `&`, `<`, and `>` need to be encoded as `&`, `<`, and `>`, respectively.

Naming convention

The file containing the VIP feed should be named `vipFeed-[FIPS code for state or county]-[election year]-[election month]-[election day].xml`. If the file is zipped, the file extensions of `.zip` or `.xml.zip` are also acceptable.

For instance, `vipFeed-19-2012-11-06.zip` denotes Iowa's (the FIPS code for IA is 19) feed for the Nov 6, 2012 election.

1.1.2 Best Practices

There are many different ways to generate a valid feed. We strongly encourage reviewing and adhering to the guidelines described in the following best practices sections:

XML Data Best Practices

Following is a series of best practice for data collection and XML file creation and suggestions about best practices of formatting data within your VIP XML file.

Element Identifiers

Most elements within the VIP feed require unique identifiers, `xs:ID` data types, and in order to maintain uniqueness and provide context for the identifiers, the best practice is to use [Hungarian-Style](#) notation for identifiers.

ID values should follow Hungarian-Style notation, where the identifier prefix implicitly names the data element. Below is a list of preferred prefixes by element (e.g. `par00001` for a `Party id`):

Element	Prefix
BallotMeasureContest	bmc
BallotMeasureSelection	bms
BallotStyle	bs
Candidate	can
CandidateContest	cc
CandidateSelection	cs
ContactInformation	ci
Election	ele
ElectionAdministration	ea
ElectoralDistrict	ed
HoursOpen	hours
Locality	loc
Office	off
OrderedContest	oc
Party	par
PartyContest	pc
PartySelection	ps
Person	per
PollingLocation	pl
RetentionContest	rc
Source	src
State	st
StreetSegment	ss

File Structure

All XML files should be encoded UTF-8 and line breaks should be LF (\n) as opposed to CR LF (\r\n).

For consistency across files and to aid human readability all indentation of elements should be an indent of two spaces and tabs should not be used. Each child node of an element should also be indented an additional two spaces.

General Data Structure

All data that are presented to end users of the data (i.e. contest names, referendum text, polling location names, street names, proper names), where possible, should be converted to Title Case to aid readability.

All data should be trimmed to remove leading and trailing white space.

Optional elements without values should be omitted from XML feed.

Specific Data Types

Elements with a data type of `xs:integer` must contain a valid whole number greater than zero.

Elements with a data type of `xs:anyURI` should be entered as a fully qualified domain name (e.g. <https://www.votinginfoproject.org/>)

Elements with a data type of `xs:dateTime` should be entered in ISO-8601 format.

Elements with a data type of `xs:boolean` should either have a value of `true` or `false`

Elements with a data type of `xs:language` should contain a two character, lower-case, value corresponding to the ISO 639 standard.

Elements that have enumerations which include an `other` should have a corresponding value assigned to `OtherType` within the containing element. For example:

```
1 <BallotMeasureContest id="bm390616670907">
2   <BallotSelectionId>bms390616670907</BallotSelectionId>
3   <ElectoralDistrictId>ed3906177703103</ElectoralDistrictId>
4   <Name>Proposed Tax Levy School District</Name>
5   <SequenceOrder>34</SequenceOrder>
6   <FullText>
7     <Text language="en">An additional tax for the benefit of the Lockland Local_
8     ↪ School District, County of Hamilton,
9     ↪ Ohio, for the purpose of CURRENT EXPENSES at a rate not exceeding eleven and two-
10    ↪ tenths (11.2) mills for each
11    ↪ one dollar of valuation, which amounts to one dollar and twelve cents ($1.12)_
12    ↪ for each one hundred dollars of
13    ↪ valuation, for a continuing period of time, commencing in 2015, first due in_
14    ↪ calendar year 2016.</Text>
15   </FullText>
16   <SummaryText>
17     <Text language="en">4 Proposed Tax Levy</Text>
18   </SummaryText>
19   <Type>other</Type>
20   <OtherType>bond</OtherType>
21 </BallotMeasureContest>
```

Specific Data Elements

Street Segments: Valid street segment records should not contain leading zeros in `xs:integer` fields and should have a `Zip` value of 00000 if a value is unknown.

External Identifiers: External identifiers with an enumeration of `fips` should contain valid FIPS code values as defined by the [U.S. Census Bureau](#). External identifiers with an enumeration of `ocd-id` should contain a valid [Open Civic Data Division Identifier](#).

For long text fields (e.g. `FullText` in `BallotMeasureContest`) the XML line break (`
`) should be used to enforce line break styling.

In all fields the characters `<`, `>`, and `&` should be encoded `<`, `>`, and `&` respectively.

These sections outline several recommendations for feed layout, element identifiers, and enumeration selection that will make it easier to generate and troubleshoot your VIP feeds.

1.1.3 Elements & Enumerations

Single-page Format

XML Elements & Enumerations (Single Page)

- *Elements*
 - *Candidate*

- *BallotSelectionBase*
- *PartySelection*
- *OrderedContest*
- *ElectoralDistrict*
- *CandidateSelection*
- *Source*
- *ContactInformation*
 - * *Name and AddressLine Usage Note*
- *Office*
 - * *Term*
- *ElectionAdministration*
 - * *Department*
 - * *VoterService*
- *CandidateContest*
- *RetentionContest*
- *PollingLocation*
- *BallotMeasureContest*
- *StreetSegment*
- *BallotMeasureSelection*
- *PartyContest*
- *Election*
- *Precinct*
- *LatLng*
- *State*
- *ExternalIdentifiers*
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 - *OfficeTermType*
 - *CandidatePostElectionStatus*
 - *VoterServiceType*
 - *DistrictType*
 - *OebEnum*
 - *VoteVariation*
 - *CandidatePreElectionStatus*
 - *BallotMeasureType*
 - *IdentifierType*

Elements

Candidate

The Candidate object represents a candidate in a contest. If a candidate is running in multiple contests, each contest **must** have its own Candidate object. Candidate objects may **not** be reused between Contests.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Ballot-Name	<i>Internationalized-Text</i>	Required	Single	The candidate's name as it will be displayed on the official ballot (e.g. "Ken T. Cuccinelli II").	If the element is invalid or not present, then the implementation is required to ignore the Candidate element containing it.
Contact-Information	<i>ContactInformation</i>	Optional	Single	Contact and physical address information for this Candidate and/or their campaign (see <i>ContactInformation</i>).	If the element is invalid or not present, then the implementation is required to ignore it.
External-Identifiers	<i>ExternalIdentifiers</i>	Optional	Single	Another identifier for a candidate that links to another source of information (e.g. a campaign committee ID that links to a campaign finance system).	If the element is invalid or not present, then the implementation is required to ignore it.
File-Date	xs:date	Optional	Single	Date when the candidate filed for the contest.	If the field is invalid or not present, then the implementation is required to ignore it.
IsIncumbent	xs:boolean	Optional	Single	Indicates whether the candidate is the incumbent for the office associated with the contest.	If the field is invalid or not present, then the implementation is required to ignore it.
IsTopTicket	xs:boolean	Optional	Single	Indicates whether the candidate is the top of a ticket that includes multiple candidates.	If the field is invalid or not present, then the implementation is required to ignore it.
PartyId	xs:IDREF	Optional	Single	Reference to a <i>Party</i> element with additional information about the candidate's affiliated party. This is the party affiliation that is intended to be presented as part of ballot information.	If the field is invalid or not present, then the implementation is required to ignore it.
PersonId	xs:IDREF	Optional	Single	Reference to a <i>Person</i> element with additional information about the candidate.	If the field is invalid or not present, then the implementation is required to ignore it.
Post-Election-Status	<i>CandidatePostElectionStatus</i>	Optional	Single	Final status of the candidate (e.g. winner, withdrawn, etc...).	If the field is invalid or not present, then the implementation is required to ignore it.
Pre-Election-Status	<i>CandidatePreElectionStatus</i>	Optional	Single	Registration status of the candidate (e.g. filed, qualified, etc...).	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <Candidate id="can10961">
2   <BallotName>
3     <Text language="en">Ken T. Cuccinelli II</Text>
4   </BallotName>
5   <PartyId>par0001</PartyId>
6   <PersonId>per10961</PersonId>

```

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7 </Candidate>

BallotSelectionBase

A base model for all ballot selection types: *BallotMeasureSelection*, *CandidateSelection*, and *PartySelection*.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Sequence-Order	xs:int	Optional	Single	The order in which a selection can be listed on the ballot or in results. This is the default ordering, and can be overridden by <i>OrderedBallotSlectionIds</i> in <i>OrderedContest</i> .	If the field is invalid or not present, then the implementation is required to ignore it.

PartySelection

This element extends *BallotSelectionBase* to support contests in which the selections can be groups of one or more parties.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
PartyIds	xs:IDREFS	Required	Single	One or more <i>Party</i> IDs which collectively represent a ballot selection.	If one or more parties referenced are invalid or not present, the implementation is required to ignore the <i>PartySelection</i> containing it.

OrderedContest

OrderedContest encapsulates links to the information that comprises a contest and potential ballot selections. *OrderedContest* elements can be collected within a *BallotStyle* to accurately depict exactly what will show up on a particular ballot in the proper order.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
ContestId	xs:IDREF	Required	Single	Links to elements that extend <i>ContestBase</i> .	If the field is invalid or not present, the implementation is required to ignore the <i>OrderedContest</i> element containing it.
Ordered-Bal- lotS- elec- tion- Ids	xs:IDREFS	Optional	Single	Links to elements that extend <i>BallotS- election- Base</i> .	If the field is invalid or not present, the implementation is required to ignore it. If an <i>OrderedBallotSelectionIds</i> element is not present, the presumed order of the selection will be the order of <i>BallotSelectionBase</i> -extended elements referenced by the underlying <i>ContestBase</i> -extended elements.

```

1 <OrderedContest id="oc20003abc">
2   <ContestId>cc20003</ContestId>
3   <OrderedBallotSelectionIds>cs10961 cs10962 cs10963</OrderedBallotSelectionIds>
4 </OrderedContest>
    
```

ElectoralDistrict

The ElectoralDistrict object represents the geographic area in which contests are held. Examples of ElectoralDistrict include: “the state of Maryland”, “Virginia’s 5th Congressional District”, or “Union School District”. The geographic area that comprises a ElectoralDistrict is defined by which precincts link to the ElectoralDistrict.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
External-identifiers	<i>External-identifiers</i>	Optional	Single	Other identifiers that link to external datasets (e.g. OCD-IDs)	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Required	Single	Specifies the electoral area’s name.	If the field is invalid or not present, then the implementation is required to ignore the ElectoralDistrict object containing it.
Number	xs:integer	Optional	Single	Specifies the district number of the district (e.g. 34, in the case of the 34th State Senate District). If a number is not applicable, instead of leaving the field blank, leave this field out of the object; empty strings are not valid for xs:integer fields.	If the field is invalid or not present, then the implementation is required to ignore it.
Type	<i>District-Type</i>	Required	Single	Specifies the type of electoral area.	If the field is invalid or not present, then the implementation is required to ignore the ElectoralDistrict object containing it.
Other-Type	xs:string	Optional	Single	Allows for cataloging a new <i>DistrictType</i> option when Type is specified as “other”.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <ElectoralDistrict id="ed60129">
2   <ExternalIdentifiers>
3     <ExternalIdentifier>
4       <Type>ocd-id</Type>
5       <Value>ocd-division/country:us/state:va</Value>
6     </ExternalIdentifier>
7     <ExternalIdentifier>
8       <Type>fips</Type>
9       <Value>51</Value>
10    </ExternalIdentifier>
11  </ExternalIdentifiers>
12  <Name>Commonwealth of Virginia</Name>
    
```

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```

13 <Type>state</Type>
14 </ElectoralDistrict>
    
```

CandidateSelection

CandidateSelection extends *BallotSelectionBase* and represents a ballot selection for a candidate contest.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
CandidateIds	xs:IDREFS	Optional	Single	References a set of <i>Candidate</i> elements. The number of candidates that can be references is unbounded in cases where the ballot selection is for a ticket (e.g. “President/Vice President”, “Governor/Lt Governor”).	If the field is invalid or not present, then the implementation is required to ignore it.
EndorsementPartyIds	xs:IDREFS	Optional	Single	References a set of <i>Party</i> elements, which signifies one or more endorsing parties for the candidate(s).	If the field is invalid or not present, then the implementation is required to ignore it.
IsWriteIn	xs:boolean	Optional	Single	Signifies if the particular ballot selection allows for write-in candidates. If true, one or more write-in candidates are allowed for this contest.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <CandidateSelection id="cs10861">
2   <CandidateIds>can10861a can10861b</CandidateIds>
3   <EndorsementPartyIds>par0001</EndorsementPartyIds>
4 </CandidateSelection>
    
```

Source

The Source object represents the organization that is publishing the information. This object is the only required object in the feed file, and only one source object is allowed to be present.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Name	xs:string	Required	Single	Specifies the name of the organization that is providing the information.	If the field is invalid, then the implementation is required to ignore the <code>Source</code> element containing it.
VipId	xs:string	Required	Single	Specifies the ID of the organization. VIP uses FIPS codes for this ID.	If the field is invalid, then the implementation is required to ignore the <code>Source</code> element containing it.
Date-Time	xs:dateTime	Required	Single	Specifies the date and time of the feed production. The date/time is considered to be in the timezone local to the organization.	If the field is invalid, then the implementation is required to ignore it.
Description	<i>Internationalized-Text</i>	Optional	Single	Specifies both the nature of the organization providing the data and what data is in the feed.	If the element is invalid or not present, then the implementation is required to ignore it.
OrganizationUri	xs:string	Optional	Single	Specifies a URI to the home page of the organization publishing the data.	If the field is invalid or not present, then the implementation is required to ignore it.
Feed-ContactId	xs:IDREF	Optional	Single	Reference to the <i>Person</i> who will respond to inquiries about the information contained within the file.	If the field is invalid or not present, then the implementation is required to ignore it.
TouUri	xs:anyURI	Optional	Single	Specifies the website where the Terms of Use for the information in this file can be found.	If the field is invalid or not present, then the implementation is required to ignore it.
Version	xs:string	Required	Single	Specifies the version of the data	If the field is invalid, then the implementation is required to ignore it.

```

1 <Source id="src1">
2   <DateTime>2013-10-24T14:25:28</DateTime>
3   <Description>
4     <Text language="en">SBE is the official source for Virginia data</Text>
5   </Description>
6   <Name>State Board of Elections, Commonwealth of Virginia</Name>
7   <OrganizationUri>http://www.sbe.virginia.gov/</OrganizationUri>
8   <VipId>51</VipId>
9   <Version>5.0</Version>
10 </Source>

```

ContactInformation

For defining contact information about objects such as persons, boards of authorities, organizations, etc. `ContactInformation` is always a sub-element of another object (e.g. *ElectionAdministration*, *Office*, *Person*, *Source*). `ContactInformation` has an optional attribute `label`, which allows the feed to refer back to the original label for the information (e.g. if the contact information came from a CSV, `label` may refer to a row ID).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
AddressLine	xs:string	Optional	Repeats	The “location” portion of a mailing address. <i>See usage note.</i>	If the field is invalid or not present, then the implementation is required to ignore it.
Directions	<i>Internationalized-Text</i>	Optional	Single	Specifies further instructions for locating this entity.	If the element is invalid or not present, then the implementation is required to ignore it.
Email	xs:string	Optional	Repeats	An email address for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Fax	xs:string	Optional	Repeats	A fax line for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Hours [depre-cated]	<i>Internationalized-Text</i>	Optional	Single	Contains the hours (in local time) that the location is open (<i>NB: this element is deprecated in favor of the more structured :ref:‘single-xml-hours-open‘ element. It is strongly encouraged that data providers move toward contributing hours in this format).</i>	If the element is invalid or not present, then the implementation is required to ignore it.
HoursOpenId	xs:IDREF	Optional	Single	References an <i>HoursOpen</i> element, which lists the hours of operation for a location.	If the field is invalid or not present, then the implementation is required to ignore it.
LatLng	<i>LatLng</i>	Optional	Single	Specifies the latitude and longitude of this entity.	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Optional	Single	The name of the location or contact. <i>See usage note.</i>	If the field is invalid or not present, then the implementation is required to ignore it.
Phone	xs:string	Optional	Repeats	A phone number for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Uri	xs:anyURI	Optional	Repeats	An informational URI for the contact or location.	If the field is invalid or not present, then the implementation is required to ignore it.

Name and AddressLine Usage Note

The Name and AddressLine fields should be chosen so that a display or mailing address can be constructed programmatically by joining the Name and AddressLine fields together. For example, for the following address:

```
Department of Elections  
1 Dr. Carlton B. Goodlett Place, Room 48  
San Francisco, CA 94102
```

The name could be “Department of Elections” and the first address line could be “1 Dr. Carlton B. Goodlett Place, Room 48.”

However, VIP does not yet support the representation of mailing addresses whose “name” portion spans more than one line, for example:

```
California Secretary of State  
Elections Division  
1500 11th Street  
Sacramento, CA 95814
```

For addresses like the above, we recommend choosing a name like, “California Secretary of State, Elections Division” with “1500 11th Street” as the first address line. This would result in a programmatically constructed address like the following:

```
California Secretary of State, Elections Division  
1500 11th Street  
Sacramento, CA 95814
```

```
1 <ContactInformation label="ci10861a">  
2   <AddressLine>1600 Pennsylvania Ave</AddressLine>  
3   <AddressLine>Washington, DC 20006</AddressLine>  
4   <Email>president@whitehouse.gov</Email>  
5   <Phone>202-456-1111</Phone>  
6   <Phone annotation="TDD">202-456-6213</Phone>  
7   <Uri>http://www.whitehouse.gov</Uri>  
8 </ContactInformation>
```

Office

Office represents the office associated with a contest or district (e.g. Alderman, Mayor, School Board, et al).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
ContactInformation	<i>ContactInformation</i>	Optional	Repeats	Specifies the contact information for the office and/or individual holding the office.	If the element is invalid or not present, then the implementation is required to ignore it.
Description	<i>Internationalized-Text</i>	Optional	Single	A brief description of the office and its purpose.	If the element is invalid or not present, then the implementation is required to ignore it.
ElectoralDistrictId	<code>xs:IDREF</code>	Required	Single	Links to the <i>ElectoralDistrict</i> element associated with the office.	If the field is invalid or not present, the implementation is required to ignore the <i>Office</i> element containing it.
ExternalIdentifiers	<i>External-identifiers</i>	Optional	Single	Other identifiers that link this office to other related datasets (e.g. campaign finance systems, OCD IDs, et al.).	If the element is invalid or not present, then the implementation is required to ignore it.
FilingDeadline	<code>xs:date</code>	Optional	Single	Specifies the date and time when a candidate must have filed for the contest for the office.	If the field is invalid or not present, then the implementation is required to ignore it.
IsPartisan	<code>xs:boolean</code>	Optional	Single	Indicates whether the office is partisan.	If the field is invalid or not present, then the implementation is required to ignore it.
Name	<i>Internationalized-Text</i>	Required	Single	The name of the office.	If the field is invalid or not present, the implementation is required to ignore the <i>Office</i> element containing it.
OfficeHolderPersonIds	<code>xs:IDREF</code>	Optional	Single	Links to the <i>Person</i> element(s) that hold additional information about the current office holder(s).	If the field is invalid or not present, then the implementation is required to ignore it.
Term	<i>Term</i>	Optional	Single	Defines the term the office can be held.	If the element is invalid or not present, then the implementation is required to ignore it.

