# Voting Information Project Specification Documentation

Release 5.1.2

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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.

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# CHAPTER 1

XML Documentation

# 1.1 XML Specification

- Getting Started
- Elements & Enumerations
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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 & amp;, &lt;, and &gt;, respectively.

# 1.1.2 Elements & Enumerations

# **Single-page Format**

# XML Elements & Enumerations (Single Page)

- Elements
  - State
  - Term
  - Office
    - \* Term
    - \* ContactInformation
    - \* Name and AddressLine Usage Note
  - Election
  - BallotSelectionBase
  - Source
  - BallotMeasureContest
    - \* ContestBase
  - ContestBase
  - TimeWithZone
  - LanguageString
  - BallotStyle
  - ExternalIdentifier
  - Person
    - \* ContactInformation
    - \* Name and AddressLine Usage Note
  - ExternalIdentifiers
  - VoterService
  - ContactInformation
    - \* Name and AddressLine Usage Note
  - CandidateSelection
    - \* BallotSelectionBase
  - LatLng
  - Candidate
  - PollingLocation
    - \* LatLng

- \* SimpleAddressType
- Locality
- Department
  - \* VoterService
  - \* ContactInformation
  - \* Name and AddressLine Usage Note
- HtmlColorString
- Schedule
  - \* Hours
    - · TimeWithZone
- Precinct
- OrderedContest
- PartyContest
  - \* ContestBase
- ElectionAdministration
  - \* Department
    - VoterService
    - · ContactInformation
  - \* Name and AddressLine Usage Note
  - \* ElectionNotice
  - \* VoterService
- Hours
  - \* TimeWithZone
- ElectionNotice
- RetentionContest
- StreetSegment
- CandidateContest
  - \* ContestBase
- Party
  - \* HtmlColorString
- InternationalizedText
- BallotMeasureSelection
  - \* BallotSelectionBase
- HoursOpen
  - \* Schedule

- · Hours
- \* TimeWithZone
- ElectoralDistrict
- PartySelection
  - \* BallotSelectionBase
- SimpleAddressType
- Enumerations
  - IdentifierType
  - CandidatePostElectionStatus
  - CandidatePreElectionStatus
  - VoterServiceType
  - DistrictType
  - OfficeTermType
  - OebEnum
  - BallotMeasureType
  - VoteVariation

#### **Elements**

# **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	Re-	Re-	Description	Error Handling
	Type	quired@eats		s?	-
Elec-	xs:I	D <b>Øp</b> F	Sin-	Links to the state's election administration object.	If the field is invalid or
tion-		tional	gle		not present, then the im-
Ad-					plementation is required
min-					to ignore it.
istra-					
tionId					
Exter-	Ex-	Op-	Sin-	Other identifier for the state that relates to another	If the element is in-
nalI-	ter-	tional	gle	dataset (e.g. OCD-ID).	valid or not present, then
denti-	nalI-				the implementation is
fiers	den-				required to ignore it.
	ti-				
	fiers				
Name	xs:s	t <b>Re</b> ng		Specifiers the name of a state, such as Alabama.	If the field is invalid,
		quire	dgle		then the implementation
					is required to ignore
					the State element con-
					taining it.
Pollingl	Loxs:I	D <b>®</b> pFS	Sin-	Specifies a link to the state's <i>polling locations</i> . If early	If the field is invalid or
ca-		tional	lgle	vote centers or ballot drop locations are state-wide (e.g.,	not present, then the im-
tion-				anyone in the state can use them), they can be specified	plementation is required
Ids				here, but you are encouraged to only use the <i>Precinct</i>	to ignore it.
				element.	

# **Term**

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quired	l?peats	?	
Type	Of-	Op-	Sin-	Specifies the type of office	If the field is invalid or not present, the imple-
	ficeTerm	<i>T</i> tijomal	gle	term (see OfficeTermType for	mentation is required to ignore the Office el-
				valid values).	ement containing it.
Start-	xs:dat	eOp-	Sin-	Specifies the start date for the	If the field is invalid or not present, then the im-
Date		tional	gle	current term of the office.	plementation is required to ignore it.
End-	xs:dat	:еОр-	Sin-	Specifies the end date for the	If the field is invalid or not present, then the im-
Date		tional	gle	current term of the office.	plementation is required to ignore it.

```
<Office id="off0000">

<ElectoralDistrictId>ed60129

/ElectoralDistrictId>
```

(continues on next page)

(continued from previous page)

# Office

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

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	quiredøeats?		
Con-	single-	Op-	Re-	Links to the single-xml-contact-	If the element is invalid or not
tactIn-	xml-	tional	peats	information element associated with	present, then the implementation is
forma-	contact-			the office.	required to ignore it.
tion	information				
De-	Interna-	Op-	Sin-	A brief description of the office and	If the element is invalid or not
scrip-	tional-	tional	gle	its purpose.	present, then the implementation is
tion	izedText				required to ignore it.
Elec-	xs:IDREF	Re-	Sin-	Links to the ElectoralDistrict ele-	If the field is invalid or not present,
toralD-		quire	<b>d</b> gle	ment associated with the office.	the implementation is required to ig-
istric-					nore the Office element contain-
tId					ing it.
Exter-	ExternalI-	Op-	Sin-	Other identifiers that link this office	If the element is invalid or not
nalI-	dentifiers	tional	gle	to other related datasets (e.g. cam-	present, then the implementation is
denti-				paign finance systems, OCD IDs, et	required to ignore it.
fiers				al.).	
Fil-	xs:date	Op-	Sin-	Specifies the date and time when	If the field is invalid or not present,
ingDead-		tional	gle	a candidate must have filed for the	then the implementation is required
line				contest for the office.	to ignore it.
IsParti-	xs:boole	а <b>0</b> р-	Sin-	Indicates whether the office is parti-	If the field is invalid or not present,
san		tional	gle	san.	then the implementation is required
					to ignore it.
Name	Interna-	Re-	Sin-	The name of the office.	If the field is invalid or not present,
	tional-	quire	<b>d</b> gle		the implementation is required to ig-
	izedText				nore the Office element contain-
					ing it.
Office-	xs:IDREF	S <b>Op</b> -	Sin-	Links to the <i>Person</i> element(s) that	If the field is invalid or not present,
Hold-		tional	gle	hold additional information about	then the implementation is required
erPer-				the current office holder(s).	to ignore it.
sonIds					
Term	single-	Op-	Sin-	Defines the term the office can be	If the element is invalid or not
	xml-term	tional	gle	held.	present, then the implementation is
					required to ignore it.

#### **Term**

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quirec	l?peats	?	
Type	Of-	Op-	Sin-	Specifies the type of office	If the field is invalid or not present, the imple-
	ficeTerm	<i>T</i> tijomal	gle	term (see OfficeTermType for	mentation is required to ignore the Office el-
				valid values).	ement containing it.
Start-	xs:dat	:eOp-	Sin-	Specifies the start date for the	If the field is invalid or not present, then the im-
Date		tional	gle	current term of the office.	plementation is required to ignore it.
End-	xs:dat	:еОр-	Sin-	Specifies the end date for the If the field is invalid or not present, the	
Date		tional	gle	current term of the office.	plementation is required to ignore it.

#### 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	Re-	Re- døeats	Description	Error Handling
	Туре				TC 4 C 11 '
Ad- dressL	xs:st ine	I	Re- peats	The "location" portion of a mailing address. See usage note.	If the field is invalid or not present, then the implementation is required to ignore it.
Di- rec- tions	In- ter- na- tion- al- ized- Text	Op- tional	Sin- gle	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:st	- 1	Re- peats	An email address for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Fax	xs:st	tional	peats		If the field is invalid or not present, then the implementation is required to ignore it.
Hours [dep- re- cated]	In- ter- na- tion- al- ized- Text	Op- tional	Sin- gle	Contains the hours (in local time) that the location is open (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).	If the element is invalid or not present, then the implementation is required to ignore it.
Hour- sOpen	xs:II Id	F <b>Ops</b> tional	Sin- gle	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.
LatLn	g single- xml- lat- lng	Op- tional	Sin- gle	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:st	tional		The name of the location or contact. See usage note.	If the field is invalid or not present, then the implementation is required to ignore it.
Phone	xs:st	I	Re- peats	A phone number for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Uri	xs:ar	- 1	Re- peats	An informational URI for the contact or location.	If the field is invalid or not present, then the implementation is required to
10				Chapter 1.	XMI <sub>to</sub> pocumentation

#### 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
```

```
contactInformation label="ci10861a">
cAddressLine>1600 Pennsylvania Ave</AddressLine>
cAddressLine>Washington, DC 20006</AddressLine>
cEmail>president@whitehouse.gov</Email>
cPhone>202-456-1111</Phone>
cPhone annotation="TDD">202-456-6213</Phone>
cUri>http://www.whitehouse.gov</Uri>
c/ContactInformation>
```

#### **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		Re- auire	Re- døeats	Description s?	Error Handling
Date	xs:0	da <b>Re</b> quire	Sin- e <b>d</b> gle	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	In- ter- na- tion- al- ized- Text	Op- tional	Sin- l gle	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	l xs:	quire	e <b>d</b> gle	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- Statew		c <b>@pl−</b> e tiona		Indicates whether the election is statewide.	If the field is not present or in- valid, the imple- mentation is re- quired to default to "yes".
Name	In- ter- na- tion- al- ized- Text	Op- tional	Sin- l gle	The name for the election ( <b>NB</b> : while optional, this element is highly recommended).	If the element is invalid or not present, then the implementation is required to ignore it.
Reg- is- tra- tionInf	In- ter- na-	Op- tional	Sin- l gle	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.
Ab- sen- tee- Bal- lot- Info	In- ter- na- tion- al- ized- Text	Op- tional	Sin- l gle	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.
Re- sult- sUri	xs:a	ar <b>Qp</b> UR tiona		Contains a URI where results for the election may be found	If the field is invalid or not present, then the
12				Chapter 1. XM	Li Documentation is required to
Polling	g <b>Hø</b> urs	Op-	Sin-	Contains the hours (in local time) that Election Day polling loca-	ignore it.  If the element

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

# **BallotSelectionBase**

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
Se-	xs:i	n <b>tOp</b> peje	rSin-	The order in which a selection can be listed on the bal-	If the field is invalid or
quence	-	tiona	l gle	lot or in results. This is the default ordering, and can	not present, then the im-
Order				be overridden by OrderedBallotSlectionIds in Ordered-	plementation is required to
				Contest.	ignore it.

### 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	Re-	Re-	Description	Error Handling
	Туре		døeats		
Name	xs:strin	gRe- quire	Sin- e <b>d</b> gle	Specifies the name of the organization that is providing the information.	If the field is invalid, then the implementation is required to ignore the Source element containing it.
VipId	xs:strin	gRe- quire	Sin- e <b>d</b> gle	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 Source element containing it.
Date- Time	xs:dateI	i <b>Re-</b> quire		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 the Source element containing it.
De-	Interna-	Op-	Sin-	Specifies both the nature of the organi-	If the element is invalid or not
scrip-	tional-	tional	gle	zation providing the data and what data	present, then the implementation
tion	izedText			is in the feed.	is required to ignore it.
Orga- niza- tionUri	xs:strin	gOp- tional	Sin- gle	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-	single-	Op-	Sin-	Reference to the Person who will re-	If the element is invalid or not
Con-	xml-	tional	gle	spond to inquiries about the information	present, then the implementation
tactIn-	contact-			contained within the file.	is required to ignore it.
forma- tion	information				
TouUri	xs:anyUR	IOp-	Sin-	Specifies the website where the Terms of	If the field is invalid or not
		tional	gle	Use for the information in this file can be found.	present, then the implementation is required to ignore it.
Version	xs:strin	gRe- quire	Sin- e <b>d</b> gle	Specifies the version of the data	If the field is invalid, then the implementation is required to ignore the Source element containing it.

# **BallotMeasureContest**

The BallotMeasureContest provides information about a ballot measure before the voters, including summary statements on each side. Extends single-xml-contest-base.

Tag	Data	Re-	Re-	Description	Error Handling
	Type		døeats		
Con-	In-	Op-	Sin-	Specifies a statement in opposition to the referendum. It does not	If the element
State	ter-	tional	gle	necessarily appear on the ballot.	is invalid or not
ment	na-				present, then the
	tion-				implementation
	al-				is required to
	ized-				ignore it.
	Text				ignore it.
Ef-	In-	On	Cin	Specifies what affect abotaining (i.e. not voting) on this managi	If the element
		Op-	Sin-	Specifies what effect abstaining (i.e. not voting) on this proposi-	
fectO		tional	gle	tion will have (i.e. whether abstaining is considered a vote against	is invalid or not
fAb-	na-			it).	present, then the
stain	tion-				implementation
	al-				is required to
	ized-				ignore it.
	Text				
Full-	In-	Op-	Sin-	Specifies the full text of the referendum as it appears on the ballot.	If the element
Text	ter-	tional		Specifies the fair term of the ferritarian as it appears on the cancer	is invalid or not
ICAL	na-	tional	gic		present, then the
	tion-				implementation
	al-				is required to
	ized-				ignore it.
	Text				
In-		n <b>Ø</b> ØRI	Sin-	Specifies a URI that links to additional information about the ref-	If the field is
foUri		tional	gle	erendum.	invalid or not
					present, then the
					implementation
					is required to
					ignore it.
Pas-	In-	Op-	Sin-	Specifies the threshold of votes that the referendum needs in order	If the element
sageT	`hter-	tional	gle	to pass. The default is a simple majority (i.e. 50% plus one vote).	is invalid or not
resh-	na-		8	Other common thresholds are "three-fifths" and "two-thirds". If	present, then the
old	tion-			there are competing initiatives, information about their effect on	implementation
Old	al-			the passage of the BallotMeasureContest would go here.	is required to
	ized-			the passage of the Banotivicasure contest would go here.	_
	Text				ignore it.
D C			G.		TC d 1
ProSt		Op-	Sin-	Specifies a statement in favor of the referendum. It does not nec-	If the element
ment	ter-	tional	gle	essarily appear on the ballot.	is invalid or not
	na-				present, then the
	tion-				implementation
	al-				is required to
	ized-				ignore it.
	Text				
Sum-	In-	Op-	Sin-	Specifies a short summary of the referendum that is on the ballot,	If the element
ma-	ter-	tional		below the title, but above the text.	is invalid or not
	na-	Hona	510	Series and and out above the texts	present, then the
ry-					
Text	tion-				implementation
	al-				is required to
	ized-				ignore it.
	Text	_	~.		70 1 -
Type	Bal-	Op-	Sin-	Specifies the particular type of ballot measure. Must be one of the	If the field is
	lot-	tional	gle	valid BallotMeasureType options.	invalid or not
	Меа-				present, then the
	sure-				implementation
	Туре				is required to
l.1. X	(MĽ Sp	ecific	ation		ignore it. 15
Oth-	xs:s	t <b>0p</b> nq	Sin-	Allows for cataloging a new BallotMeasureType option, when	If the field is
er-		tional		Type is specified as "other."	invalid or not
Туре					present, then the
-7150					r-com, men me

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

#### **ContestBase**

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

Tag	Data		Re-	Description	Error Han-
Λ h	Туре	•	<u> </u>		dling  If the field is
Ab-	xs:s	t <b>0p</b> -n	F	An abbreviation for the contest.	
bre-		tiona	gie		invalid or not
via-					present, then
tion					the implemen-
					tation should
D .1			2 0.	D.C	ignore it.
Bal-	xs:1	D <b>0.p</b> .⊬		References a set of BallotSelections, which could be of any selection	If the field is
lot-		tiona	gie	type that extends single-xml-ballot-selection-base.	invalid or not
Se-					present, then
lec-					the implemen-
tion-					tation should
Ids	,		a.		ignore it.
Bal-	In-	Op-	Sin-	Subtitle of the contest as it appears on the ballot.	If the element
lot-	ter-	tiona	l gle		is invalid or
Sub-	na-				not present,
Ti-	tion-				then the im-
tle	al-				plementation
	ized-				should ignore
	Text				it.
Bal-	In-	Op-	Sin-	Title of the contest as it appears on the ballot.	If the element
lot-	ter-	tiona	l gle		is invalid or
Ti-	na-				not present,
tle	tion-				then the im-
	al-				plementation
	ized-				should ignore
	Text				it.
Elec-		D <b>Re</b> f	Sin-	References an <i>ElectoralDistrict</i> element that represents the geo-	If the field is
toralD	)_	quire	<b>d</b> gle	graphical scope of the contest.	invalid, then
is-					the implemen-
tric-					tation should
tId					ignore it.
Elec-	In-	Op-	Sin-	Specifies any changes to the eligible electorate for this contest past	If the element
torate-		tiona	l gle	the usual, "all registered voters" electorate. This subtag will most	is invalid or
Spec-				often be used for primaries and local elections. In primaries, voters	not present,
ifi-	tion-			may have to be registered as a specific party to vote, or there may	then the im-
ca-	al-			be special rules for which ballot a voter can pull. In some local	plementation
tion	ized-			elections, non-citizens can vote.	should ignore
	Text				it.
Ex-	Ex-	Op-	Sin-	Other identifiers for a contest that links to another source of infor-	If the element
ter-	ter-	tiona	l gle	mation.	is invalid or
nalI-	nalI-				not present,
den-	den-				then the im-
ti-	ti-				plementation
fiers	fiers				should ignore
					it.
Has-	xs:b	<b>⊘</b> pe		Indicates whether the selections in the contest are rotated.	If the field is
Ro-		tiona	l gle		invalid or not
ta-					present, then
tion					the implemen-
					tation should
					ignore it.
Name	xs:s		Г	Name of the contest, not necessarily how it appears on the ballot	If the field is
4 4 3/	NAL O	quire		(NB: BallotTitle should be used for this purpose).	invalid, then
1.1. X	IVIL SP	ecitic	ation		the implemen17
					tation should
					ignore it.
Se-	xs:i	.n <b>⊕p</b> -g∘	e Sin-	Order in which the contests are listed on the ballot. This is the de-	If the field is

# ContestBase

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

Tag	Data		Re-	Description	Error Han-
Λ h	Туре	•	<u> </u>		dling  If the field is
Ab-	xs:s	t <b>0p</b> -n	Г	An abbreviation for the contest.	
bre-		tiona	gie		invalid or not
via-					present, then
tion					the implemen-
					tation should
D-1			o C:	Defended as a set of Dellet Colorations which could be of our colories.	ignore it.  If the field is
Bal-	xs:1	DOPE-F	l	References a set of BallotSelections, which could be of any selection	invalid or not
lot-		tiona	gie	type that extends single-xml-ballot-selection-base.	
Se-					present, then
lec-					the implemen-
tion-					tation should
Ids	T <sub>ea</sub>	On	Sin-	Cubtitle of the contest as it appears on the hallet	ignore it.  If the element
Bal-	In-	Op-		Subtitle of the contest as it appears on the ballot.	is invalid or
lot-	ter-	tional	gie		
Sub-	na-				not present,
Ti-	tion-				then the im-
tle	al-				plementation
	ized-				should ignore
D 1	Text		G.		it.
Bal-	In-	Op-	Sin-	Title of the contest as it appears on the ballot.	If the element
lot-	ter-	tional	l gle		is invalid or
Ti-	na-				not present,
tle	tion-				then the im-
	al-				plementation
	ized-				should ignore
-	Text		<u> </u>		it.
Elec-		D <b>Re</b> -F	Sin-	References an <i>ElectoralDistrict</i> element that represents the geo-	If the field is
toralD	)-	quire	dgle	graphical scope of the contest.	invalid, then
is-					the implemen-
tric-					tation should
tId	7		a.		ignore it.
Elec-	In-	Op-	Sin-	Specifies any changes to the eligible electorate for this contest past	If the element
torate		tiona	gie	the usual, "all registered voters" electorate. This subtag will most	is invalid or
Spec-				often be used for primaries and local elections. In primaries, voters	not present,
ifi-	tion-			may have to be registered as a specific party to vote, or there may	then the im-
ca-	al-			be special rules for which ballot a voter can pull. In some local	plementation
tion	ized-			elections, non-citizens can vote.	should ignore
-	Text		a.		it.
Ex-	Ex-	Op-	Sin-	Other identifiers for a contest that links to another source of infor-	If the element
ter-	ter-	tional	l gle	mation.	is invalid or
nalI-	nalI-				not present,
den-	den-				then the im-
ti-	ti-				plementation
fiers	fiers				should ignore
11		0.5	g:		it.
Has-	xs:b	<b>⊘p</b> e		Indicates whether the selections in the contest are rotated.	If the field is
Ro-		tiona	ı gle		invalid or not
ta-					present, then
tion					the implemen-
					tation should
,,,			~.		ignore it.
Name	xs:s		Γ	Name of the contest, not necessarily how it appears on the ballot	If the field is
1 4 \	NAL C	quire		(NB: BallotTitle should be used for this purpose).	invalid, then
1.1. X	IVIL SP	ecitic	ation		the implemen 19
					tation should
					ignore it.
Se-	xs:i	n <b>⊕p</b> -g	e:Sin-	Order in which the contests are listed on the ballot. This is the de-	If the field is

# **TimeWithZone**

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

```
<HoursOpen id="hours0001">
    <Schedule>
2
      <Hours>
3
       <StartTime>06:00:00-05:00
4
        <EndTime>12:00:00-05:00
      </Hours>
6
       <StartTime>13:00:00-05:00
       <EndTime>19:00:00-05:00
9
      </Hours>
10
      <StartDate>2013-11-05
11
      <EndDate>2013-11-05</EndDate>
    </Schedule>
13
  </HoursOpen>
```

#### 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.

```
'
| CallotTitle>

Callot
```

# **BallotStyle**

A container for the contests/measures on the ballot.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired'	? peats?		
ImageUri	xs:any	/U <b>O</b> pI-	Sin-	Specifies a URI that returns	If the field is invalid or not present, then
		tional	gle	an image of the sample bal-	the implementation is required to ignore
				lot.	it.
Ordered-	xs:IDF	Ε <b>Θ</b> β5-	Sin-	Reference to a set of Or-	If the field is invalid or not present, then
Con-		tional	gle	deredContest	the implementation is required to ignore
testIds					it.
PartyIds	xs:IDF	₹ <b>Юр</b> Б-	Sin-	Reference to a set of	If the field is invalid or not present, then
		tional	gle	:ref: 'single-xml-party's.	the implementation is required to ignore
					it.

#### Externalldentifier

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeats	s?	
Type	Iden-	Re-	Sin-	Specifies the type of identifier. Must be one of	If the field is invalid or not
	ti-	quire	<b>d</b> gle	the valid types as defined by <i>IdentifierType</i> .	present, the implementa-
	fier-				tion is required to ignore the
	Type				ElectionIdentifier con-
					taining it.
Oth-	xs:s	t <b>0p</b> n	g Sin-	Allows for cataloging an	If the field is invalid or not present,
er-		tiona	l gle	ExternalIdentifier type that falls	then the implementation is required
Type				outside the options listed in IdentifierType.	to ignore it.
				Type should be set to "other" when using this	
				field.	
Value	xs:s	t <b>Re</b> -no	g Sin-	Specifies the identifier.	If the field is invalid or not
		quiredgle			present, the implementa-
					tion is required to ignore the
					ElectionIdentifier con-
					taining it.

```
<ExternalIdentifiers>
      <ExternalIdentifier>
2
         <Type>ocd-id</Type>
3
         <Value>ocd-division/country:us/state:nc/county:durham</Value>
      </ExternalIdentifier>
      <ExternalIdentifier>
6
         <Type>FIPS</Type>
         <Value>37063</Value>
      </ExternalIdentifier>
      <ExternalIdentifier>
10
         <Type>OTHER</Type>
         <OtherType>GNIS</OtherType>
12
         <Value>1008550</Value>
13
      </ExternalIdentifier>
14
      <external_identifer>
15
         <Type>OTHER</Type>
16
         <OtherType>census</OtherType>
17
         <Value>99063</Value>
      </ExternalIdentifier>
   </ExternalIdentifiers>
```

# **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	Re- quire	Re- døeats	Description s?	Error Handling
Contact- In- for- ma- tion	single- xml- contact- informati	Op- tional	Re- peats	Refers to the associated single-xml-contact-information.	If the element is invalid or not present, then the implementation is required to ignore it.
Da- te- Of- Birth	xs:date	e Op- tional	Sin- gle	Represents the individual's date of birth.	If the field is invalid or not present, then the implementation is required to ignore it.
Ex- ter- nalI- den- ti- fiers	Exter- nalI- denti- fiers	Op- tional	Sin- gle	Identifiers for this person.	If the element is invalid or not present, then the implementation is required to ignore it.
First- Name	xs:str	i <b>Qp</b> - tional	Sin- gle	Represents an individual's first name.	If the field is invalid or not present, then the implementation is required to ignore it.
Full- Name	Inter- nation- alized- Text	Op- tional	Sin- gle	Specifies a person's full name ( <b>NB</b> : 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.
Gen- der	xs:str	i <b>:</b> Op- tional	Sin- gle	Specifies a person's gender.	If the field is invalid or not present, then the implementation is required to ignore it.
Last- Name	xs:str	i <b>:Op</b> - tional	Sin- gle	Represents an individual's last name.	If the field is invalid or not present, then the implementation is required to ignore it.
Mid- dle- Name	xs:str	- 1	Re- peats	Represents any number of names between an individual's first and last names (e.g. John <b>Ronald Reuel</b> Tolkien).	If the field is invalid or not present, then the implementation is required to ignore it.
Nick- name	xs:str	i <b>Op</b> - tional	Sin- gle	Represents an individual's nickname.	If the field is invalid or not present, then the implementation is required to ignore it.
Par- tyId	xs:IDR	EIOp- tional	Sin- gle	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</i> <b>PartyId</b> .	If the field is invalid or not present, then the implementation is required to ignore it.
Pre- fix	xs:str	tional		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.
Pro- fes- -sion	Inter- nation- alized-	Op- tional	Sin- gle	Specifies a person's profession ( <b>NB</b> : 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 implementa-
22	Text			Chapter 1.	NML iDeclimentation nore it.
Suf- fix	xs:str	i <b>Op</b> - tional	Sin- gle	Specifies a suffix associated with a person (e.g. Jr.).	If the field is invalid or not present, then

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

#### 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	Re-	Re- døeats	Description	Error Handling
A 1	Туре				TC 4 C 11 '
Ad- dressL		i <b>Op</b> +g tional	Re- peats	The "location" portion of a mailing address. See usage note.	If the field is invalid or not present, then the implementation is required to ignore it.
Di- rec- tions	In- ter- na- tion- al- ized- Text	Op- tional	Sin- gle	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:st		Re- peats	An email address for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Fax			peats		If the field is invalid or not present, then the implementation is required to ignore it.
Hours [dep- re- cated]	In- ter- na- tion- al- ized- Text	Op- tional	Sin- gle	Contains the hours (in local time) that the location is open (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).	If the element is invalid or not present, then the implementation is required to ignore it.
Hour- sOpen	xs:II Id	Ю <b>р</b> - tional	Sin- gle	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.
LatLn	g single- xml- lat- lng	Op- tional	Sin- gle	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:st	tional		The name of the location or contact. See usage note.	If the field is invalid or not present, then the implementation is required to ignore it.
Phone	xs:st		Re- peats	A phone number for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Uri	xs:ar		Re- peats		If the field is invalid or not present, then the implementation is required to
24				Chapter 1.	XMA-Pacumentation

#### 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
```

```
contactInformation label="ci10861a">
cAddressLine>1600 Pennsylvania Ave</AddressLine>
cAddressLine>Washington, DC 20006</AddressLine>
cEmail>president@whitehouse.gov</Email>
cPhone>202-456-1111</Phone>
cPhone annotation="TDD">202-456-6213</Phone>
cUri>http://www.whitehouse.gov</Uri>
c/ContactInformation>
```

# **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 single-xml-contest-base
- ElectoralDistrict
- Locality
- Office
- Party
- Precinct
- State

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	døeats	s?	
Ex-	Ex-	Re-	Re-	Defines the identifier and	At least one valid ExternalIdentifier must be present
ter-	ter-	quire	<b>d</b> peats	the type of identifier it is	for ExternalIdentifiers to be valid. If no valid
nalI-	nalI-			(see ExternalIdentifier for	ExternalIdentifier is present, the implementation is re-
den-	den-			complete information).	quired to ignore the ExternalIdentifiers ele-
ti-	ti-				ment.
fier	fier				

#### **VoterService**

Tag	Data Type	Re-	Re-	Description	Error Handling
		quire	d?peats	?	
Contact-	single-xml-	Op-	Sin-	The contact for a particular voter	If the element is invalid or not
Informa-	contact-	tional	gle	service.	present, then the implementation is
tion	information				required to ignore it.
Descrip-	Internation-	Op-	Sin-	Long description of the services	If the element is invalid or not
tion	alizedText	tional	gle	available.	present, then the implementation is
					required to ignore it.
Elec-	xs:IDREF	Op-	Sin-	The <i>authority</i> for a particular	If the field is invalid or not present,
tionOffi-		tional	gle	voter service.	then the implementation is re-
cialPer-					quired to ignore it.
sonId					
Type	VoterSer-	Op-	Sin-	The type of <i>voter service</i> .	If the field is invalid or not present,
	viceType	tional	gle		then the implementation is re-
					quired to ignore it.
Other-	xs:string	Op-	Sin-	If Type is "other", OtherType al-	If the field is invalid or not present,
Type		tional	gle	lows for cataloging another type	then the implementation is re-
				of voter service.	quired to ignore it.