Term

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Type	<i>OfficeTermType</i>	Optional	Single	Specifies the type of office term (see <i>OfficeTermType</i> for valid values).	If the field is invalid or not present, the implementation is required to ignore the <i>Office</i> element containing it.
Start-Date	<code>xs:date</code>	Optional	Single	Specifies the start date for the current term of the office.	If the field is invalid or not present, then the implementation is required to ignore it.
End-Date	<code>xs:date</code>	Optional	Single	Specifies the end date for the current term of the office.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <Office id="off0000">
2   <ElectoralDistrictId>ed60129</ElectoralDistrictId>
3   <FilingDeadline>2013-01-01</FilingDeadline>

```

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4
5
6
7
8
9
10
11

```

<IsPartisan>>false</IsPartisan>
<Name>
  <Text language="en">Governor</Text>
</Name>
<Term>
  <Type>full-term</Type>
</Term>
</Office>
    
```

ElectionAdministration

The Election Administration represents an institution for serving a locality’s (or state’s) election functions.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
AbsenteeUri	xs:anyURI	Optional	Single	Specifies the web address for information on absentee voting.	If the field is invalid or not present, then the implementation is required to ignore it.
AmIRegisteredUri	xs:anyURI	Optional	Single	Specifies the web address for information on whether an individual is registered.	If the field is invalid or not present, then the implementation is required to ignore it.
Department	<i>Department</i>	Required	Repeats	Describes the administrative body for a particular voter service.	There must be at least one valid <i>Department</i> in each <i>ElectionAdministration</i> element. If no valid <i>Department</i> objects are present, the implementation is required to ignore the <i>ElectionAdministration</i> object that contains it/them.
ElectionsUri	xs:anyURI	Optional	Single	Specifies web address the administration’s website.	If the field is invalid or not present, then the implementation is required to ignore it.
RegistrationUri	xs:anyURI	Optional	Single	Specifies web address for information on registering to vote.	If the field is invalid or not present, then the implementation is required to ignore it.
RulesUri	xs:anyURI	Optional	Single	Specifies a URI for the election rules and laws (if any) for the jurisdiction of the administration.	If the field is invalid or not present, then the implementation is required to ignore it.
WhatsOnMyBallotUri	xs:anyURI	Optional	Single	Specifies web address for information on what is on an individual’s ballot.	If the field is invalid or not present, then the implementation is required to ignore it.
WhereDoIVoteUri	xs:anyURI	Optional	Single	The Specifies web address for information on where an individual votes based on their address.	If the field is invalid or not present, then the implementation is required to ignore it.

Department

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Contact-Information	<i>ContactInformation</i>	Optional	Single	Contact and physical address information for the election administration body (see <i>ContactInformation</i>).	If the element is invalid or not present, then the implementation is required to ignore it.
ElectionOfficialPersonId	xs:IDREF	Optional	Single	The individual to contact at the election administration office. The specified person should be the <i>election official</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
VoterService	<i>VoterService</i>	Optional	Repeats	The types of services and appropriate contact individual available to voters.	If the element is invalid or not present, then the implementation is required to ignore it.

VoterService

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Contact-Information	<i>ContactInformation</i>	Optional	Single	The contact for a particular voter service.	If the element is invalid or not present, then the implementation is required to ignore it.
Description	<i>InternationalizedText</i>	Optional	Single	Long description of the services available.	If the element is invalid or not present, then the implementation is required to ignore it.
ElectionOfficialPersonId	xs:IDREF	Optional	Single	The <i>authority</i> for a particular voter service.	If the field is invalid or not present, then the implementation is required to ignore it.
Type	<i>VoterServiceType</i>	Optional	Single	The type of <i>voter service</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
Other-Type	xs:string	Optional	Single	If Type is "other", OtherType allows for cataloging another type of voter service.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <ElectionAdministration id="ea40133">
2   <AbsenteeUri>http://www.sbe.virginia.gov/absenteevoting.html</AbsenteeUri>
3   <AmIRegisteredUri>https://www.vote.virginia.gov/</AmIRegisteredUri>
4   <Department>
5     <ContactInformation label="ci60000">
6       <AddressLine>Washington Building First Floor</AddressLine>
7       <AddressLine>1100 Bank Street</AddressLine>
8       <AddressLine>Richmond, VA 23219</AddressLine>
9       <Name>State Board of Elections</Name>
10    </ContactInformation>
11  </Department>
12  <ElectionsUri>http://www.sbe.virginia.gov/</ElectionsUri>
13  <RegistrationUri>https://www.vote.virginia.gov/</RegistrationUri>

```

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```

14 <RulesUri>http://www.sbe.virginia.gov/</RulesUri>
15 <WhatIsOnMyBallotUri>https://www.vote.virginia.gov/</WhatIsOnMyBallotUri>
16 <WhereDoIVoteUri>https://www.vote.virginia.gov/</WhereDoIVoteUri>
17 </ElectionAdministration>
    
```

CandidateContest

CandidateContest extends *ContestBase* and represents a contest among candidates.

Tag	Data Type	Required?	Optional?	Description	Error Handling
Number-Elected	xs:int	Yes	No	Number of candidates that are elected in the contest (i.e. "N" of N-of-M).	If the field is invalid or not present, then the implementation is required to ignore it.
OfficeIds	xs:IDREFS	Yes	No	References a set of <i>Office</i> elements, if available, which give additional information about the offices. Note: the order of the office IDs must be in the same order as the candidates listed in <i>BallotSelectionIds</i> . E.g., if the various <i>BallotSelectionIds</i> reference <i>CandidateSelection</i> elements which reference the candidate for President first and Vice-President second, the <i>OfficeIds</i> should reference the office of President first and the office of Vice-President second.	If the field is invalid or not present, then the implementation is required to ignore it.
Primary-PartyIds	xs:IDREFS	Yes	No	References <i>Party</i> elements, if the contest is related to a particular party.	If the field is invalid or not present, then the implementation is required to ignore it.
VotesAllowed	xs:int	Yes	No	Maximum number of votes/write-ins per voter in this contest.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <CandidateContest id="cc20003">
2   <BallotSelectionIds>cs10961 cs10962 cs10963</BallotSelectionIds>
3   <BallotTitle>
4     <Text language="en">Governor of Virginia</Text>
5   </BallotTitle>
6   <ElectoralDistrictId>ed60129</ElectoralDistrictId>
    
```

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```

7   <Name>Governor</Name>
8   <NumberElected>1</NumberElected>
9   <OfficeId>off0000</OfficeId>
10  <VotesAllowed>1</VotesAllowed>
11 </CandidateContest>

```

RetentionContest

RetentionContest extends *BallotMeasureContest* and represents a contest where a candidate is retained in a position (e.g. a judge).

Tag	Data Type	Re-quired?	Re-peats?	Description	Error Handling
CandidateId	xs:IDREF	Required	Single	Links to the <i>Candidate</i> being retained.	If the field is invalid or not present, the implementation is required to ignore the RetentionContest element containing it.
OfficeId	xs:IDREF	Optional	Single	Links to the information about the office.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <RetentionContest id="rc40001">
2   <BallotSelectionIds>rc40001a rc40001b</BallotSelectionIds>
3   <BallotTitle>
4     <Text language="en">Retention of Supreme Court Justice</Text>
5     <Text language="es">La retención de juez de la Corte Suprema</Text>
6   </BallotTitle>
7   <ElectoralDistrictId>ed60129</ElectoralDistrictId>
8   <Name>Judicial Retention, Supreme Court</Name>
9   <CandidateId>can14444</CandidateId>
10  <OfficeId>off20006</OfficeId>
11 </RetentionContest>

```

PollingLocation

The PollingLocation object represents a site where voters cast or drop off ballots.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
AddressLine	xs:string	Required	Repeats	Represents the various parts of an address to a polling location.	At least one valid AddressLine must be present for PollingLocation to be valid. If no valid AddressLine is present, the implementation is required to ignore the PollingLocation element containing it.
Directions	Internationalized-Text	Optional	Single	Specifies further instructions for locating the polling location.	If the element is invalid or not present, then the implementation is required to ignore it.
Hours [deprecated]	Internationalized-Text	Optional	Single	Contains the hours (in local time) that the polling location is open (NB: this element is deprecated in favor of the more structured HoursOpen element. It is strongly encouraged that data providers move toward contributing hours in this format).	If the element is invalid or not present, then the implementation is required to ignore it.
HoursOpenId	xs:IDREF	Optional	Single	Links to an HoursOpen element, which is a schedule of dates and hours during which the polling location is available.	If the field is invalid or not present, then the implementation is required to ignore it.
IsDropBox	xs:boolean	Optional	Single	Indicates if this polling location is a drop box.	If the field is invalid or not present, then the implementation is required to ignore it.
IsEarlyVoting	xs:boolean	Optional	Single	Indicates if this polling location is an early vote site.	If the field is invalid or not present, then the implementation is required to ignore it.
LatLng	LatLng	Optional	Single	Specifies the latitude and longitude of this polling location.	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Optional	Single	Name of the polling location.	If the field is invalid or not present, then the implementation is required to ignore it.
PhotoUri	xs:anyURI	Optional	Single	Contains a link to an image of the polling location.	If the field is invalid or not present, then the implementation is required to ignore it.

BallotMeasureContest

The BallotMeasureContest provides information about a ballot measure before the voters, including summary statements on each side. Extends *ContestBase*.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Con-Statement	<i>Internationalized-Text</i>	Optional	Single	Specifies a statement in opposition to the referendum. It does not necessarily appear on the ballot.	If the element is invalid or not present, then the implementation is required to ignore it.
EffectOfAbstain	<i>Internationalized-Text</i>	Optional	Single	Specifies what effect abstaining (i.e. not voting) on this proposition will have (i.e. whether abstaining is considered a vote against it).	If the element is invalid or not present, then the implementation is required to ignore it.
Full-Text	<i>Internationalized-Text</i>	Optional	Single	Specifies the full text of the referendum as it appears on the ballot.	If the element is invalid or not present, then the implementation is required to ignore it.
InfoUri	<i>xs:anyURI</i>	Optional	Single	Specifies a URI that links to additional information about the referendum.	If the field is invalid or not present, then the implementation is required to ignore it.
PassageThreshold	<i>Internationalized-Text</i>	Optional	Single	Specifies the threshold of votes that the referendum needs in order to pass. The default is a simple majority (i.e. 50% plus one vote). Other common thresholds are “three-fifths” and “two-thirds”. If there are competing initiatives , information about their effect on the passage of the <i>BallotMeasureContest</i> would go here.	If the element is invalid or not present, then the implementation is required to ignore it.
ProStatement	<i>Internationalized-Text</i>	Optional	Single	Specifies a statement in favor of the referendum. It does not necessarily appear on the ballot.	If the element is invalid or not present, then the implementation is required to ignore it.
Summary-Text	<i>Internationalized-Text</i>	Optional	Single	Specifies a short summary of the referendum that is on the ballot, below the title, but above the text.	If the element is invalid or not present, then the implementation is required to ignore it.
Type	<i>Ballot-Measure-Type</i>	Optional	Single	Specifies the particular type of ballot measure. Must be one of the valid <i>BallotMeasureType</i> options.	If the field is invalid or not present, then the implementation is required to

Other-Type	<i>xs:string</i>	Optional	Single	Allows for cataloging a new <i>BallotMeasureType</i> option, when Type is specified as “other.”	If the field is invalid or not present, then the
------------	------------------	----------	--------	---	--

```
1 <BallotMeasureContest id="bmc30001">
2   <BallotSelectionIds>bms30001a bms30001b</BallotSelectionIds>
3   <BallotTitle>
4     <Text language="en">State of the State</Text>
5     <Text language="es">Estado del Estado.</Text>
6   </BallotTitle>
7   <ElectoralDistrictId>ed60129</ElectoralDistrictId>
8   <Name>Referendum on Virginia</Name>
9   <ConStatement label="bmc30001con">
10    <Text language="en">This is no good.</Text>
11    <Text language="es">Esto no es bueno.</Text>
12  </ConStatement>
13  <EffectOfAbstain label="bmc30001abs">
14    <Text language="en">Nothing will happen.</Text>
15    <Text language="es">Nada pasará.</Text>
16  </EffectOfAbstain>
17  <ProStatement label="bmc30001pro">
18    <Text language="en">Everything will be great.</Text>
19    <Text language="es">Todo va a estar bien.</Text>
20  </ProStatement>
21  <Type>referendum</Type>
22 </BallotMeasureContest>
```

StreetSegment

A Street Segment objection represents a portion of a street and the links to the precinct that this geography (i.e., segment) is contained within. The start address house number must be less than the end address house number unless the segment consists of only one address, in which case these values are equal.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Address-Direction	xs:string	Optional	Single	Specifies the (inter-)cardinal direction of the entire address. An example is “NE” for the address “100 E Capitol St NE.”	If the field is invalid or not present, then the implementation is required to ignore it.
City	xs:string	Required	Single	The city specifies the city or town of the address.	If the field is invalid, then the implementation is required to ignore it.
IncludesAllAddresses	xs:boolean	Optional	Single	Specifies if the segment covers every address on this street. If this is <i>true</i> , then the values of StartHouseNumber and EndHouseNumber should be ignored. The value of OddEvenBoth must be <i>both</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
IncludesAllStreets	xs:boolean	Optional	Single	Specifies if the segment covers every street in this city. If this is <i>true</i> , then the values of OddEvenBoth , StartHouseNumber , EndHouseNumber , StreetName , and Zip should be ignored.	If the field is invalid or not present, then the implementation is required to ignore it.
Odd-Even-Both	<i>Oevenum</i>	Optional	Single	Specifies whether the odd side of the street (in terms of house numbers), the even side, or both are included in the street segment.	If the field is not present or invalid, the implementation is required to ignore the StreetSegment containing it.
PrecinctId	xs:IDREF	Optional	Single	References the <i>Precinct</i> that contains the entire street segment.	If the field is not present or invalid, the implementation is required to ignore the StreetSegment element containing it.
StartHouseNumber	xs:integer	Optional	Single	The house number at which the street segment starts. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAllStreets are true, this value must be less than or equal to EndHouseNumber . If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.	Unless IncludesAllAddresses or IncludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the StreetSegment element containing it. If the StartHouseNumber is greater than the EndHouseNumber , the implementation should ignore the element containing them.
EndHouseNumber	xs:integer	Optional	Single	The house number at which the street segment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAllStreets are true, it must be greater than or equal to StartHouseNumber . If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.	Unless IncludesAllAddresses or IncludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the StreetSegment element containing it. If the EndHouseNumber is less than the StartHouseNumber , the implementation should ignore the element containing it.
State	xs:string	Required	Single	Specifies the two-letter state abbreviation of the address.	If the field is invalid, then the implementation is required to ignore it.
Street-Direction	xs:string	Optional	Single	Specifies the (inter-)cardinal direction of the street address (e.g., the “E” in “100 E Capitol St NE”).	If the field is invalid or not present, then the implementation is required to ignore it.
Street-Name	xs:string	Optional	Single	Represents the name of the street for the address. A special wildcard, “*”, denotes every street in the given city/town. It optionally may contain street direction, street suffix or address direction (e.g., both “Capitol” and “E Capitol St NE” are acceptable for the address “100 E Capitol St NE”), however this is not preferred. Preferred is street name alone (e.g.	If the field is invalid or not present, then the implementation is required to ignore it.
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```

1 <StreetSegment id="ss999999">
2   <City>Charlottesville</City>
3   <IncludesAllAddresses>>true</IncludesAllAddresses>
4   <OddEvenBoth>both</OddEvenBoth>
5   <PrecinctId>pre99999</PrecinctId>
6   <State>VA</State>
7   <StreetName>CHAPEL HILL</StreetName>
8   <StreetSuffix>RD</StreetSuffix>
9   <Zip>22901</Zip>
10 </StreetSegment>
11 <StreetSegment id="ss309904">
12   <City>GREENWOOD</City>
13   <OddEvenBoth>both</OddEvenBoth>
14   <PrecinctId>pre92145</PrecinctId>
15   <StartHouseNumber>1</StartHouseNumber>
16   <EndHouseNumber>201</EndHouseNumber>
17   <State>VA</State>
18   <StreetName>MISTY MOUNTAIN</StreetName>
19   <StreetSuffix>RD</StreetSuffix>
20   <Zip>22943</Zip>
21 </StreetSegment>

```

BallotMeasureSelection

Represents the possible selection (e.g. yes/no, recall/do not recall, et al) for a *BallotMeasureContest* that would appear on the ballot. *BallotMeasureSelection* extends *BallotSelectionBase*.

Tag	Data Type	Re-quired?	Re-peats?	Description	Error Handling
Se-lection	<i>InternationalizedText</i>	Re-quired	Single	Selection text for a <i>BallotMeasureContest</i>	If the element is invalid or not present, the implementation is required to ignore the <i>BallotMeasureSelection</i> containing it.

```

1 <BallotMeasureSelection id="bms30001a">
2   <Selection label="bms30001at">
3     <Text language="en">Yes</Text>
4     <Text language="es">Sí</Text>
5   </Selection>
6 </BallotMeasureSelection>
7 <BallotMeasureSelection id="bms30001b">
8   <Selection label="bms30001bt">
9     <Text language="en">No</Text>
10    <Text language="es">No</Text>
11  </Selection>
12 </BallotMeasureSelection>

```

PartyContest

An extension of *ContestBase* which describes a contest in which the possible ballot selections are of type *PartySelection*. These could include contests in which straight-party selections are allowed, or party-list contests (although these are more common outside of the United States).

Election

The Election object represents an Election Day, which usually consists of many individual contests and/or referenda. A feed must contain **exactly one** Election object. All relationships in the feed (e.g., street segment to precinct to polling location) are assumed to relate only to the Election specified by this object. It is permissible, and recommended, to combine unrelated contests (e.g., a special election and a general election) that occur on the same day into one feed with one Election object.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Date	xs:date	Required	Single	Specifies when the election is being held. The <i>Date</i> is considered to be in the timezone local to the state holding the election.	If the field is invalid, then the implementation is required to ignore the Election element containing it.
Election-Type	Internationalized-Text	Optional	Single	Specifies the highest controlling authority for election (e.g., federal, state, county, city, town, etc.)	If the element is invalid or not present, then the implementation is required to ignore it.
StateId	xs:IDREF	Required	Single	Specifies a link to the <i>State</i> element where the election is being held.	If the field is invalid, then the implementation is required to ignore the Election element containing it.
Is-Statewide	xs:boolean	Optional	Single	Indicates whether the election is statewide.	If the field is not present or invalid, the implementation is required to default to "yes".
Name	Internationalized-Text	Optional	Single	The name for the election (NB: while optional, this element is highly recommended).	If the element is invalid or not present, then the implementation is required to ignore it.
RegistrationInfo	Internationalized-Text	Optional	Single	Specifies information about registration for this election either as text or a URI.	If the element is invalid or not present, then the implementation is required to ignore it.
Absentee-Ballot-Info	Internationalized-Text	Optional	Single	Specifies information about requesting absentee ballots either as text or a URI	If the element is invalid or not present, then the implementation is required to ignore it.
ResultsUri	xs:anyURI	Optional	Single	Contains a URI where results for the election may be found	If the field is invalid or not present, then the implementation is required to ignore it.
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PollingHours	Hours	Optional	Single	Contains the hours (in local time) that Election Day polling loca-	If the element

```
1 <Election id="ele30000">
2   <AbsenteeRequestDeadline>2013-10-30</AbsenteeRequestDeadline>
3   <Date>2013-11-05</Date>
4   <ElectionType>
5     <Text language="en">General</Text>
6     <Text language="es">Generales</Text>
7   </ElectionType>
8   <HasElectionDayRegistration>>false</HasElectionDayRegistration>
9   <HoursOpenId>hours0001</HoursOpenId>
10  <IsStatewide>>true</IsStatewide>
11  <Name>
12    <Text language="en">2013 Statewide General</Text>
13  </Name>
14  <RegistrationDeadline>2013-10-15</RegistrationDeadline>
15  <ResultsUri>http://www.sbe.virginia.gov/ElectionResults.html</ResultsUri>
16  <StateId>st51</StateId>
17 </Election>
```

Precinct

The Precinct object represents a precinct, which is contained within a Locality. While the id attribute does not have to be static across feeds for one election, the combination of *Source.VipId*, *Locality.Name*, *Precinct.Ward*, *Precinct.Name*, and *Precinct.Number* should remain constant across feeds for one election (NB: not all of the fields just mentioned are required – omitting those non-required fields is fine).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Ballot-StyleId	xs:IDREF	Optional	Single	Links to the <i>BallotStyle</i> , which a person who lives in this precinct will vote.	If the field is invalid or not present, then the implementation is required to ignore it.
ElectoralDistrictIds	xs:IDREF	Optional	Single	Links to the <i>single-xml-electoral-district</i> 's (e.g., congressional district, state house district, school board district) to which the entire precinct/precinct split belongs. Highly Recommended if candidate information is to be provided.	If the field is invalid or not present, then the implementation is required to ignore it.
ExternalIdentifiers	<i>ExternalIdentifiers</i>	Optional	Single	Other identifier for the precinct that relates to another dataset (e.g. OCD-ID).	If the element is invalid or not present, then the implementation is required to ignore it.
IsMailOnly	xs:boolean	Optional	Single	Determines if the precinct runs mail-only elections.	If the field is missing or invalid, the implementation is required to assume <i>IsMailOnly</i> is false.
LocalityId	xs:IDREF	Required	Single	Links to the <i>Locality</i> that comprises the precinct.	If the field is invalid or not present, the implementation is required to ignore the precinct element containing it.
Name	xs:string	Required	Single	Specifies the precinct's name (or number if no name exists).	If the field is invalid or not present, the implementation is required to ignore the precinct element containing it.
Number	xs:string	Optional	Single	Specifies the precinct's number (e.g., 32 or 32A – alpha characters are legal). Should be used if the <i>Name</i> field is populated by a name and not a number.	If the field is invalid or not present, then the implementation is required to ignore it.
PollingLocationIds	xs:IDREF	Optional	Single	Specifies a link to the precinct's <i>PollingLocation</i> object(s).	If the field is invalid or not present, then the implementation is required to ignore it.
PrecinctSplitName	xs:string	Optional	Single	If this field is empty, then this <i>Precinct</i> object represents a full precinct. If this field is present, then this <i>Precinct</i> object represents one portion of a split precinct. Each <i>Precinct</i> object that represents one portion of a split precinct must have the same <i>Name</i> value, but different <i>PrecinctSplitName</i> values. See the <i>sample_feed.xml</i> file for examples.	If the field is invalid or not present, then the implementation is required to ignore it.
Ward	xs:string	Optional	Single	Specifies the ward the precinct is contained within.	If the field is invalid or not present, then the implementation is required to ignore it.
1.1. XML Specification					

```

1 <Precinct id="pre90111">
2   <BallotStyleId>bs00010</BallotStyleId>
3   <ElectoralDistrictIds>ed60129 ed60311 ed60054</ElectoralDistrictIds>
4   <IsMailOnly>>false</IsMailOnly>
5   <LocalityId>loc70001</LocalityId>
6   <Name>203 - GEORGETOWN</Name>
7   <Number>0203</Number>
8   <PollingLocationIds>p181274</PollingLocationIds>
9 </Precinct>
10 <!--
11   Precinct split. Name and PollingLocationIds are the same but
12   PrecinctSplitName is present, the ElectoralDistrictIds are different,
13   and the BallotStyleId is different.
14 -->
15 <Precinct id="pre90348sp0000">
16   <BallotStyleId>bs00002</BallotStyleId>
17   <ElectoralDistrictIds>ed60129 ed60054 ed60150</ElectoralDistrictIds>
18   <IsMailOnly>>false</IsMailOnly>
19   <LocalityId>loc70001</LocalityId>
20   <Name>201 - JACK JOUETT</Name>
21   <Number>0201</Number>
22   <PollingLocationIds>p100000 p181273 p181662</PollingLocationIds>
23   <PrecinctSplitName>0000</PrecinctSplitName>
24 </Precinct>
25 <Precinct id="pre90348sp0001">
26   <BallotStyleId>bs00015</BallotStyleId>
27   <ElectoralDistrictIds>ed60129 ed60054 ed60267</ElectoralDistrictIds>
28   <IsMailOnly>>false</IsMailOnly>
29   <LocalityId>loc70001</LocalityId>
30   <Name>201 - JACK JOUETT</Name>
31   <Number>0201</Number>
32   <PollingLocationIds>p100000 p181273 p181662</PollingLocationIds>
33   <PrecinctSplitName>0001</PrecinctSplitName>
34 </Precinct>

```

LatLng

The latitude and longitude of a polling location in WGS 84 format. Both latitude and longitude values are measured in decimal degrees.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Latitude	xs:float	Required	Single	The latitude of the polling location.	If the field is invalid, then the implementation is required to ignore it.
Longitude	xs:float	Required	Single	The longitude of the polling location.	If the field is invalid, then the implementation is required to ignore it.
Source	xs:string	Optional	Single	The system used to perform the lookup from location name to lat/lng. For example, this could be the name of a geocoding service.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <PollingLocation id="pl81274">
2   <AddressLine>ALBEMARLE HIGH SCHOOL</AddressLine>
3   <AddressLine>2775 Hydraulic Rd</AddressLine>
4   <AddressLine>Charlottesville, VA 229018917</AddressLine>
5   <HoursOpenId>hours0001</HoursOpenId>
6   <LatLng>
7     <Latitude>38.0754627</Latitude>
8     <Longitude>-78.5014875</Longitude>
9     <Source>Google Maps</Source>
10  </LatLng>
11 </PollingLocation>

```

State

The State object includes state-wide election information. The ID attribute is recommended to be the state’s FIPS code, along with the prefix “st”.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
ElectionAdministrationId	xs:ID	Optional	Single	Links to the state’s election administration object.	If the field is invalid or not present, then the implementation is required to ignore it.
ExternalIdentifiers	<i>ExternalIdentifiers</i>	Optional	Single	Other identifier for the state that relates to another dataset (e.g. <i>OCD-ID</i>).	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Required	Single	Specifies the name of a state, such as Alabama.	If the field is invalid, then the implementation is required to ignore it.
PollingLocations	xs:IDREFS	Optional	Single	Specifies a link to the state’s <i>polling locations</i> . If early vote centers or ballot drop locations are state-wide (e.g., anyone in the state can use them), they can be specified here, but you are encouraged to only use the <i>Precinct</i> element.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <State id="st51">
2   <ElectionAdministrationId>ea40133</ElectionAdministrationId>
3   <ExternalIdentifiers>
4     <ExternalIdentifier>
5       <Type>ocd-id</Type>
6       <Value>ocd-division/country:us/state:va</Value>
7     </ExternalIdentifier>
8   </ExternalIdentifiers>
9   <Name>Virginia</Name>
10 </State>

```

ExternalIdentifiers

The `ExternalIdentifiers` element allows VIP data to connect with external datasets (e.g. candidates with campaign finance datasets, electoral geographies with `OCD-IDs` that allow for greater connectivity with additional datasets, etc...). Examples for `ExternalIdentifiers` can be found on the objects that support them:

- *Candidate*
- Any element that extends *ContestBase*
- *ElectoralDistrict*
- *Locality*
- *Office*
- *Party*
- *Precinct*
- *State*

Tag	Data Type	Required?	Repeats?	Description	Error Handling
ExternalIdentifier	<i>ExternalIdentifier</i>	Required	Repeats	Defines the identifier and the type of identifier it is (see <i>ExternalIdentifier</i> for complete information).	At least one valid <i>ExternalIdentifier</i> must be present for <code>ExternalIdentifiers</code> to be valid. If no valid <i>ExternalIdentifier</i> is present, the implementation is required to ignore the <code>ExternalIdentifiers</code> element.

ExternalIdentifier

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Type	<i>IdentifierType</i>	Required	Single	Specifies the type of identifier. Must be one of the valid types as defined by <i>IdentifierType</i> .	If the field is invalid or not present, the implementation is required to ignore the <code>ElectionIdentifier</code> containing it.
Other-Type	<code>xs:string</code>	Optional	Single	Allows for cataloging an <code>ExternalIdentifier</code> type that falls outside the options listed in <i>IdentifierType</i> . Type should be set to “other” when using this field.	If the field is invalid or not present, then the implementation is required to ignore it.
Value	<code>xs:string</code>	Required	Single	Specifies the identifier.	If the field is invalid or not present, the implementation is required to ignore the <code>ElectionIdentifier</code> containing it.

```

1 <ExternalIdentifiers>
2   <ExternalIdentifier>
3     <Type>ocd-id</Type>

```

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```
4     <Value>ocd-division/country:us/state:nc/county:durham</Value>
5 </ExternalIdentifier>
6 <ExternalIdentifier>
7   <Type>FIPS</Type>
8   <Value>37063</Value>
9 </ExternalIdentifier>
10 <ExternalIdentifier>
11   <Type>OTHER</Type>
12   <OtherType>GNIS</OtherType>
13   <Value>1008550</Value>
14 </ExternalIdentifier>
15 <external_idenfifer>
16   <Type>OTHER</Type>
17   <OtherType>census</OtherType>
18   <Value>99063</Value>
19 </ExternalIdentifier>
20 </ExternalIdentifiers>
```

ContestBase

A base model for all Contest types: *BallotMeasureContest*, *CandidateContest*, *PartyContest*, and *RetentionContest* (NB: the latter because it extends *BallotMeasureContest*).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Ab- bre- via- tion	xs:string	Optional	Single	An abbreviation for the contest.	If the field is invalid or not present, then the implementation should ignore it.
Bal- lot- Se- lec- tion- Ids	xs:IDREFS	Optional	Single	References a set of <code>BallotSelections</code> , which could be of any selection type that extends <code>BallotSelectionBase</code> .	If the field is invalid or not present, then the implementation should ignore it.
Bal- lot- Sub- Ti- tle	<i>Internationalized-Text</i>	Optional	Single	Subtitle of the contest as it appears on the ballot.	If the element is invalid or not present, then the implementation should ignore it.
Bal- lot- Ti- tle	<i>Internationalized-Text</i>	Optional	Single	Title of the contest as it appears on the ballot.	If the element is invalid or not present, then the implementation should ignore it.
Elec- toral- Dis- tric- tId	xs:IDREF	Optional	Single	References an <code>ElectoralDistrict</code> element that represents the geographical scope of the contest.	If the field is invalid or not present, then the implementation should ignore it.
Elec- torate- Spec- ifi- ca- tion	<i>Internationalized-Text</i>	Optional	Single	Specifies any changes to the eligible electorate for this contest past the usual, “all registered voters” electorate. This subtag will most often be used for primaries and local elections. In primaries, voters may have to be registered as a specific party to vote, or there may be special rules for which ballot a voter can pull. In some local elections, non-citizens can vote.	If the element is invalid or not present, then the implementation should ignore it.
Ex- ter- nal- den- ti- fiers	<i>External-identifiers</i>	Optional	Single	Other identifiers for a contest that links to another source of information.	If the element is invalid or not present, then the implementation should ignore it.
Has- Ro- ta- tion	xs:boolean	Optional	Single	Indicates whether the selections in the contest are rotated.	If the field is invalid or not present, then the implementation should ignore it.
Name	xs:string	Optional	Single	Name of the contest, not necessarily how it appears on the ballot (NB: <code>BallotTitle</code> should be used for this purpose).	If the field is invalid or not present, then the implementation should

InternationalizedText

InternationalizedText allows for support of multiple languages for a string. InternationalizedText has an optional attribute `label`, which allows the feed to refer back to the original label for the information (e.g. if the contact information came from a CSV, `label` may refer to a row ID). Examples of InternationalizedText can be seen in:

- Any element that extends *ContestBase*
- Any element that extends *BallotSelectionBase*
- *Candidate*
- *ContactInformation*
- *Election*
- *ElectionAdministration*
- *Office*
- *Party*
- *Person*
- *PollingLocation*
- *Source*

Tag	Data Type	Re-quired	Re-peats?	Description	Error Handling
Text	<i>LanguageString</i>	Re-quired	Re-peats	Contains the translations of a particular string of text.	At least one valid Text must be present for InternationalizedText to be valid. If no valid Text is present, the implementation is required to ignore the InternationalizedText element.

LanguageString

LanguageString extends `xs:string` and can contain text from any language. LanguageString has one required attribute, `language`, that must contain the 2-character `language code` for the type of language LanguageString contains.

```

1 <BallotTitle>
2   <Text language="en">Retention of Supreme Court Justice</Text>
3   <Text language="es">La retención de juez de la Corte Suprema</Text>
4 </BallotTitle>

```

Locality

The Locality object represents the jurisdiction below the *State* (e.g. county).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Election-AdministrationId	xs:IDREF	Optional	Single	Links to the locality's <i>ElectionAdministration</i> object.	If the field is invalid or not present, then the implementation is required to ignore it.
ExternalIdentifiers	<i>ExternalIdentifiers</i>	Optional	Single	Another identifier for a locality that links to another dataset (e.g. OCD-ID)	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Required	Single	Specifies the name of a locality.	If the field is not present or invalid, the implementation is required to ignore the Locality element containing it.
PollingLocations	xs:IDREFS	Optional	Single	Specifies a link to a set of the locality's :ref:'polling locations <single-xml-polling-location>'s. If early vote centers or ballot drop locations are locality-wide, they should be specified here.	If the field is invalid or not present, the implementation is required to ignore it. However, the implementation should still check to see if there are any polling locations associated with this locality's state.
StateId	xs:IDREF	Required	Single	References the locality's <i>State</i> .	If the field is invalid or not present, the implementation is required to ignore the Locality element containing it.
Type	<i>DistrictType</i>	Optional	Single	Defines the kind of locality (e.g. county, town, et al.), which is one of the various <i>DistrictType</i> enumerations.	If the field is invalid or not present, then the implementation is required to ignore it.
Other-Type	xs:string	Optional	Single	Allows for defining a type of locality that falls outside the options listed in <i>DistrictType</i> .	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <Locality id="loc70001">
2   <ElectionAdministrationId>ea40001</ElectionAdministrationId>
3   <ExternalIdentifiers>
4     <ExternalIdentifier>
5       <Type>ocd-id</Type>
6       <Value>ocd-division/country:us/state:va/county:albemarle</Value>
7     </ExternalIdentifier>
8   </ExternalIdentifiers>
9   <Name>ALBEMARLE COUNTY</Name>
10  <StateId>st51</StateId>
11  <Type>county</Type>
12 </Locality>

```

BallotStyle

A container for the contests/measures on the ballot.

Tag	Data Type	Re-quired?	Re-peats?	Description	Error Handling
ImageUri	xs:anyURI	Optional	Single	Specifies a URI that returns an image of the sample ballot.	If the field is invalid or not present, then the implementation is required to ignore it.
Ordered-ContestIds	xs:IDREF	Optional	Single	Reference to a set of :ref:'single-xml-ordered-contest's	If the field is invalid or not present, then the implementation is required to ignore it.
PartyIds	xs:IDREF	Optional	Single	Reference to a set of :ref:'single-xml-party's.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <BallotStyle id="bs00000">
2   <OrderedContestIds>oc20003 oc20004 oc20005 oc20025 oc20355 oc20449</
   ↳OrderedContestIds>
3 </BallotStyle>

```

Party

This element describes a political party and the metadata associated with them. These can also include “dummy” parties to indicate a type of contest (e.g., a Voter Nominated *CandidateContest* can use the **PrimaryPartyIds** field and a dummy Party object to indicate that the contest is a “Top-Two” primary).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Ab- bre- via- tion	<code>xs:string</code>	Op- tional	Single	An abbreviation for the party name.	If the field is in- valid or not present, then the implemen- tation is required to ignore it.
Color	<i>Html- Col- orString</i>	Op- tional	Single	The preferred display color for the party, for use in maps and other displays.	If the element is in- valid or not present, then the implemen- tation is required to ignore it.
Ex- ter- nal- iden- ti- fiers	<i>Ex- ter- nal- iden- ti- fiers</i>	Op- tional	Single	Other identifiers that link this party to other related data sets (e.g. a campaign finance system, etc).	If the element is in- valid or not present, then the implemen- tation is required to ignore it.
IsWrite- in	<code>xs:boolean</code>	Op- tional	Single	Signals if this political party is one that is officially recog- nized by a local, state, or federal organization, or is a “write- in” in jurisdictions which allow candidates to free-form enter their political affiliation. If this field is not present then it is assumed to be false.	If the field is in- valid or not present, then the implemen- tation is required to ignore it.
Lo- goUri	<code>xs:anyURI</code>	Op- tional	Single	Web address of a logo to use in displays.	If the field is in- valid or not present, then the implemen- tation is required to ignore it.
Name	<i>In- ter- na- tion- al- ized- Text</i>	Op- tional	Single	The name of the party.	If the element is in- valid or not present, then the implemen- tation is required to ignore it.

HtmlColorString

A restricted string pattern for a six-character hex code representing an HTML color string. The pattern is:

```
[0-9a-f]{6}
```

```

1 <Party id="par0001">
2   <Abbreviation>REP</Abbreviation>
3   <Color>e91d0e</Color>
4   <Name>
5     <Text language="en">Republican</Text>
6   </Name>
7 </Party>

```

Person

Person defines information about a person. The person may be a candidate, election administrator, or elected official. These elements reference Person:

- *Candidate*
- *ElectionAdministration*
- *Office*

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Contact-Information	<i>Contact-Information</i>	Optional	Repeats	Specifies contact information for the person.	If the element is invalid or not present, then the implementation is required to ignore it.
Date-Of-Birth	xs:date	Optional	Single	Represents the individual's date of birth.	If the field is invalid or not present, then the implementation is required to ignore it.
External-Identifiers	<i>External-Identifiers</i>	Optional	Single	Identifiers for this person.	If the element is invalid or not present, then the implementation is required to ignore it.
First-Name	xs:string	Optional	Single	Represents an individual's first name.	If the field is invalid or not present, then the implementation is required to ignore it.
Full-Name	<i>Internationalized-Text</i>	Optional	Single	Specifies a person's full name (NB: this information is <i>InternationalizedText</i> because it sometimes appears on ballots in multiple languages).	If the element is invalid or not present, then the implementation is required to ignore it.
Gender	xs:string	Optional	Single	Specifies a person's gender.	If the field is invalid or not present, then the implementation is required to ignore it.
Last-Name	xs:string	Optional	Single	Represents an individual's last name.	If the field is invalid or not present, then the implementation is required to ignore it.
Middle-Name	xs:string	Optional	Repeats	Represents any number of names between an individual's first and last names (e.g. John Ronald Reuel Tolkien).	If the field is invalid or not present, then the implementation is required to ignore it.
Nickname	xs:string	Optional	Single	Represents an individual's nickname.	If the field is invalid or not present, then the implementation is required to ignore it.
PartyId	xs:IDREF	Optional	Single	Refers to the associated <i>Party</i> . This information is intended to be used by feed consumers to help them disambiguate the person's identity, but not to be presented as part of any ballot information. For that see <i>Candidate PartyId</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
Prefix	xs:string	Optional	Single	Specifies a prefix associated with a person (e.g. Dr.).	If the field is invalid or not present, then the implementation is required to ignore it.
Profession	<i>Internationalized-Text</i>	Optional	Single	Specifies a person's profession (NB: this information is <i>InternationalizedText</i> because it sometimes appears on ballots in multiple languages).	If the element is invalid or not present, then the implementation is required to ignore it.

```

1 <Person id="per50001">
2   <ContactInformation label="ci60002">
3     <Email>rwashburne@albemarle.org</Email>
4     <Phone>4349724173</Phone>
5   </ContactInformation>
6   <FirstName>RICHARD</FirstName>
7   <LastName>WASHBURNE</LastName>
8   <MiddleName>J.</MiddleName>
9   <Nickname>JAKE</Nickname>
10  <Title>
11    <Text language="en">General Registrar Physical</Text>
12  </Title>
13 </Person>

```

HoursOpen

A structured way of describing the days and hours that a place such as a *Office* or *PollingLocation* is open, or that an event such as an *Election* is happening. The range of days indicated by the *StartDate* and *EndDate* in each *Schedule* element should not overlap with peer *Schedule* elements. For example, it is invalid to specify a schedule from 10/01/2016 to 10/31/2016 and also specify a schedule from 10/10/2016 to 10/11/2016 within the same *HoursOpen* element.

Tag	Data Type	Re-quired?	Re-peats?	Description	Error Handling
Schedule	<i>Schedule</i>	Re-quired	Re-peats	Defines a block of days and hours that a place will be open.	At least one valid <i>Schedule</i> must be present for <i>HoursOpen</i> to be valid. If no valid <i>Schedule</i> is present, the implementation is required to ignore the <i>HoursOpen</i> element.

Schedule

A sub-portion of the schedule. This describes a range of days, along with one or more set of open and close times for those days, as well as the options describing whether or not appointments are necessary or possible.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Hours	<i>Hours</i>	Optional	Repeats	Blocks of hours in the date range in which the place is open.	If the element is invalid or not present, then the implementation is required to ignore it.
IsOnly-ByAppointment	xs:boolean	Optional	Single	If true, the place is only open during the specified time window with an appointment.	If the field is invalid or not present, then the implementation is required to ignore it.
IsOr-ByAppointment	xs:boolean	Optional	Single	If true, the place is open during the hours specified time window and may also be open with an appointment.	If the field is invalid or not present, then the implementation is required to ignore it.
IsSubject-ToChange	xs:boolean	Optional	Single	If true, the place should be open during the specified time window, but may be subject to change. People should contact prior to arrival to confirm hours are still accurate.	If the field is invalid or not present, then the implementation is required to ignore it.
Start-Date	xs:date	Optional	Single	The date at which this collection of start and end times and options begin.	If the field is invalid or not present, then the implementation is required to ignore it.
End-Date	xs:date	Optional	Single	The date at which this collection of start and end times and options end.	If the field is invalid or not present, then the implementation is required to ignore it.

Hours

The open and close time for this place. All times must be fully specified, including a timezone offset from UTC.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Start-Time	<i>Time-With-Zone</i>	Optional	Single	The time at which this place opens.	If the element is invalid or not present, then the implementation is required to ignore it.
End-Time	<i>Time-With-Zone</i>	Optional	Single	The time at which this place closes.	If the element is invalid or not present, then the implementation is required to ignore it.

TimeWithZone

A string pattern restricting the value to a time with an included offset from UTC. The pattern is

(([01] [0-9] | 2 [0-3]) : [0-5] [0-9] : [0-5] [0-9] | (24 : 00 : 00)) (Z | [+-] ((0 [0-9] | 1 [0-3]) : [0-5] [0-9] | 14

```

1 <HoursOpen id="hours0001">
2   <Schedule>
3     <Hours>
4       <StartTime>06:00:00-05:00</StartTime>

```

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(continued from previous page)

```

5     <EndTime>12:00:00-05:00</EndTime>
6   </Hours>
7   <Hours>
8     <StartTime>13:00:00-05:00</StartTime>
9     <EndTime>19:00:00-05:00</EndTime>
10  </Hours>
11  <StartDate>2013-11-05</StartDate>
12  <EndDate>2013-11-05</EndDate>
13  </Schedule>
14 </HoursOpen>

```

Enumerations

OfficeTermType

Tag	Description
full-term	This election is for an office for which the existing term has been completed.
unexpired-term	This election is for an office for which the original term is not yet complete.

CandidatePostElectionStatus

Tag	Description
advanced-to-runoff	For contests in which the top <i>N</i> candidates advance to the next round.
projected-winner	A candidate is expected to win, but official results are not yet complete.
winner	The candidate has officially won.
withdrawn	The candidate has withdrawn from the contest.

VoterServiceType

Tag	Description
absentee-ballots	This department handles the dispatch, tracking, and return of absentee ballots.
overseas-voting	The department for overseas, military, and other outside-the-U.S. voters.
polling-places	This department handles the selection and management of polling places.
voter-registration	The department that manages voter registration.
other	Any other service not covered by the above descriptions.

DistrictType

Enumeration describing the set of possible jurisdiction and district types. Please use the enumeration value which most accurately reflects the type of district or jurisdiction in your state or county. For example, “town” and “township” may mean different things – or not be defined at all – in your state, so please use the definition which best matches your local meaning.

Tag	Description
borough	A borough
city	A city.
city-council	A specific seat/jurisdiction for a city, town, or village council.
congressional	A United States congressional district.
county	A county.
county-council	A county council district, either in its entirety or for a specific seat.
judicial	A judicial district.
municipality	A civil division which is not a town, city, village, or county.
national	The United States.
school	A school district.
special	A special-purpose district that exist separate from general-purpose districts.
state	A state, district, commonwealth, or U.S. territory.
state-house	The lower house of a state legislature.
state-senate	The upper house of a state legislature.
town	A town.
township	A township, which may be different than a town. See the Wikipedia article .
utility	A non-water public or municipal utility district.
village	A village district.
ward	A ward.
water	A water district.
other	Any district not described above. Use the <i>OtherType</i> field to describe it.

OebEnum

Tag	Description
both	Both even and odd addresses within the range.
even	Only even-numbered addresses within the range.
odd	Only odd-numbered addresses within the range.

VoteVariation

Note that the descriptions below describe what the enumeration names stand for in the context of the VIP spec, rather than provide general definitions of the election terms that the names correspond to. For example, even though there are majority voting methods that are not “1-of-m” (e.g. ranked choice voting), we constrain “majority” to 1-of-m. We do this to eliminate any source of ambiguity when a single enumeration value needs to be assigned to a contest.

Tag	Description
1-of-m	A method where each voter can select up to one option.
ap-approval	Approval voting , where each voter can select as many options as desired.
borda	Borda count , where each voter can rank the options, and the rankings are assigned point values.
cumulative	Cumulative voting , where each voter can distribute their vote to up to N options.
majority	A 1-of-m method where the winner needs more than 50% of the vote to be elected.
n-of-m	A method where each voter can select up to N options.
plurality	A 1-of-m method where the option with the most votes is elected, regardless of whether the option has more than 50% of the vote.
proportional	A proportional representation method (other than STV), which is any system that elects winners in proportion to the total vote.
range	Range voting , where each voter can select a score for each option.
rcv	Ranked choice voting (RCV) , where each voter can rank the options, and the ballots are counted in rounds. Also known as instant-runoff voting (IRV) and the single transferable vote (STV) .
super-majority	A 1-of-m method where the winner needs more than some predetermined fraction of the vote to be elected, where the fraction is more than 50% (e.g. three-fifths or two-thirds).
other	Used when the vote variation type is not included in this enumeration.

CandidatePreElectionStatus

Tag	Description
filed	The candidate has filed for office but not yet been qualified.
qualified	The candidate has qualified for the contest.
withdrawn	The candidate has withdrawn from the contest (but may still be on the ballot).
write-in	

BallotMeasureType

A list of the various types of ballot measures. States may have different legal definitions of each type; [Wikipedia](#) has more details about each type. These values are to help states with multiple types of non-candidate-based contests distinguish between each type; as such, the definitions in this table are simple guidelines. Ultimately it is up to the state or local election official to choose the value which best describes the ballot measure(s) in their jurisdiction.

Tag	Description
ballot-measure	A catch-all for generic types of non-candidate-based contests.
initiative	These are usually citizen-driven measures to be placed on the ballot. These could include both statutory changes and constitutional amendments.
referendum	These could include measures to repeal existing acts of legislation, legislative referrals, and legislatively-referred state constitutional amendments.
other	Anything that does not fall into the above categories.

IdentifierType

Tag	Description
fips	Federal Information Processing Standards codes for states , counties , and cities .
local-level	An identifier generated or used by local governments or organizations.
national-level	An identifier generated or used by national organizations.
ocd-id	An Open Civic Data Division Identifier .
state-level	An identifier generated or used by state governments or organizations.
other	Any identifier which doesn't fall into any of the above categories.