# 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).

Address line tional peats to dress line tional peats line tional peats line tional peats line to line line line line line line line line	Tag	Data Type	Re-	Re-	Description	Error Handling
Directions   Increase   Companies   Directions   Direct		xs:st	1 <b>Op</b> +g	Re-		If the field is invalid or not present, then the implementation is required to
Email xs:st Op-g lettional peats  An email address for the contact.  If the field is invalid or not present then the implement attion is required ignore it.  Fax xs:st Op-g leter tional leter tional ized rectant.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.  If the field is invalid or not present then the implement attion is required ignore it.	rec-	ter- na- tion- al- ized-			Specifies further instructions for locating this entity.	If the element is invalid or not present, then the implementation is required to
Hours   In-   Op-   Contains the hours (in local time) that the location is open   If the element is i	Email				An email address for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Comparison   Com	Fax	xs:st			A fax line for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
sOpenId tional gle operation for a location.  LatLng single xml-tional lat ling   Specifies the latitude and longitude of this entity.   If the element is it valid or not present then the implement tation is required ignore it.  Name	[dep- re-	ter- na- tion- al- ized-			(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	If the element is invalid or not present then the implementation is required to ignore it.
LatLng single- Op- tional gle tional lat- lat- lat- lng    Name						If the field is invalid or not present then the implemen- tation is required to
Name xs:st 10p+g Sintional gle  The name of the location or contact. See usage note.  If the field is invalid or not present then the implementation is required ignore it.  Phone xs:st 10p+g Retional peats  A phone number for the contact.  If the field is invalid or not present then the implementation is required ignore it.  Uri xs:anx0pxI Retional peats  An informational URI for the contact or location.  If the field is invalid or not present then the implementation is required ignore it.  If the field is invalid or not present then the implementation is required ignore it.	LatLn	xml- lat-			Specifies the latitude and longitude of this entity.	If the element is invalid or not present then the implemen- tation is required to
valid or not preser then the impleme tation is required ignore it.  Uri xs:anxQRI Retional peats  An informational URI for the contact or location.  If the field is invalid or not preser then the implementation is required ignore it.	Name	xs:st			The name of the location or contact. See usage note.	If the field is invalid or not present then the implemen- tation is required to
tional peats valid or not preser then the impleme	Phone	xs:st			A phone number for the contact.	If the field is invalid or not present then the implemen- tation is required to ignore it.
	Uri	xs:ar			An informational URI for the contact or location.	If the field is invalid or not present then the implementation is required to

# 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
```

# **CandidateSelection**

CandidateSelection extends single-xml-ballot-selection-base and represents a ballot selection for a candidate contest.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	dpeats	\$?	
Can-	xs:I	D <b>Op</b> f	Sin-	References a set of <i>Candidate</i> elements. The number of	If the field is invalid
di-		tional	gle	candidates that can be references is unbounded in cases	or not present, then the
dateIds				where the ballot selection is for a ticket (e.g. "Presi-	implementation is re-
				dent/Vice President", "Governor/Lt Governor").	quired to ignore it.
En-	xs:I	D <b>O</b> pF	Sin-	References a set of <i>Party</i> elements, which signifies one or	If the field is invalid
dorse-		tional	gle	more endorsing parties for the candidate(s).	or not present, then the
ment-					implementation is re-
Par-					quired to ignore it.
tyIds					
IsWrite	<b>In</b> ⋉s:b	<b>⊙0</b> ptea	ar <b>Sin</b> -	Signifies if the particular ballot selection allows for write-	If the field is invalid
		tional	gle	in candidates. If true, one or more write-in candidates are	or not present, then the
				allowed for this contest.	implementation is re-
					quired to ignore it.

#### **BallotSelectionBase**

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
Se-	xs:i	n <b>tOp</b> peje	rSin-	The order in which a selection can be listed on the bal-	If the field is invalid or
quence	-	tiona	l gle	lot or in results. This is the default ordering, and can	not present, then the im-
Order				be overridden by OrderedBallotSlectionIds in Ordered-	plementation is required to
				Contest.	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	Re-	Re-	Description	Error Handling
	Type	quire	d peats	?	
Lat-	xs:do	ou <b>Re</b> ⊦e	Sin-	The latitude of the polling location.	If the field is invalid, then the
i-		quire	d gle		implementation is required to
tude					ignore it.
Lon-	xs:do	ou <b>Re</b> ⊦e	Sin-	The longitude of the polling location.	If the field is invalid, then the
gi-		quire	d gle		implementation is required to
tude					ignore it.
Sourc	exs:st	: 1 <b>Ор</b> +д	Sin-	The system used to perform the lookup from lo-	If the field is invalid or not
		tional	gle	cation name to lat/lng. For example, this could be	present, then the implementa-
				the name of a geocoding service.	tion is required to ignore it.

# 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	Re-	Re-	Description	Error Handling
	Туре		dpeat		
Bal-	Interna-	Re-	Sin-	The candidate's name as it will be displayed on	If the element is invalid,
lot-	tional-	quire	dgle	the official ballot (e.g. "Ken T. Cuccinelli II").	then the implementation
Name	izedText		_	_	is required to ignore the
					Candidate element
					containing it.
Con-	single-	Op-	Sin-	Contact and physical address information for	If the element is invalid or
tact-	xml-	tional	gle	this Candidate and/or their campaign (see single-	not present, then the imple-
In-	contact-			xml-contact-information).	mentation is required to ig-
for-	information	on			nore it.
ma-					
tion					
Ex-	Exter-	Op-	Sin-	Another identifier for a candidate that links to	If the element is invalid or
ter-	nalI-	tional	gle	another source of information (e.g. a campaign	not present, then the imple-
nalI-	denti-			committee ID that links to a campaign finance	mentation is required to ig-
den-	fiers			system).	nore it.
ti-					
fiers					
File-	xs:date		Sin-	Date when the candidate filed for the contest.	If the field is invalid or not
Date		tional	gle		present, then the implemen-
					tation is required to ignore it.
IsIn-	xs:bool	.eOapъ-	Sin-	Indicates whether the candidate is the incumbent	If the field is invalid or not
cum-		tional	gle	for the office associated with the contest.	present, then the implemen-
bent					tation is required to ignore it.
IsTopT	icket:bool		Sin-	Indicates whether the candidate is the top of a	If the field is invalid or not
		tional	gle	ticket that includes multiple candidates.	present, then the implemen-
					tation is required to ignore it.
Par-	xs:IDRE	_	Sin-	Reference to a <i>Party</i> element with additional in-	If the field is invalid or not
tyId		tional	gle	formation about the candidate's affiliated party.	present, then the implemen-
				This is the party affiliation that is intended to be	tation is required to ignore it.
			~.	presented as part of ballot information.	
Per-	xs:IDRE	_	Sin-	Reference to a <i>Person</i> element with additional	If the field is invalid or not
sonId		tional	gle	information about the candidate.	present, then the implemen-
D :	C 7:		G.		tation is required to ignore it.
Post-	Candi-	Op-	Sin-	Final status of the candidate (e.g. winner, with-	If the field is invalid or not
Elec-	datePost-	tional	gie	drawn, etc).	present, then the implemen-
tion-	Elec-				tation is required to ignore it.
Sta-	tionSta-				
tus	tus Can di	0::	C:	Designation status of the analysis ( C1 1	If the fold is invalid as and
Pre-	Candi-	Op-	Sin-	Registration status of the candidate (e.g. filed,	If the field is invalid or not
Elec-	datePre-	tional	gie	qualified, etc).	present, then the implemen-
tion-	Elec-				tation is required to ignore it.
Sta-	tionSta-				
tus	tus				

# PollingLocation

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeats	s?	_
Ad-	single-	Op-	Sin-	Represents the various structured parts of an	One of AddressStructured and Ad-
dress	Stxuvd-	tional	gle	address to a polling location.	dressLine should be present for
tured					a given Polling Location. If
	address	-			none is present, the implemen-
	type				tation is required to ignore the
					PollingLocation element con-
A 1		0	n.	D	taining it.
Ad- dressl	xs:st		Re-	Represents the various parts of an address to a polling location.	One of AddressStructured and AddressLine should be present for
uressi	Lille	tional	peats	a poining location.	a given Polling Location. If
					none is present, the implemen-
					tation is required to ignore the
					PollingLocation element con-
					taining it.
Di-	Inter-	Op-	Sin-	Specifies further instructions for locating the	If the element is invalid or not
rec-	na-	tional	gle	polling location.	present, then the implementation is
tions	tion-				required to ignore it.
	al-				
	ized-				
**	Text		G.		TC 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	s Inter-	Op-	Sin-	Contains the hours (in local time) that the	If the element is invalid or not
[dep-	tion-	tional	gle	polling location is open ( <b>NB</b> : this element is deprecated in favor of the more structured	present, then the implementation is required to ignore it.
cated				HoursOpen element. It is strongly encour-	required to ignore it.
cateu	ized-			aged that data providers move toward con-	
	Text			tributing hours in this format).	
Hour	- xs:ID	R <b>Ø</b> ₱-	Sin-	Links to an <i>HoursOpen</i> element, which is a	If the field is invalid or not present,
sOpe	nId	tional	gle	schedule of dates and hours during which the	then the implementation is required
				polling location is available.	to ignore it.
Is-	xs:bo			Indicates if this polling location is a drop	If the field is invalid or not present,
Drop	-	tional	gle	box.	then the implementation is required
Box			G.	T. I	to ignore it.
	- xs:bo			Indicates if this polling location is an early	If the field is invalid or not present,
lyVot	=	tional	gie	vote site.	then the implementation is required
ing	ngsingle-	On	Sin-	Specifies the latitude and longitude of this	to ignore it.  If the element is invalid or not
LatL	xml-	Op- tional		polling location.	present, then the implementation is
	lat-	Hona	510	poining location.	required to ignore it.
	lng				required to ignore it.
Name	xs:st	r <b>Op</b> g	Sin-	Name of the polling location.	If the field is invalid or not present,
		tional			then the implementation is required
					to ignore it.
Pho-	xs:an	y <b>O</b> pJ	Sin-	Contains a link to an image of the polling lo-	If the field is invalid or not present,
toUri		tional	gle	cation.	then the implementation is required
					to ignore it.

```
<PollingLocation id="p100000">
     <AddressLine>2775 Hydraulic Rd Charlottesville, VA 22901</AddressLine>
     <HoursOpenId>hours0002</HoursOpenId>
     <IsDropBox>true</IsDropBox>
```

(continues on next page)

2

```
<IsEarlyVoting>true</IsEarlyVoting>
      <LatLng>
6
         <Latitude>38.009939</Latitude>
         <Longitude>-78.506204</Longitude>
      </LatLng>
      <name>ALBERMARLE HIGH SCHOOL</Name>
10
   </PollingLocation>
11
   <!-- Or: -->
12
   <PollingLocation id="pl00000">
13
      <AddressStructured>
14
         <Line1>2775 Hydraulic Rd</Line1>
15
         <City>CHARLOTTESVILLE</City>
         <State>VA</State>
         <Zip>22901</Zip>
18
      </AddressStructured>
19
      <HoursOpenId>hours0002/HoursOpenId>
20
      <IsDropBox>true</IsDropBox>
21
      <IsEarlyVoting>true</IsEarlyVoting>
22
      <LatLng>
23
         <Latitude>38.009939
24
         <Longitude>-78.506204</Longitude>
25
      </LatLng>
26
      <name>ALBERMARLE HIGH SCHOOL</Name>
27
   </PollingLocation>
```

#### 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	Re-	e- Re- Description		Error Handling
	Type	quire	d peats	?	_
Lat-	xs:do	υ <b>Re</b> ⊩e	Sin-	The latitude of the polling location.	If the field is invalid, then the
i-		quire	d gle		implementation is required to
tude					ignore it.
Lon-	xs:do	ou <b>Re</b> ⊩e	Sin-	The longitude of the polling location.	If the field is invalid, then the
gi-		quire	d gle		implementation is required to
tude					ignore it.
Sourc	exs:st	т <b>Ор</b> т-д	Sin-	The system used to perform the lookup from lo-	If the field is invalid or not
		tional	gle	cation name to lat/lng. For example, this could be	present, then the implementa-
				the name of a geocoding service.	tion is required to ignore it.

## **SimpleAddressType**

A SimpleAddressType represents a structured address.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	d?peats	.?	
Line1	xs:st	r <b>Re</b> rg	Sin-	The address line for a structured address.	If no Line1 is provided, the
		quire	d gle	Should include the street number, street	implementation should ignore the
				name, and any prefix and suffix.	SimpleAddressType.
Line2	2 xs:st	г <b>Ор</b> нд	Sin-	Additional field for an address	If no Line2 is provided, the imple-
		tional	gle		mentation should ignore it.
Line3	xs:st	г <b>Ор</b> нд	Sin-	Additional field for an address	If no Line3 is provided, the imple-
		tional	gle		mentation should ignore it.
City	xs:st	r <b>Re</b> rg	Sin-	The City value of a structured address.	If City is not provided, the
		quire	d gle		implementation should ignore the
					SimpleAddressType.
State	xs:st	т <b>Re</b> -g	Sin-	The State value of a structured address.	If State is not provided, the
		quired gle			implementation should ignore the
					SimpleAddressType.
Zip	xs:st	г <b>Ор</b> нд	Sin-	The ZIP code of a structured address.	If Zip is not provided, the im-
		tional	gle		plementation should ignore the
					SimpleAddressType.

# Locality

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

Tag Data Re- Re- Descr Type quired@eats?		Error Handling
	to the locality's <i>ElectionAdministration</i>	If the field is invalid or not present,
tion- tional gle object.		then the implementation is required to
Ad-		ignore it.
min-		
is-		
tra-		
tionId		
Ex- Ex- Op- Sin- Another	er identifier for a locality that links to	If the element is invalid or not present,
	r dataset (e.g. OCD-ID)	then the implementation is required to
nalI-   nalI-	,	ignore it.
den-   den-		
ti-   <i>ti-</i>		
fiers   fiers		
Is- xs:boOpi-eaSin- Determ	nines if the locality runs mail-only	If the field is missing or invalid, the
MailOnly tional gle electio	ns. If this is true, then all precincts	implementation is required to assume
a part	of the locality will also run mail-only	IsMailOnly is false.
	ns. Drop boxes may be used in ad-	, and the second
	to this flag using a polling location	
	configured as a Drop Box.	
Name xs:stRe-ngSin- Specifi	es the name of a locality.	If the field is invalid, then the im-
quiredgle		plementation is required to ignore the
		Locality element containing it.
PollingLios: IDOPFFSSin- Specifi	es a link to a set of the locality's	If the field is invalid or not present,
	olling locations <single-xml-polling-< td=""><td>the implementation is required to ig-</td></single-xml-polling-<>	the implementation is required to ig-
	n>'s. If early vote centers or ballot	nore it. However, the implementation
	ocations are locality-wide, they should	should still check to see if there are
be spec	cified here.	any polling locations associated with
		this locality's state.
StateId xs: DREF Sin- Refere	nces the locality's State.	If the field is invalid, then the im-
<b>quired</b> gle		plementation is required to ignore the
		Locality element containing it.
Type Dis- Op- Sin- Define	s the kind of locality (e.g. county,	If the field is invalid or not present,
	et al.), which is one of the various <i>Dis</i> -	then the implementation is required to
	pe enumerations.	ignore it.
	s for defining a type of locality that falls	If the field is invalid or not present,
er- tional gle outside	e the options listed in <i>DistrictType</i> .	then the implementation is required to
Type		ignore it.

```
<Locality id="loc70001">
     <ElectionAdministrationId>ea40001/ElectionAdministrationId>
2
     <ExternalIdentifiers>
3
       <ExternalIdentifier>
         <Type>ocd-id</Type>
         <Value>ocd-division/country:us/state:va/county:albemarle</Value>
       </ExternalIdentifier>
     </ExternalIdentifiers>
     <IsMailOnly>true</IsMailOnly>
     <Name>ALBEMARLE COUNTY</Name>
10
     <StateId>st51</StateId>
     <Type>county</Type>
   </Locality>
```

## **Department**

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	dpeat	s?	
Contact-	single-	Op-	Sin-	Contact and physical address informa-	If the element is invalid or not
Infor-	xml-	tional	gle	tion for the election administration body	present, then the implementa-
mation	contact-			(see single-xml-contact-information).	tion is required to ignore it.
	information				
Elec-	xs:IDREF	Op-	Sin-	The individual to contact at the election	If the field is invalid or not
tionOffi-		tional	gle	administration office. The specified per-	present, then the implementa-
cialPer-				son should be the <i>election official</i> .	tion is required to ignore it.
sonId					
Vot-	single-	Op-	Re-	The types of services and appropriate	If the element is invalid or not
erSer-	xml-voter-	tional	peats	contact individual available to voters.	present, then the implementa-
vice	service				tion is required to ignore it.

#### **VoterService**

Tag	Data Type	Re-	Re-	Description	Error Handling
		quire	d?peats	?	
Contact-	single-xml-	Op-	Sin-	The contact for a particular voter	If the element is invalid or not
Informa-	contact-	tional	gle	service.	present, then the implementation is
tion	information				required to ignore it.
Descrip-	Internation-	Op-	Sin-	Long description of the services	If the element is invalid or not
tion	alizedText	tional	gle	available.	present, then the implementation is
					required to ignore it.
Elec-	xs:IDREF	Op-	Sin-	The <i>authority</i> for a particular	If the field is invalid or not present,
tionOffi-		tional	gle	voter service.	then the implementation is re-
cialPer-					quired to ignore it.
sonId					
Type	VoterSer-	Op-	Sin-	The type of <i>voter service</i> .	If the field is invalid or not present,
	viceType	tional	gle		then the implementation is re-
					quired to ignore it.
Other-	xs:string	Op-	Sin-	If Type is "other", OtherType al-	If the field is invalid or not present,
Type		tional	gle	lows for cataloging another type	then the implementation is re-
				of voter service.	quired to ignore it.

### 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	Re-	Re-	Description	Error Handling
	Type	quire	døeats	s?	
Ad-	xs:st	. <b>Юр</b> ъд	Re-	The "location" portion of a mailing address. See usage note.	If the field is in-
dressL	ine	tional	l peats		valid or not present, then the implemen- tation is required to ignore it.
Di- rec- tions	In- ter- na- tion- al- ized- Text	Op- tional	Sin-	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:st	tional	l peats	An email address for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Fax	xs:st	tional	l peats	A fax line for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Hours		Op-	Sin-	Contains the hours (in local time) that the location is open	If the element is in-
[dep-	ter-	tional	gle	(NB: this element is deprecated in favor of the more struc-	valid or not present,
re-	na-			tured :ref: 'single-xml-hours-open' element. It is strongly	then the implemen-
cated]	tion- al- ized- Text			encouraged that data providers move toward contributing hours in this format).	tation is required to ignore it.
Hour- sOpen	xs:II Id	tional	Sin- l gle	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.
LatLn	g single- xml- lat- lng	Op- tional	Sin- l gle	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:st	tional		The name of the location or contact. See usage note.	If the field is invalid or not present, then the implementation is required to ignore it.
Phone	xs:st		Re- l peats	A phone number for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Uri	xs:ar	ny <b>Op</b> RI	Re-	An informational URI for the contact or location.	If the field is in-
			peats		valid or not present, then the implemen- tation is required to
l.1. XI	ML Spe	cificat	ion		ignore it. 37
	-				<i>U</i>

#### 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
```

### **HtmlColorString**

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

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

```
Party id="par0001">

Abbreviation>REP</Abbreviation>

Color>e91d0e</Color>

Name>

Text language="en">Republican</Text>

/Name>

/Party>
```

### **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	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
Hours	single-	Op-	Re-	Blocks of hours in the date range in which the place	If the element is invalid or
	xml-	tional	peats	is open.	not present, then the im-
	hours				plementation is required to
					ignore it.
IsOnly-	xs:bo			If true, the place is only open during the specified	If the field is invalid or
ByAp-		tional	gle	time window with an appointment.	not present, then the im-
point-					plementation is required to
ment					ignore it.
IsOr-	xs:bo		- 1	If true, the place is open during the hours specified	If the field is invalid or
ByAp-		tional	gle	time window and may also be open with an appoint-	not present, then the im-
point-				ment.	plementation is required to
ment					ignore it.
IsSub-	xs:bo			If true, the place should be open during the specified	If the field is invalid or
ject-		tional	gle	time window, but may be subject to change. People	not present, then the im-
ToChang	ge			should contact prior to arrival to confirm hours are	plementation is required to
				still accurate.	ignore it.
Start-	xs:da	at <b>@</b> p-	Sin-	The date at which this collection of start and end	If the field is invalid or
Date		tional	gle	times and options begin.	not present, then the im-
					plementation is required to
					ignore it.
End-	xs:da	1 t <b>@</b> p-	Sin-	The date at which this collection of start and end	If the field is invalid or
Date		tional	gle	times and options end.	not present, then the im-
					plementation 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	Re-	Re-	Description	Error Handling
		quired?	peats?		
Start-	single-xml-	Op-	Sin-	The time at which	If the element is invalid or not present, then the
Time	time-with-	tional	gle	this place opens.	implementation is required to ignore it.
	zone				
End-	single-xml-	Op-	Sin-	The time at which	If the element is invalid or not present, then the
Time	time-with-	tional	gle	this place closes.	implementation is required to ignore it.
	zone				

## **TimeWithZone**

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

(continues on next page)

#### **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 Re- F	e- Description	Error Handling
Bal- xs: IDAMFF S lot- tional g StyleId	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.
Elec- xs: DOFFSS toralD- tional g tric-tlds	sional district, state house district, school board district) to which the entire precinct/precinct split belongs. <b>Highly Recommended</b> if candidate information is to be provided.	If the field is invalid or not present, then the implementation is required to ignore it.
Ex- Ex- Op- S ter- ter- tional g nall- nall- den- den- ti- ti- fiers fiers	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.
Is- xs:b@pi-eaS MailOnly tional g	± **	If the field is missing or invalid, the implementation is required to assume <i>IsMailOnly</i> is false.
Lo- xs: TREF S cal- i- tyId	1 1	If the field is invalid, then the implementation is required to ignore the Precinct element containing it.
Name xs:stRe-ngS quiredg		If the field is invalid, then the implementation is required to ignore the Precinct element containing it.
Num- xs: stOpi-ngS ber tional g		If the field is invalid or not present, then the implementation is required to ignore it.
Polling Lo: I Dop S S cational g tion-Ids		If the field is invalid or not present, then the implementation is required to ignore it.
Precincts: stOpi-ngS Split-tional g Name	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 <b>must</b> 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:stOpi-ngS tional g 1.1. XML Specificat	2	If the field is invalid or not present, then the implementation is required to ignore it.

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

#### **OrderedContest**

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

Tag	Data	Re-	Re-	Descri	otion	Error Handling
	Type quired@eats?					-
Con-	xs:	D <b>Re</b> F	Sin-	Links	to	If the field is invalid or not present, the implementation is required to
testId		quire	<b>d</b> gle	element	S	ignore the OrderedContest element containing it.
				that e	xtend	
				single-x	ml-	
				contest-	base.	
Or-	xs:	D <b>O</b> PPEF	S Sin-	Links	to	If the field is invalid or not present, the implementation is required
dered-		tional	gle	element	S	to ignore it. If an OrderedBallotSelectionIds element is
Bal-				that e	xtend	not present, the presumed order of the selection will be the order
lotS-				single-		of single-xml-ballot-selection-base-extended elements referenced by
elec-				xml-bal	lot-	the underlying single-xml-contest-base-extended elements.
tion-				selectio	n-	
Ids				base.		

### **PartyContest**

An extension of single-xml-contest-base 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).

#### **ContestBase**

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

Tag	Data		Re-	Description	Error Han- dling
1 h	Туре	•	<u> </u>		If the field is
Ab-	xs:s	t <b>0p</b> -n	Г	An abbreviation for the contest.	
bre- via-		tiona	gie		invalid or not
tion					present, then the implemen-
tion					tation should
					ignore it.
Bal-	veil	D <b>Qp</b> F	S Sin-	References a set of BallotSelections, which could be of any selection	If the field is
lot-	72.1	tiona	l	type that extends single-xml-ballot-selection-base.	invalid or not
Se-		tiona	gic	type that extends single xim bandt selection base.	present, then
lec-					the implemen-
tion-					tation should
Ids					ignore it.
Bal-	In-	Ор-	Sin-	Subtitle of the contest as it appears on the ballot.	If the element
lot-	ter-	tiona		Success of the contest as it appears on the current	is invalid or
Sub-	na-	l troite	810		not present,
Ti-	tion-				then the im-
tle	al-				plementation
	ized-				should ignore
	Text				it.
Bal-	In-	Ор-	Sin-	Title of the contest as it appears on the ballot.	If the element
lot-	ter-	tiona	l gle		is invalid or
Ti-	na-				not present,
tle	tion-				then the im-
	al-				plementation
	ized-				should ignore
	Text				it.
Elec-	xs:I	D <b>Re</b> -F	Sin-	References an ElectoralDistrict element that represents the geo-	If the field is
toralD	<b>)</b> -	quire	<b>d</b> gle	graphical scope of the contest.	invalid, then
is-					the implemen-
tric-					tation should
tId					ignore it.
Elec-	In-	Op-	Sin-	Specifies any changes to the eligible electorate for this contest past	If the element
torate		tiona	l gle	the usual, "all registered voters" electorate. This subtag will most	is invalid or
Spec-				often be used for primaries and local elections. In primaries, voters	not present,
ifi-	tion-			may have to be registered as a specific party to vote, or there may	then the im-
ca-	al-			be special rules for which ballot a voter can pull. In some local	plementation
tion	ized-			elections, non-citizens can vote.	should ignore
	Text		a.		it.
Ex-	Ex-	Op-	Sin-	Other identifiers for a contest that links to another source of infor-	If the element
ter-	ter-	tiona	l gle	mation.	is invalid or
nalI- den-	nalI- den-				not present, then the im-
ti-	ti-				plementation
fiers	fiers				should ignore
11013	jiers				it.
Has-	yeih	<b>обр</b> е	a Sin-	Indicates whether the selections in the contest are rotated.	If the field is
Ro-	250.1	tiona		indicates whether the selections in the contest are rotated.	invalid or not
ta-		lona	5.0		present, then
tion					the implemen-
					tation should
					ignore it.
Name	xs:s	t <b>Re-</b> n	g Sin-	Name of the contest, not necessarily how it appears on the ballot	If the field is
		quire	Γ	(NB: BallotTitle should be used for this purpose).	invalid, then
44		_		Chapter 1. XML	<b>Decumentation</b>
					tation should
					ignore it.
Se-	xs:i	n <b>⊕p</b> -g	e Sin-	Order in which the contests are listed on the ballot. This is the de-	If the field is

## **ElectionAdministration**

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type		døeat	•	
Ab-		ny <b>Op</b> RI		Specifies the web address for informa-	If the field is invalid or not present, then the
sen-		tional		tion on absentee voting.	implementation is required to ignore it.
teeUri				C	
AmIRe	g-xs:ai	n <b>Op</b> RI	Sin-	Specifies the web address for informa-	If the field is invalid or not present, then the
is-		tional	- 1	tion on whether an individual is regis-	implementation is required to ignore it.
tere-				tered.	
dUri					
Bal-	xs:ai	ny <b>Op</b> RI	Sin-	Specifies the web address for tracking	If the field is invalid or not present, then the
lot-		tional	- 1	information for a ballot cast by mail	implementation is required to ignore it.
Trackir	ıgUri				I was a superior
Bal-	_	ny <b>Op</b> RI	Sin-	Specifies the web address for tracking	If the field is invalid or not present, then the
lot-	110 • 41	tional		information for a provisional ballot.	implementation is required to ignore it.
Pro-		010110		To support EAC guidelines for "Pro-	imprementation is required to ignore in
vi-				cessing Provisional Ballots" (https:	
sion-				//www.eac.gov/research-and-data/	
al-				provisional-voting/)	
Trackir	ngUri			providendi vernigi)	
De-	single-	Re-	Re-	Describes the administrative body for	There must be at least one valid <i>Depart</i> -
part-	xml-		dpeats	a particular voter service.	ment in each ElectionAdministration ele-
ment	depart	_	арчись	a particular voter services	ment. If no valid <i>Department</i> objects are
mem	acpart				present, the implementation is required to
					ignore the <i>ElectionAdministration</i> object
					that contains it/them.
Elec-	single-	Ор-	Sin-	A place for election administrators to	If the element is invalid or not present, then
tion-	xml-	tional	I	post last minute and emergency notifi-	the implementation is required to ignore it.
No-	electio			cations pertaining to the election.	are imprementation is required to ignore it.
tice	notice	.		cutions pertunding to the electron.	
Elec-		ny <b>Op</b> RI	Sin-	Specifies web address the administra-	If the field is invalid or not present, then the
tion-	210 • 41	tional		tion's website.	implementation is required to ignore it.
sUri		trona		tion's website.	implementation is required to ignore it.
Reg-	Ye • 21	ny <b>Op</b> RI	Sin-	Specifies web address for information	If the field is invalid or not present, then the
istra-	250.01	tional		on registering to vote.	implementation is required to ignore it.
tionUri		tional	5.0	on regionaling to vote.	implementation is required to ignore it.
	rixs:aı	_ <b>√(1)#</b> ₽.⊤	Sin-	Specifies a URI for the election rules	If the field is invalid or not present, then the
RaicsO	11210 · GI	tional		and laws (if any) for the jurisdiction of	implementation is required to ignore it.
		uona	SIC	the administration.	implementation is required to ignore it.
WhatI-	xs:aı	n <b>√(1)#</b> F2 T	Sin-	Specifies web address for information	If the field is invalid or not present, then the
sOn-	210.41	tional		on what is on an individual's ballot.	implementation is required to ignore it.
My-		tional	5.0	on the form marriage bound.	impromonation to required to ignore it.
Bal-					
lo-					
tUri					
Where-	V C • 21	ny <b>Op</b> RI	Sin-	The Specifies web address for infor-	If the field is invalid or not present, then the
DoIV-	AS al	tional		mation on where an individual votes	implementation is required to ignore it.
0-		иона	gic	based on their address.	implementation is required to ignore it.
teUri				based on their address.	
icon	l				

```
<ElectionAdministration id="ea40133">
      <AbsenteeUri>http://www.sbe.virginia.gov/absenteevoting.html</AbsenteeUri>
2
      <AmIRegisteredUri>https://www.vote.virginia.gov/</AmIRegisteredUri>
      <BallotTrackingUri>https://www.vote.virginia.gov///BallotTrackingUri>
      <BallotProvisionalTrackingUri>https://www.vote.virginia.gov///
   →BallotProvisionalTrackingUri>
      <Department>
6
        <ContactInformation label="ci60000">
          <AddressLine>Washington Building First Floor</AddressLine>
          <AddressLine>1100 Bank Street</AddressLine>
          <addressLine>Richmond, VA 23219</addressLine>
10
          <Name>State Board of Elections
        </ContactInformation>
12
      </Department>
13
      <ElectionNotice>
14
        <NoticeText>
15
          <Text language="en">This is an emergency notification for this election.</Text>
16
        </NoticeText>
        <NoticeURI>https://www.yadayada.gov</NoticeURI>
      </ElectionNotice>
      <ElectionsUri>http://www.sbe.virginia.gov/</ElectionsUri>
20
      <RegistrationUri>https://www.vote.virginia.gov//RegistrationUri>
21
      <RulesUri>http://www.sbe.virginia.gov/</RulesUri>
22
      <WhatIsOnMyBallotUri>https://www.vote.virginia.gov/</WhatIsOnMyBallotUri>
23
      <WhereDoIVoteUri>https://www.vote.virginia.gov/</WhereDoIVoteUri>
24
   </ElectionAdministration>
```

#### **Department**

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	dpeats	s?	
Contact-	single-	Op-	Sin-	Contact and physical address informa-	If the element is invalid or not
Infor-	xml-	tional	gle	tion for the election administration body	present, then the implementa-
mation	contact-			(see single-xml-contact-information).	tion is required to ignore it.
	information				
Elec-	xs:IDREF	Op-	Sin-	The individual to contact at the election	If the field is invalid or not
tionOffi-		tional	gle	administration office. The specified per-	present, then the implementa-
cialPer-				son should be the election official.	tion is required to ignore it.
sonId					
Vot-	single-	Op-	Re-	The types of services and appropriate	If the element is invalid or not
erSer-	xml-voter-	tional	peats	contact individual available to voters.	present, then the implementa-
vice	service				tion is required to ignore it.

### **VoterService**

Tag	Data Type	Re-	Re-	Description	Error Handling	
		quire	d?peats	?		
Contact-	single-xml-	Op-	Sin-	The contact for a particular voter	If the element is invalid or not	
Informa-	contact-	tional	gle	service.	present, then the implementation is	
tion	information				required to ignore it.	
Descrip-	Internation-	Op-	Sin-	Long description of the services	If the element is invalid or not	
tion	alizedText	tional	gle	available.	present, then the implementation is	
					required to ignore it.	
Elec-	xs:IDREF	Op-	Sin-	The <i>authority</i> for a particular	If the field is invalid or not present,	
tionOffi-		tional	gle	voter service.	then the implementation is re-	
cialPer-					quired to ignore it.	
sonId						
Type	VoterSer-	Op-	Sin-	The type of <i>voter service</i> .	If the field is invalid or not present,	
	viceType	tional	gle		then the implementation is re-	
					quired to ignore it.	
Other-	xs:string	Op-	Sin-	If Type is "other", OtherType al-	If the field is invalid or not present,	
Type		tional	gle	lows for cataloging another type	then the implementation is re-	
				of voter service.	quired to ignore it.	