Elements (Separate Pages)

BallotMeasureContest

The `BallotMeasureContest` provides information about a ballot measure before the voters, including summary statements on each side. Extends `ContestBase`.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Con-Statement	<i>Internationalized-Text</i>	Optional	Single	Specifies a statement in opposition to the referendum. It does not necessarily appear on the ballot.	If the element is invalid or not present, then the implementation is required to ignore it.
EffectOfAbstain	<i>Internationalized-Text</i>	Optional	Single	Specifies what effect abstaining (i.e. not voting) on this proposition will have (i.e. whether abstaining is considered a vote against it).	If the element is invalid or not present, then the implementation is required to ignore it.
Full-Text	<i>Internationalized-Text</i>	Optional	Single	Specifies the full text of the referendum as it appears on the ballot.	If the element is invalid or not present, then the implementation is required to ignore it.
InfoUri	<i>xs:anyURI</i>	Optional	Single	Specifies a URI that links to additional information about the referendum.	If the field is invalid or not present, then the implementation is required to ignore it.
PassageThreshold	<i>Internationalized-Text</i>	Optional	Single	Specifies the threshold of votes that the referendum needs in order to pass. The default is a simple majority (i.e. 50% plus one vote). Other common thresholds are “three-fifths” and “two-thirds”. If there are competing initiatives , information about their effect on the passage of the <i>BallotMeasureContest</i> would go here.	If the element is invalid or not present, then the implementation is required to ignore it.
ProStatement	<i>Internationalized-Text</i>	Optional	Single	Specifies a statement in favor of the referendum. It does not necessarily appear on the ballot.	If the element is invalid or not present, then the implementation is required to ignore it.
Summary-Text	<i>Internationalized-Text</i>	Optional	Single	Specifies a short summary of the referendum that is on the ballot, below the title, but above the text.	If the element is invalid or not present, then the implementation is required to ignore it.
Type	<i>Ballot-Measure-Type</i>	Optional	Single	Specifies the particular type of ballot measure. Must be one of the valid <i>BallotMeasureType</i> options.	If the field is invalid or not present, then the implementation is required to ignore it.
1.1. XML Specification					47
Other-Type	<i>xs:string</i>	Optional	Single	Allows for cataloging a new <i>BallotMeasureType</i> option, when Type is specified as “other.”	If the field is invalid or not present, then the

```

1 <BallotMeasureContest id="bmc30001">
2   <BallotSelectionIds>bms30001a bms30001b</BallotSelectionIds>
3   <BallotTitle>
4     <Text language="en">State of the State</Text>
5     <Text language="es">Estado del Estado.</Text>
6   </BallotTitle>
7   <ElectoralDistrictId>ed60129</ElectoralDistrictId>
8   <Name>Referendum on Virginia</Name>
9   <ConStatement label="bmc30001con">
10    <Text language="en">This is no good.</Text>
11    <Text language="es">Esto no es bueno.</Text>
12  </ConStatement>
13  <EffectOfAbstain label="bmc30001abs">
14    <Text language="en">Nothing will happen.</Text>
15    <Text language="es">Nada pasará.</Text>
16  </EffectOfAbstain>
17  <ProStatement label="bmc30001pro">
18    <Text language="en">Everything will be great.</Text>
19    <Text language="es">Todo va a estar bien.</Text>
20  </ProStatement>
21  <Type>referendum</Type>
22 </BallotMeasureContest>

```

BallotMeasureSelection

Represents the possible selection (e.g. yes/no, recall/do not recall, et al) for a *BallotMeasureContest* that would appear on the ballot. *BallotMeasureSelection* extends *BallotSelectionBase*.

Tag	Data Type	Re- quired?	Re- peats?	Description	Error Handling
Se- lec- tion	<i>InternationalizedText</i>	Re- quired	Single	Selection text for a <i>BallotMeasureContest</i>	If the element is invalid or not present, the implementation is required to ignore the <i>BallotMeasureSelection</i> containing it.

```

1 <BallotMeasureSelection id="bms30001a">
2   <Selection label="bms30001at">
3     <Text language="en">Yes</Text>
4     <Text language="es">Sí</Text>
5   </Selection>
6 </BallotMeasureSelection>
7 <BallotMeasureSelection id="bms30001b">
8   <Selection label="bms30001bt">
9     <Text language="en">No</Text>
10    <Text language="es">No</Text>
11  </Selection>
12 </BallotMeasureSelection>

```

BallotSelectionBase

A base model for all ballot selection types: *BallotMeasureSelection*, *CandidateSelection*, and *PartySelection*.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Sequence-Order	xs:int	Optional	Single	The order in which a selection can be listed on the ballot or in results. This is the default ordering, and can be overridden by <i>OrderedBallotSlectionIds</i> in <i>OrderedContest</i> .	If the field is invalid or not present, then the implementation is required to ignore it.

BallotStyle

A container for the contests/measures on the ballot.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
ImageUri	xs:anyURI	Optional	Single	Specifies a URI that returns an image of the sample ballot.	If the field is invalid or not present, then the implementation is required to ignore it.
Ordered-ContestIds	xs:IDREF	Optional	Single	Reference to a set of :ref:'multi-xml-ordered-contest's	If the field is invalid or not present, then the implementation is required to ignore it.
PartyIds	xs:IDREF	Optional	Single	Reference to a set of :ref:'multi-xml-party's.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <BallotStyle id="bs00000">
2   <OrderedContestIds>oc20003 oc20004 oc20005 oc20025 oc20355 oc20449</
   ↳OrderedContestIds>
3 </BallotStyle>

```

Candidate

The Candidate object represents a candidate in a contest. If a candidate is running in multiple contests, each contest **must** have its own Candidate object. Candidate objects may **not** be reused between Contests.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Ballot-Name	<i>Internationalized-Text</i>	Required	Single	The candidate's name as it will be displayed on the official ballot (e.g. "Ken T. Cuccinelli II").	If the element is invalid or not present, then the implementation is required to ignore the Candidate element containing it.
Contact-Information	<i>ContactInformation</i>	Optional	Single	Contact and physical address information for this Candidate and/or their campaign (see <i>ContactInformation</i>).	If the element is invalid or not present, then the implementation is required to ignore it.
External-Identifiers	<i>ExternalIdentifiers</i>	Optional	Single	Another identifier for a candidate that links to another source of information (e.g. a campaign committee ID that links to a campaign finance system).	If the element is invalid or not present, then the implementation is required to ignore it.
File-Date	xs:date	Optional	Single	Date when the candidate filed for the contest.	If the field is invalid or not present, then the implementation is required to ignore it.
IsIncumbent	xs:boolean	Optional	Single	Indicates whether the candidate is the incumbent for the office associated with the contest.	If the field is invalid or not present, then the implementation is required to ignore it.
IsTopTicket	xs:boolean	Optional	Single	Indicates whether the candidate is the top of a ticket that includes multiple candidates.	If the field is invalid or not present, then the implementation is required to ignore it.
PartyId	xs:IDREF	Optional	Single	Reference to a <i>Party</i> element with additional information about the candidate's affiliated party. This is the party affiliation that is intended to be presented as part of ballot information.	If the field is invalid or not present, then the implementation is required to ignore it.
PersonId	xs:IDREF	Optional	Single	Reference to a <i>Person</i> element with additional information about the candidate.	If the field is invalid or not present, then the implementation is required to ignore it.
Post-Election-Status	<i>CandidatePostElectionStatus</i>	Optional	Single	Final status of the candidate (e.g. winner, withdrawn, etc...).	If the field is invalid or not present, then the implementation is required to ignore it.
Pre-Election-Status	<i>CandidatePreElectionStatus</i>	Optional	Single	Registration status of the candidate (e.g. filed, qualified, etc...).	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <Candidate id="can10961">
2   <BallotName>
3     <Text language="en">Ken T. Cuccinelli II</Text>
4   </BallotName>
5   <PartyId>par0001</PartyId>
6   <PersonId>per10961</PersonId>

```

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`</Candidate>`

CandidateContest

CandidateContest extends *ContestBase* and represents a contest among candidates.

Tag	Data Type	Required	Repeats?	Description	Error Handling
Number-Elected	<code>xs:integer</code>	Optional	Single	Number of candidates that are elected in the contest (i.e. "N" of N-of-M).	If the field is invalid or not present, then the implementation is required to ignore it.
OfficeIds	<code>xs:IDREFS</code>	Optional	Single	References a set of <i>Office</i> elements, if available, which give additional information about the offices. Note: the order of the office IDs must be in the same order as the candidates listed in <i>BallotSelectionIds</i> . E.g., if the various <i>BallotSelectionIds</i> reference <i>CandidateSelection</i> elements which reference the candidate for President first and Vice-President second, the <i>OfficeIds</i> should reference the office of President first and the office of Vice-President second.	If the field is invalid or not present, then the implementation is required to ignore it.
Primary-PartyIds	<code>xs:IDREFS</code>	Optional	Single	References <i>Party</i> elements, if the contest is related to a particular party.	If the field is invalid or not present, then the implementation is required to ignore it.
VotesAllowed	<code>xs:integer</code>	Optional	Single	Maximum number of votes/write-ins per voter in this contest.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <CandidateContest id="cc20003">
2   <BallotSelectionIds>cs10961 cs10962 cs10963</BallotSelectionIds>
3   <BallotTitle>
4     <Text language="en">Governor of Virginia</Text>
5   </BallotTitle>
6   <ElectoralDistrictId>ed60129</ElectoralDistrictId>
7   <Name>Governor</Name>
8   <NumberElected>1</NumberElected>
9   <OfficeId>off0000</OfficeId>

```

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```

10 <VotesAllowed>1</VotesAllowed>
11 </CandidateContest>
    
```

CandidateSelection

CandidateSelection extends *BallotSelectionBase* and represents a ballot selection for a candidate contest.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
CandidateIds	xs:IDREFS	Optional	Single	References a set of <i>Candidate</i> elements. The number of candidates that can be references is unbounded in cases where the ballot selection is for a ticket (e.g. “President/Vice President”, “Governor/Lt Governor”).	If the field is invalid or not present, then the implementation is required to ignore it.
EndorsementPartyIds	xs:IDREFS	Optional	Single	References a set of <i>Party</i> elements, which signifies one or more endorsing parties for the candidate(s).	If the field is invalid or not present, then the implementation is required to ignore it.
IsWriteIns	xs:boolean	Optional	Single	Signifies if the particular ballot selection allows for write-in candidates. If true, one or more write-in candidates are allowed for this contest.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <CandidateSelection id="cs10861">
2   <CandidateIds>can10861a can10861b</CandidateIds>
3   <EndorsementPartyIds>par0001</EndorsementPartyIds>
4 </CandidateSelection>
    
```

ContactInformation

For defining contact information about objects such as persons, boards of authorities, organizations, etc. ContactInformation is always a sub-element of another object (e.g. *ElectionAdministration*, *Office*, *Person*, *Source*). ContactInformation has an optional attribute `label`, which allows the feed to refer back to the original label for the information (e.g. if the contact information came from a CSV, `label` may refer to a row ID).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
AddressLine	xs:string	Optional	Repeats	The “location” portion of a mailing address. <i>See usage note.</i>	If the field is invalid or not present, then the implementation is required to ignore it.
Directions	<i>Internationalized-Text</i>	Optional	Single	Specifies further instructions for locating this entity.	If the element is invalid or not present, then the implementation is required to ignore it.
Email	xs:string	Optional	Repeats	An email address for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Fax	xs:string	Optional	Repeats	A fax line for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Hours [deprecated]	<i>Internationalized-Text</i>	Optional	Single	Contains the hours (in local time) that the location is open (<i>NB: this element is deprecated in favor of the more structured :ref:‘multi-xml-hours-open‘ element. It is strongly encouraged that data providers move toward contributing hours in this format).</i>	If the element is invalid or not present, then the implementation is required to ignore it.
HoursOpenId	xs:IDREF	Optional	Single	References an <i>HoursOpen</i> element, which lists the hours of operation for a location.	If the field is invalid or not present, then the implementation is required to ignore it.
LatLng	<i>LatLng</i>	Optional	Single	Specifies the latitude and longitude of this entity.	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Optional	Single	The name of the location or contact. <i>See usage note.</i>	If the field is invalid or not present, then the implementation is required to ignore it.
Phone	xs:string	Optional	Repeats	A phone number for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Uri	xs:anyURI	Optional	Repeats	An informational URI for the contact or location.	If the field is invalid or not present, then the implementation is required to ignore it.
1.1. XML Specification					ignore it. 53

Name and AddressLine Usage Note

The Name and AddressLine fields should be chosen so that a display or mailing address can be constructed programmatically by joining the Name and AddressLine fields together. For example, for the following address:

```
Department of Elections
1 Dr. Carlton B. Goodlett Place, Room 48
San Francisco, CA 94102
```

The name could be “Department of Elections” and the first address line could be “1 Dr. Carlton B. Goodlett Place, Room 48.”

However, VIP does not yet support the representation of mailing addresses whose “name” portion spans more than one line, for example:

```
California Secretary of State
Elections Division
1500 11th Street
Sacramento, CA 95814
```

For addresses like the above, we recommend choosing a name like, “California Secretary of State, Elections Division” with “1500 11th Street” as the first address line. This would result in a programmatically constructed address like the following:

```
California Secretary of State, Elections Division
1500 11th Street
Sacramento, CA 95814
```

```
1 <ContactInformation label="ci10861a">
2   <AddressLine>1600 Pennsylvania Ave</AddressLine>
3   <AddressLine>Washington, DC 20006</AddressLine>
4   <Email>president@whitehouse.gov</Email>
5   <Phone>202-456-1111</Phone>
6   <Phone annotation="TDD">202-456-6213</Phone>
7   <Uri>http://www.whitehouse.gov</Uri>
8 </ContactInformation>
```

ContestBase

A base model for all Contest types: *BallotMeasureContest*, *CandidateContest*, *PartyContest*, and *RetentionContest* (NB: the latter because it extends *BallotMeasureContest*).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Ab- bre- via- tion	xs:string	Optional	Single	An abbreviation for the contest.	If the field is invalid or not present, then the implementation should ignore it.
Bal- lot- Se- lec- tion- Ids	xs:IDREFS	Optional	Single	References a set of <code>BallotSelections</code> , which could be of any selection type that extends <code>BallotSelectionBase</code> .	If the field is invalid or not present, then the implementation should ignore it.
Bal- lot- Sub- Ti- tle	<i>Internationalized-Text</i>	Optional	Single	Subtitle of the contest as it appears on the ballot.	If the element is invalid or not present, then the implementation should ignore it.
Bal- lot- Ti- tle	<i>Internationalized-Text</i>	Optional	Single	Title of the contest as it appears on the ballot.	If the element is invalid or not present, then the implementation should ignore it.
Elec- toral- Dis- tric- tId	xs:IDREF	Optional	Single	References an <code>ElectoralDistrict</code> element that represents the geographical scope of the contest.	If the field is invalid or not present, then the implementation should ignore it.
Elec- torate- Spec- ifi- ca- tion	<i>Internationalized-Text</i>	Optional	Single	Specifies any changes to the eligible electorate for this contest past the usual, “all registered voters” electorate. This subtag will most often be used for primaries and local elections. In primaries, voters may have to be registered as a specific party to vote, or there may be special rules for which ballot a voter can pull. In some local elections, non-citizens can vote.	If the element is invalid or not present, then the implementation should ignore it.
Ex- ter- nal- den- ti- fiers	<i>External-identifiers</i>	Optional	Single	Other identifiers for a contest that links to another source of information.	If the element is invalid or not present, then the implementation should ignore it.
Has- Ro- ta- tion	xs:boolean	Optional	Single	Indicates whether the selections in the contest are rotated.	If the field is invalid or not present, then the implementation should ignore it.
Name	xs:string	Optional	Single	Name of the contest, not necessarily how it appears on the ballot (NB: <code>BallotTitle</code> should be used for this purpose).	If the field is invalid or not present, then the implementation should

1.1. XML Specification

Election

The Election object represents an Election Day, which usually consists of many individual contests and/or referenda. A feed must contain **exactly one** Election object. All relationships in the feed (e.g., street segment to precinct to polling location) are assumed to relate only to the Election specified by this object. It is permissible, and recommended, to combine unrelated contests (e.g., a special election and a general election) that occur on the same day into one feed with one Election object.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Date	xs:date	Required	Single	Specifies when the election is being held. The <i>Date</i> is considered to be in the timezone local to the state holding the election.	If the field is invalid, then the implementation is required to ignore the Election element containing it.
Election-Type	Internationalized-Text	Optional	Single	Specifies the highest controlling authority for election (e.g., federal, state, county, city, town, etc.)	If the element is invalid or not present, then the implementation is required to ignore it.
StateId	xs:IDREF	Required	Single	Specifies a link to the <i>State</i> element where the election is being held.	If the field is invalid, then the implementation is required to ignore the Election element containing it.
Is-Statewide	xs:boolean	Optional	Single	Indicates whether the election is statewide.	If the field is not present or invalid, the implementation is required to default to "yes".
Name	Internationalized-Text	Optional	Single	The name for the election (NB: while optional, this element is highly recommended).	If the element is invalid or not present, then the implementation is required to ignore it.
RegistrationInfo	Internationalized-Text	Optional	Single	Specifies information about registration for this election either as text or a URI.	If the element is invalid or not present, then the implementation is required to ignore it.
Absentee-Ballot-Info	Internationalized-Text	Optional	Single	Specifies information about requesting absentee ballots either as text or a URI	If the element is invalid or not present, then the implementation is required to ignore it.
ResultsUri	xs:anyURI	Optional	Single	Contains a URI where results for the election may be found	If the field is invalid or not present, then the implementation is required to ignore it.
1.1. XML Specification					
PollingHours	Hours	Optional	Single	Contains the hours (in local time) that Election Day polling loca-	If the element

```
1 <Election id="ele30000">
2   <AbsenteeRequestDeadline>2013-10-30</AbsenteeRequestDeadline>
3   <Date>2013-11-05</Date>
4   <ElectionType>
5     <Text language="en">General</Text>
6     <Text language="es">Generales</Text>
7   </ElectionType>
8   <HasElectionDayRegistration>>false</HasElectionDayRegistration>
9   <HoursOpenId>hours0001</HoursOpenId>
10  <IsStatewide>>true</IsStatewide>
11  <Name>
12    <Text language="en">2013 Statewide General</Text>
13  </Name>
14  <RegistrationDeadline>2013-10-15</RegistrationDeadline>
15  <ResultsUri>http://www.sbe.virginia.gov/ElectionResults.html</ResultsUri>
16  <StateId>st51</StateId>
17 </Election>
```

ElectionAdministration

The Election Administration represents an institution for serving a locality's (or state's) election functions.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
AbsenteeUri	xs:anyURI	Optional	Single	Specifies the web address for information on absentee voting.	If the field is invalid or not present, then the implementation is required to ignore it.
AmIRegisteredUri	xs:anyURI	Optional	Single	Specifies the web address for information on whether an individual is registered.	If the field is invalid or not present, then the implementation is required to ignore it.
Department	<i>Department</i>	Required	Repeats	Describes the administrative body for a particular voter service.	There must be at least one valid <i>Department</i> in each <i>ElectionAdministration</i> element. If no valid <i>Department</i> objects are present, the implementation is required to ignore the <i>ElectionAdministration</i> object that contains it/them.
ElectionUri	xs:anyURI	Optional	Single	Specifies web address the administration's website.	If the field is invalid or not present, then the implementation is required to ignore it.
RegistrationUri	xs:anyURI	Optional	Single	Specifies web address for information on registering to vote.	If the field is invalid or not present, then the implementation is required to ignore it.
RulesUri	xs:anyURI	Optional	Single	Specifies a URI for the election rules and laws (if any) for the jurisdiction of the administration.	If the field is invalid or not present, then the implementation is required to ignore it.
WhatsOnMyBallotUri	xs:anyURI	Optional	Single	Specifies web address for information on what is on an individual's ballot.	If the field is invalid or not present, then the implementation is required to ignore it.
WhereDoIVoteUri	xs:anyURI	Optional	Single	The Specifies web address for information on where an individual votes based on their address.	If the field is invalid or not present, then the implementation is required to ignore it.

Department

Tag	Data Type	Required?	Repeats?	Description	Error Handling
ContactInformation	<i>ContactInformation</i>	Optional	Single	Contact and physical address information for the election administration body (see <i>ContactInformation</i>).	If the element is invalid or not present, then the implementation is required to ignore it.
ElectionOfficialPersonId	xs:IDREF	Optional	Single	The individual to contact at the election administration office. The specified person should be the <i>election official</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
VoterService	<i>VoterService</i>	Optional	Repeats	The types of services and appropriate contact individual available to voters.	If the element is invalid or not present, then the implementation is required to ignore it.

VoterService

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Contact-Information	<i>Contact-Information</i>	Optional	Single	The contact for a particular voter service.	If the element is invalid or not present, then the implementation is required to ignore it.
Description	<i>InternationalizedText</i>	Optional	Single	Long description of the services available.	If the element is invalid or not present, then the implementation is required to ignore it.
ElectionOfficialPersonId	xs:IDREF	Optional	Single	The <i>authority</i> for a particular voter service.	If the field is invalid or not present, then the implementation is required to ignore it.
Type	<i>VoterServiceType</i>	Optional	Single	The type of <i>voter service</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
Other-Type	xs:string	Optional	Single	If Type is “other”, OtherType allows for cataloging another type of voter service.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <ElectionAdministration id="ea40133">
2   <AbsenteeUri>http://www.sbe.virginia.gov/absenteevoting.html</AbsenteeUri>
3   <AmIRegisteredUri>https://www.vote.virginia.gov/</AmIRegisteredUri>
4   <Department>
5     <ContactInformation label="ci60000">
6       <AddressLine>Washington Building First Floor</AddressLine>
7       <AddressLine>1100 Bank Street</AddressLine>
8       <AddressLine>Richmond, VA 23219</AddressLine>
9       <Name>State Board of Elections</Name>
10    </ContactInformation>
11  </Department>
12  <ElectionsUri>http://www.sbe.virginia.gov/</ElectionsUri>
13  <RegistrationUri>https://www.vote.virginia.gov/</RegistrationUri>
14  <RulesUri>http://www.sbe.virginia.gov/</RulesUri>
15  <WhatIsOnMyBallotUri>https://www.vote.virginia.gov/</WhatIsOnMyBallotUri>
16  <WhereDoIVoteUri>https://www.vote.virginia.gov/</WhereDoIVoteUri>
17 </ElectionAdministration>

```

ElectoralDistrict

The `ElectoralDistrict` object represents the geographic area in which contests are held. Examples of `ElectoralDistrict` include: “the state of Maryland”, “Virginia’s 5th Congressional District”, or “Union School District”. The geographic area that comprises a `ElectoralDistrict` is defined by which precincts link to the `ElectoralDistrict`.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
ExternalIdentifiers	<i>ExternalIdentifiers</i>	Optional	Single	Other identifiers that link to external datasets (e.g. OCD-IDs)	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Required	Single	Specifies the electoral area's name.	If the field is invalid or not present, then the implementation is required to ignore the <code>ElectoralDistrict</code> object containing it.
Number	xs:integer	Optional	Single	Specifies the district number of the district (e.g. 34, in the case of the 34th State Senate District). If a number is not applicable, instead of leaving the field blank, leave this field out of the object; empty strings are not valid for xs:integer fields.	If the field is invalid or not present, then the implementation is required to ignore it.
Type	<i>DistrictType</i>	Required	Single	Specifies the type of electoral area.	If the field is invalid or not present, then the implementation is required to ignore the <code>ElectoralDistrict</code> object containing it.
OtherType	xs:string	Optional	Single	Allows for cataloging a new <i>DistrictType</i> option when Type is specified as "other".	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <ElectoralDistrict id="ed60129">
2   <ExternalIdentifiers>
3     <ExternalIdentifier>
4       <Type>ocd-id</Type>
5       <Value>ocd-division/country:us/state:va</Value>
6     </ExternalIdentifier>
7     <ExternalIdentifier>
8       <Type>fips</Type>
9       <Value>51</Value>
10    </ExternalIdentifier>
11  </ExternalIdentifiers>
12  <Name>Commonwealth of Virginia</Name>
13  <Type>state</Type>
14 </ElectoralDistrict>

```

ExternalIdentifiers

The `ExternalIdentifiers` element allows VIP data to connect with external datasets (e.g. candidates with campaign finance datasets, electoral geographies with [OCD-IDs](#) that allow for greater connectivity with additional datasets, etc...). Examples for `ExternalIdentifiers` can be found on the objects that support them:

- *Candidate*
- Any element that extends *ContestBase*
- *ElectoralDistrict*

- *Locality*
- *Office*
- *Party*
- *Precinct*
- *State*

Tag	Data Type	Required?	Repeats?	Description	Error Handling
ExternalIdentifier	<i>ExternalIdentifier</i>	Required	Repeats	Defines the identifier and the type of identifier it is (see <i>ExternalIdentifier</i> for complete information).	At least one valid <i>ExternalIdentifier</i> must be present for ExternalIdentifiers to be valid. If no valid <i>ExternalIdentifier</i> is present, the implementation is required to ignore the ExternalIdentifiers element.

ExternalIdentifier

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Type	<i>IdentifierType</i>	Required	Single	Specifies the type of identifier. Must be one of the valid types as defined by <i>IdentifierType</i> .	If the field is invalid or not present, the implementation is required to ignore the ElectionIdentifier containing it.
OtherType	xs:string	Optional	Single	Allows for cataloging an ExternalIdentifier type that falls outside the options listed in <i>IdentifierType</i> . Type should be set to “other” when using this field.	If the field is invalid or not present, then the implementation is required to ignore it.
Value	xs:string	Required	Single	Specifies the identifier.	If the field is invalid or not present, the implementation is required to ignore the ElectionIdentifier containing it.

```

1 <ExternalIdentifiers>
2   <ExternalIdentifier>
3     <Type>ocd-id</Type>
4     <Value>ocd-division/country:us/state:nc/county:durham</Value>
5   </ExternalIdentifier>
6   <ExternalIdentifier>
7     <Type>FIPS</Type>
8     <Value>37063</Value>
9   </ExternalIdentifier>
10  <ExternalIdentifier>
11    <Type>OTHER</Type>
12    <OtherType>GNIS</OtherType>
13    <Value>1008550</Value>
14  </ExternalIdentifier>

```

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```

15 <external_identifier>
16   <Type>OTHER</Type>
17   <OtherType>census</OtherType>
18   <Value>99063</Value>
19 </ExternalIdentifier>
20 </ExternalIdentifiers>
    
```

HoursOpen

A structured way of describing the days and hours that a place such as a *Office* or *PollingLocation* is open, or that an event such as an *Election* is happening. The range of days indicated by the *StartDate* and *EndDate* in each *Schedule* element should not overlap with peer *Schedule* elements. For example, it is invalid to specify a schedule from 10/01/2016 to 10/31/2016 and also specify a schedule from 10/10/2016 to 10/11/2016 within the same *HoursOpen* element.

Tag	Data Type	Re-quired?	Re-peats?	Description	Error Handling
Schedule	<i>Schedule</i>	Re-quired	Re-peats	Defines a block of days and hours that a place will be open.	At least one valid <i>Schedule</i> must be present for <i>HoursOpen</i> to be valid. If no valid <i>Schedule</i> is present, the implementation is required to ignore the <i>HoursOpen</i> element.

Schedule

A sub-portion of the schedule. This describes a range of days, along with one or more set of open and close times for those days, as well as the options describing whether or not appointments are necessary or possible.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Hours	<i>Hours</i>	Optional	Repeats	Blocks of hours in the date range in which the place is open.	If the element is invalid or not present, then the implementation is required to ignore it.
IsOnly-ByAppointment	xs:boolean	Optional	Single	If true, the place is only open during the specified time window with an appointment.	If the field is invalid or not present, then the implementation is required to ignore it.
IsOr-ByAppointment	xs:boolean	Optional	Single	If true, the place is open during the hours specified time window and may also be open with an appointment.	If the field is invalid or not present, then the implementation is required to ignore it.
IsSubject-ToChange	xs:boolean	Optional	Single	If true, the place should be open during the specified time window, but may be subject to change. People should contact prior to arrival to confirm hours are still accurate.	If the field is invalid or not present, then the implementation is required to ignore it.
Start-Date	xs:date	Optional	Single	The date at which this collection of start and end times and options begin.	If the field is invalid or not present, then the implementation is required to ignore it.
End-Date	xs:date	Optional	Single	The date at which this collection of start and end times and options end.	If the field is invalid or not present, then the implementation is required to ignore it.

Hours

The open and close time for this place. All times must be fully specified, including a timezone offset from UTC.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Start-Time	<i>Time-With-Zone</i>	Optional	Single	The time at which this place opens.	If the element is invalid or not present, then the implementation is required to ignore it.
End-Time	<i>Time-With-Zone</i>	Optional	Single	The time at which this place closes.	If the element is invalid or not present, then the implementation is required to ignore it.

TimeWithZone

A string pattern restricting the value to a time with an included offset from UTC. The pattern is

(([01] [0-9] | 2 [0-3]) : [0-5] [0-9] : [0-5] [0-9] | (24 : 00 : 00)) (Z | [+-] ((0 [0-9] | 1 [0-3]) : [0-5] [0-9] | 14

```

1 <HoursOpen id="hours0001">
2   <Schedule>
3     <Hours>
4       <StartTime>06:00:00-05:00</StartTime>

```

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```

5     <EndTime>12:00:00-05:00</EndTime>
6 </Hours>
7 <Hours>
8     <StartTime>13:00:00-05:00</StartTime>
9     <EndTime>19:00:00-05:00</EndTime>
10 </Hours>
11 <StartDate>2013-11-05</StartDate>
12 <EndDate>2013-11-05</EndDate>
13 </Schedule>
14 </HoursOpen>
    
```

InternationalizedText

InternationalizedText allows for support of multiple languages for a string. InternationalizedText has an optional attribute label, which allows the feed to refer back to the original label for the information (e.g. if the contact information came from a CSV, label may refer to a row ID). Examples of InternationalizedText can be seen in:

- Any element that extends *ContestBase*
- Any element that extends *BallotSelectionBase*
- *Candidate*
- *ContactInformation*
- *Election*
- *ElectionAdministration*
- *Office*
- *Party*
- *Person*
- *PollingLocation*
- *Source*

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Text	<i>LanguageString</i>	Required	Repeats	Contains the translations of a particular string of text.	At least one valid Text must be present for InternationalizedText to be valid. If no valid Text is present, the implementation is required to ignore the InternationalizedText element.

LanguageString

LanguageString extends xs:string and can contain text from any language. LanguageString has one required attribute, language, that must contain the 2-character language code for the type of language LanguageString contains.

```

1 <BallotTitle>
2   <Text language="en">Retention of Supreme Court Justice</Text>
    
```

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```

3   <Text language="es">La retención de juez de la Corte Suprema</Text>
4 </BallotTitle>

```

LatLng

The latitude and longitude of a polling location in [WGS 84](#) format. Both latitude and longitude values are measured in decimal degrees.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Latitude	xs:float	Required	Single	The latitude of the polling location.	If the field is invalid, then the implementation is required to ignore it.
Longitude	xs:float	Required	Single	The longitude of the polling location.	If the field is invalid, then the implementation is required to ignore it.
Source	xs:string	Optional	Single	The system used to perform the lookup from location name to lat/long. For example, this could be the name of a geocoding service.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <PollingLocation id="p181274">
2   <AddressLine>ALBEMARLE HIGH SCHOOL</AddressLine>
3   <AddressLine>2775 Hydraulic Rd</AddressLine>
4   <AddressLine>Charlottesville, VA 229018917</AddressLine>
5   <HoursOpenId>hours0001</HoursOpenId>
6   <LatLng>
7     <Latitude>38.0754627</Latitude>
8     <Longitude>-78.5014875</Longitude>
9     <Source>Google Maps</Source>
10  </LatLng>
11 </PollingLocation>

```

Locality

The Locality object represents the jurisdiction below the *State* (e.g. county).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Election-AdministrationId	xs:IDREF	Optional	Single	Links to the locality's <i>ElectionAdministration</i> object.	If the field is invalid or not present, then the implementation is required to ignore it.
ExternalIdentifiers	<i>ExternalIdentifiers</i>	Optional	Single	Another identifier for a locality that links to another dataset (e.g. <i>OCD-ID</i>)	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Required	Single	Specifies the name of a locality.	If the field is not present or invalid, the implementation is required to ignore the Locality element containing it.
PollingLocations	xs:string	Optional	Single	Specifies a link to a set of the locality's :ref:polling locations <multi-xml-polling-location>'s. If early vote centers or ballot drop locations are locality-wide, they should be specified here.	If the field is invalid or not present, the implementation is required to ignore it. However, the implementation should still check to see if there are any polling locations associated with this locality's state.
StateId	xs:IDREF	Required	Single	References the locality's <i>State</i> .	If the field is invalid or not present, the implementation is required to ignore the Locality element containing it.
Type	<i>DistrictType</i>	Optional	Single	Defines the kind of locality (e.g. county, town, et al.), which is one of the various <i>DistrictType enumerations</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
Other-Type	xs:string	Optional	Single	Allows for defining a type of locality that falls outside the options listed in <i>DistrictType</i> .	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <Locality id="loc70001">
2   <ElectionAdministrationId>ea40001</ElectionAdministrationId>
3   <ExternalIdentifiers>
4     <ExternalIdentifier>
5       <Type>ocd-id</Type>
6       <Value>ocd-division/country:us/state:va/county:albemarle</Value>
7     </ExternalIdentifier>
8   </ExternalIdentifiers>
9   <Name>ALBEMARLE COUNTY</Name>
10  <StateId>st51</StateId>
11  <Type>county</Type>
12 </Locality>

```

Office

Office represents the office associated with a contest or district (e.g. Alderman, Mayor, School Board, et al).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
ContactInformation	<i>ContactInformation</i>	Optional	Repeats	Specifies the contact information for the office and/or individual holding the office.	If the element is invalid or not present, then the implementation is required to ignore it.
Description	<i>Internationalized-Text</i>	Optional	Single	A brief description of the office and its purpose.	If the element is invalid or not present, then the implementation is required to ignore it.
ElectoralDistrictId	xs:IDREF	Required	Single	Links to the <i>ElectoralDistrict</i> element associated with the office.	If the field is invalid or not present, the implementation is required to ignore the <i>Office</i> element containing it.
ExternalIdentifiers	<i>ExternalIdentifiers</i>	Optional	Single	Other identifiers that link this office to other related datasets (e.g. campaign finance systems, OCD IDs, et al.).	If the element is invalid or not present, then the implementation is required to ignore it.
FilingDeadline	xs:date	Optional	Single	Specifies the date and time when a candidate must have filed for the contest for the office.	If the field is invalid or not present, then the implementation is required to ignore it.
IsPartisan	xs:boolean	Optional	Single	Indicates whether the office is partisan.	If the field is invalid or not present, then the implementation is required to ignore it.
Name	<i>Internationalized-Text</i>	Required	Single	The name of the office.	If the field is invalid or not present, the implementation is required to ignore the <i>Office</i> element containing it.
OfficeHolderPersonIds	xs:IDREF	Optional	Single	Links to the <i>Person</i> element(s) that hold additional information about the current office holder(s).	If the field is invalid or not present, then the implementation is required to ignore it.
Term	<i>Term</i>	Optional	Single	Defines the term the office can be held.	If the element is invalid or not present, then the implementation is required to ignore it.

Term

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Type	<i>OfficeTermType</i>	Optional	Single	Specifies the type of office term (see <i>OfficeTermType</i> for valid values).	If the field is invalid or not present, the implementation is required to ignore the <i>Office</i> element containing it.
Start-Date	xs:date	Optional	Single	Specifies the start date for the current term of the office.	If the field is invalid or not present, then the implementation is required to ignore it.
End-Date	xs:date	Optional	Single	Specifies the end date for the current term of the office.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 <Office id="off0000">
2   <ElectoralDistrictId>ed60129</ElectoralDistrictId>
3   <FilingDeadline>2013-01-01</FilingDeadline>

```

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```

4 <IsPartisan>>false</IsPartisan>
5 <Name>
6   <Text language="en">Governor</Text>
7 </Name>
8 <Term>
9   <Type>full-term</Type>
10 </Term>
11 </Office>

```

OrderedContest

OrderedContest encapsulates links to the information that comprises a contest and potential ballot selections. OrderedContest elements can be collected within a *BallotStyle* to accurately depict exactly what will show up on a particular ballot in the proper order.

Tag	Data Type	Required	Repeats	Description	Error Handling
ContestId	xs:IDREF	Required	Single	Links to elements that extend <i>ContestBase</i> .	If the field is invalid or not present, the implementation is required to ignore the OrderedContest element containing it.
OrderedBallotSelectionIds	xs:IDREFS	Optional	Single	Links to elements that extend <i>BallotSelectionBase</i> .	If the field is invalid or not present, the implementation is required to ignore it. If an OrderedBallotSelectionIds element is not present, the presumed order of the selection will be the order of <i>BallotSelectionBase</i> -extended elements referenced by the underlying <i>ContestBase</i> -extended elements.

```

1 <OrderedContest id="oc20003abc">
2   <ContestId>cc20003</ContestId>
3   <OrderedBallotSelectionIds>cs10961 cs10962 cs10963</OrderedBallotSelectionIds>
4 </OrderedContest>

```

Party

This element describes a political party and the metadata associated with them. These can also include “dummy” parties to indicate a type of contest (e.g., a Voter Nominated *CandidateContest* can use the **PrimaryPartyIds** field and a dummy Party object to indicate that the contest is a “Top-Two” primary).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Ab- bre- via- tion	<i>xs:string</i>	Op- tional	Single	An abbreviation for the party name.	If the field is in- valid or not present, then the implemen- tation is required to ignore it.
Color	<i>Html- Col- orString</i>	Op- tional	Single	The preferred display color for the party, for use in maps and other displays.	If the element is in- valid or not present, then the implemen- tation is required to ignore it.
Ex- ter- nal- iden- ti- fiers	<i>Ex- ter- nal- iden- ti- fiers</i>	Op- tional	Single	Other identifiers that link this party to other related data sets (e.g. a campaign finance system, etc).	If the element is in- valid or not present, then the implemen- tation is required to ignore it.
IsWrite- in	<i>xs:boolean</i>	Op- tional	Single	Signals if this political party is one that is officially recog- nized by a local, state, or federal organization, or is a “write- in” in jurisdictions which allow candidates to free-form enter their political affiliation. If this field is not present then it is assumed to be false.	If the field is in- valid or not present, then the implemen- tation is required to ignore it.
Lo- goUri	<i>xs:anyURI</i>	Op- tional	Single	Web address of a logo to use in displays.	If the field is in- valid or not present, then the implemen- tation is required to ignore it.
Name	<i>Inter- na- tion- al- ized- Text</i>	Op- tional	Single	The name of the party.	If the element is in- valid or not present, then the implemen- tation is required to ignore it.

HtmlColorString

A restricted string pattern for a six-character hex code representing an HTML color string. The pattern is:

[0-9a-f]{6}

```

1 <Party id="par0001">
2   <Abbreviation>REP</Abbreviation>
3   <Color>e91d0e</Color>
4   <Name>
5     <Text language="en">Republican</Text>
6   </Name>
7 </Party>

```

PartyContest

An extension of *ContestBase* which describes a contest in which the possible ballot selections are of type *PartySelection*. These could include contests in which straight-party selections are allowed, or party-list contests (although these are more common outside of the United States).

PartySelection

This element extends *BallotSelectionBase* to support contests in which the selections can be groups of one or more parties.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
PartyIds	xs:IDREFS	Required	Single	One or more <i>Party</i> IDs which collectively represent a ballot selection.	If one or more parties referenced are invalid or not present, the implementation is required to ignore the <i>PartySelection</i> containing it.

Person

Person defines information about a person. The person may be a candidate, election administrator, or elected official. These elements reference *Person*:

- *Candidate*
- *ElectionAdministration*
- *Office*

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Contact-Information	<i>Contact-Information</i>	Optional	Repeats	Specifies contact information for the person.	If the element is invalid or not present, then the implementation is required to ignore it.
Date-Of-Birth	xs:date	Optional	Single	Represents the individual's date of birth.	If the field is invalid or not present, then the implementation is required to ignore it.
External-Identifiers	<i>External-Identifiers</i>	Optional	Single	Identifiers for this person.	If the element is invalid or not present, then the implementation is required to ignore it.
First-Name	xs:string	Optional	Single	Represents an individual's first name.	If the field is invalid or not present, then the implementation is required to ignore it.
Full-Name	<i>Internationalized-Text</i>	Optional	Single	Specifies a person's full name (NB: this information is <i>InternationalizedText</i> because it sometimes appears on ballots in multiple languages).	If the element is invalid or not present, then the implementation is required to ignore it.
Gender	xs:string	Optional	Single	Specifies a person's gender.	If the field is invalid or not present, then the implementation is required to ignore it.
Last-Name	xs:string	Optional	Single	Represents an individual's last name.	If the field is invalid or not present, then the implementation is required to ignore it.
Middle-Name	xs:string	Optional	Repeats	Represents any number of names between an individual's first and last names (e.g. John Ronald Reuel Tolkien).	If the field is invalid or not present, then the implementation is required to ignore it.
Nickname	xs:string	Optional	Single	Represents an individual's nickname.	If the field is invalid or not present, then the implementation is required to ignore it.
PartyId	xs:IDREF	Optional	Single	Refers to the associated <i>Party</i> . This information is intended to be used by feed consumers to help them disambiguate the person's identity, but not to be presented as part of any ballot information. For that see <i>Candidate PartyId</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
Prefix	xs:string	Optional	Single	Specifies a prefix associated with a person (e.g. Dr.).	If the field is invalid or not present, then the implementation is required to ignore it.
Profession	<i>Internationalized-Text</i>	Optional	Single	Specifies a person's profession (NB: this information is <i>InternationalizedText</i> because it sometimes appears on ballots in multiple languages).	If the element is invalid or not present, then the implementation is required to ignore it.

```
1 <Person id="per50001">
2   <ContactInformation label="ci60002">
3     <Email>rwashburne@albemarle.org</Email>
4     <Phone>4349724173</Phone>
5   </ContactInformation>
6   <FirstName>RICHARD</FirstName>
7   <LastName>WASHBURNE</LastName>
8   <MiddleName>J.</MiddleName>
9   <Nickname>JAKE</Nickname>
10  <Title>
11    <Text language="en">General Registrar Physical</Text>
12  </Title>
13 </Person>
```

PollingLocation

The PollingLocation object represents a site where voters cast or drop off ballots.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
AddressLine	xs:string	Required	Repeats	Represents the various parts of an address to a polling location.	At least one valid AddressLine must be present for PollingLocation to be valid. If no valid AddressLine is present, the implementation is required to ignore the PollingLocation element containing it.
Directions	Internationalized-Text	Optional	Single	Specifies further instructions for locating the polling location.	If the element is invalid or not present, then the implementation is required to ignore it.
Hours [deprecated]	Internationalized-Text	Optional	Single	Contains the hours (in local time) that the polling location is open (NB: this element is deprecated in favor of the more structured HoursOpen element. It is strongly encouraged that data providers move toward contributing hours in this format).	If the element is invalid or not present, then the implementation is required to ignore it.
HoursOpenId	IDREF	Optional	Single	Links to an HoursOpen element, which is a schedule of dates and hours during which the polling location is available.	If the field is invalid or not present, then the implementation is required to ignore it.
IsDropBox	boolean	Optional	Single	Indicates if this polling location is a drop box.	If the field is invalid or not present, then the implementation is required to ignore it.
IsEarlyVoting	boolean	Optional	Single	Indicates if this polling location is an early vote site.	If the field is invalid or not present, then the implementation is required to ignore it.
LatLng	LatLng	Optional	Single	Specifies the latitude and longitude of this polling location.	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Optional	Single	Name of the polling location.	If the field is invalid or not present, then the implementation is required to ignore it.
PhotoUri	xs:anyURI	Optional	Single	Contains a link to an image of the polling location.	If the field is invalid or not present, then the implementation is required to ignore it.