### 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	Re-	Re- døeats	Description 2	Error Handling
A .1		_	-		TC 41 . C .1.1
Ad- dressL		:1 <b>Op</b> ng tional	peats	The "location" portion of a mailing address. See usage note.	If the field is invalid or not present, then the implemen- tation is required to
					ignore it.
Di-	In-	Op-	Sin-	Specifies further instructions for locating this entity.	If the element is in-
rec-	ter-	tional	gle		valid or not present,
tions	na-				then the implemen-
	tion-				tation is required to
	al-				ignore it.
	ized-				
	Text				
Email	xs:st	<b>.Юр</b> ъд	Re-	An email address for the contact.	If the field is in-
		tional	peats		valid or not present,
					then the implemen-
					tation is required to
					ignore it.
Fax	xs:st	1 <b>Op</b> +g		A fax line for the contact.	If the field is in-
		tional	peats		valid or not present,
					then the implemen-
					tation is required to
			~.	~	ignore it.
Hours		Op-	Sin-	Contains the hours (in local time) that the location is open	If the element is in-
[dep-	ter-	tional	gle	(NB: this element is deprecated in favor of the more struc-	valid or not present,
re-	na-			tured :ref: 'single-xml-hours-open' element. It is strongly	then the implemen-
cated	1			encouraged that data providers move toward contributing	tation is required to
	al-			hours in this format).	ignore it.
	ized- Text				
Hour-	xs:II	TOTAL:	Sin-	References an <i>HoursOpen</i> element, which lists the hours of	If the field is in-
sOpen	1	tional		operation for a location.	valid or not present,
Sopen	iu i	tional	Sic	operation for a location.	then the implemen-
					tation is required to
					ignore it.
LatLn	g single-	Op-	Sin-	Specifies the latitude and longitude of this entity.	If the element is in-
200211	xml-	tional		Specifies and familiare and rengiouse of and emission	valid or not present,
	lat-		8		then the implemen-
	lng				tation is required to
					ignore it.
Name	xs:st	1 <b>Op</b> 1-g	Sin-	The name of the location or contact. See usage note.	If the field is in-
		tional	gle	_	valid or not present,
					then the implemen-
					tation is required to
					ignore it.
Phone	xs:st	1 <b>Op</b> 1-9	Re-	A phone number for the contact.	If the field is in-
		tional	peats		valid or not present,
					then the implemen-
					tation is required to
			_		ignore it.
Uri	xs:ar	hy <b>Op</b> RI		An informational URI for the contact or location.	If the field is in-
		tional	peats		valid or not present,
					then the implemen-
48				Chapter 1.	tation is required to
<del>1</del> 0				Chapter 1.	XMH₀Poeumentation

### 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
```

## **ElectionNotice**

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	d peats	?	
No-	Inter-	Re-	Sin-	The last minute or emergency noti-	If the element is invalid, then the im-
tice-	nation-	quired gle		fication text should be placed here.	plementation is required to ignore the
Text	alized-				ElectionNotice element containing it.
	Text				
No-	xs:any	Ј <b>Юр-</b>	Sin-	Optional URL for additional infor-	If the field is invalid or not present, then the
ticeU	ri tional gle		gle	mation related to the last minute or	implementation is required to ignore it.
				emergency notification.	

### **VoterService**

Tag	Data Type	Re-	Re-	Description	Error Handling	
		quire	d?peats	?		
Contact-	single-xml-	Op-	Sin-	The contact for a particular voter	If the element is invalid or not	
Informa-	contact-	tional	gle	service.	present, then the implementation is	
tion	information				required to ignore it.	
Descrip-	Internation-	Op-	Sin-	Long description of the services	If the element is invalid or not	
tion	alizedText	tional	gle	available.	present, then the implementation is	
					required to ignore it.	
Elec-	xs:IDREF	Op-	Sin-	The <i>authority</i> for a particular	If the field is invalid or not present,	
tionOffi-		tional	gle	voter service.	then the implementation is re-	
cialPer-					quired to ignore it.	
sonId						
Type	VoterSer-	Op-	Sin-	The type of <i>voter service</i> .	If the field is invalid or not present,	
	viceType	tional	gle		then the implementation is re-	
					quired to ignore it.	
Other-	xs:string	Op-	Sin-	If Type is "other", OtherType al-	If the field is invalid or not present,	
Type		tional	gle	lows for cataloging another type	then the implementation is re-	
				of voter service.	quired 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	Re-	Re-	Description	Error Handling
		quired?	peats?		
Start-	single-xml-	Op-	Sin-	The time at which	If the element is invalid or not present, then the
Time	time-with-	tional	gle	this place opens.	implementation is required to ignore it.
	zone				
End-	single-xml-	Op-	Sin-	The time at which	If the element is invalid or not present, then the
Time	time-with-	tional	gle	this place closes.	implementation is required to ignore it.
	zone				

### **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=0)
```

(continues on next page)

#### **ElectionNotice**

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	d peats	?	
No-	Inter-	Re-	Sin-	The last minute or emergency noti-	If the element is invalid, then the im-
tice-	nation-	quired gle		fication text should be placed here.	plementation is required to ignore the
Text	alized-				ElectionNotice element containing it.
	Text				
No-	xs:any	Ј <b>Юр-</b>	Sin-	Optional URL for additional infor-	If the field is invalid or not present, then the
ticeU	ri	tional	gle	mation related to the last minute or	implementation is required to ignore it.
				emergency notification.	

## RetentionContest

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired	?peats	?	
Can-	xs:ID	r <b>re</b> -	Sin-	Links to the Can-	If the field is invalid or not present, the implementation
di-		quired	gle	didate being re-	is required to ignore the RetentionContest element
dateId				tained.	containing it.
Offi-	xs:ID	R <b>O</b> pr-	Sin-	Links to the infor-	If the field is invalid or not present, then the implementa-
ceId		tional	gle	mation about the	tion is required to ignore it.
				office.	

#### **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		Re- døeats		Error Handling
Ad- dress- Di- rec- tion		t <b>Op</b> i-n tiona	-	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:s	t <b>Re</b> i-n <b>quire</b>		The city specifies the city or town of the address.	If the field is invalid, then the implementation is required to ignore the StreetSegment element containing it.
In- clude sAl- lAd-	-	<b>⊘pl-</b> e tiona		Specifies if the segment covers every address on this street. If this is <i>true</i> , then the values of <b>StartHouseNumber</b> and <b>EndHouseNumber</b> should be ignored. The value of <b>OddE</b> -	If the field is invalid or not present, then the implementation is required to ignore it.
In- clude- sAll- Street	xs:b	o@pl-e tional		venBoth must be <i>both</i> .  Specifies if the segment covers every street in this city. If this is <i>true</i> , then the values of OddEvenBoth, StartHouseNumber, End-HouseNumber, StreetName, and Zip should be in a set of the second of	If the field is invalid or not present, then the implementation is required to ignore it.
Odd- E- ven- Both	OebE num	- Op- tional	Sin- l gle	be ignored.  Specifies whether the odd side of the street (in terms of house numbers), the even side, or both are in included in the street segment.	If the field is not present or invalid, the implementation is required to ignore the StreetSegment containing it.
tId	n <b>∝</b> s:I	quire	dgle	References the <i>Precinct</i> that contains the entire street segment.	If the field is invalid, then the implementation is required to ignore the StreetSegment element containing it.
Start- House Num- ber		r <b>Op</b> eg tional		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 <b>IncludesAllAddresses</b> or <b>IncludesAllStreets</b> are true, if the field is not present or invalid, the implementation is required to ignore the StreetSegment element containing it. If the <b>StartHouseNumber</b> is greater than the <b>EndHouseNumber</b> , the implementation should ignore the element containing them.
End- House Num- ber	e-	r <b>Ope</b> g tiona		The house number at which the street segment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets 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 Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.
House Num- ber- Pre- fix	e-xs:s	t <b>Op-</b> n tiona	-	Part of a street address. It may contain letters or slashes (e.g., 'B' in 'B22 Main St'). If this value is present then <b>StartHouseNumber</b> must be equal to <b>EndHouseNumber</b> . This field cannot be used if <b>IncludesAllAddresses</b> or <b>IncludesAllStreets</b> are true.	If the field is invalid or not present, then the implementation is required to ignore it.
House Num <b>52</b> er- Suf- fix	e-xs:s	t <b>Op</b> -n tiona	-	Part of a street address. It may contain letters or slashes (e.g., 1/2 in '22 1/2 Main St'). If this value is present then <b>StartHouse-Number</b> must be equal to <b>EndHouseNumber</b> . This field cannot be used if <b>IncludesAl-lAddresses</b> or <b>IncludesAlIStreets</b> are true.	If the field is invalid or not present, then the implementation is required to ig Chapter 1. XML Documentation

```
<StreetSegment id="ss999999">
      <City>Charlottesville</City>
2
      <IncludesAllAddresses>true</IncludesAllAddresses>
      <OddEvenBoth>both</OddEvenBoth>
      <Pre><PrecinctId>pre99999</PrecinctId>
      <State>VA</State>
      <StreetName>CHAPEL HILL</StreetName>
      <StreetSuffix>RD</StreetSuffix>
      <Zip>22901</Zip>
   </StreetSegment>
10
   <StreetSegment id="ss309904">
11
      <City>GREENWOOD</City>
12
      <OddEvenBoth>both</OddEvenBoth>
13
      <Pre><PrecinctId>pre92145</PrecinctId>
14
      <StartHouseNumber>1</StartHouseNumber>
15
      <EndHouseNumber>201</EndHouseNumber>
16
      <State>VA</State>
17
      <StreetName>MISTY MOUNTAIN</StreetName>
      <StreetSuffix>RD</StreetSuffix>
      <Zip>22943</Zip>
20
   </StreetSegment>
21
   <StreetSegment id = "ss1"
22
      <City>GREENWOOD</City>
23
      <OddEvenBoth>both</OddEvenBoth>
24
      <Pre><PrecinctId>pre92145</PrecinctId>
      <StartHouseNumber>1</StartHouseNumber>
26
      <EndHouseNumber>1</EndHouseNumber>
27
      <HouseNumberPrefix>B</HouseNumberPrefix>
28
      <HouseNumberSuffix>1/2</HouseNumberSuffix>
29
      <State>VA</State>
      <StreetName>MISTY MOUNTAIN</StreetName>
      <StreetSuffix>RD</StreetSuffix>
      <Zip>22943</Zip>
33
   </StreetSegment>
```

#### **CandidateContest**

CandidateContest extends single-xml-contest-base and represents a contest among candidates.

Tag		Re-	Re-	Description	Error Han-
			døeats		dling
	-xs:i			Number of candidates that are elected in the contest (i.e. "N" of N-of-	If the field
ber-		tional	l gle	M).	is invalid or
Elect	ed				not present,
					then the
					implemen-
					tation is
					required to
					ignore it.
Of-	xs:I	D <b>O</b> PEF	SSin-	References a set of Office elements, if available, which give additional	If the field
fi-		tional	l gle	information about the offices. <b>Note:</b> the order of the office IDs <b>must</b> be	is invalid or
ceIds				in the same order as the candidates listed in <i>BallotSelectionIds</i> . E.g., if	not present,
				the various BallotSelectionIds reference CandidateSelection elements	then the
				which reference the candidate for President first and Vice-President sec-	implemen-
				ond, the OfficeIds should reference the office of President first and the	tation is
				office of Vice-President second.	required to
					ignore it.
Pri-	xs:	D <b>O</b> PPEF	SSin-	References <i>Party</i> elements, if the contest is related to a particular party.	If the field
ma-		tional	gle		is invalid or
ry-					not present,
Par-					then the
tyIds					implemen-
					tation is
					required to
					ignore it.
Vote-	xs:i	r <b>Otpe</b> g	eSin-	Maximum number of votes/write-ins per voter in this contest.	If the field
sAl-		tional		*	is invalid or
lowe	a				not present,
					then the
					implemen-
					tation is
					required to
					ignore it.

### ContestBase

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

Tag	Data		Re-	Description	Error Han-
Λ h	Туре	•	<u> </u>		dling  If the field is
Ab-	xs:s	t <b>0p</b> -n	Г	An abbreviation for the contest.	
bre-		tiona	gie		invalid or not
via-					present, then
tion					the implemen-
					tation should
D.1			o 0.	D. C	ignore it.
Bal-	xs:1	D <b>0.p</b> .⊬	l	References a set of BallotSelections, which could be of any selection	If the field is
lot-		tiona	gie	type that extends single-xml-ballot-selection-base.	invalid or not
Se-					present, then
lec-					the implemen-
tion-					tation should
Ids	T <sub>ea</sub>	On	Sin-	Cubtitle of the contest as it appears on the hallet	ignore it.  If the element
Bal-	In-	Op-		Subtitle of the contest as it appears on the ballot.	
lot-	ter-	tiona	gie		is invalid or
Sub-	na-				not present,
Ti-	tion-				then the im-
tle	al-				plementation
	ized-				should ignore
D 1	Text	0	G.		it.
Bal-	In-	Op-	Sin-	Title of the contest as it appears on the ballot.	If the element
lot-	ter-	tiona	l gle		is invalid or
Ti-	na-				not present,
tle	tion-				then the im-
	al-				plementation
	ized-				should ignore
771	Text		<u> </u>		it.
Elec-		D <b>Re</b> f	Sin-	References an <i>ElectoralDistrict</i> element that represents the geo-	If the field is
toralD	)-	quire	dgle	graphical scope of the contest.	invalid, then
is-					the implemen-
tric-					tation should
tId	7	0	a.		ignore it.
Elec-	In-	Op-	Sin-	Specifies any changes to the eligible electorate for this contest past	If the element
torate-		tiona	gie	the usual, "all registered voters" electorate. This subtag will most	is invalid or
Spec-				often be used for primaries and local elections. In primaries, voters	not present,
ifi-	tion-			may have to be registered as a specific party to vote, or there may	then the im-
ca-	al-			be special rules for which ballot a voter can pull. In some local	plementation
tion	ized-			elections, non-citizens can vote.	should ignore
En	Text	On	C:-	Other identifiers for a contest that links to another source of infor-	it.  If the element
Ex-	Ex-	Op-	Sin-		
ter- nalI-	ter- nalI-	tiona	l gle	mation.	is invalid or
den-	naii- den-				not present, then the im-
ti-	aen- ti-				plementation
fiers	ti- fiers				should ignore
11018	jiers				it.
Has-	V 0 • 1-	<b>⊘0</b> pie	Sin	Indicates whether the selections in the contest are rotated.	If the field is
Ro-	\ AS:L	tional		indicates whether the selections in the contest are rotated.	invalid or not
ta-		uona	gic		present, then
tion					the implemen-
uon					tation should
					ignore it.
Nom	xs:s	+ <b>D</b> .á	~ C:~	Name of the contact, not necessarily have it appears on the ballet	If the field is
rvaine	xs:S	quire	Γ	Name of the contest, not necessarily how it appears on the ballot (NB: BallotTitle should be used for this purpose).	invalid, then
1.1. X	ML Sn			(145. Danocrate should be used for this purpose).	the implemen <b>55</b>
	<u> </u>	33.110			tation should
					ignore it.
Se-	V 0 1 1	.n <b>⊕p</b> -g∘	Sin	Order in which the contests are listed on the ballot. This is the de-	If the field is
36-	XS:1	mp-d	-IIII	Order in which the contests are fisted on the ballot. This is the de-	ii the held is

### **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	Re-	Re-	Description	Error Handling
	Type	quire	døeat	\$?	
Ab-	xs:st	riOpy	Sin-	An abbreviation for the party name.	If the field is invalid
bre-		tional	gle		or not present, then
via-					the implementation
tion					is required to ignore
					it.
Color	single-	Op-	Sin-	The preferred display color for the party, for use in maps and	If the element is in-
	xml-	tional	gle	other displays.	valid or not present,
	html-				then the implemen-
	color-				tation is required to
	string				ignore it.
Ex-	Exter-	Op-	Sin-	Other identifiers that link this party to other related data sets	If the element is in-
ter-	nalI-	tional	gle	(e.g. a campaign finance system, etc).	valid or not present,
nalI-	denti-				then the implemen-
den-	fiers				tation is required to
ti-					ignore it.
fiers					
IsWri	telms:boo		Sin-	Signals if this political party is one that is officially recog-	If the field is invalid
		tional	gle	nized by a local, state, or federal organization, or is a "write-	or not present, then
				in" in jurisdictions which allow candidates to free-form enter	the implementation
				their political affiliation. If this field is not present then it is	is required to ignore
				assumed to be false.	it.
Lo-	xs:any		Sin-	Web address of a logo to use in displays.	If the field is invalid
goUri		tional	gle		or not present, then
					the implementation
					is required to ignore
					it.
Name	Inter-	Op-	Sin-	The name of the party.	If the element is in-
	na-	tional	gle		valid or not present,
	tion-				then the implemen-
	al-				tation is required to
	ized-				ignore it.
	Text				

## **HtmlColorString**

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

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

```
Party id="par0001">

Abbreviation>REP</Abbreviation>

Color>e91d0e</Color>

Name>

Text language="en">Republican</Text>
```

(continues on next page)

```
6 </Name>
7 </Party>
```

#### 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 single-xml-contest-base \* Any element that extends single-xml-ballot-selection-base \* Candidate \* single-xml-contact-information \* Election \* ElectionAdministration \* Office \* Party \* Person \* PollingLocation \* Source NOTE: Internationalized Text is not currently supported for CSV submissions. "

Tag	Data	Re-	Re-	Re- Description			r Hand	ling						
	Type	quire	quired@eats?											
Text	Lan-	Re-	Re-	Contains	the	At	least	one	valid	Text	must	be	present	for
	guageS	<i>ti</i> quire	<b>d</b> peats	translations	of a	Int	ernat	ional	LizedT	ext to	be val	lid.	If no	valid
				particular	string	Tex	t is p	resent,	the in	nplementa	ation is	requi	ired to ig	gnore
				of text.		the I	Interr	natio	nalize	edText (	element.			

#### **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 single-xml-ballot-selection-base.

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quired	?peats	?	
Se-	Interna-	Re-	Sin-	Selection text for	If the element is invalid or not present, the implemen-
lec-	tional-	quired	gle	a BallotMeasure-	tation is required to ignore the BallotMeasureSelection
tion	izedText			Contest	containing it.

```
<BallotMeasureSelection id="bms30001a">
      <Selection label="bms30001at">
2
         <Text language="en">Yes</Text>
3
         <Text language="es">Sí</Text>
      </Selection>
   </BallotMeasureSelection>
6
   <BallotMeasureSelection id="bms30001b">
      <Selection label="bms30001bt">
         <Text language="en">No</Text>
         <Text language="es">No</Text>
10
      </Selection>
11
   </BallotMeasureSelection>
```

### **BallotSelectionBase**

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
Se-	xs:i	nt <b>Op</b> ge	rSin-	The order in which a selection can be listed on the bal-	If the field is invalid or
quence	<b>-</b>	tiona	l gle	lot or in results. This is the default ordering, and can	not present, then the im-
Order				be overridden by OrderedBallotSlectionIds in Ordered-	plementation is required to
				Contest.	ignore it.

### **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	Re-	Re-	Description	Error Handling
	Туре	quire	dßeats	s?	
Scheo	l-single-	Re-	Re-	Defines a block of	At least one valid 'Schedule' must be present for
ule	xml-	quire	<b>d</b> peats	days and hours that	HoursOpen to be valid. If no valid 'Schedule'_ is present,
	schedule	;		a place will be open.	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	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
Hours	single-	Op-	Re-	Blocks of hours in the date range in which the place	If the element is invalid or
	xml-	tional	peats	is open.	not present, then the im-
	hours				plementation is required to
					ignore it.
IsOnly-	xs:bo			If true, the place is only open during the specified	If the field is invalid or
ByAp-		tional	gle	time window with an appointment.	not present, then the im-
point-					plementation is required to
ment					ignore it.
IsOr-	xs:bo		I	If true, the place is open during the hours specified	If the field is invalid or
ByAp-		tional	gle	time window and may also be open with an appoint-	not present, then the im-
point-				ment.	plementation is required to
ment					ignore it.
IsSub-	xs:bo			If true, the place should be open during the specified	If the field is invalid or
ject-		tional	gle	time window, but may be subject to change. People	not present, then the im-
ToChang	ge			should contact prior to arrival to confirm hours are	plementation is required to
				still accurate.	ignore it.
Start-	xs:da	ıt <b>@</b> p-	Sin-	The date at which this collection of start and end	If the field is invalid or
Date		tional	gle	times and options begin.	not present, then the im-
					plementation is required to
					ignore it.
End-	xs:da	1 t <b>@</b> p-	Sin-	The date at which this collection of start and end	If the field is invalid or
Date		tional	gle	times and options end.	not present, then the im-
					plementation 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	Re-	Re-	Description	Error Handling
		quired?	peats?		
Start-	single-xml-	Op-	Sin-	The time at which	If the element is invalid or not present, then the
Time	time-with-	tional	gle	this place opens.	implementation is required to ignore it.
	zone				
End-	single-xml-	Op-	Sin-	The time at which	If the element is invalid or not present, then the
Time	time-with-	tional	gle	this place closes.	implementation is required to ignore it.
	zone				

## **TimeWithZone**

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

(continues on next page)

#### **Electoral District**

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	Re-	Re-	Description	Error Handling
	Туре	quire	dpeats	s?	
Ex-	Ex-	Op-	Sin-	Other identifiers that link to external datasets (e.g.	If the element is invalid or
ter-	ter-	tional	gle	OCD-IDs)	not present, then the imple-
nalI-	nalI-				mentation is required to ig-
den-	den-				nore it.
ti-	ti-				
fiers	fiers				
Name	xs:s	t <b>Rė</b> no	g Sin-	Specifies the electoral area's name.	If the field is invalid or not
		quire	<b>d</b> gle		present, then the implemen-
					tation is required to ignore
					the ElectoralDistrict
					object containing it.
Num-	xs:i	n <b>0p</b> g€	⊵ıSin-	Specifies the district number of the district (e.g. 34, in	If the field is invalid or not
ber		tional	gle	the case of the 34th State Senate District). If a number	present, then the implemen-
				is not applicable, instead of leaving the field blank,	tation is required to ignore it.
				leave this field out of the object; empty strings are not	
				valid for xs:integer fields.	
Type	Dis-	Re-	Sin-	Specifies the type of electoral area.	If the field is invalid or not
	trict-	quire	<b>d</b> gle		present, then the implemen-
	Туре				tation is required to ignore
					the ElectoralDistrict
					object containing it.
Oth-	xs:s	t <b>0p</b> n	g Sin-	Allows for cataloging a new <i>DistrictType</i> option when	If the field is invalid or not
er-		tional	gle	Type is specified as "other".	present, then the implemen-
Type					tation is required to ignore it.

```
<
```

(continues on next page)

## **PartySelection**

This element extends single-xml-ballot-selection-base to support contests in which the selections can be groups of one or more parties.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	1?peats	?	
Par-	xs:II	r <b>re-</b> s	Sin-	One or more Party IDs	If one or more parties referenced are invalid or not
tyIds		quire	<b>l</b> gle	which collectively represent	present, the implementation is required to ignore the
				a ballot selection.	PartySelection containing it.

### **BallotSelectionBase**

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeats	\$?	
Se-	xs:i	nt <b>Op</b> ge	rSin-	The order in which a selection can be listed on the bal-	If the field is invalid or
quence	<b>-</b>	tional	l gle	lot or in results. This is the default ordering, and can	not present, then the im-
Order				be overridden by OrderedBallotSlectionIds in Ordered-	plementation is required to
				Contest.	ignore it.

### **SimpleAddressType**

A SimpleAddressType represents a structured address.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	rpeats	?	
Line1	xs:st	r <b>Re</b> rg	Sin-	The address line for a structured address.	If no Line1 is provided, the
		quire	l gle	Should include the street number, street	implementation should ignore the
				name, and any prefix and suffix.	SimpleAddressType.
Line2	2 xs:st	т <b>Ор</b> нд	Sin-	Additional field for an address	If no Line2 is provided, the imple-
		tional	gle		mentation should ignore it.
Line3	xs:st	и <b>Ор</b> нд	Sin-	Additional field for an address	If no Line3 is provided, the imple-
		tional	gle		mentation should ignore it.
City	xs:st	r <b>Re</b> ig	Sin-	The City value of a structured address.	If City is not provided, the
		quire	l gle		implementation should ignore the
					SimpleAddressType.
State	xs:st	r <b>Re</b> ig	Sin-	The State value of a structured address.	If State is not provided, the
		quired gle			implementation should ignore the
					SimpleAddressType.
Zip	xs:st	т <b>Ор</b> нд	Sin-	The ZIP code of a structured address.	If Zip is not provided, the im-
		tional	gle		plementation should ignore the
					SimpleAddressType.

## **Enumerations**

# 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.

## 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						
write-in						

## 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.

## 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.

#### **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.				

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

#### **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 voting, where each voter can select as many options as desired.
proval	
borda	Borda count, where each voter can rank the options, and the rankings are assigned point values.
cumu-	Cumulative voting, where each voter can distribute their vote to up to $N$ options.
lative	
major-	A 1-of-m method where the winner needs more than 50% of the vote to be elected.
ity	
n-of-m	A method where each voter can select up to <i>N</i> options.
plural-	A 1-of-m method where the option with the most votes is elected, regardless of whether the option has
ity	more than 50% of the vote.
propor-	A proportional representation method (other than STV), which is any system that elects winners in
tional	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-	A 1-of-m method where the winner needs more than some predetermined fraction of the vote to be
majority	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.

## **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	Re-	Re- døeats	Description s?	Error Handling
Con-	In-	Ор-	Sin-	Specifies a statement in opposition to the referendum. It does not	If the element
State-		_		±	is invalid or not
		tional	gie	necessarily appear on the ballot.	
ment					present, then the
	tion-				implementation
	al-				is required to
	ized-				ignore it.
	<i>Text</i>				
Ef-	In-	Op-	Sin-	Specifies what effect abstaining (i.e. not voting) on this proposi-	If the element
fectO	- ter-	tional	gle	tion will have (i.e. whether abstaining is considered a vote against	is invalid or not
fAb-	na-		6 1	it).	present, then the
stain	tion-				implementation
Stairi	al-				is required to
	ized-				ignore it.
Б 11	Text		a.		TC 1 1
Full-	In-	Op-	Sin-	Specifies the full text of the referendum as it appears on the ballot.	If the element
Text	ter-	tional	gle		is invalid or not
	na-				present, then the
	tion-				implementation
	al-				is required to
	ized-				ignore it.
	Text				
In-	xs:a	n <b>Ø</b> pRI	Sin-	Specifies a URI that links to additional information about the ref-	If the field is
foUri		tional		erendum.	invalid or not
			8		present, then the
					implementation
					is required to
D	7		G.	C 'C d d 1.11. C	ignore it.
Pas-	In-	Op-	Sin-	Specifies the threshold of votes that the referendum needs in order	If the element
sageT		tional	gle	to pass. The default is a simple majority (i.e. 50% plus one vote).	is invalid or not
resh-	na-			Other common thresholds are "three-fifths" and "two-thirds". If	present, then the
old	tion-			there are competing initiatives, information about their effect on	implementation
	al-			the passage of the BallotMeasureContest would go here.	is required to
	ized-				ignore it.
	Text				
ProSt	atler-	Op-	Sin-	Specifies a statement in favor of the referendum. It does not nec-	If the element
ment	ter-	tional	gle	essarily appear on the ballot.	is invalid or not
	na-		-		present, then the
	tion-				implementation
	al-				is required to
	ized-				ignore it.
	Text				-8
Sum-		Op-	Sin-	Specifies a short summary of the referendum that is on the ballot,	If the element
ma-	ter-	tional	I	below the title, but above the text.	is invalid or not
		uond	gic	below the title, but above the text.	
ry-	na-				present, then the
Text	tion-				implementation
	al-				is required to
	ized-				ignore it.
	Text				
Type		Op-	Sin-	Specifies the particular type of ballot measure. Must be one of the	If the field is
	lot-	tional	gle	valid BallotMeasureType options.	invalid or not
	Mea-				present, then the
	sure-				implementation
	Туре				is required to
66					Liதிலைmentation
Oth-	xs:s	t <b>0p</b> n		Allows for cataloging a new BallotMeasureType option, when	If the field is
er-		tional	gle	Type is specified as "other."	invalid or not
Type					present, then the

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

#### **ContestBase**

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

Tag	Data		Re-	Description	Error Han-
Λh	Туре	<u> </u>	døeat:		dling  If the field is
Ab- bre-	xs:s	t <b>Op</b> -n	F	An abbreviation for the contest.	invalid or not
via-		tiona	gie		present, then
tion					the implemen-
tion					tation should
					ignore it.
Bal-	xs:I	D <b>Op</b> F	S Sin-	References a set of BallotSelections, which could be of any selection	If the field is
lot-	110.1	tional		type that extends <i>BallotSelectionBase</i> .	invalid or not
Se-			8	, y F	present, then
lec-					the implemen-
tion-					tation should
Ids					ignore it.
Bal-	In-	Op-	Sin-	Subtitle of the contest as it appears on the ballot.	If the element
lot-	ter-	tiona	gle		is invalid or
Sub-	na-				not present,
Ti-	tion-				then the im-
tle	al-				plementation
	ized-				should ignore
	Text				it.
Bal-	In-	Op-	Sin-	Title of the contest as it appears on the ballot.	If the element
lot-	ter-	tiona	l gle		is invalid or
Ti-	na-				not present,
tle	tion-				then the im-
	al-				plementation
	ized- Text				should ignore it.
Elec-		D <b>Re</b> f	Sin-	References an <i>ElectoralDistrict</i> element that represents the geo-	If the field is
toralD	I .	quire		graphical scope of the contest.	invalid, then
is-		quii	ugic	grapmear scope of the contest.	the implemen-
tric-					tation should
tId					ignore it.
Elec-	In-	Op-	Sin-	Specifies any changes to the eligible electorate for this contest past	If the element
torate	- ter-	tiona	gle	the usual, "all registered voters" electorate. This subtag will most	is invalid or
Spec-	na-			often be used for primaries and local elections. In primaries, voters	not present,
ifi-	tion-			may have to be registered as a specific party to vote, or there may	then the im-
ca-	al-			be special rules for which ballot a voter can pull. In some local	plementation
tion	ized-			elections, non-citizens can vote.	should ignore
	Text		a.		it.
Ex-	Ex-	Op-	Sin-	Other identifiers for a contest that links to another source of infor-	If the element
ter-	ter-	tiona	l gle	mation.	is invalid or
nalI- den-	nalI- den-				not present, then the im-
ti-	ti-				plementation
fiers	fiers				should ignore
11013	Jiers				it.
Has-	xs:h	<b>⊘p</b> ie	asSin-	Indicates whether the selections in the contest are rotated.	If the field is
Ro-		tional			invalid or not
ta-					present, then
tion					the implemen-
					tation should
					ignore it.
Name	xs:s		Г	Name of the contest, not necessarily how it appears on the ballot	If the field is
60		_quir€	dgle	(NB: BallotTitle should be used for this purpose).	invalid, then
68				Chapter 1. XML	_
					tation should
Se-	vo.:	.n <b>@p</b> -g∘	Sin	Order in which the contests are listed on the ballot. This is the de-	ignore it.  If the field is
26-	V2:1	· mbd	-ווומ	Order in which the contests are fisted on the ballot. This is the de-	n the held is

## **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	Re-	Re-	Description	Error Handling
	Туре	quired?peats?		<b>?</b>	
Se-	Interna-	Re-	Sin-	Selection text for	If the element is invalid or not present, the implemen-
lec-	tional-	quired	gle	a BallotMeasure-	tation is required to ignore the BallotMeasureSelection
tion	izedText			Contest	containing it.

```
<BallotMeasureSelection id="bms30001a">
      <Selection label="bms30001at">
         <Text language="en">Yes</Text>
         <Text language="es">Sí</Text>
      </Selection>
   </BallotMeasureSelection>
6
   <BallotMeasureSelection id="bms30001b">
      <Selection label="bms30001bt">
9
         <Text language="en">No</Text>
         <Text language="es">No</Text>
10
      </Selection>
11
   </BallotMeasureSelection>
```

### **BallotSelectionBase**

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
Se-	xs:i	n <b>tOp</b> peje	rSin-	The order in which a selection can be listed on the bal-	If the field is invalid or
quence	-	tiona	l gle	lot or in results. This is the default ordering, and can	not present, then the im-
Order				be overridden by OrderedBallotSlectionIds in Ordered-	plementation is required to
				Contest.	ignore it.