Precinct

The Precinct object represents a precinct, which is contained within a Locality. While the id attribute does not have to be static across feeds for one election, the combination of *Source.VipId*, *Locality.Name*, *Precinct.Ward*, *Precinct.Name*, and *Precinct.Number* should remain constant across feeds for one election (NB: not all of the fields just mentioned are required – omitting those non-required fields is fine).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Ballot-StyleId	xs:IDREF	Optional	Single	Links to the <i>BallotStyle</i> , which a person who lives in this precinct will vote.	If the field is invalid or not present, then the implementation is required to ignore it.
ElectoralDistrictIds	xs:IDREF	Optional	Single	Links to the :ref:*multi-xml-electoral-district's (e.g., congressional district, state house district, school board district) to which the entire precinct/precinct split belongs. Highly Recommended if candidate information is to be provided.	If the field is invalid or not present, then the implementation is required to ignore it.
ExternalIdentifiers	<i>ExternalIdentifiers</i>	Optional	Single	Other identifier for the precinct that relates to another dataset (e.g. OCD-ID).	If the element is invalid or not present, then the implementation is required to ignore it.
IsMailOnly	xs:boolean	Optional	Single	Determines if the precinct runs mail-only elections.	If the field is missing or invalid, the implementation is required to assume <i>IsMailOnly</i> is false.
LocalityId	xs:IDREF	Required	Single	Links to the <i>Locality</i> that comprises the precinct.	If the field is invalid or not present, the implementation is required to ignore the precinct element containing it.
Name	xs:string	Required	Single	Specifies the precinct's name (or number if no name exists).	If the field is invalid or not present, the implementation is required to ignore the precinct element containing it.
Number	xs:string	Optional	Single	Specifies the precinct's number (e.g., 32 or 32A – alpha characters are legal). Should be used if the <i>Name</i> field is populated by a name and not a number.	If the field is invalid or not present, then the implementation is required to ignore it.
PollingLocationIds	xs:IDREF	Optional	Single	Specifies a link to the precinct's <i>PollingLocation</i> object(s).	If the field is invalid or not present, then the implementation is required to ignore it.
PrecinctSplitName	xs:string	Optional	Single	If this field is empty, then this <i>Precinct</i> object represents a full precinct. If this field is present, then this <i>Precinct</i> object represents one portion of a split precinct. Each <i>Precinct</i> object that represents one portion of a split precinct must have the same <i>Name</i> value, but different <i>PrecinctSplitName</i> values. See the <i>sample_feed.xml</i> file for examples.	If the field is invalid or not present, then the implementation is required to ignore it.
Ward	xs:string	Optional	Single	Specifies the ward the precinct is contained within.	If the field is invalid or not present, then the implementation is required to ignore it.
1.1. XML Specification					

```

1 <Precinct id="pre90111">
2   <BallotStyleId>bs00010</BallotStyleId>
3   <ElectoralDistrictIds>ed60129 ed60311 ed60054</ElectoralDistrictIds>
4   <IsMailOnly>>false</IsMailOnly>
5   <LocalityId>loc70001</LocalityId>
6   <Name>203 - GEORGETOWN</Name>
7   <Number>0203</Number>
8   <PollingLocationIds>p181274</PollingLocationIds>
9 </Precinct>
10 <!--
11   Precinct split. Name and PollingLocationIds are the same but
12   PrecinctSplitName is present, the ElectoralDistrictIds are different,
13   and the BallotStyleId is different.
14 -->
15 <Precinct id="pre90348sp0000">
16   <BallotStyleId>bs00002</BallotStyleId>
17   <ElectoralDistrictIds>ed60129 ed60054 ed60150</ElectoralDistrictIds>
18   <IsMailOnly>>false</IsMailOnly>
19   <LocalityId>loc70001</LocalityId>
20   <Name>201 - JACK JOUETT</Name>
21   <Number>0201</Number>
22   <PollingLocationIds>p100000 p181273 p181662</PollingLocationIds>
23   <PrecinctSplitName>0000</PrecinctSplitName>
24 </Precinct>
25 <Precinct id="pre90348sp0001">
26   <BallotStyleId>bs00015</BallotStyleId>
27   <ElectoralDistrictIds>ed60129 ed60054 ed60267</ElectoralDistrictIds>
28   <IsMailOnly>>false</IsMailOnly>
29   <LocalityId>loc70001</LocalityId>
30   <Name>201 - JACK JOUETT</Name>
31   <Number>0201</Number>
32   <PollingLocationIds>p100000 p181273 p181662</PollingLocationIds>
33   <PrecinctSplitName>0001</PrecinctSplitName>
34 </Precinct>

```

RetentionContest

RetentionContest extends *BallotMeasureContest* and represents a contest where a candidate is retained in a position (e.g. a judge).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Can- di- dateId	xs:IDREF	Re- quired	Sin- gle	Links to the <i>Candidate</i> being re- tained.	If the field is invalid or not present, the implementation is required to ignore the RetentionContest element containing it.
Offi- ceId	xs:IDREF	Op- tional	Sin- gle	Links to the infor- mation about the office.	If the field is invalid or not present, then the implementa- tion is required to ignore it.

```

1 <RetentionContest id="rc40001">
2   <BallotSelectionIds>rc40001a rc40001b</BallotSelectionIds>
3   <BallotTitle>
4     <Text language="en">Retention of Supreme Court Justice</Text>

```

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```

5 <Text language="es">La retención de juez de la Corte Suprema</Text>
6 </BallotTitle>
7 <ElectoralDistrictId>ed60129</ElectoralDistrictId>
8 <Name>Judicial Retention, Supreme Court</Name>
9 <CandidateId>can14444</CandidateId>
10 <OfficeId>off20006</OfficeId>
11 </RetentionContest>
    
```

Source

The Source object represents the organization that is publishing the information. This object is the only required object in the feed file, and only one source object is allowed to be present.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Name	xs:string	Required	Single	Specifies the name of the organization that is providing the information.	If the field is invalid, then the implementation is required to ignore the <code>Source</code> element containing it.
VipId	xs:string	Required	Single	Specifies the ID of the organization. VIP uses FIPS codes for this ID.	If the field is invalid, then the implementation is required to ignore the <code>Source</code> element containing it.
Date-Time	xs:dateTime	Required	Single	Specifies the date and time of the feed production. The date/time is considered to be in the timezone local to the organization.	If the field is invalid, then the implementation is required to ignore it.
Description	<i>Internationalized-Text</i>	Optional	Single	Specifies both the nature of the organization providing the data and what data is in the feed.	If the element is invalid or not present, then the implementation is required to ignore it.
OrganizationUri	xs:string	Optional	Single	Specifies a URI to the home page of the organization publishing the data.	If the field is invalid or not present, then the implementation is required to ignore it.
Feed-ContactId	xs:IDREF	Optional	Single	Reference to the <i>Person</i> who will respond to inquiries about the information contained within the file.	If the field is invalid or not present, then the implementation is required to ignore it.
Tou-Uri	xs:anyURI	Optional	Single	Specifies the website where the Terms of Use for the information in this file can be found.	If the field is invalid or not present, then the implementation is required to ignore it.
Version	xs:string	Required	Single	Specifies the version of the data	If the field is invalid, then the implementation is required to ignore it.

```

1 <Source id="src1">
2   <DateTime>2013-10-24T14:25:28</DateTime>
3   <Description>
4     <Text language="en">SBE is the official source for Virginia data</Text>
5   </Description>
6   <Name>State Board of Elections, Commonwealth of Virginia</Name>
7   <OrganizationUri>http://www.sbe.virginia.gov/</OrganizationUri>
8   <VipId>51</VipId>
    
```

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```

9   <Version>5.0</Version>
10  </Source>

```

State

The State object includes state-wide election information. The ID attribute is recommended to be the state’s FIPS code, along with the prefix “st”.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
ElectionAdministrationId	xs:ID	Optional	Single	Links to the state’s election administration object.	If the field is invalid or not present, then the implementation is required to ignore it.
ExternalIdentifiers	<i>ExternalIdentifiers</i>	Optional	Single	Other identifier for the state that relates to another dataset (e.g. OCD-ID).	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Required	Single	Specifies the name of a state, such as Alabama.	If the field is invalid, then the implementation is required to ignore it.
PollingLocations	xs:IDREFS	Optional	Single	Specifies a link to the state’s <i>polling locations</i> . If early vote centers or ballot drop locations are state-wide (e.g., anyone in the state can use them), they can be specified here, but you are encouraged to only use the <i>Precinct</i> element.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1  <State id="st51">
2    <ElectionAdministrationId>ea40133</ElectionAdministrationId>
3    <ExternalIdentifiers>
4      <ExternalIdentifier>
5        <Type>ocd-id</Type>
6        <Value>ocd-division/country:us/state:va</Value>
7      </ExternalIdentifier>
8    </ExternalIdentifiers>
9    <Name>Virginia</Name>
10 </State>

```

StreetSegment

A Street Segment objection represents a portion of a street and the links to the precinct that this geography (i.e., segment) is contained within. The start address house number must be less than the end address house number unless the segment consists of only one address, in which case these values are equal.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Address-Direction	xs:string	Optional	Single	Specifies the (inter-)cardinal direction of the entire address. An example is “NE” for the address “100 E Capitol St NE.”	If the field is invalid or not present, then the implementation is required to ignore it.
City	xs:string	Required	Single	The city specifies the city or town of the address.	If the field is invalid, then the implementation is required to ignore it.
IncludesAllAddresses	xs:boolean	Optional	Single	Specifies if the segment covers every address on this street. If this is <i>true</i> , then the values of StartHouseNumber and EndHouseNumber should be ignored. The value of OddEvenBoth must be <i>both</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
IncludesAllStreets	xs:boolean	Optional	Single	Specifies if the segment covers every street in this city. If this is <i>true</i> , then the values of OddEvenBoth , StartHouseNumber , EndHouseNumber , StreetName , and Zip should be ignored.	If the field is invalid or not present, then the implementation is required to ignore it.
Odd-Even-Both	<i>OebEnum</i>	Optional	Single	Specifies whether the odd side of the street (in terms of house numbers), the even side, or both are included in the street segment.	If the field is not present or invalid, the implementation is required to ignore the StreetSegment containing it.
PrecinctId	xs:IDREF	Optional	Single	References the <i>Precinct</i> that contains the entire street segment.	If the field is not present or invalid, the implementation is required to ignore the StreetSegment element containing it.
StartHouseNumber	xs:integer	Optional	Single	The house number at which the street segment starts. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAllStreets are true, this value must be less than or equal to EndHouseNumber . If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.	Unless IncludesAllAddresses or IncludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the StreetSegment element containing it. If the StartHouseNumber is greater than the EndHouseNumber , the implementation should ignore the element containing them.
EndHouseNumber	xs:integer	Optional	Single	The house number at which the street segment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAllStreets are true, it must be greater than or equal to StartHouseNumber . If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.	Unless IncludesAllAddresses or IncludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the StreetSegment element containing it. If the EndHouseNumber is less than the StartHouseNumber , the implementation should ignore the element containing it.
State	xs:string	Required	Single	Specifies the two-letter state abbreviation of the address.	If the field is invalid, then the implementation is required to ignore it.
Street-Direction	xs:string	Optional	Single	Specifies the (inter-)cardinal direction of the street address (e.g., the “E” in “100 E Capitol St NE”).	If the field is invalid or not present, then the implementation is required to ignore it.
Street-Name	xs:string	Optional	Single	Represents the name of the street for the address. A special wildcard, “*”, denotes every street in the given city/town. It optionally may contain street direction, street suffix or address direction (e.g., both “Capitol” and “E Capitol St NE” are acceptable for the address “100 E Capitol St NE”), however this is not preferred. Preferred is street name alone (e.g.	If the field is invalid or not present, then the implementation is required to ignore it.
1.1. XML Specification					79

```

1 <StreetSegment id="ss999999">
2   <City>Charlottesville</City>
3   <IncludesAllAddresses>>true</IncludesAllAddresses>
4   <OddEvenBoth>both</OddEvenBoth>
5   <PrecinctId>pre99999</PrecinctId>
6   <State>VA</State>
7   <StreetName>CHAPEL HILL</StreetName>
8   <StreetSuffix>RD</StreetSuffix>
9   <Zip>22901</Zip>
10 </StreetSegment>
11 <StreetSegment id="ss309904">
12   <City>GREENWOOD</City>
13   <OddEvenBoth>both</OddEvenBoth>
14   <PrecinctId>pre92145</PrecinctId>
15   <StartHouseNumber>1</StartHouseNumber>
16   <EndHouseNumber>201</EndHouseNumber>
17   <State>VA</State>
18   <StreetName>MISTY MOUNTAIN</StreetName>
19   <StreetSuffix>RD</StreetSuffix>
20   <Zip>22943</Zip>
21 </StreetSegment>

```

Enumerations (Separate Pages)

BallotMeasureType

A list of the various types of ballot measures. States may have different legal definitions of each type; [Wikipedia](#) has more details about each type. These values are to help states with multiple types of non-candidate-based contests distinguish between each type; as such, the definitions in this table are simple guidelines. Ultimately it is up to the state or local election official to choose the value which best describes the ballot measure(s) in their jurisdiction.

Tag	Description
ballot-measure	A catch-all for generic types of non-candidate-based contests.
initiative	These are usually citizen-driven measures to be placed on the ballot. These could include both statutory changes and constitutional amendments.
referendum	These could include measures to repeal existing acts of legislation, legislative referrals, and legislatively-referred state constitutional amendments.
other	Anything that does not fall into the above categories.

CandidatePostElectionStatus

Tag	Description
advanced-to-runoff	For contests in which the top N candidates advance to the next round.
projected-winner	A candidate is expected to win, but official results are not yet complete.
winner	The candidate has officially won.
withdrawn	The candidate has withdrawn from the contest.

CandidatePreElectionStatus

Tag	Description
filed	The candidate has filed for office but not yet been qualified.
qualified	The candidate has qualified for the contest.
withdrawn	The candidate has withdrawn from the contest (but may still be on the ballot).
write-in	

DistrictType

Enumeration describing the set of possible jurisdiction and district types. Please use the enumeration value which most accurately reflects the type of district or jurisdiction in your state or county. For example, “town” and “township” may mean different things – or not be defined at all – in your state, so please use the definition which best matches your local meaning.

Tag	Description
borough	A borough
city	A city.
city-council	A specific seat/jurisdiction for a city, town, or village council.
congressional	A United States congressional district.
county	A county.
county-council	A county council district, either in its entirety or for a specific seat.
judicial	A judicial district.
municipality	A civil division which is not a town, city, village, or county.
national	The United States.
school	A school district.
special	A special-purpose district that exist separate from general-purpose districts.
state	A state, district, commonwealth, or U.S. territory.
state-house	The lower house of a state legislature.
state-senate	The upper house of a state legislature.
town	A town.
township	A township, which may be different than a town. See the Wikipedia article .
utility	A non-water public or municipal utility district.
village	A village district.
ward	A ward.
water	A water district.
other	Any district not described above. Use the <i>OtherType</i> field to describe it.

IdentifierType

Tag	Description
fips	Federal Information Processing Standards codes for states , counties , and cities .
local-level	An identifier generated or used by local governments or organizations.
national-level	An identifier generated or used by national organizations.
ocd-id	An Open Civic Data Division Identifier .
state-level	An identifier generated or used by state governments or organizations.
other	Any identifier which doesn't fall into any of the above categories.

OebEnum

Tag	Description
both	Both even and odd addresses within the range.
even	Only even-numbered addresses within the range.
odd	Only odd-numbered addresses within the range.

OfficeTermType

Tag	Description
full-term	This election is for an office for which the existing term has been completed.
unexpired-term	This election is for an office for which the original term is not yet complete.

VoteVariation

Note that the descriptions below describe what the enumeration names stand for in the context of the VIP spec, rather than provide general definitions of the election terms that the names correspond to. For example, even though there are majority voting methods that are not “1-of-m” (e.g. ranked choice voting), we constrain “majority” to 1-of-m. We do this to eliminate any source of ambiguity when a single enumeration value needs to be assigned to a contest.

Tag	Description
1-of-m	A method where each voter can select up to one option.
ap-approval	Approval voting , where each voter can select as many options as desired.
borda	Borda count , where each voter can rank the options, and the rankings are assigned point values.
cumulative	Cumulative voting , where each voter can distribute their vote to up to N options.
majority	A 1-of-m method where the winner needs more than 50% of the vote to be elected.
n-of-m	A method where each voter can select up to N options.
plurality	A 1-of-m method where the option with the most votes is elected, regardless of whether the option has more than 50% of the vote.
proportional	A proportional representation method (other than STV), which is any system that elects winners in proportion to the total vote.
range	Range voting , where each voter can select a score for each option.
rcv	Ranked choice voting (RCV) , where each voter can rank the options, and the ballots are counted in rounds. Also known as instant-runoff voting (IRV) and the single transferable vote (STV) .
super-majority	A 1-of-m method where the winner needs more than some predetermined fraction of the vote to be elected, where the fraction is more than 50% (e.g. three-fifths or two-thirds).
other	Used when the vote variation type is not included in this enumeration.

VoterServiceType

Tag	Description
absentee-ballots	This department handles the dispatch, tracking, and return of absentee ballots.
overseas-voting	The department for overseas, military, and other outside-the-U.S. voters.
polling-places	This department handles the selection and management of polling places.
voter-registration	The department that manages voter registration.
other	Any other service not covered by the above descriptions.

2.1 CSV Specification

- *Getting Started*
- *Element Files*
- *Enumerations*

2.1.1 Getting Started

The CSV files contain election information, with files containing links between each other, that is compiled into an XML feed that represents the data according to the XML specification. See the [sample xml file](#) and [xsd file](#) for more details.

Becoming familiar with the XML requirements can help you better understand the CSV specifications. The only required top-level XML tags are the *Source* object and the *Election* object, each of which must be present exactly once. This means that the corresponding CSV files, *Source* and *Election*, must contain only 1 record. All other element file records can exist an unlimited number of times, or not included at all; order of CSV records does not matter.

CSV files must be comma-delimited, UTF-8 .txt files, named according to the specification. The id attribute for the state object should be the state's FIPS number. The id attributes are not required to remain constant for the same piece of semantic data across multiple productions of the feed (e.g. candidate Michael Smith, running for dogcatcher in Iowa, is not required to have the same candidate id attribute each time the state of Iowa publishes data). Please see our [XML Best Practices](#) document when creating IDs and labels for your elements.

For the data itself, the special characters &, <, and > need to be encoded as &, <, and >, respectively.

2.1.2 Element Files

ballot_measure_contest.txt

The `ballot_measure_contest.txt` file provides information about a ballot measure before the voters, including summary statements on each side. Extends *ContestBase*.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Con-Statement	<i>Internationalized-Text</i>	Optional	Single	Specifies a statement in opposition to the referendum. It does not necessarily appear on the ballot.	If the element is invalid or not present, then the implementation is required to ignore it.
EffectOfAbstain	<i>Internationalized-Text</i>	Optional	Single	Specifies what effect abstaining (i.e. not voting) on this proposition will have (i.e. whether abstaining is considered a vote against it).	If the element is invalid or not present, then the implementation is required to ignore it.
Full-Text	<i>Internationalized-Text</i>	Optional	Single	Specifies the full text of the referendum as it appears on the ballot.	If the element is invalid or not present, then the implementation is required to ignore it.
InfoUri	<code>xs:anyURI</code>	Optional	Single	Specifies a URI that links to additional information about the referendum.	If the field is invalid or not present, then the implementation is required to ignore it.
PassageThreshold	<i>Internationalized-Text</i>	Optional	Single	Specifies the threshold of votes that the referendum needs in order to pass. The default is a simple majority (i.e. 50% plus one vote). Other common thresholds are “three-fifths” and “two-thirds”. If there are competing initiatives , information about their effect on the passage of the <code>BallotMeasureContest</code> would go here.	If the element is invalid or not present, then the implementation is required to ignore it.
ProStatement	<i>Internationalized-Text</i>	Optional	Single	Specifies a statement in favor of the referendum. It does not necessarily appear on the ballot.	If the element is invalid or not present, then the implementation is required to ignore it.
Summary-Text	<i>Internationalized-Text</i>	Optional	Single	Specifies a short summary of the referendum that is on the ballot, below the title, but above the text.	If the element is invalid or not present, then the implementation is required to ignore it.
Type	<i>Ballot-Measure-Type</i>	Optional	Single	Specifies the particular type of ballot measure. Must be one of the valid <i>BallotMeasureType</i> options.	If the field is invalid or not present, then the implementation is required to ignore it.
2.1. CSV Specification					87
Other-Type	<code>xs:string</code>	Optional	Single	Allows for cataloging a new <i>BallotMeasureType</i> option, when Type is specified as “other.”	If the field is invalid or not present, then the

```

1 con_statement, effect_of_abstain, full_text, info_uri, passage_threshold, pro_statement,
  ↳ summary_text, type, other_type, id
2 This is no good., Nothing will happen., , , , Everything will be great., , referendum., , , ,
  ↳ bmc30001
    
```

ballot_selection.txt

Represents the possible selection (e.g. yes/no, recall/do not recall, candidate_id, et al) for a *BallotMeasureContest* or *ContestBase* that would appear on the ballot. *BallotSelection* extends *BallotSelectionBase* and *CandidateSelection*.

Ballot Measure Selection

Tag	Data Type	Re-quired?	Re-peats?	Description	Error Handling
Se-lection	<i>InternationalizedText</i>	Re-quired	Single	Selection text for a <i>BallotMeasureContest</i>	If the element is invalid or not present, the implementation is required to ignore the <i>BallotMeasureSelection</i> containing it.

Contest Selection

Tag	Data Type	Re-quired?	Re-peats?	Description	Error Handling
Candi-dateIds	xs:IDREFS	Optional	Single	References a set of <i>Candidate</i> elements. The number of candidates that can be references is unbounded in cases where the ballot selection is for a ticket (e.g. “President/Vice President”, “Governor/Lt Governor”).	If the field is invalid or not present, then the implementation is required to ignore it.
Endorse-ment-Par-tyIds	xs:IDREFS	Optional	Single	References a set of <i>Party</i> elements, which signifies one or more endorsing parties for the candidate(s).	If the field is invalid or not present, then the implementation is required to ignore it.
IsWrite-in	xs:boolean	Optional	Single	Signifies if the particular ballot selection allows for write-in candidates. If true, one or more write-in candidates are allowed for this contest.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 id, :ref: `single-xml-ballot-measure-contest`_id, :ref: `single-xml-ballot-measure-
  ↳ contest`_selection_id, text, candidate_id, endorsement_party_id, is_write_in
2 bms30001a, bms30001, bms30001at, Yes, , , ,
3 bms30001b, bms30001, bms30001bt, No, , , ,
4 cs10861, , , , can10861a, par0001,
5 cs10861, , , , can10861b, par0001,
    
```

ballot_style.txt

A container for the contests/measures on the ballot.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
ImageUri	xs:anyURI	Optional	Single	Specifies a URI that returns an image of the sample ballot.	If the field is invalid or not present, then the implementation is required to ignore it.
Ordered-ContestIds	xs:IDREF	Optional	Single	Reference to a set of :ref:‘multi-xml-ordered-contest’s	If the field is invalid or not present, then the implementation is required to ignore it.
PartyIds	xs:IDREF	Optional	Single	Reference to a set of :ref:‘multi-xml-party’s.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 image_uri,ordered_contest_id,party_id,id
2 ,oc20003,,bs00000
3 ,oc20004,,bs00000
4 ,oc20005,,bs00000
5 ,oc20025,,bs00000
6 ,oc20355,,bs00000
7 ,oc20449,,bs00000

```

candidate.txt

The candidate.txt file represents a candidate in a contest. If a candidate is running in multiple contests, the same candidate record may be used.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Ballot-Name	<i>Internationalized-Text</i>	Required	Single	The candidate's name as it will be displayed on the official ballot (e.g. "Ken T. Cuccinelli II").	If the element is invalid or not present, then the implementation is required to ignore the Candidate element containing it.
Contact-Information	<i>ContactInformation</i>	Optional	Single	Contact and physical address information for this Candidate and/or their campaign (see <i>ContactInformation</i>).	If the element is invalid or not present, then the implementation is required to ignore it.
External-Identifiers	<i>ExternalIdentifiers</i>	Optional	Single	Another identifier for a candidate that links to another source of information (e.g. a campaign committee ID that links to a campaign finance system).	If the element is invalid or not present, then the implementation is required to ignore it.
File-Date	xs:date	Optional	Single	Date when the candidate filed for the contest.	If the field is invalid or not present, then the implementation is required to ignore it.
IsIncumbent	xs:boolean	Optional	Single	Indicates whether the candidate is the incumbent for the office associated with the contest.	If the field is invalid or not present, then the implementation is required to ignore it.
IsTopTicket	xs:boolean	Optional	Single	Indicates whether the candidate is the top of a ticket that includes multiple candidates.	If the field is invalid or not present, then the implementation is required to ignore it.
PartyId	xs:IDREF	Optional	Single	Reference to a <i>Party</i> element with additional information about the candidate's affiliated party. This is the party affiliation that is intended to be presented as part of ballot information.	If the field is invalid or not present, then the implementation is required to ignore it.
PersonId	xs:IDREF	Optional	Single	Reference to a <i>Person</i> element with additional information about the candidate.	If the field is invalid or not present, then the implementation is required to ignore it.
Post-Election-Status	<i>CandidatePostElectionStatus</i>	Optional	Single	Final status of the candidate (e.g. winner, withdrawn, etc...).	If the field is invalid or not present, then the implementation is required to ignore it.
Pre-Election-Status	<i>CandidatePreElectionStatus</i>	Optional	Single	Registration status of the candidate (e.g. filed, qualified, etc...).	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 ballot_name,external_identifiers,file_date,is_incumbent,is_top_ticket,party_id,person_
  →id,post_election_status,pre_election_status,sequence_order,contest_id,id
2 Ken T. Cuccinelli II,,,,,par0001,per10961,,,,cc20003,can10961

```

contact_information.txt

For defining contact information about objects such as persons, boards of authorities, organizations, etc. `ContactInformation` is always a sub-element of another object (e.g. *ElectionAdministration*, *Office*, *Person*, *Source*). `ContactInformation` has an optional attribute `label`, which allows the feed to refer back to the original label for the information (e.g. if the contact information came from a CSV, `label` may refer to a row ID).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
AddressLine	xs:string	Optional	Repeats	The “location” portion of a mailing address. <i>See usage note.</i>	If the field is invalid or not present, then the implementation is required to ignore it.
Directions	<i>Internationalized-Text</i>	Optional	Single	Specifies further instructions for locating this entity.	If the element is invalid or not present, then the implementation is required to ignore it.
Email	xs:string	Optional	Repeats	An email address for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Fax	xs:string	Optional	Repeats	A fax line for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Hours [deprecated]	<i>Internationalized-Text</i>	Optional	Single	Contains the hours (in local time) that the location is open (<i>NB: this element is deprecated in favor of the more structured :ref:‘multi-xml-hours-open‘ element. It is strongly encouraged that data providers move toward contributing hours in this format).</i>	If the element is invalid or not present, then the implementation is required to ignore it.
HoursOpenId	xs:ID	Optional	Single	References an <i>HoursOpen</i> element, which lists the hours of operation for a location.	If the field is invalid or not present, then the implementation is required to ignore it.
LatLng	<i>LatLng</i>	Optional	Single	Specifies the latitude and longitude of this entity.	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Optional	Single	The name of the location or contact. <i>See usage note.</i>	If the field is invalid or not present, then the implementation is required to ignore it.
Phone	xs:string	Optional	Repeats	A phone number for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Uri	xs:anyURI	Optional	Repeats	An informational URI for the contact or location.	If the field is invalid or not present, then the implementation is required to ignore it.


```

1 address_line,email,fax,hours,hours_open_id,name,phone,uri,id
2 "1600 Pennsylvania Ave, Washington, DC 20006",president@whitehouse.gov,,,,,202-456-
  ↪1111,http://www.whitehouse.gov,ci10861a
3 "1600 Pennsylvania Ave, Washington, DC 20006",president@whitehouse.gov,,,,,TDD: 202-
  ↪456-6213,http://www.whitehouse.gov,ci10861b

```

Name and AddressLine Usage Note

The Name and AddressLine fields should be chosen so that a display or mailing address can be constructed programmatically by joining the Name and AddressLine fields together. For example, for the following address:

```

Department of Elections
1 Dr. Carlton B. Goodlett Place, Room 48
San Francisco, CA 94102

```

The name could be “Department of Elections” and the first address line could be “1 Dr. Carlton B. Goodlett Place, Room 48.”

However, VIP does not yet support the representation of mailing addresses whose “name” portion spans more than one line, for example:

```

California Secretary of State
Elections Division
1500 11th Street
Sacramento, CA 95814

```

For addresses like the above, we recommend choosing a name like, “California Secretary of State, Elections Division” with “1500 11th Street” as the first address line. This would result in a programmatically constructed address like the following:

```

California Secretary of State, Elections Division
1500 11th Street
Sacramento, CA 95814

```

contest_base.txt

A base model for all Contest types: *BallotMeasureContest*, *CandidateContest*, *PartyContest*, and *RetentionContest* (NB: the latter because it extends *BallotMeasureContest*).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Ab- bre- via- tion	xs:string	Optional	Single	An abbreviation for the contest.	If the field is invalid or not present, then the implementation should ignore it.
Bal- lot- Se- lec- tion- Ids	xs:IDREFS	Optional	Single	References a set of <code>BallotSelections</code> , which could be of any selection type that extends <code>BallotSelectionBase</code> .	If the field is invalid or not present, then the implementation should ignore it.
Bal- lot- Sub- Ti- tle	<i>Internationalized-Text</i>	Optional	Single	Subtitle of the contest as it appears on the ballot.	If the element is invalid or not present, then the implementation should ignore it.
Bal- lot- Ti- tle	<i>Internationalized-Text</i>	Optional	Single	Title of the contest as it appears on the ballot.	If the element is invalid or not present, then the implementation should ignore it.
Elec- toral- Dis- tric- tId	xs:IDREF	Optional	Single	References an <code>ElectoralDistrict</code> element that represents the geographical scope of the contest.	If the field is invalid or not present, then the implementation should ignore it.
Elec- torate- Spec- ifi- ca- tion	<i>Internationalized-Text</i>	Optional	Single	Specifies any changes to the eligible electorate for this contest past the usual, “all registered voters” electorate. This subtag will most often be used for primaries and local elections. In primaries, voters may have to be registered as a specific party to vote, or there may be special rules for which ballot a voter can pull. In some local elections, non-citizens can vote.	If the element is invalid or not present, then the implementation should ignore it.
Ex- ter- nal- den- ti- fiers	<i>External-identifiers</i>	Optional	Single	Other identifiers for a contest that links to another source of information.	If the element is invalid or not present, then the implementation should ignore it.
Has- Ro- ta- tion	xs:boolean	Optional	Single	Indicates whether the selections in the contest are rotated.	If the field is invalid or not present, then the implementation should ignore it.
Name	xs:string	Optional	Single	Name of the contest, not necessarily how it appears on the ballot (NB: <code>BallotTitle</code> should be used for this purpose).	If the field is invalid or not present, then the implementation should

```
1 abbreviation,ballot_selection_id,ballot_sub_title,ballot_title,electoral_district_id,  
  ↳electorate_specification,external_identifiers,has_rotation,name,sequence_order,vote_  
  ↳variation,other_vote_variation,number_elected,primary_party_id,votes_allowed,office_  
  ↳id,id  
2 ,cs10961,,Governor of Virginia,ed60129,,,,Governor,,,,1,,1,off0000,cc20003
```

election.txt

The election.txt file represents an Election Day, which usually consists of many individual contests and/or referenda. A feed must contain **exactly one** Election object. All relationships in the feed (e.g., street segment to precinct to polling location) are assumed to relate only to the Election specified by this object. It is permissible, and recommended, to combine unrelated contests (e.g., a special election and a general election) that occur on the same day into one feed with one Election object.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Date	xs:date	Required	Single	Specifies when the election is being held. The <i>Date</i> is considered to be in the timezone local to the state holding the election.	If the field is invalid, then the implementation is required to ignore the Election element containing it.
Election-Type	Internationalized-Text	Optional	Single	Specifies the highest controlling authority for election (e.g., federal, state, county, city, town, etc.)	If the element is invalid or not present, then the implementation is required to ignore it.
StateId	xs:IDREF	Required	Single	Specifies a link to the <i>State</i> element where the election is being held.	If the field is invalid, then the implementation is required to ignore the Election element containing it.
Is-Statewide	xs:boolean	Optional	Single	Indicates whether the election is statewide.	If the field is not present or invalid, the implementation is required to default to "yes".
Name	Internationalized-Text	Optional	Single	The name for the election (NB: while optional, this element is highly recommended).	If the element is invalid or not present, then the implementation is required to ignore it.
RegistrationInfo	Internationalized-Text	Optional	Single	Specifies information about registration for this election either as text or a URI.	If the element is invalid or not present, then the implementation is required to ignore it.
Absentee-Ballot-Info	Internationalized-Text	Optional	Single	Specifies information about requesting absentee ballots either as text or a URI	If the element is invalid or not present, then the implementation is required to ignore it.
ResultsUri	xs:anyURI	Optional	Single	Contains a URI where results for the election may be found	If the field is invalid or not present, then the implementation is required to ignore it.
96					
PollingHours	Hours	Optional	Single	Contains the hours (in local time) that Election Day polling loca-	If the element

```

1 date,name,election_type,state_id,is_statewide,registration_info,absentee_ballot_info,
  ↳results_uri,polling_hours,has_election_day_registration,registration_deadline,
  ↳absentee_request_deadline,hours_open_id,id
2 2013-11-05,2013 Statewide General,general,st51,,,http://www.sbe.virginia.gov/
  ↳ElectionResults.html,,,false,2013-10-15,2013-10-30,hours0001,ele30000

```

election_administration.txt

The election_administration.txt file represents institutions for serving a locality’s (or state’s) election functions.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
AbsenteeUri	xs:anyURI	Optional	Single	Specifies the web address for information on absentee voting.	If the field is invalid or not present, then the implementation is required to ignore it.
AmIRegisteredUri	xs:anyURI	Optional	Single	Specifies the web address for information on whether an individual is registered.	If the field is invalid or not present, then the implementation is required to ignore it.
Department	<i>Department</i>	Required	Repeats	Describes the administrative body for a particular voter service.	There must be at least one valid <i>Department</i> in each <i>ElectionAdministration</i> element. If no valid <i>Department</i> objects are present, the implementation is required to ignore the <i>ElectionAdministration</i> object that contains it/them.
ElectionUri	xs:anyURI	Optional	Single	Specifies web address the administration’s website.	If the field is invalid or not present, then the implementation is required to ignore it.
RegistrationUri	xs:anyURI	Optional	Single	Specifies web address for information on registering to vote.	If the field is invalid or not present, then the implementation is required to ignore it.
RulesUri	xs:anyURI	Optional	Single	Specifies a URI for the election rules and laws (if any) for the jurisdiction of the administration.	If the field is invalid or not present, then the implementation is required to ignore it.
WhatIsOnMyBallotUri	xs:anyURI	Optional	Single	Specifies web address for information on what is on an individual’s ballot.	If the field is invalid or not present, then the implementation is required to ignore it.
WhereDoIVoteUri	xs:anyURI	Optional	Single	The Specifies web address for information on where an individual votes based on their address.	If the field is invalid or not present, then the implementation is required to ignore it.

Department

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Contact-Information	<i>ContactInformation</i>	Optional	Single	Contact and physical address information for the election administration body (see <i>ContactInformation</i>).	If the element is invalid or not present, then the implementation is required to ignore it.
ElectionOfficialPersonId	xs:IDREF	Optional	Single	The individual to contact at the election administration office. The specified person should be the <i>election official</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
VoterService	<i>VoterService</i>	Optional	Repeats	The types of services and appropriate contact individual available to voters.	If the element is invalid or not present, then the implementation is required to ignore it.

VoterService

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Contact-Information	<i>ContactInformation</i>	Optional	Single	The contact for a particular voter service.	If the element is invalid or not present, then the implementation is required to ignore it.
Description	<i>InternationalizedText</i>	Optional	Single	Long description of the services available.	If the element is invalid or not present, then the implementation is required to ignore it.
ElectionOfficialPersonId	xs:IDREF	Optional	Single	The <i>authority</i> for a particular voter service.	If the field is invalid or not present, then the implementation is required to ignore it.
Type	<i>VoterServiceType</i>	Optional	Single	The type of <i>voter service</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
Other-Type	xs:string	Optional	Single	If Type is “other”, OtherType allows for cataloging another type of voter service.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 absentee_uri, am_i_registered_uri, department_contact_information_id, department_
  ↳election_official_person_id, department_voter_service, department_voter_service_
  ↳contact_information_id, department_voter_service_description, department_election_
  ↳official_person_id, department_voter_service_type, department_voter_service_other_
  ↳type, elections_uri, registration_uri, rules_uri, what_is_on_my_ballot_uri, where_do_i_
  ↳vote_uri, id
2 http://www.sbe.virginia.gov/absenteevoting.html, https://www.vote.virginia.gov/,
  ↳ci60000,,,,,, http://www.sbe.virginia.gov/, https://www.vote.virginia.gov/, http://
  ↳www.sbe.virginia.gov, https://www.vote.virginia.gov/, https://www.vote.virginia.gov/,
  ↳ea40133
    
```

electoral_district.txt

The electoral_district.txt file represents the geographic areas in which contests are held. Examples of ElectoralDistrict include: “the state of Maryland”, “Virginia’s 5th Congressional District”, or “Union School District”. The geographic area that comprises a ElectoralDistrict is defined by which precincts link to the ElectoralDistrict.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
External-identifiers	<i>External-identifiers</i>	Optional	Single	Other identifiers that link to external datasets (e.g. OCD-IDs)	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Required	Single	Specifies the electoral area’s name.	If the field is invalid or not present, then the implementation is required to ignore the ElectoralDistrict object containing it.
Number	xs:integer	Optional	Single	Specifies the district number of the district (e.g. 34, in the case of the 34th State Senate District). If a number is not applicable, instead of leaving the field blank, leave this field out of the object; empty strings are not valid for xs:integer fields.	If the field is invalid or not present, then the implementation is required to ignore it.
Type	<i>District-Type</i>	Required	Single	Specifies the type of electoral area.	If the field is invalid or not present, then the implementation is required to ignore the ElectoralDistrict object containing it.
Other-Type	xs:string	Optional	Single	Allows for cataloging a new <i>DistrictType</i> option when Type is specified as “other”.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 name, type, number, external_identifiers, other_type, id
2 Commonwealth of Virginia, state, , "ocd-id:ocd-division/country:us/state:va;fips:51" , ,
  ↪ed60129
    
```

hours_open.txt

A structured way of describing the days and hours that a place such as a *Office* or *PollingLocation* is open, or that an event such as an *Election* is happening.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Schedule	<i>Schedule</i>	Required	Repeats	Defines a block of days and hours that a place will be open.	At least one valid <i>Schedule</i> must be present for HoursOpen to be valid. If no valid <i>Schedule</i> is present, the implementation is required to ignore the HoursOpen element.

Schedule

A sub-portion of the schedule. This describes a range of days, along with one or more set of open and close times for those days, as well as the options describing whether or not appointments are necessary or possible.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Hours	<i>Hours</i>	Optional	Repeats	Blocks of hours in the date range in which the place is open.	If the element is invalid or not present, then the implementation is required to ignore it.
IsOnly-ByAppointment	xs:boolean	Optional	Single	If true, the place is only open during the specified time window with an appointment.	If the field is invalid or not present, then the implementation is required to ignore it.
IsOr-ByAppointment	xs:boolean	Optional	Single	If true, the place is open during the hours specified time window and may also be open with an appointment.	If the field is invalid or not present, then the implementation is required to ignore it.
IsSubject-ToChange	xs:boolean	Optional	Single	If true, the place should be open during the specified time window, but may be subject to change. People should contact prior to arrival to confirm hours are still accurate.	If the field is invalid or not present, then the implementation is required to ignore it.
Start-Date	xs:date	Optional	Single	The date at which this collection of start and end times and options begin.	If the field is invalid or not present, then the implementation is required to ignore it.
End-Date	xs:date	Optional	Single	The date at which this collection of start and end times and options end.	If the field is invalid or not present, then the implementation is required to ignore it.

Hours

The open and close time for this place. All times must be fully specified, including a timezone offset from UTC.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Start-Time	<i>Time-With-Zone</i>	Optional	Single	The time at which this place opens.	If the element is invalid or not present, then the implementation is required to ignore it.
End-Time	<i>Time-With-Zone</i>	Optional	Single	The time at which this place closes.	If the element is invalid or not present, then the implementation is required to ignore it.

TimeWithZone

A string pattern restricting the value to a time with an included offset from UTC. The pattern is

```
(( [01] [0-9] | 2 [0-3] ) : [0-5] [0-9] : [0-5] [0-9] | (24:00:00) ) (Z | [+ -] ( (0 [0-9] | 1 [0-3] ) : [0-5] [0-9] | 14
```



```

1 start_time,end_time,is_only_by_appointment,is_or_by_appointment,is_subject_to_change,
  ↪start_date,end_date,id
2 06:00:00-05:00,19:00:00-05:00,,,,,2013-11-05,2013-11-05,hours0001

```

internationalized_text.txt

InternationalizedText allows for support of multiple languages for a string. InternationalizedText has an optional attribute label which allows the feed to refer back to the original label for the information (e.g. if the contact information came from a CSV, label may refer to a row ID). Examples of InternationalizedText can be seen in:

- Any element that extends *ContestBase*
- Any element that extends *BallotSelectionBase*
- *Candidate*
- *ContactInformation*
- *Election*
- *ElectionAdministration*
- *Office*
- *Party*
- *Person*
- *PollingLocation*
- *Source*

Tag	Data Type	Required	Repeats?	Description	Error Handling
Text	<i>LanguageString</i>	Required	Repeats	Contains the translations of a particular string of text.	At least one valid Text must be present for InternationalizedText to be valid. If no valid Text is present, the implementation is required to ignore the InternationalizedText element.

LanguageString

LanguageString extends xs:string and can contain text from any language. LanguageString has one required attribute, language, that must contain the 2-character language code for the type of language LanguageString contains.

```

1 identifier,text,language_string,language,id
2 ele30000,election_type,"General",en,it00001
3 ele30000,election_type,"Generales",es,it00002
4 ele30000,name,"General",en,it00003

```

locality.txt

The locality.txt file represents the jurisdictions below the *State* (e.g. county).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Election-AdministrationId	xs:IDREF	Optional	Single	Links to the locality's <i>ElectionAdministration</i> object.	If the field is invalid or not present, then the implementation is required to ignore it.
External-Identifiers	<i>External-Identifiers</i>	Optional	Single	Another identifier for a locality that links to another dataset (e.g. <i>OCD-ID</i>)	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Required	Single	Specifies the name of a locality.	If the field is not present or invalid, the implementation is required to ignore the Locality element containing it.
Polling-Location-Ids	xs:string	Optional	Single	Specifies a link to a set of the locality's <code>:ref:polling locations <multi-xml-polling-location></code> 's. If early vote centers or ballot drop locations are locality-wide, they should be specified here.	If the field is invalid or not present, the implementation is required to ignore it. However, the implementation should still check to see if there are any polling locations associated with this locality's state.
StateId	xs:IDREF	Required	Single	References the locality's <i>State</i> .	If the field is invalid or not present, the implementation is required to ignore the Locality element containing it.
Type	<i>District-Type</i>	Optional	Single	Defines the kind of locality (e.g. county, town, et al.), which is one of the various <i>DistrictType enumerations</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
Other-Type	xs:string	Optional	Single	Allows for defining a type of locality that falls outside the options listed in <i>DistrictType</i> .	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 name, state_id, type, election_administration_id, external_identifiers, other_type, polling_
  ↳ location_id, id
2 ALBEMARLE COUNTY, st51, county, ea40001, "o cd-id: o cd-division/country: us/state: va/
  ↳ county: albermarle", , p181274, loc70001
    
```

office.txt

Office represents the office associated with a contest or district (e.g. Alderman, Mayor, School Board, et al).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
ContactInformation	<i>ContactInformation</i>	Optional	Repeats	Specifies the contact information for the office and/or individual holding the office.	If the element is invalid or not present, then the implementation is required to ignore it.
Description	<i>Internationalized-Text</i>	Optional	Single	A brief description of the office and its purpose.	If the element is invalid or not present, then the implementation is required to ignore it.
ElectoralDistrictId	<code>xs:IDREF</code>	Required	Single	Links to the <i>ElectoralDistrict</i> element associated with the office.	If the field is invalid or not present, the implementation is required to ignore the <i>Office</i> element containing it.
ExternalIdentifiers	<i>External-identifiers</i>	Optional	Single	Other identifiers that link this office to other related datasets (e.g. campaign finance systems, OCD IDs, et al.).	If the element is invalid or not present, then the implementation is required to ignore it.
FilingDeadline	<code>xs:date</code>	Optional	Single	Specifies the date and time when a candidate must have filed for the contest for the office.	If the field is invalid or not present, then the implementation is required to ignore it.
IsPartisan	<code>xs:boolean</code>	Optional	Single	Indicates whether the office is partisan.	If the field is invalid or not present, then the implementation is required to ignore it.
Name	<i>Internationalized-Text</i>	Required	Single	The name of the office.	If the field is invalid or not present, the implementation is required to ignore the <i>Office</i> element containing it.
OfficeHolderPersonIds	<code>xs:IDREF</code>	Optional	Single	Links to the <i>Person</i> element(s) that hold additional information about the current office holder(s).	If the field is invalid or not present, then the implementation is required to ignore it.
Term	<i>Term</i>	Optional	Single	Defines the term the office can be held.	If the element is invalid or not present, then the implementation is required to ignore it.

Term

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Type	<i>OfficeTermType</i>	Optional	Single	Specifies the type of office term (see <i>OfficeTermType</i> for valid values).	If the field is invalid or not present, the implementation is required to ignore the <i>Office</i> element containing it.
Start-Date	<code>xs:date</code>	Optional	Single	Specifies the start date for the current term of the office.	If the field is invalid or not present, then the implementation is required to ignore it.
End-Date	<code>xs:date</code>	Optional	Single	Specifies the end date for the current term of the office.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 contact_information_id,electoral_district_id,external_identifiers,filing_deadline,is_
2 ↪partisan,name,office_holder_person_id,term_type,term_start_date,term_end_date,id
,ed60129,,2013-01-01,false,Governor,,full-term,,,off0000

```

party.txt

This file describes political parties and the metadata associated with them.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Ab- bre- via- tion	<code>xs:string</code>	Op- tional	Single	An abbreviation for the party name.	If the field is in- valid or not present, then the implemen- tation is required to ignore it.
Color	<i>Html- Col- orString</i>	Op- tional	Single	The preferred display color for the party, for use in maps and other displays.	If the element is in- valid or not present, then the implemen- tation is required to ignore it.
Ex- ter- nal- iden- ti- fiers	<i>Ex- ter- nal- iden- ti- fiers</i>	Op- tional	Single	Other identifiers that link this party to other related data sets (e.g. a campaign finance system, etc).	If the element is in- valid or not present, then the implemen- tation is required to ignore it.
IsWrite- in	<code>xs:boolean</code>	Op- tional	Single	Signals if this political party is one that is officially recog- nized by a local, state, or federal organization, or is a “write- in” in jurisdictions which allow candidates to free-form enter their political affiliation. If this field is not present then it is assumed to be false.	If the field is in- valid or not present, then the implemen- tation is required to ignore it.
Lo- goUri	<code>xs:anyURI</code>	Op- tional	Single	Web address of a logo to use in displays.	If the field is in- valid or not present, then the implemen- tation is required to ignore it.
Name	<i>In- ter- na- tion- al- ized- Text</i>	Op- tional	Single	The name of the party.	If the element is in- valid or not present, then the implemen- tation is required to ignore it.