# **BallotStyle**

A container for the contests/measures on the ballot.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired	? peats?		
ImageUri	xs:any	√ <b>∪0γπ</b> -	Sin-	Specifies a URI that returns	If the field is invalid or not present, then
		tional	gle	an image of the sample bal-	the implementation is required to ignore
				lot.	it.
Ordered-	xs:IDF	₹ <b>£Øp</b> 5-	Sin-	Reference to a set of Or-	If the field is invalid or not present, then
Con-		tional	gle	deredContest	the implementation is required to ignore
testIds					it.
PartyIds	xs:IDF	RE <b>OPpS</b> -	Sin-	Reference to a set of	If the field is invalid or not present, then
		tional	gle	:ref: multi-xml-party's.	the implementation is required to ignore
					it.

## 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	Re-	Re-	Description	Error Handling
	Туре	quire	døeat	s?	_
Bal-	Inter-	Re-	Sin-	The candidate's name as it will be displayed on	If the element is invalid,
lot-	nation-	quire	<b>d</b> gle	the official ballot (e.g. "Ken T. Cuccinelli II").	then the implementation
Name	alized-				is required to ignore the
	Text				Candidate element con-
					taining it.
Con-	Con-	Op-	Sin-	Contact and physical address information for this	If the element is invalid or not
tact-	tactIn-	tional	gle	Candidate and/or their campaign (see <i>ContactIn</i> -	present, then the implementa-
In-	forma-			formation).	tion is required to ignore it.
for-	tion				
ma-					
tion					
Ex-	Exter-	Op-	Sin-	Another identifier for a candidate that links to	If the element is invalid or not
ter-	nalI-	tional	l gle	another source of information (e.g. a campaign	present, then the implementa-
nalI-	denti-			committee ID that links to a campaign finance	tion is required to ignore it.
den-	fiers			system).	
ti-					
fiers		_			
File-	xs:dat		Sin-	Date when the candidate filed for the contest.	If the field is invalid or not
Date		tional	l gle		present, then the implementa-
					tion is required to ignore it.
IsIn-	xs:boo		Sin-	Indicates whether the candidate is the incumbent	If the field is invalid or not
cum-		tional	l gle	for the office associated with the contest.	present, then the implementa-
bent			~.		tion is required to ignore it.
IsTopT	icket: boo		Sin-	Indicates whether the candidate is the top of a	If the field is invalid or not
		tional	l gle	ticket that includes multiple candidates.	present, then the implementa-
- D			a.		tion is required to ignore it.
Par-	xs:IDR		Sin-	Reference to a <i>Party</i> element with additional in-	If the field is invalid or not
tyId		tional	l gle	formation about the candidate's affiliated party.	present, then the implementa-
				This is the party affiliation that is intended to be	tion is required to ignore it.
D	TD D	76	G:	presented as part of ballot information.	IC 41 C .11
Per-	xs:IDR		Sin-	Reference to a <i>Person</i> element with additional information about the condidate	If the field is invalid or not
sonId		tional	gie	formation about the candidate.	present, then the implementa-
Post-	Candi-	05	Sin-	Final status of the candidate (e.g. winner, with-	tion is required to ignore it.  If the field is invalid or not
Post- Elec-	datePost-	Op- tional		_	
tion-	Elec-	uona	gie	drawn, etc).	present, then the implementation is required to ignore it.
Sta-	tion-				non is required to ignore it.
tus	Status				
Pre-	Candi-	Op-	Sin-	Registration status of the candidate (e.g. filed,	If the field is invalid or not
Elec-	datePre-	tional		qualified, etc).	present, then the implementa-
tion-	Elec-	uona	gie	quanneu, etc).	tion is required to ignore it.
Sta-	tion-				uon is required to ignore it.
tus	Status				
tus	Siaius				

</Candidate>

### CandidateContest

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

Tag	Data	Re-	Re-	Description	Error Han-
	Туре	quire	døeats	s?	dling
Num-	·xs:i	n <b>0dpe</b> g	e <b>S</b> in-	Number of candidates that are elected in the contest (i.e. "N" of N-of-	If the field
ber-		tional	l gle	M).	is invalid or
Elect	ed				not present,
					then the
					implemen-
					tation is
					required to
					ignore it.
Of-	xs:I	D <b>O</b> PEF		References a set of Office elements, if available, which give additional	If the field
fi-		tiona	l gle	information about the offices. <b>Note:</b> the order of the office IDs <b>must</b> be	is invalid or
ceIds				in the same order as the candidates listed in <i>BallotSelectionIds</i> . E.g., if	not present,
				the various BallotSelectionIds reference CandidateSelection elements	then the
				which reference the candidate for President first and Vice-President sec-	implemen-
				ond, the OfficeIds should reference the office of President first and the	tation is
				office of Vice-President second.	required to
					ignore it.
Pri-	xs:I	D <b>OPP</b> FF		References <i>Party</i> elements, if the contest is related to a particular party.	If the field
ma-		tiona	l gle		is invalid or
ry-					not present,
Par-					then the
tyIds					implemen-
					tation is
					required to
**			G:		ignore it.
Vote-	xs:i	r <b>Ope</b> g		Maximum number of votes/write-ins per voter in this contest.	If the field
sAl-	,	tional	gle		is invalid or
lowed	1				not present,
					then the
					implemen-
					tation is
					required to
					ignore it.

<VotesAllowed>1</VotesAllowed>
</CandidateContest>

# ContestBase

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

Tag	Data		Re-	Description	Error Han- dling
Λh	Туре	<u> </u>	døeat:		If the field is
Ab-	xs:s	t <b>0p</b> -n	F	An abbreviation for the contest.	
bre-		tiona	gie		invalid or not
via-					present, then
tion					the implemen- tation should
					ignore it.
Dal			CCin	Defending a set of Dellet Calcutions, which could be of any selection	If the field is
Bal- lot-	xs:1	D <b>Op</b> F		References a set of BallotSelections, which could be of any selection	invalid or not
Se-		tiona	gie	type that extends BallotSelectionBase.	
lec-					present, then the implemen-
tion-					tation should
Ids					ignore it.
Bal-	In-	Op-	Sin-	Subtitle of the contest as it appears on the ballot.	If the element
lot-	ter-	tional		Subtitle of the contest as it appears on the barlot.	is invalid or
Sub-	na-	tiona	gie		not present,
Ti-	tion-				then the im-
tle	al-				plementation
tic	ized-				should ignore
	Text				it.
Bal-	In-	Op-	Sin-	Title of the contest as it appears on the ballot.	If the element
lot-	ter-	tional		The of the contest as it appears on the barrot.	is invalid or
Ti-	na-	tiona	gic		not present,
tle	tion-				then the im-
tic	al-				plementation
	ized-				should ignore
	Text				it.
Elec-		D <b>Re</b> -F	Sin-	References an <i>ElectoralDistrict</i> element that represents the geo-	If the field is
toralD		quire		graphical scope of the contest.	invalid, then
is-		quii	ugic	gruphical scope of the contest.	the implemen-
tric-					tation should
tId					ignore it.
Elec-	In-	Op-	Sin-	Specifies any changes to the eligible electorate for this contest past	If the element
torate		tional		the usual, "all registered voters" electorate. This subtag will most	is invalid or
Spec-				often be used for primaries and local elections. In primaries, voters	not present,
ifi-	tion-			may have to be registered as a specific party to vote, or there may	then the im-
ca-	al-			be special rules for which ballot a voter can pull. In some local	plementation
tion	ized-			elections, non-citizens can vote.	should ignore
	Text			, ,	it.
Ex-	Ex-	Op-	Sin-	Other identifiers for a contest that links to another source of infor-	If the element
ter-	ter-	tional		mation.	is invalid or
nalI-	nalI-				not present,
den-	den-				then the im-
ti-	ti-				plementation
fiers	fiers				should ignore
					it.
Has-	xs:b	<b>⊘0</b> pe	a <b>:Sin-</b>	Indicates whether the selections in the contest are rotated.	If the field is
Ro-		tional			invalid or not
ta-			-		present, then
tion					the implemen-
					tation should
					ignore it.
Name	xs:s		Г	Name of the contest, not necessarily how it appears on the ballot	If the field is
		-quire	dgle	(NB: BallotTitle should be used for this purpose).	invalid, then
74				Chapter 1. XML	_
					tation should
					ignore it.
Se-	xs:i	.n <b>⊕p</b> -g∘	e Sin-	Order in which the contests are listed on the ballot. This is the de-	If the field is

### CandidateSelection

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeats	s?	
Can-	xs:I	D <b>O</b> pf	S Sin-	References a set of <i>Candidate</i> elements. The number of	If the field is invalid
di-		tiona	gle	candidates that can be references is unbounded in cases	or not present, then the
dateIds				where the ballot selection is for a ticket (e.g. "Presi-	implementation is re-
				dent/Vice President", "Governor/Lt Governor").	quired to ignore it.
En-	xs:I	D <b>O</b> pf	S Sin-	References a set of <i>Party</i> elements, which signifies one or	If the field is invalid
dorse-		tiona	gle	more endorsing parties for the candidate(s).	or not present, then the
ment-					implementation is re-
Par-					quired to ignore it.
tyIds					
IsWrite	In∝s:b	<b>⊙0</b> ⊉e∂	ar <b>S</b> in-	Signifies if the particular ballot selection allows for write-	If the field is invalid
		tiona	gle	in candidates. If true, one or more write-in candidates are	or not present, then the
				allowed for this contest.	implementation is re-
					quired to ignore it.

<CandidateSelection id="cs10861">

<CandidateIds>can10861a can10861b

<EndorsementPartyIds>par0001

</CandidateSelection>

### **BallotSelectionBase**

2

3

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

Tag	Data	Re-	Re-	Description	Error Handling				
	Type	quire	døeat	3?					
Se-	xs:i	n <b>tOp</b> ge	rSin-	The order in which a selection can be listed on the bal-	If the field is invalid or				
quence	-	tional	l gle	lot or in results. This is the default ordering, and can	not present, then the im-				
Order				be overridden by OrderedBallotSlectionIds in Ordered-	plementation is required to				
				Contest.	ignore it.				

## **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		Re-	Re- døeats	Description s?	Error Handling
Date	xs:0	Require	Sin- e <b>d</b> gle	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	In- ter- na- tion- al- ized- Text	Op- tional	Sin-	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	l xs:	quire	e <b>d</b> gle	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- Statew		c <b>⊘</b> pl-e tiona		Indicates whether the election is statewide.	If the field is not present or invalid, the implementation is required to default to "yes".
Name	In- ter- na- tion- al- ized- Text	Op- tional	Sin- l gle	The name for the election ( <b>NB</b> : while optional, this element is highly recommended).	If the element is invalid or not present, then the implementation is required to ignore it.
Reg- is- tra- tionInf	In- ter- na-	Op- tional	Sin- l gle	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.
Ab- sen- tee- Bal- lot- Info	In- ter- na- tion- al- ized- Text	Op- tional	Sin-	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.
Re- sult- sUri		ar <b>Q</b> pUR tiona		Contains a URI where results for the election may be found	If the field is invalid or not present, then the
76				Chapter 1. XN	Li Documentation is required to
Polling	g <b>Ho</b> urs	Op-	Sin-	Contains the hours (in local time) that Election Day polling loca-	ignore it.  If the element

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

## **ElectionAdministration**

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

Tag		Re-	Re-	Description	Error Handling
		<u> </u>	døeats		
Ab-	xs:	ar <b>Qqb</b> ⊁R		Specifies the web address for informa-	If the field is invalid or not present, then the
sen-		tiona	l gle	tion on absentee voting.	implementation is required to ignore it.
teeUri					
AmIRe	g-xs:a	an <b>⊙pb</b> ⊁R	I Sin-	Specifies the web address for informa-	If the field is invalid or not present, then the
is-		tiona	l gle	tion on whether an individual is regis-	implementation is required to ignore it.
tere-				tered.	
dUri					
Bal-	xs:a	ar <b>Qqt</b> ⊍R	I Sin-	Specifies the web address for tracking	If the field is invalid or not present, then the
lot-		tiona	l gle	information for a ballot cast by mail	implementation is required to ignore it.
Trackin	gUri				
Bal-	xs:	ar <b>Qrp</b> uR	I Sin-	Specifies the web address for tracking	If the field is invalid or not present, then the
lot-		tional	l gle	information for a provisional ballot.	implementation is required to ignore it.
Pro-				To support EAC guidelines for "Pro-	
vi-				cessing Provisional Ballots" (https:	
sion-				//www.eac.gov/research-and-data/	
al-				provisional-voting/)	
Trackin	gUri				
De-	De-	Re-	Re-	Describes the administrative body for	There must be at least one valid <i>Department</i>
part-	part-	quire	dpeats	a particular voter service.	in each ElectionAdministration element. If
ment	ment	_		_	no valid <i>Department</i> objects are present,
					the implementation is required to ignore the
					ElectionAdministration object that contains
					it/them.
Elec-	Elec-	Op-	Sin-	A place for election administrators to	If the element is invalid or not present, then
tion-	tion-	tiona	gle	post last minute and emergency notifi-	the implementation is required to ignore it.
No-	No-			cations pertaining to the election.	
tice	tice				
Elec-	xs:a	ar <b>Qpb</b> PR	I Sin-	Specifies web address the administra-	If the field is invalid or not present, then the
tion-		tional		tion's website.	implementation is required to ignore it.
sUri					
Reg-	xs:a	ar <b>Opb</b> JR	I Sin-	Specifies web address for information	If the field is invalid or not present, then the
istra-		tional		on registering to vote.	implementation is required to ignore it.
tionUri					
RulesU	rixs:	an <b>O</b> nbJR	I Sin-	Specifies a URI for the election rules	If the field is invalid or not present, then the
		tional		and laws (if any) for the jurisdiction of	implementation is required to ignore it.
				the administration.	
WhatI-	xs:a	ar <b>Qrp</b> UR	I Sin-	Specifies web address for information	If the field is invalid or not present, then the
sOn-		tional		on what is on an individual's ballot.	implementation is required to ignore it.
My-		-			1 1 1 1 2 1 2 1
Bal-					
lo-					
tUri					
Where-	XS:a	ar <b>Qpb</b> JR	I Sin-	The Specifies web address for infor-	If the field is invalid or not present, then the
DoIV-	250.0	tional		mation on where an individual votes	implementation is required to ignore it.
0-		uona	5.0	based on their address.	imprementation is required to ignore it.
teUri				based on their address.	
tt OII					

```
<ElectionAdministration id="ea40133">
```

<sup>&</sup>lt;AbsenteeUri>http://www.sbe.virginia.gov/absenteevoting.html</AbsenteeUri>

<sup>&</sup>lt;AmIRegisteredUri>https://www.vote.virginia.gov/</AmIRegisteredUri>

```
<BallotTrackingUri>https://www.vote.virginia.gov//BallotTrackingUri>
      <BallotProvisionalTrackingUri>https://www.vote.virginia.gov///
   →BallotProvisionalTrackingUri>
      <Department>
        <ContactInformation label="ci60000">
          <addressLine>Washington Building First Floor</addressLine>
          <AddressLine>1100 Bank Street</AddressLine>
          <AddressLine>Richmond, VA 23219</AddressLine>
10
          <Name>State Board of Elections
11
        </ContactInformation>
12
      </Department>
13
      <ElectionNotice>
        <NoticeText>
          <Text language="en">This is an emergency notification for this election.</Text>
16
        </NoticeText>
17
        <NoticeURI>https://www.yadayada.gov</NoticeURI>
18
      </ElectionNotice>
19
      <ElectionsUri>http://www.sbe.virginia.gov/</ElectionsUri>
20
      <RegistrationUri>https://www.vote.virginia.gov//RegistrationUri>
21
      <RulesUri>http://www.sbe.virginia.gov/</RulesUri>
22
      <WhatIsOnMyBallotUri>https://www.vote.virginia.gov/</WhatIsOnMyBallotUri>
23
      <WhereDoIVoteUri>https://www.vote.virginia.gov/</WhereDoIVoteUri>
24
   </ElectionAdministration>
```

### **Department**

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	dpeats	3?	
Contact-	Con-	Op-	Sin-	Contact and physical address information	If the element is invalid or not
Informa-	tactIn-	tional	gle	for the election administration body (see	present, then the implementa-
tion	forma-			ContactInformation).	tion is required to ignore it.
	tion				
Elec-	xs:IDRE	FOp-	Sin-	The individual to contact at the election	If the field is invalid or not
tionOffi-		tional	gle	administration office. The specified per-	present, then the implementa-
cialPer-				son should be the election official.	tion is required to ignore it.
sonId					
Vot-	multi-	Op-	Re-	The types of services and appropriate	If the element is invalid or not
erSer-	xml-	tional	peats	contact individual available to voters.	present, then the implementa-
vice	voter-				tion is required to ignore it.
	service				

## **VoterService**

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quired	l?peats	?	
Contact-	Contact-	Op-	Sin-	The contact for a particular voter	If the element is invalid or not
Informa-	Informa-	tional	gle	service.	present, then the implementation is
tion	tion				required to ignore it.
Descrip-	Interna-	Op-	Sin-	Long description of the services	If the element is invalid or not
tion	tional-	tional	gle	available.	present, then the implementation is
	izedText				required to ignore it.
Elec-	xs:IDRE	FOp-	Sin-	The authority for a particular	If the field is invalid or not present,
tionOffi-		tional	gle	voter service.	then the implementation is required
cialPer-					to ignore it.
sonId					
Type	Vot-	Op-	Sin-	The type of <i>voter service</i> .	If the field is invalid or not present,
	erSer-	tional	gle		then the implementation is required
	viceType				to ignore it.
Other-	xs:stri	п <b>9р-</b>	Sin-	If Type is "other", OtherType al-	If the field is invalid or not present,
Type		tional	gle	lows for cataloging another type	then the implementation is required
				of voter service.	to ignore it.

## 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		Re- døeats	Description s?	Error Handling
Ad-		<b>Op</b> ro		The "location" portion of a mailing address. See usage note.	If the field is in-
dressL	ine	tional	peats		valid or not present, then the implemen- tation is required to ignore it.
Di- rec- tions	In- ter- na- tion- al- ized- Text	Op- tional	Sin- gle	Specifies further instructions for locating this entity.	If the element is invalid or not present, then the implementation is required to ignore it.
Email			peats		If the field is invalid or not present, then the implementation is required to ignore it.
Fax		iOprg tional	peats		If the field is invalid or not present, then the implementation is required to ignore it.
Hours [dep- re- cated]	ter- na-	Op- tional	Sin- gle	Contains the hours (in local time) that the location is open (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).	If the element is invalid or not present then the implementation is required to ignore it.
Hour- sOpen		FOp- tional	Sin- gle	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 implemen- tation is required to ignore it.
LatLn	g LatLng	Op- tional	Sin- gle	Specifies the latitude and longitude of this entity.	If the element is in valid or not present then the implemen tation is required to ignore it.
Name		1 <b>Op</b> +g tional	gle	The name of the location or contact. See usage note.	If the field is invalid or not present then the implementation is required to ignore it.
Phone			peats	A phone number for the contact.	If the field is in valid or not present then the implementation is required to ignore it.
Uri	xs:an	ny <b>Op</b> RI tional	Re- peats	An informational URI for the contact or location.	If the field is invalid or not present then the implementation is required to
.1. XI	ML Spe	cificat	ion		tation 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
```

# **ElectionNotice**

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	d peats	?	
No-	Inter-	Re-	Sin-	The last minute or emergency noti-	If the element is invalid, then the im-
tice-	nation-	quire	<b>d</b> gle	fication text should be placed here.	plementation is required to ignore the
Text	alized-				ElectionNotice element containing it.
	Text				
No-	xs:any	Ј <b>Юр-</b>	Sin-	Optional URL for additional infor-	If the field is invalid or not present, then the
ticeU	ri	tional	gle	mation related to the last minute or	implementation is required to ignore it.
				emergency notification.	

## **VoterService**

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quired	l?peats	?	
Contact-	Contact-	Op-	Sin-	The contact for a particular voter	If the element is invalid or not
Informa-	Informa-	tional	gle	service.	present, then the implementation is
tion	tion				required to ignore it.
Descrip-	Interna-	Op-	Sin-	Long description of the services	If the element is invalid or not
tion	tional-	tional	gle	available.	present, then the implementation is
	izedText				required to ignore it.
Elec-	xs:IDRE	FOp-	Sin-	The authority for a particular	If the field is invalid or not present,
tionOffi-		tional	gle	voter service.	then the implementation is required
cialPer-					to ignore it.
sonId					
Type	Vot-	Op-	Sin-	The type of <i>voter service</i> .	If the field is invalid or not present,
	erSer-	tional	gle		then the implementation is required
	viceType				to ignore it.
Other-	xs:stri	n <b>6)p-</b>	Sin-	If Type is "other", OtherType al-	If the field is invalid or not present,
Type		tional	gle	lows for cataloging another type	then the implementation is required
				of voter service.	to ignore it.

## **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	Re-	Re-	Description	Error Handling
	Туре	quire	døeats	s?	
Ex-	Ex-	Op-	Sin-	Other identifiers that link to external datasets (e.g.	If the element is invalid or
ter-	ter-	tional	gle	OCD-IDs)	not present, then the imple-
nalI-	nalI-				mentation is required to ig-
den-	den-				nore it.
ti-	ti-				
fiers	fiers				
Name	xs:s	t <b>Rė</b> -n	Sin-	Specifies the electoral area's name.	If the field is invalid or not
		quire	dgle		present, then the implemen-
					tation is required to ignore
					the ElectoralDistrict
					object containing it.
Num-	xs:i	n <b>Op</b> g	e Sin-	Specifies the district number of the district (e.g. 34, in	If the field is invalid or not
ber		tional	gle	the case of the 34th State Senate District). If a number	present, then the implemen-
				is not applicable, instead of leaving the field blank,	tation is required to ignore it.
				leave this field out of the object; empty strings are not	
				valid for xs:integer fields.	
Type	Dis-	Re-	Sin-	Specifies the type of electoral area.	If the field is invalid or not
	trict-	quire	dgle		present, then the implemen-
	Туре				tation is required to ignore
					the ElectoralDistrict
					object containing it.
Oth-	xs:s	t <b>0p</b> n	g Sin-	Allows for cataloging a new <i>DistrictType</i> option when	If the field is invalid or not
er-		tional	gle	Type is specified as "other".	present, then the implemen-
Type					tation is required to ignore it.

```
<ElectoralDistrict id="ed60129">
      <ExternalIdentifiers>
2
        <ExternalIdentifier>
          <Type>ocd-id</Type>
          <Value>ocd-division/country:us/state:va</Value>
        </ExternalIdentifier>
6
        <ExternalIdentifier>
          <Type>fips</Type>
          <Value>51</Value>
        </ExternalIdentifier>
10
      </ExternalIdentifiers>
11
      <name>Commonwealth of Virginia</name>
12
      <Type>state</Type>
   </ElectoralDistrict>
```

### Externalldentifier

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
Type	Iden-	Re-	Sin-	Specifies the type of identifier. Must be one of	If the field is invalid or not
	ti-	quire	<b>d</b> gle	the valid types as defined by <i>IdentifierType</i> .	present, the implementa-
	fier-				tion is required to ignore the
	Type				ElectionIdentifier con-
					taining it.
Oth-	xs:s	t <b>0p</b> n	g Sin-	Allows for cataloging an	If the field is invalid or not present,
er-		tiona	l gle	ExternalIdentifier type that falls	then the implementation is required
Type				outside the options listed in <i>IdentifierType</i> .	to ignore it.
				Type should be set to "other" when using this	
				field.	
Value	xs:s	t <b>Re</b> -no	g Sin-	Specifies the identifier.	If the field is invalid or not
		quire	<b>d</b> gle		present, the implementa-
					tion is required to ignore the
					ElectionIdentifier con-
					taining it.

```
<ExternalIdentifiers>
      <ExternalIdentifier>
2
         <Type>ocd-id</Type>
3
         <Value>ocd-division/country:us/state:nc/county:durham</Value>
      </ExternalIdentifier>
      <ExternalIdentifier>
6
         <Type>FIPS</Type>
         <Value>37063</Value>
      </ExternalIdentifier>
      <ExternalIdentifier>
10
         <Type>OTHER</Type>
         <OtherType>GNIS</OtherType>
12
         <Value>1008550</Value>
13
      </ExternalIdentifier>
14
      <external_identifer>
15
         <Type>OTHER</Type>
16
         <OtherType>census</OtherType>
17
         <Value>99063</Value>
      </ExternalIdentifier>
   </ExternalIdentifiers>
```

# **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	Re-	Re-	Description	Error Handling
	Type quired@eats?		s?		
Ex-	Ex-	Re-	Re-	Defines the identifier and	At least one valid <b>ExternalIdentifier</b> must be present
ter-	ter-	quire	<b>d</b> peats	the type of identifier it	for ExternalIdentifiers to be valid. If no valid
nalI-	nalI-			is (see 'ExternalIdenti-	<b>ExternalIdentifier</b> is present, the implementation is
den-	den-			fier'_ for complete infor-	required to ignore the ExternalIdentifiers ele-
ti-	ti-			mation).	ment.
fier	fier				

# **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	Re-	Re-	Description	Error Handling
	Туре	quire	dpeats	s?	
Scheo	1-Schea	- Re-	Re-	Defines a block of	At least one valid Schedule must be present for HoursOpen
ule	ule	quire	<b>d</b> peats	days and hours that a	to be valid. If no valid <i>Schedule</i> is present, the implementation
				place will be open.	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	Re-	Re-	Description	Error Handling
	Type	quire	døeat	3?	
Hours	Hours	Op-	Re-	Blocks of hours in the date range in which the place	If the element is invalid or
		tional	peats	is open.	not present, then the imple-
					mentation is required to ig-
					nore it.
IsOnly-	xs:b	o <b>Øp</b> ea		If true, the place is only open during the specified	If the field is invalid or
ByAp-		tional	gle	time window with an appointment.	not present, then the imple-
point-					mentation is required to ig-
ment					nore it.
IsOr-	xs:b	o <b>©</b> pea		If true, the place is open during the hours specified	If the field is invalid or
ByAp-		tional	gle	time window and may also be open with an appoint-	not present, then the imple-
point-				ment.	mentation is required to ig-
ment					nore it.
IsSub-	xs:b	o <b>©</b> pea		If true, the place should be open during the specified	If the field is invalid or
ject-		tional	gle	time window, but may be subject to change. People	not present, then the imple-
ToChang	e			should contact prior to arrival to confirm hours are	mentation is required to ig-
				still accurate.	nore it.
Start-	xs:d		Sin-	The date at which this collection of start and end	If the field is invalid or
Date		tional	gle	times and options begin.	not present, then the imple-
					mentation is required to ig-
					nore it.
End-	xs:d		Sin-	The date at which this collection of start and end	If the field is invalid or
Date		tional	gle	times and options end.	not present, then the imple-
					mentation is required to ig-
					nore it.

# Hours

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired?	peats?		
Start-	Time-	Op-	Sin-	The time at which	If the element is invalid or not present, then the im-
Time	With-	tional	gle	this place opens.	plementation is required to ignore it.
	Zone				
End-	Time-	Op-	Sin-	The time at which	If the element is invalid or not present, then the im-
Time	With-	tional	gle	this place closes.	plementation is required to ignore it.
	Zone				

# **TimeWithZone**

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

#### 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

NOTE: Internationalized Text is not currently supported for CSV submissions. "

Tag	Data	Re-	Re-	Description	Description Error Handling									
	Type	quired@eats?												
Text	Lan-	Re-	Re-	Contains	the	At	least	one	valid	Text	must	be	present	for
	guageS	<i>ti</i> quire	<b>d</b> peats	translations	of a	Int	ernat	ional	izedT	ext to	be val	lid.	If no	valid
				particular s	string	Tex	t is p	resent,	the in	plementa	ation is	requi	ired to ig	gnore
				of text.		the I	Interr	natio	nalize	edText (	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.

# Locality

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

Type quired@eats?  Elec- xs:ID@EF Sin- Links to the locality's ElectionAdministration tion- dd- min- is- locality's ElectionAdministration ignore it.	
tion- Ad- ignore it.	
Ad- min- ignore it.	is required to
min-	
is-	
tra-	
tionId	
Ex- Ex- Op- Sin- Another identifier for a locality that links to If the element is invalid or	r not present,
ter- ter- tional gle another dataset (e.g. OCD-ID) then the implementation	is required to
nalI-   nalI-   ignore it.	_
den-   den-	
ti-   <i>ti-</i>	
fiers   fiers	
Is- xs:b@p-eaSin- Determines if the locality runs mail-only If the field is missing or	r invalid, the
MailOnly tional gle elections. If this is true, then all precincts implementation is require	ed to assume
a part of the locality will also run mail-only <i>IsMailOnly</i> is false.	
elections. Drop boxes may be used in ad-	
dition to this flag using a polling location	
record configured as a Drop Box.	
Name xs: stRe-ngSin- Specifies the name of a locality. If the field is invalid, t	then the im-
quiredgle plementation is required	to ignore the
Locality element con	taining it.
PollingLace: IDPPEFSSin- Specifies a link to a set of the locality's If the field is invalid or	not present,
ca- tional gle :ref: polling locations <multi-xml-polling- implementation="" is="" re<="" td="" the=""><td></td></multi-xml-polling->	
tion- location>'s. If early vote centers or ballot nore it. However, the imp	
Ids drop locations are locality-wide, they should should still check to see	e if there are
be specified here. any polling locations ass	sociated with
this locality's state.	
State of xs: Torker Sin- References the locality's State. If the field is invalid, t	
quiredgle plementation is required	
Locality element con	taining it.
Type Dis- Op- Sin- Defines the kind of locality (e.g. county, If the field is invalid or	
trict- tional gle town, et al.), which is one of the various Dis- then the implementation	is required to
Type trictType enumerations. ignore it.	
Oth- xs:stOp-ngSin- Allows for defining a type of locality that falls If the field is invalid or	not present,
er- tional gle outside the options listed in <i>DistrictType</i> . then the implementation	is required to
Type ignore it.	