HtmlColorString

A restricted string pattern for a six-character hex code representing an HTML color string. The pattern is:

`[0-9a-f]{6}`

```

1 abbreviation,color,external_identifiers,logo_uri,name,id
2 REP,e91d0e,,Republican,par0001
    
```

person.txt

Person defines information about a person. The person may be a candidate, election administrator, or elected official. These elements reference Person:

- *Candidate*
- *ElectionAdministration*
- *Office*

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Contact-Information	<i>Contact-Information</i>	Optional	Repeats	Specifies contact information for the person.	If the element is invalid or not present, then the implementation is required to ignore it.
Date-Of-Birth	xs:date	Optional	Single	Represents the individual's date of birth.	If the field is invalid or not present, then the implementation is required to ignore it.
External-Identifiers	<i>External-Identifiers</i>	Optional	Single	Identifiers for this person.	If the element is invalid or not present, then the implementation is required to ignore it.
First-Name	xs:string	Optional	Single	Represents an individual's first name.	If the field is invalid or not present, then the implementation is required to ignore it.
Full-Name	<i>Internationalized-Text</i>	Optional	Single	Specifies a person's full name (NB: this information is <i>InternationalizedText</i> because it sometimes appears on ballots in multiple languages).	If the element is invalid or not present, then the implementation is required to ignore it.
Gender	xs:string	Optional	Single	Specifies a person's gender.	If the field is invalid or not present, then the implementation is required to ignore it.
Last-Name	xs:string	Optional	Single	Represents an individual's last name.	If the field is invalid or not present, then the implementation is required to ignore it.
Middle-Name	xs:string	Optional	Repeats	Represents any number of names between an individual's first and last names (e.g. John Ronald Reuel Tolkien).	If the field is invalid or not present, then the implementation is required to ignore it.
Nickname	xs:string	Optional	Single	Represents an individual's nickname.	If the field is invalid or not present, then the implementation is required to ignore it.
PartyId	xs:IDREF	Optional	Single	Refers to the associated <i>Party</i> . This information is intended to be used by feed consumers to help them disambiguate the person's identity, but not to be presented as part of any ballot information. For that see <i>Candidate PartyId</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
Prefix	xs:string	Optional	Single	Specifies a prefix associated with a person (e.g. Dr.).	If the field is invalid or not present, then the implementation is required to ignore it.
Profession	<i>Internationalized-Text</i>	Optional	Single	Specifies a person's profession (NB: this information is <i>InternationalizedText</i> because it sometimes appears on ballots in multiple languages).	If the element is invalid or not present, then the implementation is required to ignore it.

```

1 contact_information_id,date_of_birth,first_name,last_name,middle_name,nickname,party_
  ↳id,prefix,possesion,suffix,title,id
2 ci60002,,RICHARD,WASHBURNE,J,JAKE,,,,,General Registrar Physical,per50001
  
```

polling_location.txt

The polling_location.txt file represents sites where voters cast or drop off ballots.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
AddressLine	xs:string	Required	Repeats	Represents the various parts of an address to a polling location.	At least one valid AddressLine must be present for PollingLocation to be valid. If no valid AddressLine is present, the implementation is required to ignore the PollingLocation element containing it.
Directions	Internationalized-Text	Optional	Single	Specifies further instructions for locating the polling location.	If the element is invalid or not present, then the implementation is required to ignore it.
Hours [deprecated]	Internationalized-Text	Optional	Single	Contains the hours (in local time) that the polling location is open (NB: this element is deprecated in favor of the more structured HoursOpen element. It is strongly encouraged that data providers move toward contributing hours in this format).	If the element is invalid or not present, then the implementation is required to ignore it.
HoursOpenId	IDREF	Optional	Single	Links to an HoursOpen element, which is a schedule of dates and hours during which the polling location is available.	If the field is invalid or not present, then the implementation is required to ignore it.
IsDropBox	boolean	Optional	Single	Indicates if this polling location is a drop box.	If the field is invalid or not present, then the implementation is required to ignore it.
IsEarlyVoting	boolean	Optional	Single	Indicates if this polling location is an early vote site.	If the field is invalid or not present, then the implementation is required to ignore it.
LatLng	LatLng	Optional	Single	Specifies the latitude and longitude of this polling location.	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Optional	Single	Name of the polling location.	If the field is invalid or not present, then the implementation is required to ignore it.
PhotoUri	xs:anyURI	Optional	Single	Contains a link to an image of the polling location.	If the field is invalid or not present, then the implementation is required to ignore it.

LatLng

The latitude and longitude of a polling location in [WGS 84](#) format. Both latitude and longitude values are measured in decimal degrees.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Latitude	xs:float	Required	Single	The latitude of the polling location.	If the field is invalid, then the implementation is required to ignore it.
Longitude	xs:float	Required	Single	The longitude of the polling location.	If the field is invalid, then the implementation is required to ignore it.
Source	xs:string	Optional	Single	The system used to perform the lookup from location name to lat/lng. For example, this could be the name of a geocoding service.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 address_line,directions,hours,photo_uri,hours_open_id,is_drop_box,is_early_voting,
  ↳latitude,longitude,latlng_source,id
2 "ALBERMARLE HIGH SCHOOL 2775 Hydraulic Rd Charlottesville, VA 22901",,,hours0001,,,38.
  ↳0754627,78.5014875,Google Maps,p181274

```

precinct.txt

The precinct.txt file represents precincts, which are contained within a Locality. While the id attribute does not have to be static across feeds for one election, the combination of *Source.VipId*, *Locality.Name*, *Precinct.Ward*, *Precinct.Name*, and *Precinct.Number* should remain constant across feeds for one election (NB: not all of the fields just mentioned are required – omitting those non-required fields is fine).

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Ballot-StyleId	xs:IDREF	Optional	Singular	Links to the <i>BallotStyle</i> , which a person who lives in this precinct will vote.	If the field is invalid or not present, then the implementation is required to ignore it.
ElectoralDistrictIds	xs:IDREF	Optional	Singular	Links to the :ref:*multi-xml-electoral-district's (e.g., congressional district, state house district, school board district) to which the entire precinct/precinct split belongs. Highly Recommended if candidate information is to be provided.	If the field is invalid or not present, then the implementation is required to ignore it.
ExternalIdentifiers	<i>ExternalIdentifiers</i>	Optional	Singular	Other identifier for the precinct that relates to another dataset (e.g. OCD-ID).	If the element is invalid or not present, then the implementation is required to ignore it.
IsMailOnly	xs:boolean	Optional	Singular	Determines if the precinct runs mail-only elections.	If the field is missing or invalid, the implementation is required to assume <i>IsMailOnly</i> is false.
LocalityId	xs:IDREF	Required	Singular	Links to the <i>Locality</i> that comprises the precinct.	If the field is invalid or not present, the implementation is required to ignore the precinct element containing it.
Name	xs:string	Required	Singular	Specifies the precinct's name (or number if no name exists).	If the field is invalid or not present, the implementation is required to ignore the precinct element containing it.
Number	xs:string	Optional	Singular	Specifies the precinct's number (e.g., 32 or 32A – alpha characters are legal). Should be used if the <i>Name</i> field is populated by a name and not a number.	If the field is invalid or not present, then the implementation is required to ignore it.
PollingLocationIds	xs:IDREF	Optional	Singular	Specifies a link to the precinct's <i>PollingLocation</i> object(s).	If the field is invalid or not present, then the implementation is required to ignore it.
PrecinctSplitName	xs:string	Optional	Singular	If this field is empty, then this <i>Precinct</i> object represents a full precinct. If this field is present, then this <i>Precinct</i> object represents one portion of a split precinct. Each <i>Precinct</i> object that represents one portion of a split precinct must have the same <i>Name</i> value, but different <i>PrecinctSplitName</i> values. See the <i>sample_feed.xml</i> file for examples.	If the field is invalid or not present, then the implementation is required to ignore it.
Ward	xs:string	Optional	Singular	Specifies the ward the precinct is contained within.	If the field is invalid or not present, then the implementation is required to ignore it.
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```

1 name,number,locality_id,ward,is_mail_only,external_identifiers,precinct_split_name,
  ↳ballot_style_id,electoral_district_id,polling_location_id,id
2 203 - GEORGETOWN,0203,loc70001,,false,,bs00010,ed60129,p181274,pre90111
3 203 - GEORGETOWN,0203,loc70001,,false,,bs00010,ed60311,p181274,pre90111
4 203 - GEORGETOWN,0203,loc70001,,false,,bs00010,ed60054,p181274,pre90111

```

source.txt

The source.txt file represents the organization that is publishing the information. This object is the only required object in the feed file, and only one source object is allowed to be present. For CSV files, source.txt is required to specify the version of the specification, either 3.0 or 5.0.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Name	xs:string	Required	Single	Specifies the name of the organization that is providing the information.	If the field is invalid, then the implementation is required to ignore the <i>Source</i> element containing it.
VipId	xs:string	Required	Single	Specifies the ID of the organization. VIP uses <i>FIPS</i> codes for this ID.	If the field is invalid, then the implementation is required to ignore the <i>Source</i> element containing it.
Date-Time	xs:dateTime	Required	Single	Specifies the date and time of the feed production. The date/time is considered to be in the timezone local to the organization.	If the field is invalid, then the implementation is required to ignore it.
Description	<i>Internationalized-Text</i>	Optional	Single	Specifies both the nature of the organization providing the data and what data is in the feed.	If the element is invalid or not present, then the implementation is required to ignore it.
OrganizationUri	xs:string	Optional	Single	Specifies a URI to the home page of the organization publishing the data.	If the field is invalid or not present, then the implementation is required to ignore it.
Feed-ContactId	xs:IDREF	Optional	Single	Reference to the <i>Person</i> who will respond to inquiries about the information contained within the file.	If the field is invalid or not present, then the implementation is required to ignore it.
Terms-Uri	xs:anyURI	Optional	Single	Specifies the website where the Terms of Use for the information in this file can be found.	If the field is invalid or not present, then the implementation is required to ignore it.
Version	xs:string	Required	Single	Specifies the version of the data	If the field is invalid, then the implementation is required to ignore it.

```

1 name,vip_id,date_time,description,organization_uri,feed_contact_information_id,terms_
  ↳of_use_uri,version,id
2 "State Board of Elections, Commonwealth of Virginia",51,2013-10-24T14:25:28,SBE is_
  ↳the official source for Virginia data,http://www.sbe.virginia.gov/,,5.0,src1

```

state.txt

The state.txt includes state-wide election information. The ID attribute is recommended to be the state’s FIPS code, along with the prefix “st”.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Election-AdministrationId	xs:IDREF	Optional	Single	Links to the state's election administration object.	If the field is invalid or not present, then the implementation is required to ignore it.
External-identifiers	<i>External-identifiers</i>	Optional	Single	Other identifier for the state that relates to another dataset (e.g. <i>OCD-ID</i>).	If the element is invalid or not present, then the implementation is required to ignore it.
Name	xs:string	Required	Single	Specifies the name of a state, such as Alabama.	If the field is invalid, then the implementation is required to ignore it.
Polling-Location-Ids	xs:IDREFS	Optional	Single	Specifies a link to the state's <i>polling locations</i> . If early vote centers or ballot drop locations are state-wide (e.g., anyone in the state can use them), they can be specified here, but you are encouraged to only use the <i>Precinct</i> element.	If the field is invalid or not present, then the implementation is required to ignore it.

```

1 name,election_administration_id,external_identifiers,polling_location_id,id
2 Virginia,ea40133,"ocd-id:ocd-division/country:us/state:va",,st51

```

street_segment.txt

A record in `street_segment.txt` represents a portion of a street and the links to the precinct that this geography (i.e., segment) is contained within. The start address house number must be less than the end address house number unless the segment consists of only one address, in which case these values are equal.

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Address-Direction	xs:string	Optional	Single	Specifies the (inter-)cardinal direction of the entire address. An example is “NE” for the address “100 E Capitol St NE.”	If the field is invalid or not present, then the implementation is required to ignore it.
City	xs:string	Required	Single	The city specifies the city or town of the address.	If the field is invalid, then the implementation is required to ignore it.
IncludesAllAddresses	xs:boolean	Optional	Single	Specifies if the segment covers every address on this street. If this is <i>true</i> , then the values of StartHouseNumber and EndHouseNumber should be ignored. The value of OddEvenBoth must be <i>both</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
IncludesAllStreets	xs:boolean	Optional	Single	Specifies if the segment covers every street in this city. If this is <i>true</i> , then the values of OddEvenBoth , StartHouseNumber , EndHouseNumber , StreetName , and Zip should be ignored.	If the field is invalid or not present, then the implementation is required to ignore it.
Odd-Even-Both	<i>OebEnum</i>	Optional	Single	Specifies whether the odd side of the street (in terms of house numbers), the even side, or both are included in the street segment.	If the field is not present or invalid, the implementation is required to ignore the StreetSegment containing it.
PrecinctId	xs:IDREF	Optional	Single	References the <i>Precinct</i> that contains the entire street segment.	If the field is not present or invalid, the implementation is required to ignore the StreetSegment element containing it.
Start-House-Number	xs:integer	Optional	Single	The house number at which the street segment starts. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAllStreets are true, this value must be less than or equal to EndHouseNumber . If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.	Unless IncludesAllAddresses or IncludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the StreetSegment element containing it. If the StartHouseNumber is greater than the EndHouseNumber , the implementation should ignore the element containing them.
End-House-Number	xs:integer	Optional	Single	The house number at which the street segment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAllStreets are true, it must be greater than or equal to StartHouseNumber . If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.	Unless IncludesAllAddresses or IncludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the StreetSegment element containing it. If the EndHouseNumber is less than the StartHouseNumber , the implementation should ignore the element containing it.
State	xs:string	Required	Single	Specifies the two-letter state abbreviation of the address.	If the field is invalid, then the implementation is required to ignore it.
Street-Direction	xs:string	Optional	Single	Specifies the (inter-)cardinal direction of the street address (e.g., the “E” in “100 E Capitol St NE”).	If the field is invalid or not present, then the implementation is required to ignore it.
Street-Name	xs:string	Optional	Single	Represents the name of the street for the address. A special wildcard, “*”, denotes every street in the given city/town. It optionally may contain street direction, street suffix or address direction (e.g., both “Capitol” and “E Capitol St NE” are acceptable for the address “100 E Capitol St NE”), however this is not preferred. Preferred is street name alone (e.g.	If the field is invalid or not present, then the implementation is required to ignore it.
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```

1 start_house_number, end_house_number, odd_even_both, includes_all_addresses, unit_number,
  ↳ street_direction, street_name, street_suffix, address_direction, city, state, zip,
  ↳ precinct_id, id
2 1, 201, both, , , , MISTY MOUNTAIN, RD, GREENWOOD, VA, 22943, pre92145, ss309904
3 , , both, yes, , , , CHAPEL HILL, RD, Charlottesville, VA, 22901, pre99999, ss999999

```

2.1.3 Enumerations

BallotMeasureType

A list of the various types of ballot measures. States may have different legal definitions of each type; [Wikipedia](#) has more details about each type. These values are to help states with multiple types of non-candidate-based contests distinguish between each type; as such, the definitions in this table are simple guidelines. Ultimately it is up to the state or local election official to choose the value which best describes the ballot measure(s) in their jurisdiction.

Tag	Description
ballot-measure	A catch-all for generic types of non-candidate-based contests.
initiative	These are usually citizen-driven measures to be placed on the ballot. These could include both statutory changes and constitutional amendments.
referendum	These could include measures to repeal existing acts of legislation, legislative referrals, and legislatively-referred state constitutional amendments.
other	Anything that does not fall into the above categories.

CandidatePostElectionStatus

Tag	Description
advanced-to-runoff	For contests in which the top N candidates advance to the next round.
projected-winner	A candidate is expected to win, but official results are not yet complete.
winner	The candidate has officially won.
withdrawn	The candidate has withdrawn from the contest.

CandidatePreElectionStatus

Tag	Description
filed	The candidate has filed for office but not yet been qualified.
qualified	The candidate has qualified for the contest.
withdrawn	The candidate has withdrawn from the contest (but may still be on the ballot).
write-in	

DistrictType

Enumeration describing the set of possible jurisdiction and district types. Please use the enumeration value which most accurately reflects the type of district or jurisdiction in your state or county. For example, “town” and “township” may mean different things – or not be defined at all – in your state, so please use the definition which best matches your local meaning.

Tag	Description
borough	A borough
city	A city.
city-council	A specific seat/jurisdiction for a city, town, or village council.
congressional	A United States congressional district.
county	A county.
county-council	A county council district, either in its entirety or for a specific seat.
judicial	A judicial district.
municipality	A civil division which is not a town, city, village, or county.
national	The United States.
school	A school district.
special	A special-purpose district that exist separate from general-purpose districts.
state	A state, district, commonwealth, or U.S. territory.
state-house	The lower house of a state legislature.
state-senate	The upper house of a state legislature.
town	A town.
township	A township, which may be different than a town. See the Wikipedia article .
utility	A non-water public or municipal utility district.
village	A village district.
ward	A ward.
water	A water district.
other	Any district not described above. Use the <i>OtherType</i> field to describe it.

ExternalIdentifiers

The `ExternalIdentifiers` element allows VIP data to connect with external datasets (e.g. candidates with campaign finance datasets, electoral geographies with [OCD-IDs](#) that allow for greater connectivity with additional datasets, etc...). Examples for `ExternalIdentifiers` can be found on the objects that support them:

- *Candidate*
- Any element that extends *ContestBase*
- *ElectoralDistrict*
- *Locality*
- *Office*
- *Party*
- *Precinct*
- *State*

Tag	Data Type	Required?	Repeats?	Description	Error Handling
ExternalIdentifier	<i>ExternalIdentifier</i>	Required	Repeats	Defines the identifier and the type of identifier it is (see <i>ExternalIdentifier</i> for complete information).	At least one valid <i>ExternalIdentifier</i> must be present for <code>ExternalIdentifiers</code> to be valid. If no valid <i>ExternalIdentifier</i> is present, the implementation is required to ignore the <code>ExternalIdentifiers</code> element.

ExternalIdentifier

Tag	Data Type	Required?	Repeats?	Description	Error Handling
Type	<i>IdentifierType</i>	Required	Single	Specifies the type of identifier. Must be one of the valid types as defined by <i>IdentifierType</i> .	If the field is invalid or not present, the implementation is required to ignore the <code>ElectionIdentifier</code> containing it.
Other-Type	<code>xs:string</code>	Optional	Single	Allows for cataloging an <code>ExternalIdentifier</code> type that falls outside the options listed in <i>IdentifierType</i> . Type should be set to “other” when using this field.	If the field is invalid or not present, then the implementation is required to ignore it.
Value	<code>xs:string</code>	Required	Single	Specifies the identifier.	If the field is invalid or not present, the implementation is required to ignore the <code>ElectionIdentifier</code> containing it.

IdentifierType

Tag	Description
<code>fips</code>	Federal Information Processing Standards codes for states , counties , and cities .
<code>local-level</code>	An identifier generated or used by local governments or organizations.
<code>national-level</code>	An identifier generated or used by national organizations.
<code>ocd-id</code>	An Open Civic Data Division Identifier .
<code>state-level</code>	An identifier generated or used by state governments or organizations.
<code>other</code>	Any identifier which doesn’t fall into any of the above categories.

OebEnum

Tag	Description
<code>both</code>	Both even and odd addresses within the range.
<code>even</code>	Only even-numbered addresses within the range.
<code>odd</code>	Only odd-numbered addresses within the range.

OfficeTermType

Tag	Description
<code>full-term</code>	This election is for an office for which the existing term has been completed.
<code>unexpired-term</code>	This election is for an office for which the original term is not yet complete.

VoteVariation

Note that the descriptions below describe what the enumeration names stand for in the context of the VIP spec, rather than provide general definitions of the election terms that the names correspond to. For example, even though there are majority voting methods that are not “1-of-m” (e.g. ranked choice voting), we constrain “majority” to 1-of-m. We do this to eliminate any source of ambiguity when a single enumeration value needs to be assigned to a contest.

Tag	Description
1-of-m	A method where each voter can select up to one option.
ap-proval	Approval voting , where each voter can select as many options as desired.
borda	Borda count , where each voter can rank the options, and the rankings are assigned point values.
cumulative	Cumulative voting , where each voter can distribute their vote to up to N options.
majority	A 1-of-m method where the winner needs more than 50% of the vote to be elected.
n-of-m	A method where each voter can select up to N options.
plurality	A 1-of-m method where the option with the most votes is elected, regardless of whether the option has more than 50% of the vote.
proportional	A proportional representation method (other than STV), which is any system that elects winners in proportion to the total vote.
range	Range voting , where each voter can select a score for each option.
rcv	Ranked choice voting (RCV) , where each voter can rank the options, and the ballots are counted in rounds. Also known as instant-runoff voting (IRV) and the single transferable vote (STV) .
super-majority	A 1-of-m method where the winner needs more than some predetermined fraction of the vote to be elected, where the fraction is more than 50% (e.g. three-fifths or two-thirds).
other	Used when the vote variation type is not included in this enumeration.

VoterServiceType

Tag	Description
absentee-ballots	This department handles the dispatch, tracking, and return of absentee ballots.
overseas-voting	The department for overseas, military, and other outside-the-U.S. voters.
polling-places	This department handles the selection and management of polling places.
voter-registration	The department that manages voter registration.
other	Any other service not covered by the above descriptions.