```
<Locality id="loc70001">
    <ElectionAdministrationId>ea40001/ElectionAdministrationId>
```

```
<ExternalIdentifiers>
       <ExternalIdentifier>
4
         <Type>ocd-id</Type>
         <Value>ocd-division/country:us/state:va/county:albemarle
6
       </ExternalIdentifier>
     </ExternalIdentifiers>
     <IsMailOnly>true</IsMailOnly>
     <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	Re-	Re- døeats	Description	Error Handling
Con-	Con-	Ор-	Re-	Links to the ContactInformation ele-	If the element is invalid or not present,
tactIn-	tactIn-	tional		ment associated with the office.	then the implementation is required to
forma-	forma-	tionai	pears	ment associated with the office.	ignore it.
tion	tion				ignore it.
De-	Inter-	Op-	Sin-	A brief description of the office and	If the element is invalid or not present,
scrip-	nation-	tional		its purpose.	then the implementation is required to
tion	alized-	tionai	gic	its purpose.	ignore it.
tion	Text				ignore it.
Elec-	xs:IDR	ERe-	Sin-	Links to the <i>ElectoralDistrict</i> element	If the field is invalid or not present, the
toralD-	110 • 121	quire		associated with the office.	implementation is required to ignore
istrictId		quii		associated with the since	the Office element containing it.
Exter-	Exter-	Op-	Sin-	Other identifiers that link this office to	If the element is invalid or not present,
nalI-	nalI-	tional	gle	other related datasets (e.g. campaign	then the implementation is required to
denti-	denti-		6	finance systems, OCD IDs, et al.).	ignore it.
fiers	fiers			, , ,	
Fil-	xs:dat	eOp-	Sin-	Specifies the date and time when a	If the field is invalid or not present,
ingDead-		tional	gle	candidate must have filed for the con-	then the implementation is required to
line				test for the office.	ignore it.
IsParti-	xs:boo	1 <b>⊖թ</b> ո	Sin-	Indicates whether the office is parti-	If the field is invalid or not present,
san		tional	gle	san.	then the implementation is required to
					ignore it.
Name	Inter-	Re-	Sin-	The name of the office.	If the field is invalid or not present, the
	nation-	quire	<b>d</b> gle		implementation is required to ignore
	alized-				the Office element containing it.
	Text				
Office-	xs:IDR	E <b>Ø</b> ₿-	Sin-	Links to the <i>Person</i> element(s) that	If the field is invalid or not present,
Holder-		tional	gle	hold additional information about the	then the implementation is required to
Person-				current office holder(s).	ignore it.
Ids					
Term	Term	Op-	Sin-	Defines the term the office can be	If the element is invalid or not present,
		tional	gle	held.	then the implementation is required to
					ignore it.

### **Term**

Tag	Data	Re-	Re-	Description	Error Handling	
	Type	quired	l?peats	?		
Type	Of-	Op-	Sin-	Specifies the type of office If the field is invalid or not present, the imple		
	ficeTerm	<i>T</i> tijomal	gle	term (see OfficeTermType for	mentation is required to ignore the Office el-	
				valid values). ement containing it.		
Start-	xs:dat	:еОр-	Sin-	Specifies the start date for the	If the field is invalid or not present, then the im-	
Date		tional	gle	current term of the office.	plementation is required to ignore it.	
End-	xs:dat	:еОр-	Sin-	Specifies the end date for the	If the field is invalid or not present, then the im-	
Date		tional	gle	current term of the office.	plementation is required to ignore it.	

### 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	Re-	Re- døeats	Description	Error Handling
A 4			•		If the field is in-
Ad- dressL	ine		peats	The "location" portion of a mailing address. See usage note.	valid or not present, then the implemen- tation is required to ignore it.
Di- rec- tions	In- ter- na- tion- al- ized- Text	Op- tional	Sin- gle	Specifies further instructions for locating this entity.	If the element is invalid or not present, then the implementation is required to ignore it.
Email		tional	peats	An email address for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Fax			peats		If the field is invalid or not present, then the implementation is required to ignore it.
Hours [dep- re- cated]	ter- na-	Op- tional	Sin- gle	Contains the hours (in local time) that the location is open (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).	If the element is invalid or not present, then the implementation is required to ignore it.
Hour- sOpen	xs:II Id	Ю <b>р</b> - tional	Sin- gle	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.
LatLn	g LatLng	Op- tional	Sin- gle	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:st	i <b>Op</b> ig tional		The name of the location or contact. See usage note.	If the field is invalid or not present, then the implementation is required to ignore it.
Phone	xs:st		Re- peats	A phone number for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Uri	xs:ar		Re- peats	An informational URI for the contact or location.	If the field is invalid or not present, then the implementation is required to
92				Chapter 1.	XM <sub>Ho</sub> Pocumentation

## 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
```

### **OrderedContest**

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

Tag	Data	Re-	Re-	Descrip	)-	Error Handling
	Туре	quire	døeat	s?tion		
Con-	xs:	DREF	Sin-	Links	to	If the field is invalid or not present, the implementation is required to
testId		quire	<b>d</b> gle	element	s	ignore the OrderedContest element containing it.
				that ext	end	
				Contest-	-	
				Base.		
Or-	xs:	D <b>O</b> pp-F	SSin-	Links	to	If the field is invalid or not present, the implementation is required
dered-		tional	gle	element	S	to ignore it. If an OrderedBallotSelectionIds element is
Bal-				that ext	end	not present, the presumed order of the selection will be the order of
lotS-				BallotS-		BallotSelectionBase-extended elements referenced by the underlying
elec-				election	-	ContestBase-extended elements.
tion-				Base.		
Ids						

# **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	Re-	Re-	Description	Error Handling
	Type	quire	døeats	s?	
Ab-	xs:st	<b>.1Ор</b> ъд	Sin-	An abbreviation for the party name.	If the field is in-
bre-		tional	gle		valid or not present,
via-					then the implemen-
tion					tation is required to
					ignore it.
Color	Html-	Op-	Sin-	The preferred display color for the party, for use in maps and	If the element is in-
	Col-	tional	gle	other displays.	valid or not present,
	orStrir	ig			then the implemen-
					tation is required to
					ignore it.
Ex-	Ex-	Op-	Sin-	Other identifiers that link this party to other related data sets	If the element is in-
ter-	ter-	tional	gle	(e.g. a campaign finance system, etc).	valid or not present,
nalI-	nalI-				then the implemen-
den-	den-				tation is required to
ti-	ti-				ignore it.
fiers	fiers				
IsWrit	elms:bo			Signals if this political party is one that is officially recog-	If the field is in-
		tional	gle	nized by a local, state, or federal organization, or is a "write-	valid or not present,
				in" in jurisdictions which allow candidates to free-form enter	then the implemen-
				their political affiliation. If this field is not present then it is	tation is required to
				assumed to be false.	ignore it.
Lo-	xs:an	ny <b>Op</b> RI	Sin-	Web address of a logo to use in displays.	If the field is in-
goUri		tional	gle		valid or not present,
					then the implemen-
					tation is required to
					ignore it.
Name	In-	Op-	Sin-	The name of the party.	If the element is in-
	ter-	tional	gle		valid or not present,
	na-				then the implemen-
	tion-				tation is required to
	al-				ignore it.
	ized-				
	Text				

# **HtmlColorString**

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

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

```
Party id="par0001">

Abbreviation>REP</Abbreviation>

Color>e91d0e</Color>

Name>

Text language="en">Republican</Text>

/Name>

/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).

## ContestBase

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

Tag	Data		Re-	Description	Error Han-
A 1-	Туре		døeat		dling  If the field is
Ab-	xs:s	t <b>0p</b> -n	Г	An abbreviation for the contest.	
bre-		tiona	gie		invalid or not
via-					present, then
tion					the implemen-
					tation should
					ignore it.
Bal-	xs:I	D <b>OP</b> EF	l	References a set of BallotSelections, which could be of any selection	If the field is
lot-		tional	l gle	type that extends BallotSelectionBase.	invalid or not
Se-					present, then
lec-					the implemen-
tion-					tation should
Ids					ignore it.
Bal-	In-	Op-	Sin-	Subtitle of the contest as it appears on the ballot.	If the element
lot-	ter-	tional	l gle		is invalid or
Sub-	na-				not present,
Ti-	tion-				then the im-
tle	al-				plementation
	ized-				should ignore
	Text				it.
Bal-	In-	Op-	Sin-	Title of the contest as it appears on the ballot.	If the element
lot-	ter-	tional	l gle		is invalid or
Ti-	na-				not present,
tle	tion-				then the im-
	al-				plementation
	ized-				should ignore
	Text				it.
Elec-		D <b>Re</b> f	Sin-	References an <i>ElectoralDistrict</i> element that represents the geo-	If the field is
toralD	)_	quire	<b>d</b> gle	graphical scope of the contest.	invalid, then
is-					the implemen-
tric-					tation should
tId					ignore it.
Elec-	In-	Op-	Sin-	Specifies any changes to the eligible electorate for this contest past	If the element
torate-		tional	l gle	the usual, "all registered voters" electorate. This subtag will most	is invalid or
Spec-				often be used for primaries and local elections. In primaries, voters	not present,
ifi-	tion-			may have to be registered as a specific party to vote, or there may	then the im-
ca-	al-			be special rules for which ballot a voter can pull. In some local	plementation
tion	ized-			elections, non-citizens can vote.	should ignore
	Text				it.
Ex-	Ex-	Op-	Sin-	Other identifiers for a contest that links to another source of infor-	If the element
ter-	ter-	tional	l gle	mation.	is invalid or
nalI-	nalI-				not present,
den-	den-				then the im-
ti-	ti-				plementation
fiers	fiers				should ignore
1.7		0.7	C.		it.
Has-	xs:b	<b>⊘p</b> e		Indicates whether the selections in the contest are rotated.	If the field is
Ro-		tiona	ı gle		invalid or not
ta-					present, then
tion					the implemen-
					tation should
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			G:	N. Col	ignore it.
Name	xs:s		Γ	Name of the contest, not necessarily how it appears on the ballot	If the field is
1 1 V	MI C-	quire		(NB: BallotTitle should be used for this purpose).	invalid, then
1.1. X	INIT 2b	ecilic	аноп		the implemen97
					tation should
			G:		ignore it.
Se-	xs:i	n <b>⊕p</b> -g	e Sin-	Order in which the contests are listed on the ballot. This is the de-	If the field is

# **PartySelection**

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	ed?peats?		
Par-	xs:II	r <b>re-</b> s	Sin-	One or more Party IDs	If one or more parties referenced are invalid or not
tyIds		quired gle which collectively repre		which collectively represent	present, the implementation is required to ignore the
				a ballot selection.	PartySelection containing it.

## **BallotSelectionBase**

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
Se-	xs:i	nt <b>Op</b> pge	rSin-	The order in which a selection can be listed on the bal-	If the field is invalid or
quence	-	tiona	l gle	lot or in results. This is the default ordering, and can	not present, then the im-
Order				be overridden by OrderedBallotSlectionIds in Ordered-	plementation is required to
				Contest.	ignore 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	Re-	Re-	Description	Error Handling
	Туре		døeat		X0.1
Con-	Con-	Op-	Re-	Refers to the associated <i>ContactInformation</i> .	If the element is in-
tact-	tact-	tional	peats		valid or not present,
In-	In-				then the implementa-
for-	for-				tion is required to ig-
ma-	ma-				nore it.
tion	tion				
Da-	xs:da	t <b>@</b> p-	Sin-	Represents the individual's date of birth.	If the field is invalid or
te-		tional	gle	•	not present, then the
Of-					implementation is re-
Birth					quired to ignore it.
Ex-	Ex-	Op-	Sin-	Identifiers for this person.	If the element is in-
ter-	ter-	tional	I	identifiers for this person.	valid or not present,
nalI-	nalI-	tiona	gie		then the implementa-
					_
den-	den-				tion is required to ig-
ti-	ti-				nore it.
fiers	fiers				
First-	xs:st	r <b>Op</b> ⊬g	Sin-	Represents an individual's first name.	If the field is invalid or
Name		tional	gle		not present, then the
					implementation is re-
					quired to ignore it.
Full-	In-	Op-	Sin-	Specifies a person's full name ( <b>NB</b> : this information is <i>In</i> -	If the element is in-
Name	ter-	tional	- 1	ternationalizedText because it sometimes appears on bal-	valid or not present,
1 (01110	na-	10114	510	lots in multiple languages).	then the implementa-
	tion-			iots in multiple languages).	tion is required to ig-
	al-				nore it.
					nore it.
	ized-				
G	Text	0	g:	0 10 1	TC 1 C 11! ' 1'1
Gen-	xs:st		Sin-	Specifies a person's gender.	If the field is invalid or
der		tional	gle		not present, then the
					implementation is re-
					quired to ignore it.
Last-	xs:st	r <b>Op</b> -g	Sin-	Represents an individual's last name.	If the field is invalid or
Name		tional	gle		not present, then the
					implementation is re-
					quired to ignore it.
Mid-	xs:st	r <b>Op</b> ro	Re-	Represents any number of names between an individual's	If the field is invalid or
dle-			peats	first and last names (e.g. John <b>Ronald Reuel</b> Tolkien).	not present, then the
Name			1	, , , , , , , , , , , , , , , , , , ,	implementation is re-
1 (01110					quired to ignore it.
Nick-	xs:st	γ(lm α	Sin-	Represents an individual's nickname.	If the field is invalid or
	XS:SU	tional	- 1	Represents an individual's inckname.	
name		tiona	gie		not present, then the
					implementation is re-
D.				D.C. and the control of the control	quired to ignore it.
Par-	xs:II		Sin-	Refers to the associated <i>Party</i> . This information is intended	If the field is invalid or
tyId		tional	gle	to be used by feed consumers to help them disambiguate	not present, then the
				the person's identity, but not to be presented as part of any	implementation is re-
				ballot information. For that see <i>Candidate</i> <b>PartyId</b> .	quired to ignore it.
Pre-	xs:st	r <b>Op</b> ⊬g	Sin-	Specifies a prefix associated with a person (e.g. Dr.).	If the field is invalid or
fix		tional			not present, then the
					implementation is re-
					quired to ignore it.
Pro-	In-	Op-	Sin-	Specifies a person's profession ( <b>NB</b> : this information is <i>In</i> -	If the element is in-
fes-	ter-	tional		ternationalizedText because it sometimes appears on bal-	valid or not present,
	<i>ter</i> - ILaSpe∉	cificati	ion	= =	
21011,		540		lots in multiple languages).	then the implementa
- 1					
	tion-				tion is required to ig-
	tion- al- ized-				nore it.

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

#### 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	Re-	Re-	Description	Error Handling
	Туре		dβeats		
Ad- dressL	ine		peats	The "location" portion of a mailing address. See usage note.	If the field is invalid or not present, then the implementation is required to ignore it.
Di- rec- tions	In- ter- na- tion- al- ized- Text	Op- tional	Sin-	Specifies further instructions for locating this entity.	If the element is invalid or not present, then the implementation is required to ignore it.
Email			peats	An email address for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Fax		tional	peats	A fax line for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Hours [dep- re- cated]	ter- na-	Op- tional	Sin-	Contains the hours (in local time) that the location is open (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).	If the element is invalid or not present, then the implementation is required to ignore it.
Hour- sOpen	1	FOpp- tional	Sin- gle	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.
LatLn	g LatLn	g Op- tional	Sin-	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		tional	gle	The name of the location or contact. See usage note.	If the field is invalid or not present, then the implementation is required to ignore it.
	xs:s	tional	peats	A phone number for the contact.	If the field is invalid or not present, then the implementation is required to ignore it.
Uri	xs:a	ny <b>Op</b> RI tional	Re- peats	An informational URI for the contact or location.	If the field is invalid or not present, then the implementation is required to
1.1. XI	ML Spe	cificat	ion		ignore it. 101

# 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
```

```
contactInformation label="ci10861a">
cAddressLine>1600 Pennsylvania Ave</AddressLine>
cAddressLine>Washington, DC 20006</AddressLine>
cEmail>president@whitehouse.gov</Email>
cPhone>202-456-1111</Phone>
cPhone annotation="TDD">202-456-6213</Phone>
cUri>http://www.whitehouse.gov</Uri>
c/ContactInformation>
```

# **PollingLocation**

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

Tag	Data	Re- R	e-	Description	Error Handling
	Туре			s?	_
Ad-	Sim-		in-	Represents the various structured parts of an	One of AddressStructured and
		!- tional gl	le	address to a polling location.	AddressLine should be present
tured	dress	Туре			for a given Polling Location. If
					none is present, the implemen-
					tation is required to ignore the
					PollingLocation element
					containing it.
Ad-		t <b>0p</b> -ng <b>R</b>		Represents the various parts of an address to	One of AddressStructured and
dress	Line	tional pe	eats	a polling location.	AddressLine should be present
					for a given Polling Location. If
					none is present, the implemen-
					tation is required to ignore the
					PollingLocation element
D.	7	0- 0.		Consider fundaminaturalisms Confession (	containing it.
Di-	In-		in-	Specifies further instructions for locating the	If the element is invalid or not present,
rec-	ter-	tional gl	ie	polling location.	then the implementation is required to
tions	na- tion-				ignore it.
	al-				
	ized-				
	Text				
Hour		Op- Si	in-	Contains the hours (in local time) that the	If the element is invalid or not present,
[dep-		tional gl		polling location is open (NB: this element	then the implementation is required to
re-	na-	tional gr		is deprecated in favor of the more structured	ignore it.
-	l] tion-			HoursOpen element. It is strongly encour-	18.010 10.
	al-			aged that data providers move toward con-	
	ized-			tributing hours in this format).	
	Text			,	
Hour	xs:I	DOPEF Si	in-	Links to an <i>HoursOpen</i> element, which is a	If the field is invalid or not present,
sOpe	nId	tional gl	le	schedule of dates and hours during which the	then the implementation is required to
				polling location is available.	ignore it.
Is-		о <b>ор</b> еа <b>s</b> i		Indicates if this polling location is a drop box.	If the field is invalid or not present,
Drop	-	tional gl	le		then the implementation is required to
Box					ignore it.
		o <b>⊙p</b> easi		Indicates if this polling location is an early	If the field is invalid or not present,
lyVot	-	tional gl	le	vote site.	then the implementation is required to
ing					ignore it.
LatLı	ng <i>LatLr</i>	~ I	in-	Specifies the latitude and longitude of this	If the element is invalid or not present,
		tional gl	le	polling location.	then the implementation is required to
					ignore it.
Name	xs:s	t <b>0p</b> -ng Si		Name of the polling location.	If the field is invalid or not present,
		tional gl	le		then the implementation is required to
DI		0 ~:			ignore it.
Pho-		ın <b>⊘p</b> ⊬RISi		Contains a link to an image of the polling lo-	If the field is invalid or not present,
toUri		tional gl	le	cation.	then the implementation is required to
					ignore it.

```
<IsDropBox>true</IsDropBox>
      <IsEarlyVoting>true</IsEarlyVoting>
      <LatLng>
6
         <Latitude>38.009939</Latitude>
         <Longitude>-78.506204</Longitude>
      </LatLng>
      <name>ALBERMARLE HIGH SCHOOL</Name>
10
   </PollingLocation>
11
   <!-- Or: -->
12
   <PollingLocation id="pl00000">
13
      <AddressStructured>
         <Line1>2775 Hydraulic Rd</Line1>
15
         <City>CHARLOTTESVILLE</City>
16
         <State>VA</State>
17
         <Zip>22901</Zip>
18
      </AddressStructured>
19
      <HoursOpenId>hours0002/HoursOpenId>
20
      <IsDropBox>true</IsDropBox>
21
      <IsEarlyVoting>true</IsEarlyVoting>
22
      <LatLng>
23
         <Latitude>38.009939
24
         <Longitude>-78.506204</Longitude>
25
      </LatLng>
26
      <name>ALBERMARLE HIGH SCHOOL</Name>
27
   </PollingLocation>
```

### 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	Re-	Re-	Description	Error Handling
	Type	quire	d peats	?	
Lat-	xs:do	ou <b>Re</b> ⊦e	Sin-	The latitude of the polling location.	If the field is invalid, then the
i-		quired gle			implementation is required to
tude					ignore it.
Lon-	xs:do	ou <b>Re</b> ⊦e	Sin-	The longitude of the polling location.	If the field is invalid, then the
gi-		quire	d gle		implementation is required to
tude					ignore it.
Sourc	exs:st	:1 <b>Op</b> +g	Sin-	The system used to perform the lookup from lo-	If the field is invalid or not
		tional	gle	cation name to lat/lng. For example, this could be	present, then the implementa-
				the name of a geocoding service.	tion is required to ignore it.

## **SimpleAddressType**

A SimpleAddressType represents a structured address.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	d?peats	.?	
Line1	xs:st	r <b>Re</b> rg	Sin-	The address line for a structured address.	If no Line1 is provided, the
		quired gle		Should include the street number, street	implementation should ignore the
				name, and any prefix and suffix.	SimpleAddressType.
Line2	2 xs:st	т <b>Ор</b> нд	Sin-	Additional field for an address	If no Line2 is provided, the imple-
		tional	gle		mentation should ignore it.
Line3	xs:st	т <b>Ор</b> нд	Sin-	Additional field for an address	If no Line3 is provided, the imple-
		tional	gle		mentation should ignore it.
City	xs:st	r <b>Re</b> ig	Sin-	The City value of a structured address.	If City is not provided, the
		quire	l gle		implementation should ignore the
					SimpleAddressType.
State	xs:st	r <b>Re</b> ig	Sin-	The State value of a structured address.	If State is not provided, the
		quire	l gle		implementation should ignore the
					SimpleAddressType.
Zip	xs:st	т <b>Ор</b> нд	Sin-	The ZIP code of a structured address.	If Zip is not provided, the im-
		tional	gle		plementation should ignore the
					SimpleAddressType.

# **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		Re-	Description	Error Handling
D.1			dpeats		TC 41 . C .1.1
Bal-	xs:1	D <b>OPP</b> F		Links to the <i>BallotStyle</i> , which a person who lives in this precinct	If the field is in-
lot-	ļ.	tional	gle	will vote.	valid or not present,
Style	ld				then the implemen-
					tation is required to
					ignore it.
Elec-		D <b>Оф</b> Б-F		Links to the :ref:'multi-xml-electoral-district's (e.g., congres-	If the field is in-
toralI	P-	tional	gle	sional district, state house district, school board district) to	valid or not present,
is-				which the entire precinct/precinct split belongs. Highly Rec-	then the implemen-
tric-				<b>ommended</b> if candidate information is to be provided.	tation is required to
tIds					ignore it.
Ex-	Ex-	Op-	Sin-	Other identifier for the precinct that relates to another dataset	If the element is in-
ter-	ter-	tional	gle	(e.g. OCD-ID).	valid or not present,
nalI-	nalI-				then the implemen-
den-	den-				tation is required to
ti-	ti-				ignore it.
fiers	fiers				=
Is-	U	<b>⊘pi</b> -e	a <b>S</b> in-	Determines if the precinct runs mail-only elections.	If the field is miss-
Mail		tional		, , , , , , , , , , , , , , , , , , , ,	ing or invalid, the
			٠		implementation is
					required to assume
					<i>IsMailOnly</i> is false.
Lo-	xs:	D <b>Re</b> F	Sin-	Links to the <i>Locality</i> that comprises the precinct.	If the field is
cal-	110 1	quire		Zimis to the Zocomy that comprises the profiles.	invalid, then the
i-		quii	agie		implementation is
tyId					required to ignore
tyra					the Precinct
					element containing
					it.
Name	e xs:s	t <b>Re</b> -n	gSin-	Specifies the precinct's name (or number if no name exists).	If the field is
		quire	dgle		invalid, then the
					implementation is
					required to ignore
					the Precinct
					element containing
					it.
Num-	xs:s			Specifies the precinct's number (e.g., 32 or 32A – alpha charac-	If the field is in-
ber		tional	gle	ters are legal). Should be used if the <i>Name</i> field is populated by	valid or not present,
				a name and not a number.	then the implemen-
					tation is required to
					ignore it.
Pollir	ngkos∶I	D <b>O</b> PEF	S Sin-	Specifies a link to the precinct's <i>PollingLocation</i> object(s).	If the field is in-
ca-		tional	gle		valid or not present,
tion-					then the implemen-
Ids					tation is required to
					ignore it.
Preci	ncxt-s:s	t <b>0:pi</b> -n	g Sin-	If this field is empty, then this <i>Precinct</i> object represents a full	If the field is in-
Split-		tional		precinct. If this field is present, then this <i>Precinct</i> object repre-	valid or not present,
Name				sents one portion of a split precinct. Each <i>Precinct</i> object that	then the implemen-
				represents one portion of a split precinct <b>must</b> have the same	tation is required to
				Name value, but different PrecinctSplitName values. See the	ignore it.
				sample_feed.xml file for examples.	
Ward	xs:s			Specifies the ward the precinct is contained within.	If the field is in-
106		tiona	gle	Chapter 1. X	valid or not present, MkePզգաmթըլելլթո
				_	tation is required to
					ignore it.
				ı	

```
<Precinct id="pre90111">
      <BallotStyleId>bs00010/BallotStyleId>
2
      <ElectoralDistrictIds>ed60129 ed60311 ed60054/ElectoralDistrictIds>
3
      <IsMailOnly>false</IsMailOnly>
      <LocalityId>loc70001</LocalityId>
      <Name>203 - GEORGETOWN</Name>
      <Number>0203</Number>
      <PollingLocationIds>p181274</pollingLocationIds>
   </Precinct>
9
   <!--
10
     Precinct split. Name and PollingLocationIds are the same but
11
     PrecinctSplitName is present, the ElectoralDistrictIds are different,
12
     and the BallotStyleId is different.
13
14
   <Precinct id="pre90348sp0000">
15
     <BallotStyleId>bs00002/BallotStyleId>
16
     <ElectoralDistrictIds>ed60129 ed60054 ed60150/ElectoralDistrictIds>
17
     <IsMailOnly>false</IsMailOnly>
     <LocalityId>loc70001</LocalityId>
     <Name>201 - JACK JOUETT</Name>
20
     <Number>0201</Number>
21
     <PollingLocationIds>pl00000 pl81273 pl81662</pollingLocationIds>
22
     <PrecinctSplitName>0000</precinctSplitName>
23
   </Precinct>
24
   <Precinct id="pre90348sp0001">
     <BallotStyleId>bs00015/BallotStyleId>
26
     <ElectoralDistrictIds>ed60129 ed60054 ed60267/ElectoralDistrictIds>
27
     <IsMailOnly>false</IsMailOnly>
28
     <LocalityId>loc70001</LocalityId>
29
     <Name>201 - JACK JOUETT</Name>
30
     <Number>0201</Number>
     <PollingLocationIds>p100000 p181273 p181662</pollingLocationIds>
     <PrecinctSplitName>0001</precinctSplitName>
   </Precinct>
```

#### RetentionContest

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired?peats?		?	
Can-	xs:ID	₽ <b>Rē</b> -	Sin-	Links to the Can-	If the field is invalid or not present, the implementation
di-		quired	gle	didate being re-	is required to ignore the RetentionContest element
dateId				tained.	containing it.
Offi-	xs:ID	R <b>©p</b> -	Sin-	Links to the infor-	If the field is invalid or not present, then the implementa-
ceId		tional	gle	mation about the	tion is required to ignore it.
				office.	

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```
<Text language="es">La retención de juez de la Corte Suprema</Text>

</BallotTitle>

<ElectoralDistrictId>ed60129</ElectoralDistrictId>

<Name>Judicial Retention, Supreme Court</Name>

<CandidateId>can14444</CandidateId>

<OfficeId>off20006</OfficeId>

</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	Re-	Re-	Description	Error Handling
	Type		dßeats		
Name	xs:str	_	Sin-	Specifies the name of the organization that	If the field is invalid, then the im-
		quire	dgle	is providing the information.	plementation is required to ignore
					the Source element containing
					it.
VipId	xs:str	i <b>R</b> e-	Sin-	Specifies the ID of the organization. VIP	If the field is invalid, then the im-
		quire	dgle	uses FIPS codes for this ID.	plementation is required to ignore
					the Source element containing
					it.
Date-	xs:dat			Specifies the date and time of the feed pro-	If the field is invalid, then the im-
Time		quire	dgle	duction. The date/time is considered to be	plementation is required to ignore
				in the timezone local to the organization.	the Source element containing
					it.
De-	Inter-	Op-	Sin-	Specifies both the nature of the organiza-	If the element is invalid or not
scrip-	na-	tiona	l gle	tion providing the data and what data is in	present, then the implementation
tion	tional-			the feed.	is required to ignore it.
	ized-				
	Text				
Orga-	xs:str		Sin-	Specifies a URI to the home page of the	If the field is invalid or not
niza-		tiona	l gle	organization publishing the data.	present, then the implementation
tionUri					is required to ignore it.
Feed-	Con-	Op-	Sin-	Reference to the <i>Person</i> who will respond	If the element is invalid or not
Con-	tactIn-	tiona	l gle	to inquiries about the information con-	present, then the implementation
tactIn-	forma-			tained within the file.	is required to ignore it.
forma-	tion				
tion					
TouUri	xs:any		Sin-	Specifies the website where the Terms of	If the field is invalid or not
		tiona	l gle	Use for the information in this file can be	present, then the implementation
				found.	is required to ignore it.
Version	xs:str	_	Sin-	Specifies the version of the data	If the field is invalid, then the im-
		quire	dgle		plementation is required to ignore
					the Source element containing
					it.

```
<Source id="src1">
     <DateTime>2013-10-24T14:25:28</DateTime>
```

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#### 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	Re-	Re-	Description	Error Handling
	Туре	quire	d <b>p</b> eats	s?	_
Elec-	xs:I	D <b>Øp</b> F	Sin-	Links to the state's election administration object.	If the field is invalid or
tion-		tional	gle		not present, then the im-
Ad-					plementation is required
min-					to ignore it.
istra-					
tionId					
Exter-	Ex-	Op-	Sin-	Other identifier for the state that relates to another	If the element is in-
nalI-	ter-	tional	gle	dataset (e.g. OCD-ID).	valid or not present, then
denti-	nalI-				the implementation is
fiers	den-				required to ignore it.
	ti-				
	fiers				
Name	xs:s	t <b>Re</b> ng	Sin-	Specifiers the name of a state, such as Alabama.	If the field is invalid,
		quire	dgle		then the implementation
					is required to ignore
					the State element con-
					taining it.
Pollingl	Loxs:I	D <b>Øp</b> F\$	Sin-	Specifies a link to the state's <i>polling locations</i> . If early	If the field is invalid or
ca-		tional	gle	vote centers or ballot drop locations are state-wide (e.g.,	not present, then the im-
tion-				anyone in the state can use them), they can be specified	plementation is required
Ids				here, but you are encouraged to only use the <i>Precinct</i>	to ignore it.
				element.	

# **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.

Too	Doto	Do 1	D۵	Description	Error Handling
Tag	Data		Re-	Description	Error Handling
Ad-		<b>quire</b> t <b>Op</b> -n		Specifies the (inter-)cardinal direction of the	If the field is invalid or not present,
dress		- 1	-	entire address. An example is "NE" for the	then the implementation is required to
Di-	T I	tional	gie	address "100 E Capitol St NE."	ignore it.
				address 100 E Capitol St NE.	ignore it.
rec-					
tion		D.d.	C:		If the Cold is invested there the im-
City	XS:S	st <b>Re</b> i-n quire	_	The city specifies the city or town of the address.	If the field is invalid, then the implementation is required to ignore the StreetSegment element containing it.
In-	xs:b	<b>⊘</b> p1-e	a <b>S</b> in-	Specifies if the segment covers every address	If the field is invalid or not present,
clude		tiona		on this street. If this is <i>true</i> , then the values	then the implementation is required to
sAl-			Č	of StartHouseNumber and EndHouseNum-	ignore it.
lAd-				ber should be ignored. The value of OddE-	
dress	es			<b>venBoth</b> must be <i>both</i> .	
In-		<b>⊘</b> p1-e	a <b>S</b> in-	Specifies if the segment covers every street in	If the field is invalid or not present,
clude		tional		this city. If this is <i>true</i> , then the values of	then the implementation is required to
sAll-			<i>J</i> .	OddEvenBoth, StartHouseNumber, End-	ignore it.
Stree				HouseNumber, StreetName, and Zip should	<del>                                    </del>
				be ignored.	
Odd-	OebE	- On-	Sin-	Specifies whether the odd side of the street	If the field is not present or invalid, the
E-	num	tional		(in terms of house numbers), the even side, or	implementation is required to ignore
ven-			510	both are in included in the street segment.	the StreetSegment containing it.
Both				som me in meraded in the street segment.	the successiment containing it.
	nœs:I	TRAFE	Sin-	References the <i>Precinct</i> that contains the en-	If the field is invalid, then the im-
tId		quire		tire street segment.	plementation is required to ignore the
tia		quire	ugic	the sheet segment.	StreetSegment element contain-
					ing it.
Start-	xs	r <b>Otpe</b> g	≃ <del>S</del> in-	The house number at which the street seg-	Unless IncludesAllAddresses or In-
Hous		tional		ment starts. This value is necessary for the	cludesAllStreets are true, if the field
Num		tronta	510	street segment to make any sense. Unless <b>In-</b>	is not present or invalid, the imple-
ber				cludesAllAddresses or IncludesAllStreets	mentation is required to ignore the
001				are true, this value must be less than or equal	StreetSegment element containing it.
				to EndHouseNumber. If IncludesAllAd-	If the <b>StartHouseNumber</b> is greater
				dresses or Includes All Streets are true, this	than the <b>EndHouseNumber</b> , the im-
				value is ignored.	plementation should ignore the ele-
				raide to ignored.	ment containing them.
End-	ye.i	r <b>Otpe</b> g	Sin-	The house number of which the street see	mont containing them.
Hous			~ 1111_	The nouse himper at which the cired ceo-	Unless Includes All Addresses or In-
Num-	n_	tional	രിമ	The house number at which the street seg-	Unless Includes All Addresses or Includes All Streets are true if the field is
INUITE		tional	gle	ment ends. This value is necessary for the	cludesAllStreets are true, if the field is
		tional	gle	ment ends. This value is necessary for the street segment to make any sense. Un-	<b>cludesAllStreets</b> are true, if the field is not present or invalid, the implemen-
ber		tional	gle	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-	<b>cludesAllStreets</b> are true, if the field is not present or invalid, the implementation is required to ignore the Street-
		tional	gle	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or	<b>cludesAllStreets</b> are true, if the field is not present or invalid, the implementation is required to ignore the Street-Segment element containing it. If the
		tional	gle	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAl-	cludesAllStreets are true, if the field is not present or invalid, the implemen- tation is required to ignore the Street- Segment element containing it. If the EndHouseNumber is less than the
		tional	gle	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAllAddresses or IncludesAllStreets are true,	cludesAllStreets are true, if the field is not present or invalid, the implemen- tation is required to ignore the Street- Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementa-
		tional	gle	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAl-	cludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element con-
ber				ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.	cludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.
ber	e-xs:s	st <b>Qp</b> i-n	g Sin-	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.  Part of a street address. It may contain let-	cludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.  If the field is invalid or not present,
Hous Num-	e-xs:s		g Sin-	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.  Part of a street address. It may contain letters or slashes (e.g., 'B' in 'B22 Main St').	cludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.  If the field is invalid or not present, then the implementation is required to
Hous Num- ber-	e-xs:s	st <b>Qp</b> i-n	g Sin-	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.  Part of a street address. It may contain letters or slashes (e.g., 'B' in 'B22 Main St'). If this value is present then StartHouseNum-	cludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.  If the field is invalid or not present,
Hous Num- ber- Pre-	e-xs:s	st <b>Qp</b> i-n	g Sin-	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.  Part of a street address. It may contain letters or slashes (e.g., 'B' in 'B22 Main St'). If this value is present then StartHouseNumber must be equal to EndHouseNumber.	cludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.  If the field is invalid or not present, then the implementation is required to
Hous Num- ber-	e-xs:s	st <b>Qp</b> i-n	g Sin-	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.  Part of a street address. It may contain letters or slashes (e.g., 'B' in 'B22 Main St'). If this value is present then StartHouseNumber must be equal to EndHouseNumber. This field cannot be used if IncludesAllAd-	cludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.  If the field is invalid or not present, then the implementation is required to
Hous Num- ber- Pre- fix	e-xs:s	st <b>Op</b> i-n tional	gSin- gle	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.  Part of a street address. It may contain letters or slashes (e.g., 'B' in 'B22 Main St'). If this value is present then StartHouseNumber must be equal to EndHouseNumber. This field cannot be used if IncludesAllAddresses or IncludesAllStreets are true.	cludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.  If the field is invalid or not present, then the implementation is required to ignore it.
Hous Num- ber- Pre- fix	e-xs:s	t <b>Op</b> -n tional	gSin- gle	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.  Part of a street address. It may contain letters or slashes (e.g., 'B' in 'B22 Main St'). If this value is present then StartHouseNumber must be equal to EndHouseNumber. This field cannot be used if IncludesAllAddresses or IncludesAllStreets are true.  Part of a street address. It may contain letters are true.	cludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.  If the field is invalid or not present, then the implementation is required to ignore it.
Hous Num- ber- Pre- fix Hous Num-	e-xs:s	t <b>Op</b> -n tional t <b>Op</b> -n tional	gSin- gle	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.  Part of a street address. It may contain letters or slashes (e.g., 'B' in 'B22 Main St'). If this value is present then StartHouseNumber must be equal to EndHouseNumber. This field cannot be used if IncludesAllAddresses or IncludesAllStreets are true.  Part of a street address. It may contain letters or slashes (e.g., 1/2 in '22 1/2 Main	cludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.  If the field is invalid or not present, then the implementation is required to ignore it.
Hous Num- ber- Pre- fix Hous Num- 1 Jer- X	e-xs:s	t <b>Op</b> -n tional t <b>Op</b> -n tional	gSin- gle	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.  Part of a street address. It may contain letters or slashes (e.g., 'B' in 'B22 Main St'). If this value is present then StartHouseNumber must be equal to EndHouseNumber. This field cannot be used if IncludesAllAddresses or IncludesAllStreets are true.  Part of a street address. It may contain letters or slashes (e.g., 1/2 in '22 1/2 Main St'). If this value is present then StartHouse-	cludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.  If the field is invalid or not present, then the implementation is required to ignore it.
Hous Num- ber- Pre- fix Hous Num-	e-xs:s	t <b>Op</b> -n tional t <b>Op</b> -n tional	gSin- gle	ment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets are true, it must be greater than or equal to StartHouseNumber. If IncludesAllAddresses or IncludesAllStreets are true, this value is ignored.  Part of a street address. It may contain letters or slashes (e.g., 'B' in 'B22 Main St'). If this value is present then StartHouseNumber must be equal to EndHouseNumber. This field cannot be used if IncludesAllAddresses or IncludesAllStreets are true.  Part of a street address. It may contain letters or slashes (e.g., 1/2 in '22 1/2 Main	cludesAllStreets are true, if the field is not present or invalid, the implementation is required to ignore the Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.  If the field is invalid or not present, then the implementation is required to ignore it.

lAddresses or IncludesAllStreets are true.

```
<StreetSegment id="ss999999">
      <City>Charlottesville</City>
2
      <IncludesAllAddresses>true</IncludesAllAddresses>
3
      <OddEvenBoth>both</OddEvenBoth>
      <Pre><PrecinctId>pre99999</PrecinctId>
      <State>VA</State>
      <StreetName>CHAPEL HILL</StreetName>
      <StreetSuffix>RD</StreetSuffix>
      <Zip>22901</Zip>
   </StreetSegment>
10
   <StreetSegment id="ss309904">
11
      <City>GREENWOOD</City>
12
      <OddEvenBoth>both</OddEvenBoth>
13
      <Pre><PrecinctId>pre92145</PrecinctId>
14
      <StartHouseNumber>1</StartHouseNumber>
15
      <EndHouseNumber>201</EndHouseNumber>
16
      <State>VA</State>
17
      <StreetName>MISTY MOUNTAIN</StreetName>
      <StreetSuffix>RD</StreetSuffix>
      <Zip>22943</Zip>
20
   </StreetSegment>
21
   <StreetSegment id = "ss1"
22
      <City>GREENWOOD</City>
23
      <OddEvenBoth>both</OddEvenBoth>
24
      <PrecinctId>pre92145</precinctId>
      <StartHouseNumber>1</StartHouseNumber>
26
      <EndHouseNumber>1</EndHouseNumber>
27
      <HouseNumberPrefix>B</HouseNumberPrefix>
28
      <HouseNumberSuffix>1/2/HouseNumberSuffix>
29
      <State>VA</State>
30
      <StreetName>MISTY MOUNTAIN</StreetName>
      <StreetSuffix>RD</StreetSuffix>
      <Zip>22943</Zip>
33
   </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-	A catch-all for generic types of non-candidate-based contests.				
measure					
initiative	These are usually citizen-driven measures to be placed on the ballot. These could include both statu-				
	tory changes and constitutional amendments.				
referen-	These could include measures to repeal existing acts of legislation, legislative referrals, and				
dum	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 voting, where each voter can select as many options as desired.
proval	
borda	Borda count, where each voter can rank the options, and the rankings are assigned point values.
cumu-	Cumulative voting, where each voter can distribute their vote to up to $N$ options.
lative	
major-	A 1-of-m method where the winner needs more than 50% of the vote to be elected.
ity	
n-of-m	A method where each voter can select up to <i>N</i> options.
plural-	A 1-of-m method where the option with the most votes is elected, regardless of whether the option has
ity	more than 50% of the vote.
propor-	A proportional representation method (other than STV), which is any system that elects winners in
tional	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-	A 1-of-m method where the winner needs more than some predetermined fraction of the vote to be
majority	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.

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440	Observation	\ =	

# CHAPTER 2

**CSV** Documentation

# 2.1 CSV Specification

- Getting Started
- Elements & Enumerations
  - Single-page Format
  - Elements (Separate Pages)
  - Enumerations (Separate Pages)

# 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.

Certain files are required to serve different types of information. Below is a listing of which files are required for different VIP data sets.

# Required files:

- · election.txt
- source.txt
- state.txt
- department.txt

# Files to serve polling locations:

• election\_administration.txt

- department.txt
- locality.txt
- polling\_location.txt
- precinct.txt
- street\_segment.txt

#### Files to serve candidate contests:

- · candidate.txt
- candidate\_contest.txt
- candidate\_selection.txt
- · office.txt

# Files to serve referenda and ballot measures:

- ballot\_measure\_contest.txt
- ballot\_measure\_selection.txt

#### Files to serve retention contests:

· retention contest.txt

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).

# 2.1.2 Elements & Enumerations

#### Single-page Format

# **CSV Elements & Enumerations (Single Page)**

- Elements
  - state
  - term
  - office
    - \* term
    - \* contact\_information
  - election
  - ballot\_selection\_base
  - source
  - ballot\_measure\_contest
    - \* contest\_base

- contest\_base
- time\_with\_zone
- language\_string
- ballot\_style
- external\_identifier
- person
  - \* contact\_information
- external\_identifiers
- voter\_service
- contact\_information
- candiate\_selection
  - \* ballot\_selection\_base
- lat\_long
- candidate
- polling\_location
  - \* lat\_long
  - \* simple\_address\_type
- locality
- department
  - \* voter\_service
  - \* contact\_information
- html\_color\_string
- schedule
  - \* hours
    - time\_with\_zone
- precinct
- ordered\_contest
- party\_contest
  - \* contest\_base
- election\_administration
  - \* department
    - voter\_service
    - $\cdot$  contact\_information
  - \* election\_notice
  - \* voter\_service

hours  $* time\_with\_zone$ - election\_notice retention\_contest - street\_segment candidate\_contest \* contest\_base - party \* html\_color\_string internationalized\_text - ballot\_measure\_selection \* ballot\_selection\_base - hours\_open \* schedule · hours \* time\_with\_zone electoral\_district - party\_selection \* ballot\_selection\_base - simple\_address\_type • Enumerations identifier\_type - candidate\_post\_election\_status - candidate\_pre\_election\_status - voter\_service\_type district\_type office\_term\_type oeb\_enum ballot\_measure\_type

# **Elements**

vote\_variation

### 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	Re-	Re-	Description	Error Handling
	Type	quire	dpeats	s?	
elec-	xs:I	D <b>1ROFpF</b>	Sin-	Links to the state's election administration object.	If the field is invalid or
tion_adı	ninistra	ti oiro <u>n</u> iad	lgle		not present, then the im-
					plementation is required
					to ignore it.
exter-	ex-	Op-	Sin-	Other identifier for the state that relates to another	If the element is in-
nal_ider	ti <b>fae</b> rs	tional	lgle	dataset (e.g. 'OCD-ID'_).	valid or not present, then
	nal_id	entifier	S		the implementation is
					required to ignore it.
name	xs:s	t <b>Re</b> ng	Sin-	Specifiers the name of a state, such as Alabama.	If the field is invalid,
		quire	dgle		then the implementation
					is required to ignore
					the State element con-
					taining it.
polling_	location	D <b>radip</b> ers	Sin-	Specifies a link to the state's <i>polling locations</i> . If early	If the field is invalid or
		tional	gle	vote centers or ballot drop locations are state-wide (e.g.,	not present, then the im-
				anyone in the state can use them), they can be specified	plementation is required
				here, but you are encouraged to only use the <i>precinct</i>	to ignore it.
				element.	

#### term

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired	1?peats	?	
term_ty	pe <i>of-</i>	Op-	Sin-	Specifies the type of office	If the field is invalid or not present, the imple-
	fice_tern	n_tigmal	gle	term (see <i>office_term_type</i> for	mentation is required to ignore the Office el-
				valid values).	ement containing it.
term_sta	urt <u>x</u> datdat	еОр-	Sin-	Specifies the start date for the	If the field is invalid or not present, then the
		tional	gle	current term of the office.	implementation is required to ignore it.
term_en	d <u>x</u> datedat	еОр-	Sin-	Specifies the end date for the	If the field is invalid or not present, then the
		tional	gle	current term of the office.	implementation is required to ignore it.

# office

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type		dßeats	5?	
con-	xs:II	RODP-	Re-	Links to the single-csv-contact-	If the element is invalid or not present,
tact_inform	nation_i	d tional	peats	information element associated with	then the implementation is required to
				the office.	ignore it.
descrip-	xs:st	г <b>Ор</b> нд	Sin-	A brief description of the office and its	If the element is invalid or not present,
tion		tional	gle	purpose.	then the implementation is required to
					ignore it.
elec-	xs:II	P <b>R€</b> -	Sin-	Links to the <i>electoral_district</i> element	If the field is invalid or not present,
toral_distr	ict_id	quire	dgle	associated with the office.	the implementation is required to ig-
					nore the Office element containing
					it.
exter-	xs:II	RODP-	Sin-	Other identifiers that link this office to	If the element is invalid or not present,
nal_identif	fiers	tional	gle	other related datasets (e.g. campaign	then the implementation is required to
				finance systems, OCD IDs, et al.).	ignore it.
fil-	xs:da	ıt <b>@</b> p-	Sin-	Specifies the date and time when a	If the field is invalid or not present,
ing_deadli	ne	tional	gle	candidate must have filed for the con-	then the implementation is required to
				test for the office.	ignore it.
is_partisar	xs:bo	o <b>Op⊱</b> ar	Sin-	Indicates whether the office is parti-	If the field is invalid or not present,
		tional	gle	san.	then the implementation is required to
					ignore it.
name	xs:st	r <b>Re</b> rg	Sin-	The name of the office.	If the field is invalid or not present,
		quire	dgle		the implementation is required to ig-
					nore the Office element containing
					it.
of-	xs:II		Sin-	Links to the <i>person</i> element(s) that	If the field is invalid or not present,
fice_holde	r_person	_ <b>tids</b> nal	gle	hold additional information about the	then the implementation is required to
				current office holder(s).	ignore it.
term	single-		Sin-	Defines the term the office can be held.	If the element is invalid or not present,
	csv-	tional	gle		then the implementation is required to
	term				ignore it.

#### term

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired	1?peats	?	
term_ty	pe <i>of-</i>	Op-	Sin-	Specifies the type of office	If the field is invalid or not present, the imple-
	fice_tern	ı <u>ti</u> ynal	gle	term (see office_term_type for	mentation is required to ignore the Office el-
				valid values).	ement containing it.
term_sta	urt <u>x</u> datdat	еОр-	Sin-	Specifies the start date for the	If the field is invalid or not present, then the
		tional	gle	current term of the office.	implementation is required to ignore it.
term_en	d <u>x</u> datedat	еОр-	Sin-	Specifies the end date for the	If the field is invalid or not present, then the
		tional	gle	current term of the office.	implementation is required to ignore it.

# contact\_information

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. *election\_administration*, *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		Re-	Description	Error Handling
	Type	quire	døeats	s?	
ad-	xs:s	t <b>0p</b> ng	Re-	The "location" portion of a mailing address. See usage note.	If the field is in-
dress	line	tional	peats		valid or not present,
			1		then the implementa-
					tion is required to ig-
					nore it.
di-	vc•c	t <b>Op</b> ng	Sin_	Specifies further instructions for locating this entity.	If the element is in-
rec-	A5.5	tional		specifies further instructions for focating this entity.	valid or not present,
tions		tionai	gie		then the implementa-
tions					_
					tion is required to ig-
		. 0.1	ъ	A 11 0 d	nore it.
email	xs:s	t <b>0</b> թո		An email address for the contact.	If the field is in-
		tional	peats		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
fax	xs:s	t <b>0p</b> ng	Re-	A fax line for the contact.	If the field is in-
		tional	peats		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
hours	xs:s	t <b>Op</b> ng	Sin-	Contains the hours (in local time) that the location is open	If the element is in-
110 011	110 • 0	tional		(NB: this element is deprecated in favor of the more struc-	valid or not present,
			810	tured :ref: 'single-csv-hours-open' element. It is strongly en-	then the implementa-
				couraged that data providers move toward contributing hours	tion is required to ig-
				in this format).	nore it.
hours	_øpenI	ਹ ਭਾਉਨਾਂ	Sin-	References an <i>hours_open</i> element, which lists the hours of	If the field is in-
Hours	_edac11T				
		tional	gle	operation for a location.	valid or not present,
					then the implementa-
					tion is required to ig-
1 . 1	. 1		G.		nore it.
lat_lo	ngingle		Sin-	Specifies the latitude and longitude of this entity.	If the element is in-
	csv-	tional	gle		valid or not present,
	lat-				then the implementa-
	lng				tion is required to ig-
					nore it.
name	xs:s	t <b>0p</b> n	Sin-	The name of the location or contact. See usage note.	If the field is in-
		tional	gle		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
phone	exs:s	t <b>0</b> pn	Re-	A phone number for the contact.	If the field is in-
		tional		*	valid or not present,
			r		then the implementa-
					tion is required to ig-
					nore it.
uri	vc•a	n <b>Qp</b> RI	Re	An informational URI for the contact or location.	If the field is in-
uii	ASid			An informational OXI for the contact of location.	
		попаг	peats		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.

```
id,address_line_1,address_line_2,address_line_3,directions,email,fax,hours,hours_

open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id

ci0827,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,

o,,,Josh Lyman,555-111-2222,http://lemonlyman.example.com,off001

ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,

o,,,Josh Lyman,555-111-2222,http://lemonlyman.example.com,vs01
```

#### 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	1	Re-	Re-	Description 5?	Error Handling
date		a <b>ke</b> quire	Sin-	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.
elec- tion_ty	1	t <b>Op</b> -n- tional	- 1	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.
state_i	dxs:	<b>PRE</b> F		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_stat	ewide l	c <b>⊘p</b> l-e tional	- 1	Indicates whether the election is statewide.	If the field is not present or invalid, the implementation is required to default to "yes".
name	xs:s	t <b>Op</b> i-n	- 1	The name for the election ( <b>NB</b> : while optional, this element is highly recommended).	If the element is invalid or not present, then the implementation is required to ignore it.
reg- is- tra- tion_in		t <b>Op</b> -n tional	gSin- gle	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.
ab- sen- tee_ba	xs:s	t <b>Opi</b> -n tional fo		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.
re- sults_u	uri	r <b>Q</b> p⊍R tional	gle	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.
polling 126	_hours	t <b>Op</b> i-n tional	- 1	Contains the hours (in local time) that Election Day polling locations are open. If polling hours differ in specific polling locations alternative hours may be specified in the polling_location object (NB: this element is deprecated in favor of the more structured :ref: 'single-csv-hours-open' element. It is strongly encouraged	If the element V <sub>i</sub> Documentation present, then the implementation is required to

```
id, 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
e001,10-08-2016, Best Hot Dog, State, st51, true, www.registrationinfo.com, You can vote_
→absentee, http://hotdogcontest.gov/results, Noon to 3p.m., true, 10/08/2016,, ho002
```

#### ballot selection base

A base model for all ballot selection types: ballot\_measure\_selection, candiate\_selection, and party\_selection.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
se-	xs:i	n <b>tOp</b> pge	rSin-	The order in which a selection can be listed on the	If the field is invalid or
quence	_order	tiona	gle	ballot or in results. This is the default ordering, and	not present, then the im-
				can be overridden by OrderedBallotSlectionIds in or-	plementation is required to
				dered_contest.	ignore it.

#### 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	Re-	Re-	Description	Error Handling
	Type	quire	dßeats	s?	
name	xs:st	r <b>Re</b> -g	Sin-	Specifies the name of the organization that	If the field is invalid, then the im-
		quire	<b>d</b> gle	is providing the information.	plementation is required to ignore
					the Source element containing
					it.
vip_id	xs:st	r <b>Re</b> -g	Sin-	Specifies the ID of the organization. VIP	If the field is invalid, then the im-
		quire	<b>d</b> gle	uses <b>FIPS</b> _ codes for this ID.	plementation is required to ignore
					the Source element containing
					it.
date_time	xs:da	t <b>Re</b> -in	n&in-	Specifies the date and time of the feed pro-	If the field is invalid, then the im-
		quire	<b>d</b> gle	duction. The date/time is considered to be	plementation is required to ignore
				in the timezone local to the organization.	the Source element containing
					it.
descrip-	xs:st	r <b>0p</b> -g	Sin-	Specifies both the nature of the organiza-	If the element is invalid or not
tion		tional	gle	tion providing the data and what data is in	present, then the implementation
				the feed.	is required to ignore it.
organiza-	xs:st	r <b>0p</b> -g	Sin-	Specifies a URI to the home page of the	If the field is invalid or not present,
tion_uri		tional	gle	organization publishing the data.	then the implementation is re-
					quired to ignore it.
feed_conta	ct <u>x</u> isa foīrī	n <b>aŒijō</b> ∙n_	idSin-	Reference to the <i>person</i> who will respond	If the element is invalid or not
		tional	gle	to inquiries about the information con-	present, then the implementation
				tained within the file.	is required to ignore it.
terms_of_u	se <u>x</u> sırian	y <b>0p</b> -I	Sin-	Specifies the website where the Terms of	If the field is invalid or not present,
		tional	gle	Use for the information in this file can be	then the implementation is re-
				found.	quired to ignore it.
version	xs:st	r <b>Re</b> -g	Sin-	Specifies the version of the data	If the field is invalid, then the im-
		quire	<b>d</b> gle		plementation is required to ignore
					the Source element containing
					it.

id, date\_time, description, name, organization\_uri, terms\_of\_use\_uri, vip\_id, version source01,2016-06-02T10:24:08, SBE is the official source for Virginia data, "State\_ → Board of Elections, Commonwealth of Virginia", http://www.sbe.virginia.gov/, http:// → example.com/terms,51,5.1

# ballot\_measure\_contest

The BallotMeasureContest provides information about a ballot measure before the voters, including summary statements on each side. Extends single-csv-contest-base.

Tag Data Re- Re-	Description	Error Handling
Type quired@eats		TC d t
con_statemenOp-ngSin-	Specifies a statement in opposition to the referendum. It does not	If the element
tional gle	necessarily appear on the ballot.	is invalid or not
		present, then the
		implementation
		is required to
		ignore it.
of work to a Sim	Charifica what affect abstrining (i.e. not victing) on this managi	If the element
ef- xs:stOp-ngSin-	Specifies what effect abstaining (i.e. not voting) on this proposi-	
fect_of_abstational gle	tion will have (i.e. whether abstaining is considered a vote against	is invalid or not
	it).	present, then the
		implementation
		is required to
		ignore it.
full_texts:stOpi-ngSin-	Specifies the full text of the referendum as it appears on the ballot.	If the element
tional gle	specifies the full text of the ferendum as it appears on the burious	is invalid or not
tional gie		
		present, then the
		implementation
		is required to
		ignore it.
info_unxis:arOppuRISin-	Specifies a URI that links to additional information about the ref-	If the field is
tional gle	erendum.	invalid or not
		present, then the
		implementation
		is required to
		ignore it.
pas- xs:stOp-ngSin-	Specifies the threshold of votes that the referendum needs in order	If the element
sage_thresholtdonal_gle	to pass. The default is a simple majority (i.e. 50% plus one vote).	is invalid or not
	Other common thresholds are "three-fifths" and "two-thirds". If	present, then the
	there are 'competing initiatives'_, information about their effect	implementation
	on the passage of the BallotMeasureContest would go here.	is required to
		ignore it.
pro_statementOp-ngSin-	Specifies a statement in favor of the referendum. It does not nec-	If the element
tional gle	essarily appear on the ballot.	is invalid or not
l lional gie	essuing appear on the barrot.	present, then the
		implementation
		is required to
		ignore it.
sum- xs:stOpi-ngSin-	Specifies a short summary of the referendum that is on the ballot,	If the element
mary_text   tional gle	below the title, but above the text.	is invalid or not
		present, then the
		implementation
		is required to
		ignore it.
tumo	Charles the mentionless true of hell-there was Months and City	•
type xs:stOpp-ngSin-	Specifies the particular type of ballot measure. Must be one of the	If the field is
tional gle	valid ballot_measure_type options.	invalid or not
		present, then the
		implementation
		is required to
		ignore it.
other_type stOpi-ngSin-	Allows for cataloging a new ballot_measure_type option, when	If the field is
tional gle	Type is specified as "other."	invalid or not
l lional gic	Type is specified as other.	present, then the
		_
		implementation
0.4. 001/ 01		is required to
2.1. CSV Specification		ignore it. 129

id, abbreviation, ballot\_selection\_ids, ballot\_sub\_title, ballot\_title, elecoral\_district\_

id, electorate\_specification, external\_identifier\_type, external\_identifier\_othertype,

external\_identifier\_value, has\_rotation, name, sequence\_order, vote\_variation, other\_

vote\_variation, con\_statement, effect\_of\_abstain, full\_text, info\_uri, passage\_threshold,

pro\_statement, summary\_text, type, other\_type

bmc0001, HB2, bs001 bs002 bs003, Raising levy for School Bond, School Bond Issue, ed001,

all registered voters,, 54, false, School Bond, 42, majority,, This is no good., No effect,

A measure to do raise funds for etc etc, www.ballotmeasure.com, two-thirds, Everything\_

will be great., It's a referendum about school funding, referendum,

#### contest base

A base model for all Contest types: *ballot\_measure\_contest*, *candidate\_contest*, *party\_contest*, and *retention\_contest* (NB: the latter because it extends *ballot\_measure\_contest*).

Tag	Data Type	Re-	Re-	Description s?	Error Han- dling
ab-	xs:st		•	An abbreviation for the contest.	If the field is
bre-	75.50	tiona		An abbreviation for the contest.	invalid or not
via-		tiona			present, then
tion					the implemen-
tion					tation should
					ignore it.
bal-	xs:ID	D(D) = C	Sin-	References a set of BallotSelections, which could be of any selec-	If the field is
	lection_i	_		tion type that extends single-csv-ballot-selection-base.	invalid or not
101_80	icction_i	имона	gie	tion type that extends single-esy-bandt-selection-base.	present, then
					_
					the implemen- tation should
1 1		0	G:	0.14464	ignore it.
bal-	xs:st	_		Subtitle of the contest as it appears on the ballot.	If the element
lot_su	b_title	tiona	l gle		is invalid or
					not present,
					then the im-
					plementation
					should ignore
					it.
bal-	xs:st	_		Title of the contest as it appears on the ballot.	If the element
lot_ti	le	tiona	l gle		is invalid or
					not present,
					then the im-
					plementation
					should ignore
					it.
elec-	xs:ID	₽ <b>Rē</b> -	Sin-	References an electoral_district element that represents the geo-	If the field is
toral_	district_i	d <mark>quire</mark>	<b>d</b> gle	graphical scope of the contest.	invalid, then
					the implemen-
					tation should
					ignore it.
elec-	xs:st	r <b>0p</b> -g	Sin-	Specifies any changes to the eligible electorate for this contest past	If the element
torate	specific	attiicoma	l gle	the usual, "all registered voters" electorate. This subtag will most	is invalid or
				often be used for primaries and local elections. In primaries, voters	not present,
				may have to be registered as a specific party to vote, or there may	then the im-
				be special rules for which ballot a voter can pull. In some local	plementation
				elections, non-citizens can vote.	should ignore
					it.
ex-	xs:st	r <b>Op</b> -a	Sin-	Other identifiers for a contest that links to another source of infor-	If the element
ter-		tiona		mation.	is invalid or
	entifiers				not present,
					then the im-
					plementation
					should ignore
					it.
has r	otation o	(n)	n Sin-	Indicates whether the selections in the contest are rotated.	If the field is
		tiona		and the second of the second o	invalid or not
			5.0		present, then
					the implemen-
					tation should
					ignore it.
name	xs:st	rRe-~	Sin-	Name of the contest, not necessarily how it appears on the ballot	If the field is
mine	230.00	quire		(NB: BallotTitle should be used for this purpose).	invalid, then
2.1. C	SV Spe			(1.2. Zunotitue onodia de doca foi uno parpose).	the implemel 31
					tation should
					ignore it.
se-	xs:in	+ <b>@r</b> ~	r Sin-	Order in which the contests are listed on the ballot. This is the	If the field is
SC-	V2.TI	r cab	- 2111-	order in which the contests are fished on the ballot. This is the	ii die field 18

# contest\_base

A base model for all Contest types: *ballot\_measure\_contest*, *candidate\_contest*, *party\_contest*, and *retention\_contest* (NB: the latter because it extends *ballot\_measure\_contest*).

Tag	Data Type	Re-	Re- døeats	Description	Error Han- dling
ab-		r <b>Op</b> -g	•	An abbreviation for the contest.	If the field is
bre-	75.50	tional		All dooreviation for the contest.	invalid or not
via-		liona			present, then
tion					the implemen-
					tation should
					ignore it.
bal-	xs:II	R <b>Dif</b> -S	Sin-	References a set of BallotSelections, which could be of any selec-	If the field is
	lection_			tion type that extends single-csv-ballot-selection-base.	invalid or not
	_			71	present, then
					the implemen-
					tation should
					ignore it.
bal-	xs:st	r <b>0p</b> -g	Sin-	Subtitle of the contest as it appears on the ballot.	If the element
lot_su	b_title	tional	gle		is invalid or
					not present,
					then the im-
					plementation
					should ignore
					it.
bal-	xs:st		Sin-	Title of the contest as it appears on the ballot.	If the element
lot_tit	le	tional	gle		is invalid or
					not present,
					then the im-
					plementation
					should ignore
					it.
elec-	xs:II		Sin-	References an <i>electoral_district</i> element that represents the geo-	If the field is
toral_	district_	dquire	dgle	graphical scope of the contest.	invalid, then
					the implemen-
					tation should
elec-	xs:st		Sin-	Specifies any changes to the eligible electorate for this contest past	ignore it.  If the element
	specific			the usual, "all registered voters" electorate. This subtag will most	is invalid or
torate	specific	ашкина.	gic	often be used for primaries and local elections. In primaries, voters	not present,
				may have to be registered as a specific party to vote, or there may	then the im-
				be special rules for which ballot a voter can pull. In some local	plementation
				elections, non-citizens can vote.	should ignore
					it.
ex-	xs:st	r <b>⊙n</b> -a	Sin-	Other identifiers for a contest that links to another source of infor-	If the element
ter-		tional		mation.	is invalid or
nal_io	entifiers				not present,
					then the im-
					plementation
					should ignore
					it.
has_r	otation o	о <b>0р</b> -а	n Sin-	Indicates whether the selections in the contest are rotated.	If the field is
		tional	gle		invalid or not
					present, then
					the implemen-
					tation should
					ignore it.
name	xs:st		Sin-	Name of the contest, not necessarily how it appears on the ballot	If the field is
21 0	SV Spe	quire		(NB: BallotTitle should be used for this purpose).	invalid, then
۷.۱. د	ov spe	CITICAL	11011		the implement that it is a should
					tation should
60	7701-1	+0	r Cin	Order in which the contests are listed on the ballot. This is the	ignore it.  If the field is
se-	xs:1r	t <b>0p</b> e	r SIII-	Order in which the contests are listed on the ballot. This is the	ii uie iieia is

#### time with zone

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

```
<HoursOpen id="hours0001">
    <Schedule>
2
      <Hours>
3
       <StartTime>06:00:00-05:00
4
        <EndTime>12:00:00-05:00
      </Hours>
6
       <StartTime>13:00:00-05:00
        <EndTime>19:00:00-05:00
9
      </Hours>
10
      <StartDate>2013-11-05
11
      <EndDate>2013-11-05</EndDate>
    </Schedule>
13
  </HoursOpen>
```

#### language string

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.

# ballot\_style

A container for the contests/measures on the ballot.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired	? peats?		
image_uri	xs:any	/U <b>O</b> pnI-	Sin-	Specifies a URI that returns	If the field is invalid or not present, then
		tional	gle	an image of the sample bal-	the implementation is required to ignore
				lot.	it.
or-	xs:IDF	<b>₹Юр</b> Б-	Sin-	Reference to a set of or-	If the field is invalid or not present, then
dered_conte	sts_ids	tional	gle	dered_contest	the implementation is required to ignore
					it.
party_ids	xs:IDF	REOPPS-	Sin-	Reference to a set of	If the field is invalid or not present, then
		tional	gle	:ref:'single-csv-party's.	the implementation is required to ignore
					it.

```
id,image_uri,ordered_contest_ids,party_ids
bs00010,http://i.giphy.com/26BoCh3PgT8ai45ji.gif,oc2025,par02
bs00011,http://i.giphy.com/3oEjHYDWEICgEpAOjK.gif,oc3000 oc2025,par01
```

# external\_identifier

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeats	s?	-
type	ident	i <b>fRic</b> er	_ <b>Siyn</b> pe	e Specifies the type of identifier. Must be one of	If the field is invalid or not
		quire	dgle	the valid types as defined by <i>identifier_type</i> .	present, the implementa-
					tion is required to ignore the
					ElectionIdentifier con-
					taining it.
other	_txpe st:	r <b>Op</b> g	Sin-	Allows for cataloging an	If the field is invalid or not present,
		tiona	l gle	ExternalIdentifier type that falls	then the implementation is re-
				outside the options listed in identifier_type.	quired to ignore it.
				Type should be set to "other" when using this	
				field.	
value	xs:st	r <b>Re</b> g	Sin-	Specifies the identifier.	If the field is invalid or not
		quire	<b>d</b> gle		present, the implementa-
					tion is required to ignore the
					ElectionIdentifier con-
					taining it.

# person

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

- candidate
- election\_administration
- office

Tag	Data Type	Re- auire	Re- døeats	Description 5?	Error Handling
cor		_	Re-		If the element is in-
con- tact_inf	xs:II			Refers to the associated single-csv-contact-information.	valid or not present, then the implementa- tion is required to ig- nore it.
date_of	<b>bisth</b> da	at <b>Op</b> - tional	Sin- gle	Represents the individual's date of birth.	If the field is invalid or not present, then the implementation is re- quired to ignore it.
exter-	ex-	Op-	Sin-	Identifiers for this person.	If the element is in-
nal_ide	nti <i>l</i> iers	tional entifier	gle		valid or not present then the implementa- tion is required to ig- nore it.
first_na	mw≳s:st	tional		Represents an individual's first name.	If the field is invalid or not present, then the implementation is re- quired to ignore it.
full_naı	nexs∶st	tional		Specifies a person's full name ( <b>NB</b> : this information is <i>internationalized_text</i> because it sometimes appears on ballots in multiple languages).	If the element is invalid or not present then the implementa- tion is required to ig- nore it.
gen- der	xs:st	tional		Specifies a person's gender.	If the field is invalid o not present, then the implementation is re quired to ignore it.
last_nai	mexs:st	tional		Represents an individual's last name.	If the field is invalid on ot present, then the implementation is required to ignore it.
mid- dle_nar		tional	Re- peats	Represents any number of names between an individual's first and last names (e.g. John <b>Ronald Reuel</b> Tolkien).	If the field is invalid or not present, then the implementation is re quired to ignore it.
nick- name	xs:st	tional		Represents an individual's nickname.	If the field is invalid on ot present, then the implementation is required to ignore it.
party_i	d xs:II	D <b>IO</b> pF tional		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</i> <b>PartyId</b> .	If the field is invalid on ot present, then the implementation is required to ignore it.
prefix		tional	gle	Specifies a prefix associated with a person (e.g. Dr.).	If the field is invalid o not present, then the implementation is re quired to ignore it.
pro- fes- sion		tional	gle	Specifies a person's profession ( <b>NB:</b> this information is <i>internationalized_text</i> because it sometimes appears on ballots in multiple languages).	If the element is in valid or not present then the implementation is required to ignore it.
suffix 36	xs:st	tional		Specifies a suffix associated with a person (e.g. Jr.).  Chapter 2.	implementation is re-
					quired to ignore it.
title	xs:st	<b>:101p</b> ag	Sin-	A title associated with a person ( <b>NB</b> : this information is <i>in</i> -	If the element is in

```
id, date_of_birth, first_name, gender, last_name, middle_name, nickname, party_id, prefix, 

profession, suffix, title

per50001,1961-08-04, Barack, male, Obama, Hussein, par02, President, II, Mr. President

per50002,1985-11-21, Carly, female, Jepsen, Rae, par01, Recording Artist,

per50003,1926-09-23, John, male, Coltrane, William, Trane, par02, Recording Artist, Saint,

per50004,1926-05-26, Miles, male, Davis, Dewey, par01, Recording Artist, III,
```

#### contact information

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. *election\_administration*, *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		Re-	Description	Error Handling
	Type	quire	dpeats	s?	
ad-	xs:s	t <b>0p</b> ng	Re-	The "location" portion of a mailing address. See usage note.	If the field is in-
dress	line	tional	peats		valid or not present,
			1		then the implementa-
					tion is required to ig-
					nore it.
di-	vc•c	t <b>Op</b> ng	Sin_	Specifies further instructions for locating this entity.	If the element is in-
rec-	A5.5	tional		specifies further instructions for focating this entity.	valid or not present,
tions		tionai	gie		then the implementa-
tions					_
					tion is required to ig-
		. 0.1	ъ	A 11 0 d	nore it.
email	xs:s	t <b>0</b> թո		An email address for the contact.	If the field is in-
		tional	peats		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
fax	xs:s	t <b>0p</b> ng	Re-	A fax line for the contact.	If the field is in-
		tional	peats		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
hours	xs:s	t <b>Op</b> ng	Sin-	Contains the hours (in local time) that the location is open	If the element is in-
110 011	110 • 0	tional		(NB: this element is deprecated in favor of the more struc-	valid or not present,
			810	tured :ref: 'single-csv-hours-open' element. It is strongly en-	then the implementa-
				couraged that data providers move toward contributing hours	tion is required to ig-
				in this format).	nore it.
hours	_øpenI	ਹ ਭਾਉਨਾਂ	Sin-	References an <i>hours_open</i> element, which lists the hours of	If the field is in-
nours	_edac11T				
		tional	gle	operation for a location.	valid or not present,
					then the implementa-
					tion is required to ig-
1 . 1	. 1		α.		nore it.
lat_lo	ngingle		Sin-	Specifies the latitude and longitude of this entity.	If the element is in-
	csv-	tional	gle		valid or not present,
	lat-				then the implementa-
	lng				tion is required to ig-
					nore it.
name	xs:s	t <b>0p</b> n	Sin-	The name of the location or contact. See usage note.	If the field is in-
		tional	gle		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
phone	exs:s	t <b>0</b> iono	Re-	A phone number for the contact.	If the field is in-
1		tional		1	valid or not present,
			r		then the implementa-
					tion is required to ig-
					nore it.
mei	77.6.1.	nOMD +	De	An informational URI for the contact or location.	If the field is in-
uri	xs:a	n <b>Øp</b> RI tional		An informational UNI for the contact of focation.	
		попал	peats		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.

```
id,address_line_1,address_line_2,address_line_3,directions,email,fax,hours_
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0827,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
o,,,Josh Lyman,555-111-2222,http://lemonlyman.example.com,off001
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
o,,,Josh Lyman,555-111-2222,http://lemonlyman.example.com,vs01
```

#### external identifiers

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 single-csv-contest-base
- electoral\_district
- locality
- office
- party
- precinct
- state

Tag	Data	Re-	Re-	Description	Error Handling		
	Type quired@eats?						
ex-	ex-	Re-	Re-	Defines the identifier and	At least one valid <b>ExternalIdentifier</b> must be present		
ter-	ter-	quire	<b>d</b> peats	the type of identifier it	for ExternalIdentifiers to be valid. If no valid		
nal_id	entif <u>ie</u> ir	lentifie	r	is (see 'ExternalIdenti-	<b>ExternalIdentifier</b> is present, the implementation is		
		fier'_		fier'_ for complete infor-	required to ignore the ExternalIdentifiers ele-		
				mation).	ment.		

#### voter service

Tag	Data Type	Re-	Re-	Description	Error Handling
		quire	d?peats	?	-
con-	single-csv-	Op-	Sin-	The contact for a particular	If the element is invalid or not
tact_informa	ti <b>co</b> ntact-	tional	gle	voter service.	present, then the implementation is
	information				required to ignore it.
descrip-	xs:string	Op-	Sin-	Long description of the services	If the element is invalid or not
tion		tional	gle	available.	present, then the implementation is
					required to ignore it.
elec-	xs:IDREF	Op-	Sin-	The authority for a particular	If the field is invalid or not present,
tion_official	_person_id	tional	gle	voter service.	then the implementation is re-
					quired to ignore it.
type	voter_service	_tQpe-	Sin-	The type of <i>voter service</i> .	If the field is invalid or not present,
		tional	gle		then the implementation is re-
					quired to ignore it.
other_type	xs:string	Op-	Sin-	If Type is "other", OtherType al-	If the field is invalid or not present,
		tional	gle	lows for cataloging another type	then the implementation is re-
				of voter service.	quired to ignore it.

```
id, description, election_official_person_id, type, other_type, department_id
vs01, A service we provide, per50002, other, overseas-voting, dep01
vs00, Elections notifications, per50002, other, voter-registration, dep02
vs02, Pencil sharpening, per50002, other, office-help, dep03
vs03, Guided hike to polling place, per50002, other, polling-places, dep03
vs04, Bike messenger ballot delivery, per50002, other, absentee-ballots, dep03
```

# contact\_information

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. *election\_administration*, *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		Re-	Description	Error Handling
	Type	quire	døeats	s?	
ad-	xs:s	t <b>0p</b> ng	Re-	The "location" portion of a mailing address. See usage note.	If the field is in-
dress	line	tional	peats		valid or not present,
			1		then the implementa-
					tion is required to ig-
					nore it.
di-	vc•c	t <b>Op</b> ng	Sin_	Specifies further instructions for locating this entity.	If the element is in-
rec-	A5.5	tional		specifies further instructions for focating this entity.	valid or not present,
tions		tionai	gie		then the implementa-
tions					_
					tion is required to ig-
		. 0.1	ъ	A 11 0 d	nore it.
email	xs:s	t <b>0</b> թո		An email address for the contact.	If the field is in-
		tional	peats		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
fax	xs:s	t <b>0p</b> ng	Re-	A fax line for the contact.	If the field is in-
		tional	peats		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
hours	xs:s	t <b>0p</b> ng	Sin-	Contains the hours (in local time) that the location is open	If the element is in-
110 011	110 • 0	tional		(NB: this element is deprecated in favor of the more struc-	valid or not present,
			810	tured :ref: 'single-csv-hours-open' element. It is strongly en-	then the implementa-
				couraged that data providers move toward contributing hours	tion is required to ig-
				in this format).	nore it.
hours	_øpenI	ਹ ਭਾਉਨਾਂ	Sin-	References an <i>hours_open</i> element, which lists the hours of	If the field is in-
Hours	_edac11T				
		tional	gle	operation for a location.	valid or not present,
					then the implementa-
					tion is required to ig-
1 . 1	. 1		G.		nore it.
lat_lo	ngingle		Sin-	Specifies the latitude and longitude of this entity.	If the element is in-
	csv-	tional	gle		valid or not present,
	lat-				then the implementa-
	lng				tion is required to ig-
					nore it.
name	xs:s	t <b>0p</b> n	Sin-	The name of the location or contact. See usage note.	If the field is in-
		tional	gle		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
phone	exs:s	t <b>0</b> pn	Re-	A phone number for the contact.	If the field is in-
		tional		*	valid or not present,
			r		then the implementa-
					tion is required to ig-
					nore it.
uri	vc•a	n <b>Qp</b> RI	Re	An informational URI for the contact or location.	If the field is in-
uii	ASid			An informational OXI for the contact of location.	
		попаг	peats		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.

#### candiate selection

CandidateSelection extends single-csv-ballot-selection-base and represents a ballot selection for a candidate contest.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	dpeats	s?	
candi-	xs:I	D <b>O</b> pF	S Sin-	References a set of candidate elements. The number of	If the field is invalid
date_ids		tiona	gle	candidates that can be references is unbounded in cases	or not present, then the
				where the ballot selection is for a ticket (e.g. "Presi-	implementation is re-
				dent/Vice President", "Governor/Lt Governor").	quired to ignore it.
en-	xs:I	D <b>O</b> p.f:	S Sin-	References a set of party elements, which signifies one or	If the field is invalid
dorse-		tiona	gle	more endorsing parties for the candidate(s).	or not present, then the
ment_pa	arty_ids	•			implementation is re-
					quired to ignore it.
is_write	_ <b>ixa</b> s:b	<b>⊙0</b> pte∂	ar <b>S</b> in-	Signifies if the particular ballot selection allows for write-	If the field is invalid
		tiona	gle	in candidates. If true, one or more write-in candidates are	or not present, then the
				allowed for this contest.	implementation is re-
					quired to ignore it.

```
id, sequence_order, candidate_ids, endorsement_party_ids, is_write_in
cs001,3,can004,par01,false
cs002,2,can001 can002,par03 par02,false
cs003,1,can003,par02 par03,true
```

### ballot\_selection\_base

A base model for all ballot selection types: ballot\_measure\_selection, candiate\_selection, and party\_selection.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
se-	xs:i	n <b>tOp</b> ge	rSin-	The order in which a selection can be listed on the	If the field is invalid or
queno	e_order	tiona	gle	ballot or in results. This is the default ordering, and	not present, then the im-
				can be overridden by OrderedBallotSlectionIds in or-	plementation is required to
				dered_contest.	ignore it.

## lat\_long

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

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	dpeats	s?	
lati-	xs:do	ou <b>Re</b> ⊦e	Sin-	The latitude of the polling location.	If the field is invalid, then the
tude		quire	d gle		implementation is required to
					ignore it.
lon-	xs:do	ou <b>Re</b> ⊦e	Sin-	The longitude of the polling location.	If the field is invalid, then the
gi-		quire	d gle		implementation is required to
tude					ignore it.
latlng	somecest	: <b>Юр</b> +д	Sin-	The system used to perform the lookup from lo-	If the field is invalid or not
		tional	gle	cation name to lat/lng. For example, this could	present, then the implementa-
				be the name of a geocoding service.	tion is required to ignore it.

# 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	Re-	Re-	Description	Error Handling
	Туре		døeat		
bal-	xs:stri		Sin-	The candidate's name as it will be displayed on	If the element is invalid,
lot_nar	ne	quire		the official ballot (e.g. "Ken T. Cuccinelli II").	then the implementation is required to ignore the Candidate element containing it.
con-	xs:stri	.n <b>Q</b> p-	Sin-	Contact and physical address information for	If the element is invalid or
tact_in	formation	tional		this Candidate and/or their campaign (see single-csv-contact-information).	not present, then the implementation is required to ignore it.
ex-	exter-	Op-	Sin-	Another identifier for a candidate that links to	If the element is invalid or
	nal_identi entifiers			another source of information (e.g. a campaign committee ID that links to a campaign finance system).	not present, then the implementation is required to ignore it.
file_da	texs:date		Sin-	Date when the candidate filed for the contest.	If the field is invalid or not
		tional	gle		present, then the implementation is required to ignore it.
is_incu	mbentoool	.eQpp-	Sin-	Indicates whether the candidate is the incumbent	If the field is invalid or not
		tional	gle	for the office associated with the contest.	present, then the implementation is required to ignore it.
is top	tiæketbool	.eQpp-	Sin-	Indicates whether the candidate is the top of a	If the field is invalid or not
		tional	gle	ticket that includes multiple candidates.	present, then the implementation is required to ignore it.
party_i	dxs:IDRE	EFOp-	Sin-	Reference to a party element with additional in-	If the field is invalid or not
		tional	gle	formation about the candidate's affiliated party.	present, then the implemen-
				This is the party affiliation that is intended to be presented as part of ballot information.	tation is required to ignore it.
per-	xs:IDRE	EFOp-	Sin-	Reference to a <i>person</i> element with additional	If the field is invalid or not
son_id		tional	gle	information about the candidate.	present, then the implementation is required to ignore it.
post_el	ection <u>i</u> -stati	ısOp-	Sin-	Final status of the candidate (e.g. winner, with-	If the field is invalid or not
				udrawn, etc).	present, then the implementation is required to ignore it.
pre ele	ction <u>d</u> istatu	s Op-	Sin-	Registration status of the candidate (e.g. filed,	If the field is invalid or not
r				squalified, etc).	present, then the implementation is required to ignore it.
					tation is required to ignore it.

```
id, ballot_name, external_identifier_type, external_identifier_othertype, external_
didentifier_value, file_date, is_incumbent, is_top_ticket, party_id, person_id, post_
delection_status, pre_election_status
can001, Jude Fawley,,,2016-12-01, true, false, par01, per50001, filed
can002, Arabella Donn,,,2016-12-01, false, false, par02, per50002, qualified
can003, John Coltrane,,,2016-09-23, false, false, par02, per50003, qualified
can004, Miles Davis,,,2016-05-26, false, false, par01, per50004, qualified
```

# polling\_location

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type		døeats		
single-	simp	_ <b>eOpa</b> d	d <b>Sin</b> ss	Represents the various structured parts of an	One of AddressStructured and Ad-
csv-		tional	gle	address to a polling location.	dressLine should be present for
simple-					a given Polling Location. If
address	-				none is present, the implemen-
type					tation is required to ignore the
					PollingLocation element con-
					taining it.
ad-	xs:st	.1 <b>Op</b> +g		Represents the various parts of an address to	One of AddressStructured and Ad-
dress_li	ine	tional	peats	a polling location.	dressLine should be present for
					a given Polling Location. If
					none is present, the implemen-
					tation is required to ignore the
					PollingLocation element con-
					taining it.
di-	xs:st	1 <b>Op</b> 1-g		Specifies further instructions for locating the	If the element is invalid or not
rec-		tional	gle	polling location.	present, then the implementation is
tions					required to ignore it.
hours	xs:st	n <b>Op</b> rg		Contains the hours (in local time) that the	If the element is invalid or not
		tional	gle	polling location is open (NB: this element	present, then the implementation is
				is deprecated in favor of the more structured	required to ignore it.
				hours_open element. It is strongly encour-	
				aged that data providers move toward con-	
				tributing hours in this format).	
hours_c	pen <u>:</u> id		Sin-	Links to an <i>hours_open</i> element, which is	If the field is invalid or not present,
		tional	gle	a schedule of dates and hours during which	then the implementation is required
			~.	the polling location is available.	to ignore it.
is_drop	_ <b>bacsx:</b> bo			Indicates if this polling location is a drop	If the field is invalid or not present,
		tional	gle	box.	then the implementation is required
			~.		to ignore it.
is_early	_xvetilog			Indicates if this polling location is an early	If the field is invalid or not present,
		tional	gle	vote site.	then the implementation is required
			~.	~	to ignore it.
lat_lng	single-		Sin-	Specifies the latitude and longitude of this	If the element is invalid or not
	csv-	tional	gle	polling location.	present, then the implementation is
	lat-				required to ignore it.
	lng			N 64 11: 1	TC 1 C 11 :
name	xs:st	1 <b>Op</b> 1g		Name of the polling location.	If the field is invalid or not present,
		tional	gle		then the implementation is required
					to ignore it.
photo_t	unxs:st			Contains a link to an image of the polling	If the field is invalid or not present,
		tional	gle	location.	then the implementation is required
					to ignore it.

poll001, ALBERMARLE HIGH SCHOOL,,2775 Hydraulic Rd, Charlottesville, VA,22901, Use back door, 7am-8pm, www.picture.com, ho001, false, true, 38.0754627, 78.5014875, Google Maps poll002, Public Library, Main St Denver CO,,,,,,next to the checkout counter, 7am-8pm, www.picture.com,, false, true, 38.0754627, 78.5014875, Google Maps

# lat\_long

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	d peats	?	_
lati-	xs:do	ou <b>Re</b> ⊦e	Sin-	The latitude of the polling location.	If the field is invalid, then the
tude		quire	<b>d</b> gle		implementation is required to
					ignore it.
lon-	xs:do	ou <b>Re</b> ⊦e	Sin-	The longitude of the polling location.	If the field is invalid, then the
gi-		quire	<b>d</b> gle		implementation is required to
tude					ignore it.
latlng_	someces t	<b>:Юр</b> -э	Sin-	The system used to perform the lookup from lo-	If the field is invalid or not
		tional	gle	cation name to lat/lng. For example, this could	present, then the implementa-
				be the name of a geocoding service.	tion is required to ignore it.

# simple\_address\_type

 $\label{lem:continuous} A \; \text{SimpleAddressType} \; \text{represents} \; a \; \text{structured} \; \text{address}.$ 

Tag	Data	Re-	Re-	Description	Error Handling	
	Type	quire	dpeats	?		
struc-	xs:st	т <b>Re</b> -1g	Sin-	The address line for a structured address.	If no Line1 is provided, the	
tured_lii	ne_1	quire	d gle	Should include the street number, street	implementation should ignore the	
				name, and any prefix and suffix.	SimpleAddressType.	
struc-	xs:st	т <b>Ор</b> ъд	Sin-	Additional field for an address	If no Line2 is provided, the im-	
tured_lii	ne_2	tional	gle		plementation should ignore it.	
struc-	xs:st	.1 <b>Ор</b> ъд	Sin-	Additional field for an address	If no Line3 is provided, the im-	
tured_lii	ne_3	tional	gle		plementation should ignore it.	
struc-	xs:st	г <b>Rе</b> •1g	Sin-	The City value of a structured address.	If City is not provided, the im-	
tured_ci	ty	quire	d gle		plementation should ignore the	
					SimpleAddressType.	
struc-	xs:st	т <b>Re</b> -1g	Sin-	The State value of a structured address.	If State is not provided, the	
tured_st	ate	quire	d gle		implementation should ignore the	
					SimpleAddressType.	
struc-	xs:st	т <b>Ор</b> тд	Sin-	The ZIP code of a structured address.	If Zip is not provided, the im-	
tured_zi	р	tional	gle		plementation should ignore the	
					SimpleAddressType.	

# locality

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

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	døeats	s?	
elec-		D <b>Op</b> F		Links to the locality's elec-	If the field is invalid or not present,
tion_a	dminist	rationa	Liœtle	tion_administration object.	then the implementation is required to
					ignore it.
ex-	ex-	Op-	Sin-	Another identifier for a locality that links to	If the element is invalid or not
ter-	ter-	tional	-	another dataset (e.g. 'OCD-ID'_)	present, then the implementation is
	entif <u>le</u> r				required to ignore it.
is_mai	l_xomly	- 1		Determines if the locality runs mail-only	If the field is missing or invalid, the
		tional	gle	elections. If this is true, then all precincts a	implementation is required to assume
				part of the locality will also run mail-only	IsMailOnly is false.
				elections. Drop boxes may be used in ad-	
				dition to this flag using a polling location	
				record configured as a Drop Box.	
name	xs:s	t <b>Re</b> -n	- 1	Specifies the name of a locality.	If the field is invalid, then the im-
		quire	dgle		plementation is required to ignore the
					Locality element containing it.
polling	_kocati			Specifies a link to a set of the locality's	If the field is invalid or not present,
		tional	gle	:ref: 'polling locations <single-csv-polling-< td=""><td>the implementation is required to ig-</td></single-csv-polling-<>	the implementation is required to ig-
				location>'s. If early vote centers or ballot	nore it. However, the implementation
				drop locations are locality-wide, they should	should still check to see if there are
				be specified here.	any polling locations associated with
					this locality's state.
state_i	dxs:I		Sin-	References the locality's <i>state</i> .	If the field is invalid, then the im-
		quire	dgle		plementation is required to ignore the
					Locality element containing it.
type	dis-	Op-	Sin-	Defines the kind of locality (e.g. county,	If the field is invalid or not present,
	trict_	<i>ty</i> pional	gle	town, et al.), which is one of the various <i>Dis</i> -	then the implementation is required to
				trictType enumerations.	ignore it.
other_	type:s	- 1	- 1	Allows for defining a type of locality that	If the field is invalid or not present,
		tional	gle	falls outside the options listed in District-	then the implementation is required to
				Type.	ignore it.

```
id, election_administration_id, external_identifier_type, external_identifier_othertype,

external_identifier_value, is_mail_only, name, polling_location_ids, state_id, type,

other_type

loc001, ea123, ocd-id,, ocd-division/country:us/state:co/county:denver, true, Locality #1,

opoll001 poll002, st51, city,

loc002, ea345,,,,, Locality #2,, st51, other, unique type
```

# department

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	dpeats	s?	
con-	single-	Op-	Sin-	Contact and physical address informa-	If the element is invalid or not
tact_inform	na <b>cion</b>	tional	gle	tion for the election administration body	present, then the implementa-
	contact-			(see single-csv-contact-information).	tion is required to ignore it.
	information				
elec-	xs:IDREF	Op-	Sin-	The individual to contact at the election	If the field is invalid or not
tion_officia	l_person_id	tional	gle	administration office. The specified per-	present, then the implementa-
				son should be the election official.	tion is required to ignore it.
voter_servi	cesingle-	Op-	Re-	The types of services and appropriate	If the element is invalid or not
	csv-voter-	tional	peats	contact individual available to voters.	present, then the implementa-
	service				tion is required to ignore it.

```
id, election_official_person_id, election_administration_id
dep01,per50002,ea123
dep02,per50002,ea345
dep03,per50002,ea625
dep04,per50002,ea625
```

### voter\_service

Tag	Data Type	Re-	Re-	Description	Error Handling	
			peats	?		
con-	single-csv-	Op-	Sin-	The contact for a particular	If the element is invalid or not	
tact_informa	ti <b>co</b> ntact-	tional	gle	voter service.	present, then the implementation is	
	information				required to ignore it.	
descrip-	xs:string	Op-	Sin-	Long description of the services	If the element is invalid or not	
tion		tional	gle	available.	present, then the implementation is	
					required to ignore it.	
elec-	xs:IDREF	Op-	Sin-	The authority for a particular	If the field is invalid or not present,	
tion_official	_person_id	tional	gle	voter service.	then the implementation is re-	
					quired to ignore it.	
type	voter_service	_tQpr	Sin-	The type of <i>voter service</i> .	If the field is invalid or not present,	
		tional	gle		then the implementation is re-	
					quired to ignore it.	
other_type	xs:string	Op-	Sin-	If Type is "other", OtherType al-	If the field is invalid or not present,	
		tional	gle	lows for cataloging another type	then the implementation is re-	
				of voter service.	quired to ignore it.	

```
id, description, election_official_person_id, type, other_type, department_id vs01, A service we provide, per50002, other, overseas-voting, dep01 vs00, Elections notifications, per50002, other, voter-registration, dep02 vs02, Pencil sharpening, per50002, other, office-help, dep03 vs03, Guided hike to polling place, per50002, other, polling-places, dep03 vs04, Bike messenger ballot delivery, per50002, other, absentee-ballots, dep03
```

# contact\_information

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. *election\_administration*, *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		Re-	Description	Error Handling
	Type	quire	døeat	s?	
ad-	xs:s	t <b>0p</b> ng	Re-	The "location" portion of a mailing address. See usage note.	If the field is in-
dress	_line	tional	peats		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
di-	xs:s	t <b>Op</b> n	Sin-	Specifies further instructions for locating this entity.	If the element is in-
rec-		tional			valid or not present,
tions					then the implementa-
					tion is required to ig-
					nore it.
email	xs:s	t <b>0p</b> ng	Re-	An email address for the contact.	If the field is in-
		tional			valid or not present,
			F		then the implementa-
					tion is required to ig-
					nore it.
fax	xs:s	t <b>0p</b> ng	Re-	A fax line for the contact.	If the field is in-
			peats		valid or not present,
			1		then the implementa-
					tion is required to ig-
					nore it.
hours	xs:s	t <b>0p</b> ng	Sin-	Contains the hours (in local time) that the location is open	If the element is in-
		tional		(NB: this element is deprecated in favor of the more struc-	valid or not present,
			6	tured :ref: 'single-csv-hours-open' element. It is strongly en-	then the implementa-
				couraged that data providers move toward contributing hours	tion is required to ig-
				in this format).	nore it.
hours	_ousenI	∓aGhi	Sin-	References an <i>hours_open</i> element, which lists the hours of	If the field is in-
	1=	tional		operation for a location.	valid or not present,
			6	r	then the implementa-
					tion is required to ig-
					nore it.
lat lo	ngingle	- Op-	Sin-	Specifies the latitude and longitude of this entity.	If the element is in-
	csv-	tional	gle		valid or not present,
	lat-				then the implementa-
	lng				tion is required to ig-
					nore it.
name	XS:S	t <b>0p</b> ng	Sin-	The name of the location or contact. See usage note.	If the field is in-
		tional		C	valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
phone	exs:s	t <b>0p</b> n	Re-	A phone number for the contact.	If the field is in-
*		tional		·	valid or not present,
			-		then the implementa-
					tion is required to ig-
					nore it.
uri	xs:a	n <b>Qp</b> RI	Re-	An informational URI for the contact or location.	If the field is in-
			peats		valid or not present,
			•		then the implementa-
					tion is required to ig-
					nore it.
	<u> </u>				I

```
id,address_line_1,address_line_2,address_line_3,directions,email,fax,hours_
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0827,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0827,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0827,The White House,1600 Pennsylvania Ave,,,josh@example.com,off001
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0827,The White House,1600 Pennsylvania Ave,,,josh@example.com,off001
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,off001
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,off001
```

#### html color string

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

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

#### 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	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
hours	single-	Op-	Re-	Blocks of hours in the date range in which the place	If the element is invalid or
	csv-	tional	peats	is open.	not present, then the im-
	hours				plementation is required to
					ignore it.
is_only_b	y <u>x</u> appo	in <b>Cipea</b>	nSin-	If true, the place is only open during the specified	If the field is invalid or
		tional	gle	time window with an appointment.	not present, then the im-
					plementation is required to
					ignore it.
is_or_by_	_appoint	m <b>⊙ipt</b> a	nSin-	If true, the place is open during the hours specified	If the field is invalid or
		tional	gle	time window and may also be open with an appoint-	not present, then the im-
				ment.	plementation is required to
					ignore it.
is_subjec	t_xtcs_x:ha	<b>m@pe</b> a	n <b>Sin</b> -	If true, the place should be open during the specified	If the field is invalid or
		tional	gle	time window, but may be subject to change. People	not present, then the im-
				should contact prior to arrival to confirm hours are	plementation is required to
				still accurate.	ignore it.
start_date	xs:da	at <b>Oep</b> -	Sin-	The date at which this collection of start and end	If the field is invalid or
		tional	gle	times and options begin.	not present, then the im-
					plementation is required to
					ignore it.
end_date	xs:da	at <b>O</b> ep-	Sin-	The date at which this collection of start and end	If the field is invalid or
		tional	gle	times and options end.	not present, then the im-
					plementation is required to
					ignore it.

```
id, start_time, end_time, is_only_by_appointment, is_or_by_appointment, is_subject_to_

change, start_date, end_date, hours_open_id

sch001,07:00:00-06:00,22:00:00-06:00, true,,2016-10-10,2016-10-12, ho001

sch002,09:00:00-06:00,20:00:00-06:00, true,,,2016-10-13,2016-10-15, ho001

sch003,08:00:00-06:00,14:00:00-06:00,, true,2016-10-10,2016-10-15, ho002
```

#### hours

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

Tag	Data Type	Re-	Re-	Description	Error Handling
		quired?	peats?		
start_ti	mæingle-csv-	Op-	Sin-	The time at which	If the element is invalid or not present, then the
	time-with-	tional	gle	this place opens.	implementation is required to ignore it.
	zone				
end_tir	nesingle-csv-	Op-	Sin-	The time at which	If the element is invalid or not present, then the
	time-with-	tional	gle	this place closes.	implementation is required to ignore it.
	zone				

### time\_with\_zone

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=0)
```

```
<HoursOpen id="hours0001">
    <Schedule>
2
      <Hours>
        <StartTime>06:00:00-05:00</StartTime>
4
        <EndTime>12:00:00-05:00
      </Hours>
6
      <Hours>
        <StartTime>13:00:00-05:00
        <EndTime>19:00:00-05:00</EndTime>
10
      <StartDate>2013-11-05
      <EndDate>2013-11-05</EndDate>
12
     </Schedule>
13
  </HoursOpen>
```

# 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 Re- Re- Type quired@eats	Description s?	Error Handling
bal- xs: IDAFF Sin- lot_style_id tional gle	Links to the <i>ballot_style</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.
elec- xs: LOPEFS Sintoral_district_titonal_gle	Links to the :ref: 'single-csv-electoral-district's (e.g., congressional district, state house district, school board district) to which the entire precinct/precinct split belongs. <b>Highly Recommended</b> if candidate information is to be provided.	If the field is invalid or not present, then the implementation is required to ignore it.
ex- ex- Op- Sin- ter- ter- tional gle nal_identifiedsntifiers	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.
is_mailkenly@pleaSintional gle	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.
lo- xs: IDREF Sin- cal- quiredgle ity_id	Links to the <i>locality</i> that comprises the precinct.	If the field is invalid, then the implementation is required to ignore the Precinct element containing it.
name xs:stRe-ngSin- quiredgle	Specifies the precinct's name (or number if no name exists).	If the field is invalid, then the implementation is required to ignore the Precinct element containing it.
num- ber xs:stOpi-ngSin- tional gle	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.
pollingxlseati的症就Sintional gle	Specifies a link to the precinct's <i>polling_location</i> object(s).	If the field is invalid or not present, then the implementation is required to ignore it.
precinck split the graph	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 <b>must</b> 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:stOp-ngSintional gle	Specifies the ward the precinct is contained within.	If the field is invalid or not present, then the implemen-
2.1. CSV Specification		tation is required <b>153</b> ignore it.

```
id,ballot_style_id,electoral_district_ids,external_identifier_type,external_

→identifier_othertype,external_identifier_value,is_mail_only,locality_id,name,number,

→polling_location_ids,precinct_split_name,ward

pre90111,bs00010,ed001,ocd-id,,ocd-division/country:us,false,loc001,203 - GEORGETOWN,

→0203,poll001 poll002,split13,5

pre90112,bs00011,ed002,fips,,42,false,loc001,203 - GEORGETOWN,0203,poll003,split26,6

pre90113,bs00010,ed003,,,,false,loc002,203 - GEORGETOWN,0203,poll004,split54,7
```

#### ordered contest

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

Tag	Data	Re-	Re-	Desc	riptior	1	Error Handling
	Type quired@eats?						
con-	xs:	DREF	Sin-	Links	t	o	If the field is invalid or not present, the implementation is required to
test_id		quire	<b>d</b> gle	eleme	nts		ignore the OrderedContest element containing it.
				that	exten	d	
				single	-csv-		
				conte	st-base	<b>.</b>	
or-	IDRE	:F <b>О</b> :р-	Sin-	Links	t	0	If the field is invalid or not present, the implementation is required
dered_b	allot_s	elicotio	n_gildes	eleme	nts		to ignore it. If an OrderedBallotSelectionIds element is
				that	exten	d	not present, the presumed order of the selection will be the order
				single	:-		of single-csv-ballot-selection-base-extended elements referenced by
				csv-ballot-			the underlying single-csv-contest-base-extended elements.
				select	ion-		, , ,
				base.			

```
id,contest_id,ordered_ballot_selection_ids
oc2025,con001,bs001 bs002 bs003
oc3000,con002,bs001
```

## party\_contest

An extension of single-csv-contest-base which describes a contest in which the possible ballot selections are of type *party\_selection*. 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).

### contest\_base

A base model for all Contest types: *ballot\_measure\_contest*, *candidate\_contest*, *party\_contest*, and *retention\_contest* (NB: the latter because it extends *ballot\_measure\_contest*).

Tag	Data Type	Re-	Re- døeats	Description	Error Han- dling
ab-	xs:st		_	An abbreviation for the contest.	If the field is
bre-	75.50	tional		An abbreviation for the contest.	invalid or not
via-		liona			present, then
tion					the implemen-
LIGH					tation should
					ignore it.
bal-	xs:II	ROB-S	Sin-	References a set of BallotSelections, which could be of any selec-	If the field is
	lection_			tion type that extends single-csv-ballot-selection-base.	invalid or not
101_50	rection_	i dibi o i i di		tion type that extends single est banot selection base.	present, then
					the implemen-
					tation should
					ignore it.
bal-	xs:st	7(i)n-c	Sin-	Subtitle of the contest as it appears on the ballot.	If the element
	b_title	tional		Subtitle of the contest as it appears on the barrot.	is invalid or
101_50	b_titie	tiona	gic		not present,
					then the im-
					plementation
					should ignore
					it.
bal-	xs:st	rGn a	Sin-	Title of the contest as it appears on the ballot.	If the element
lot_tit		tional		The of the contest as it appears on the banot.	is invalid or
101_11		tiona	gie		not present,
					then the im-
					plementation
					should ignore
					it.
elec-	xs:II	DDE	Sin-	References an <i>electoral_district</i> element that represents the geo-	If the field is
	district_	1		graphical scope of the contest.	invalid, then
torai_	uisuici	aquire	ugie	graphical scope of the contest.	the implemen-
					tation should
					ignore it.
elec-	xs:st	v(i)n a	Sin-	Specifies any changes to the eligible electorate for this contest past	If the element
	specific	_		the usual, "all registered voters" electorate. This subtag will most	is invalid or
torate	Specific	ашкина	gic	often be used for primaries and local elections. In primaries, voters	not present,
				may have to be registered as a specific party to vote, or there may	then the im-
				be special rules for which ballot a voter can pull. In some local	plementation
				elections, non-citizens can vote.	should ignore
				elections, non-entizens can vote.	it.
ex-	xs:st	r(i)n.c	Sin-	Other identifiers for a contest that links to another source of infor-	If the element
ter-	X5.50	tional		mation.	is invalid or
	lentifiers	1	gic	mation.	not present,
nai_ic	icituiici s				then the im-
					plementation
					should ignore
					it.
hac -	otationbo	On	Sin	Indicates whether the selections in the contest are rotated.	If the field is
nas_r	VIALBUID (	tional		indicates whether the selections in the confest are foldied.	invalid or not
		uona	gie		
					present, then
					the implemen- tation should
nome	xs:st	,P	Sin-	Name of the contest not necessarily how it appears on the ballet	ignore it.  If the field is
name	xs:st	quire		Name of the contest, not necessarily how it appears on the ballot (NB: BallotTitle should be used for this purpose).	invalid, then
2.1	SV Spe			(175. Banocrue snound of used for this pulpose).	the implements
3	J. Spe	J.1104			-
					tation should
60	vo	+0~~	n Sin	Order in which the contacts are listed on the hellet. This is the	ignore it.
se-	xs:ir	rc <b>eb</b> e:	r 9III-	Order in which the contests are listed on the ballot. This is the	If the field is

### election administration

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

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	døeats		_
ab-	xs:a	n <b>yOp</b> RI	Sin-	Specifies the web address for informa-	If the field is invalid or not present, then
sen-		tional	gle	tion on absentee voting.	the implementation is required to ignore it.
tee_uri					
am_i_re	gistered	h <b>yddyi</b> RI	Sin-	Specifies the web address for informa-	If the field is invalid or not present, then
		tional	gle	tion on whether an individual is regis-	the implementation is required to ignore it.
				tered.	
bal-	xs:ar			Specifies the web address for tracking	If the field is invalid or not present, then
lot_trac				information for a ballot cast by mail	the implementation is required to ignore it.
bal-	xs:ar			Specifies the web address for tracking	If the field is invalid or not present, then
lot_trac	king_pr	o <b>vioim</b> i	a <u>gl</u> eri	information for a provisional ballot.	the implementation is required to ignore it.
				To support EAC guidelines for "Pro-	
				cessing Provisional Ballots" (https:	
				//www.eac.gov/research-and-data/	
				provisional-voting/)	
de-	single		Re-	Describes the administrative body for	There must be at least one valid <i>Depart</i> -
part-	csv-	_	dpeats	a particular voter service.	ment in each ElectionAdministration ele-
ment	depart	ment			ment. If no valid <i>Department</i> objects are
					present, the implementation is required to
					ignore the <i>ElectionAdministration</i> object
					that contains it/them.
elec-	single		Sin-	A place for election administrators to	If the element is invalid or not present, then
tion_no		tional	gle	post last minute and emergency noti-	the implementation is required to ignore it.
	electio	n-		fications pertaining to the election.	
	notice				
elec-	xs:ar			Specifies web address the administra-	If the field is invalid or not present, then
tions_u		tional		tion's website.	the implementation is required to ignore it.
reg-	xs:ar		I	Specifies web address for information	If the field is invalid or not present, then
istra-		tional	gle	on registering to vote.	the implementation is required to ignore it.
tion_uri					
rules_ur	ixs:ar		I	Specifies a URI for the election rules	If the field is invalid or not present, then
		tional	gle	and laws (if any) for the jurisdiction	the implementation is required to ignore it.
				of the administration.	
what_is	_0015_17ay		I	Specifies web address for information	If the field is invalid or not present, then
		tional		on what is on an individual's ballot.	the implementation is required to ignore it.
where_c	lo <u>x.</u> si_voor		Sin-	The Specifies web address for infor-	If the field is invalid or not present, then
		tional	gle	mation on where an individual votes	the implementation is required to ignore it.
				based on their address.	

(continues on next page)

ea123, https://example.com/absentee, https://example.com/am-i-registered, https://www. -vote.virginia.gov/, https://www.vote.virginia.gov/, This is an emergency notification\_

<sup>→</sup>vote.virginia.gov/, https://www.vote.virginia.gov/, This is an emergency notification of this election., https://www.yadayada.gov, https://example.com/elections, https://

<sup>→</sup>example.com/registration,https://example.com/rules,https://example.com/what-is-on-

<sup>→</sup>my-ballot,https://example.com/where-do-i-vote

(continued from previous page)

```
ea345, https://example.com/absentee2, https://example.com/am-i-registered2, https://

pexample.com/elections2, https://example.com/registration2,,, https://example.com/

prules2, https://example.com/what-is-on-my-ballot2, https://example.com/where-do-i-

pvote2

ea625, https://example.com/absentee3, https://example.com/am-i-registered3, https://

pexample.com/elections3, https://example.com/registration3, This is an emergency_

pnotification for this election.,, https://example.com/rules3, https://example.com/

what-is-on-my-ballot3, https://example.com/where-do-i-vote3
```

# department

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	dpeats	s?	_
con-	single-	Op-	Sin-	Contact and physical address informa-	If the element is invalid or not
tact_inform	na <b>cion</b>	tional	gle	tion for the election administration body	present, then the implementa-
	contact-			(see single-csv-contact-information).	tion is required to ignore it.
	information				
elec-	xs:IDREF	Op-	Sin-	The individual to contact at the election	If the field is invalid or not
tion_officia	l_person_id	tional	gle	administration office. The specified per-	present, then the implementa-
				son should be the election official.	tion is required to ignore it.
voter_servi	cesingle-	Op-	Re-	The types of services and appropriate	If the element is invalid or not
	csv-voter-	tional	peats	contact individual available to voters.	present, then the implementa-
	service				tion is required to ignore it.

```
id,election_official_person_id,election_administration_id
dep01,per50002,ea123
dep02,per50002,ea345
dep03,per50002,ea625
dep04,per50002,ea625
```

### voter service

Tag	Data Type	Re-	Re-	Description	Error Handling
		quire	d?peats	?	
con-	single-csv-	Op-	Sin-	The contact for a particular	If the element is invalid or not
tact_informa	ti <b>co</b> ntact-	tional	gle	voter service.	present, then the implementation is
	information				required to ignore it.
descrip-	xs:string	Op-	Sin-	Long description of the services	If the element is invalid or not
tion		tional	gle	available.	present, then the implementation is
					required to ignore it.
elec-	xs:IDREF	Op-	Sin-	The authority for a particular	If the field is invalid or not present,
tion_official	_person_id	tional	gle	voter service.	then the implementation is re-
					quired to ignore it.
type	voter_service	tQp-	Sin-	The type of <i>voter service</i> .	If the field is invalid or not present,
		tional	gle		then the implementation is re-
					quired to ignore it.
other_type	xs:string	Op-	Sin-	If Type is "other", OtherType al-	If the field is invalid or not present,
		tional	gle	lows for cataloging another type	then the implementation is re-
				of voter service.	quired to ignore it.

```
id, description, election_official_person_id, type, other_type, department_id
vs01, A service we provide, per50002, other, overseas-voting, dep01
vs00, Elections notifications, per50002, other, voter-registration, dep02
vs02, Pencil sharpening, per50002, other, office-help, dep03
vs03, Guided hike to polling place, per50002, other, polling-places, dep03
vs04, Bike messenger ballot delivery, per50002, other, absentee-ballots, dep03
```

### contact information

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. *election\_administration*, *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		Re-	Description	Error Handling
	Type	quire	døeats	s?	
ad-	xs:s	t <b>0p</b> ng	Re-	The "location" portion of a mailing address. See usage note.	If the field is in-
dress	line	tional	peats		valid or not present,
			1		then the implementa-
					tion is required to ig-
					nore it.
di-	vc•c	t <b>Op</b> ng	Sin_	Specifies further instructions for locating this entity.	If the element is in-
rec-	A5.5	tional		specifies further instructions for focating this entity.	valid or not present,
tions		tionai	gie		then the implementa-
tions					_
					tion is required to ig-
		. 0.1	ъ	A 11 0 d	nore it.
email	xs:s	t <b>0</b> թո		An email address for the contact.	If the field is in-
		tional	peats		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
fax	xs:s	t <b>0p</b> ng	Re-	A fax line for the contact.	If the field is in-
		tional	peats		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
hours	xs:s	t <b>0p</b> ng	Sin-	Contains the hours (in local time) that the location is open	If the element is in-
110 011	110 • 0	tional		(NB: this element is deprecated in favor of the more struc-	valid or not present,
			810	tured :ref: 'single-csv-hours-open' element. It is strongly en-	then the implementa-
				couraged that data providers move toward contributing hours	tion is required to ig-
				in this format).	nore it.
hours	_øpenI	ਹ ਭਾਉਨਾਂ	Sin-	References an <i>hours_open</i> element, which lists the hours of	If the field is in-
Hours	_edac11T				
		tional	gle	operation for a location.	valid or not present,
					then the implementa-
					tion is required to ig-
1 . 1	. 1		G.		nore it.
lat_lo	ngingle		Sin-	Specifies the latitude and longitude of this entity.	If the element is in-
	csv-	tional	gle		valid or not present,
	lat-				then the implementa-
	lng				tion is required to ig-
					nore it.
name	xs:s	t <b>0p</b> n	Sin-	The name of the location or contact. See usage note.	If the field is in-
		tional	gle		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
phone	exs:s	t <b>0</b> pn	Re-	A phone number for the contact.	If the field is in-
		tional		*	valid or not present,
			r		then the implementa-
					tion is required to ig-
					nore it.
uri	vc•a	n <b>Qp</b> RI	Re	An informational URI for the contact or location.	If the field is in-
uii	ASid			An informational OXI for the contact of location.	
		попаг	peats		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.

```
id,address_line_1,address_line_2,address_line_3,directions,email,fax,hours_

→open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id

ci0827,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,

→,,,Josh Lyman,555-111-2222,http://lemonlyman.example.com,off001

ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,

→,,,Josh Lyman,555-111-2222,http://lemonlyman.example.com,vs01
```

### election notice

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	d peats	?	-
elec-	xs:st	: <b>Re</b> ng	Sin-	The last minute or emergency noti-	If the element is invalid, then the im-
tion_noti	ce_text	quire	<b>d</b> gle	fication text should be placed here.	plementation is required to ignore the
					ElectionNotice element containing it.
elec-	xs:st	: <b>101р</b> эд	Sin-	Optional URL for additional infor-	If the field is invalid or not present, then the
tion_noti	ce_uri	tional	gle	mation related to the last minute or	implementation is required to ignore it.
				emergency notification.	

### voter\_service

Tag	Data Type	Re-	Re-	Description	Error Handling
		quired?peats		?	
con-	single-csv-	Op-	Sin-	The contact for a particular	If the element is invalid or not
tact_informa	ti <b>co</b> ntact-	tional	gle	voter service.	present, then the implementation is
	information				required to ignore it.
descrip-	xs:string	Op-	Sin-	Long description of the services	If the element is invalid or not
tion		tional	gle	available.	present, then the implementation is
					required to ignore it.
elec-	xs:IDREF	Op-	Sin-	The authority for a particular	If the field is invalid or not present,
tion_official	_person_id	tional	gle	voter service.	then the implementation is re-
					quired to ignore it.
type	voter_service	tQp-	Sin-	The type of <i>voter service</i> .	If the field is invalid or not present,
		tional	gle		then the implementation is re-
					quired to ignore it.
other_type	xs:string	Op-	Sin-	If Type is "other", OtherType al-	If the field is invalid or not present,
		tional	gle	lows for cataloging another type	then the implementation is re-
				of voter service.	quired to ignore it.

```
id, description, election_official_person_id, type, other_type, department_id
vs01, A service we provide, per50002, other, overseas-voting, dep01
vs00, Elections notifications, per50002, other, voter-registration, dep02
vs02, Pencil sharpening, per50002, other, office-help, dep03
vs03, Guided hike to polling place, per50002, other, polling-places, dep03
vs04, Bike messenger ballot delivery, per50002, other, absentee-ballots, dep03
```

### hours

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

Tag	Data Type	Re-	Re-	Description	Error Handling
		quired?	peats?		
start_ti	mæingle-csv-	Op-	Sin-	The time at which	If the element is invalid or not present, then the
	time-with-	tional	gle	this place opens.	implementation is required to ignore it.
	zone				
end_tii	nesingle-csv-	Op-	Sin-	The time at which	If the element is invalid or not present, then the
	time-with-	tional	gle	this place closes.	implementation is required to ignore it.
	zone				

### time\_with\_zone

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
```

```
<HoursOpen id="hours0001">
    <Schedule>
2
     <Hours>
       <StartTime>06:00:00-05:00
4
       <EndTime>12:00:00-05:00
     </Hours>
     <Hours>
       <StartTime>13:00:00-05:00
       <EndTime>19:00:00-05:00
10
     <StartDate>2013-11-05
11
     <EndDate>2013-11-05
12
    </Schedule>
13
  </HoursOpen>
```

### election\_notice

Tag	Data	Re-	Re-	Description	Error Handling		
	Type	quire	d peats	?			
elec-	xs:s	: <b>Re</b> ng	Sin-	The last minute or emergency noti-	If the element is invalid, then the im-		
tion_noti	tion_notice_text   quired gle		<b>d</b> gle	fication text should be placed here.	plementation is required to ignore th		
					ElectionNotice element containing it.		
elec-	xs:s	<b>.1Ор</b> -19	Sin-	Optional URL for additional infor-	If the field is invalid or not present, then the		
tion_noti	tion_notice_uri tional gle		gle	mation related to the last minute or	implementation is required to ignore it.		
				emergency notification.			

### retention\_contest

RetentionContest extends *ballot\_measure\_contest* and represents a contest where a candidate is retained in a position (e.g. a judge).

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired?peats?			
can-	xs:ID	r <b>Re</b> -	Sin-	Links to the can-	If the field is invalid or not present, the implementation
di-		quired	gle	didate being re-	is required to ignore the RetentionContest element
date_id				tained.	containing it.
of-	xs:ID	R <b>O</b> jjō-	Sin-	Links to the infor-	If the field is invalid or not present, then the implementa-
fice_id		tional	gle	mation about the	tion is required to ignore it.
				office.	

# street\_segment

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 Re- Re- Type quired@eats	Description :?	Error Handling
ad- xs:stOpi-ngSin- dress_directionional_gle	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:st <b>Re</b> -ngSin- quiredgle	The city specifies the city or town of the address.	If the field is invalid, then the implementation is required to ignore the StreetSegment element containing it.
in- xs:boOpi-eaSin- cludes_all_adtionssesgle	Specifies if the segment covers every address on this street. If this is <i>true</i> , then the values of <b>StartHouseNumber</b> and <b>EndHouseNumber</b> should be ignored. The value of <b>OddEvenBoth</b> must be <i>both</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
in- xs:b@pl-eaSin- cludes_all_strtiensal gle	Specifies if the segment covers every street in this city. If this is <i>true</i> , then the values of <b>OddEvenBoth</b> , <b>StartHouseNumber</b> , <b>End-HouseNumber</b> , <b>StreetName</b> , and <b>Zip</b> should be ignored.	If the field is invalid or not present, then the implementation is required to ignore it.
odd_even/_botOp- Sin- tional gle	Specifies whether the odd side of the street (in terms of house numbers), the even side, or both are in included in the street segment.	If the field is not present or invalid, the implementation is required to ignore the StreetSegment containing it.
precinct_sid   DREF   Sin- quiredgle	References the <i>precinct</i> that contains the entire street segment.	If the field is invalid, then the implementation is required to ignore the StreetSegment element containing it.
start_house_infupbo#Sin- tional gle	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_intimpege Sintional gle	The house number at which the street segment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets 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 Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.
house_numberOpprefisin- tional gle	Part of a street address. It may contain letters or slashes (e.g., 'B' in 'B22 Main St'). If this value is present then <b>StartHouseNumber</b> must be equal to <b>EndHouseNumber</b> . This field cannot be used if <b>IncludesAllAddresses</b> or <b>IncludesAllStreets</b> are true.	If the field is invalid or not present, then the implementation is required to ignore it.
house_numbetQriuftj.sin- tional gle	Part of a street address. It may contain letters or slashes (e.g., 1/2 in '22 1/2 Main St'). If this value is present then <b>StartHouse-Number</b> must be equal to <b>EndHouseNumber</b> . This field cannot be used if <b>IncludesAl-</b>	If the field is invalid or not present, then the implementation is required to ignore it.
2.1. CSV Specification	lAddresses or IncludesAllStreets are true.	163
state xs:st <b>Re</b> -ngSin- quiredgle	Specifies the two-letter state abbreviation of the address.	If the field is invalid, then the implementation is required to ignore the StreetSegment element contain-

### candidate\_contest

CandidateContest extends single-csv-contest-base and represents a contest among candidates.

Tag	Data	Re-	Re-	Description	Error Han-
	Type	quire	døeats	s?	dling
num-	xs:i	n <b>Otpe</b> g	e <b>S</b> in-	Number of candidates that are elected in the contest (i.e. "N" of N-of-	If the field
ber_e	lected	tional	gle	M).	is invalid or
					not present,
					then the
					implemen-
					tation is
					required to
					ignore it.
of-	xs:I	D <b>OP</b> pE-F	SSin-	References a set of office elements, if available, which give additional	If the field
fice_i	ds	tional	l gle	information about the offices. <b>Note:</b> the order of the office IDs <b>must</b>	is invalid or
				be in the same order as the candidates listed in <i>BallotSelectionIds</i> . E.g.,	not present,
				if the various BallotSelectionIds reference candiate_selection elements	then the
				which reference the candidate for President first and Vice-President sec-	implemen-
				ond, the <i>OfficeIds</i> should reference the office of President first and the	tation is
				office of Vice-President second.	required to
					ignore it.
pri-		DOPPEF		References <i>party</i> elements, if the contest is related to a particular party.	If the field
mary	_party_	i <b>dis</b> onal	l gle		is invalid or
					not present,
					then the
					implemen-
					tation is
					required to
					ignore it.
votes	_aHbowi			Maximum number of votes/write-ins per voter in this contest.	If the field
		tional	l gle		is invalid or
					not present,
					then the
					implemen-
					tation is
					required to
					ignore it.

```
id,abbreviation,ballot_selection_ids,ballot_sub_title,ballot_title,electoral_
district_id,electorate_specification,external_identifier_type,external_identifier_
othertype,external_identifier_value,has_rotation,name,sequence_order,vote_variation,
other_vote_variation,number_elected,office_ids,primary_party_ids,votes_allowed
cancon001,SE-1,bs001 bs002,,Governor of Virginia,ed001,all registered voters,fips,,
49,true,Governor,1,,,1,off001,par01,1
cancon002,SE-2,bs003 bs004,,Lieutenant Governor of Virginia,ed001,all registered_
ovoters,fips,,49,true,Lt Governor,2,,,1,off002,par01,1
```

#### contest base

A base model for all Contest types: *ballot\_measure\_contest*, *candidate\_contest*, *party\_contest*, and *retention\_contest* (NB: the latter because it extends *ballot\_measure\_contest*).

Tag	Data Type	Re-	Re-	Description s?	Error Han- dling
ab-	xs:st	<u> </u>	•	An abbreviation for the contest.	If the field is
bre-	20.50	tional		An abbreviation for the contest.	invalid or not
via-		trona			present, then
tion					the implemen-
tion					tation should
					ignore it.
bal-	xs:ID	D(D) = C	Sin-	References a set of BallotSelections, which could be of any selec-	If the field is
	lection_i	-		tion type that extends single-csv-ballot-selection-base.	invalid or not
101_50	iection_i	имона	gie	tion type that extends single-esy-bandt-selection-base.	present, then
					_
					the implemen- tation should
1 1		Ο.	G:		ignore it.
bal-	xs:st	_		Subtitle of the contest as it appears on the ballot.	If the element
lot_su	b_title	tiona	l gle		is invalid or
					not present,
					then the im-
					plementation
					should ignore
					it.
bal-	xs:st	_		Title of the contest as it appears on the ballot.	If the element
lot_tit	le	tiona	l gle		is invalid or
					not present,
					then the im-
					plementation
					should ignore
					it.
elec-	xs:ID	R <b>Re</b> -	Sin-	References an electoral_district element that represents the geo-	If the field is
toral_	district_i	d <mark>quire</mark>	<b>d</b> gle	graphical scope of the contest.	invalid, then
					the implemen-
					tation should
					ignore it.
elec-	xs:st	r <b>0p</b> -g	Sin-	Specifies any changes to the eligible electorate for this contest past	If the element
torate	specific	attiiom a	l gle	the usual, "all registered voters" electorate. This subtag will most	is invalid or
				often be used for primaries and local elections. In primaries, voters	not present,
				may have to be registered as a specific party to vote, or there may	then the im-
				be special rules for which ballot a voter can pull. In some local	plementation
				elections, non-citizens can vote.	should ignore
					it.
ex-	xs:st	r <b>Op</b> -q	Sin-	Other identifiers for a contest that links to another source of infor-	If the element
ter-		tional		mation.	is invalid or
nal ic	entifiers				not present,
_					then the im-
					plementation
					should ignore
					it.
has re	otation o	o <b>0p</b> -a	n Sin-	Indicates whether the selections in the contest are rotated.	If the field is
		tional		***************************************	invalid or not
					present, then
					the implemen-
					tation should
					ignore it.
name	xs:st	r <b>Re</b> -q	Sin-	Name of the contest, not necessarily how it appears on the ballot	If the field is
		quire		(NB: BallotTitle should be used for this purpose).	invalid, then
166		-		Chapter 2. CSV	<b>Decumentation</b>
					tation should
					ignore it.
se-	xs:in	t <b>@p</b> e	r Sin-	Order in which the contests are listed on the ballot. This is the	If the field is

#### 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 *candidate\_contest* can use the **PrimaryPartyIds** field and a dummy Party object to indicate that the contest is a "Top-Two" primary).

Tag	Data	Re-	Re-	Description	Error Handling
	Туре		døeat		3
ab-	xs:st:	r <b>iO</b> pe	Sin-	An abbreviation for the party name.	If the field is invalid
bre-		tional	gle		or not present, then
via-					the implementation
tion					is required to ignore
					it.
color	single-	Op-	Sin-	The preferred display color for the party, for use in maps and	If the element is in-
	csv-	tional	gle	other displays.	valid or not present,
	html-				then the implemen-
	color-				tation is required to
	string				ignore it.
ex-	exter-	Op-	Sin-	Other identifiers that link this party to other related data sets	If the element is in-
ter-	nal_idei	<i>ıt ti</i> fomal	gle	(e.g. a campaign finance system, etc).	valid or not present,
nal_id	entifiers				then the implemen-
					tation is required to
					ignore it.
is_wri	te <u>x</u> in: boo	o <b>Depe</b> n		Signals if this political party is one that is officially recog-	If the field is invalid
		tional	gle	nized by a local, state, or federal organization, or is a "write-	or not present, then
				in" in jurisdictions which allow candidates to free-form enter	the implementation
				their political affiliation. If this field is not present then it is	is required to ignore
				assumed to be false.	it.
logo_i	urks:an	y <b>©op</b> ⊾	Sin-	Web address of a logo to use in displays.	If the field is invalid
		tional	gle		or not present, then
					the implementation
					is required to ignore
					it.
name	xs:st	1	Sin-	The name of the party.	If the element is in-
		tional	gle		valid or not present,
					then the implemen-
					tation is required to
					ignore it.

```
id,abbreviation,color,external_identifier_type,external_identifier_othertype,

→external_identifier_value,logo_uri,name

par01,REP,ff0000,,,,http://example.com/elephant.png,Republican

par02,DEM,0000ff,,,http://example.com/donkey.png,Democrat

par03,GRN,efefef,,,http://example.com/tree.png,Green

par04,WFP,ee99aa,,,http://example.com/worker.png,Working Families Party
```

# html\_color\_string

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

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

#### internationalized text

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 single-csv-contest-base \* Any element that extends single-csv-ballot-selection-base \* candidate \* single-csv-contact-information \* election \* election\_administration \* office \* party \* person \* polling\_location \* source NOTE: Internationalized Text is not currently supported for CSV submissions. "

Tag	Data	Re-	Re-	Description			r Hand	ling						
	Type	quire	døeat	s?										
text	xs:s	t <b>Re</b> ng	Re-	Contains	At	least	one	valid	Text	must	be	present	for	
		quire	<b>d</b> peats	translations	of a	Int	ernat	ional	izedT	ext to	be val	id.	If no va	ılid
				particular	Tex	t is p	resent,	the in	nplement	ation is	requi	ired to ign	ore	
				of text.		the I	Intern	natio	nalize	edText o	element.			

#### ballot measure selection

Represents the possible selection (e.g. yes/no, recall/do not recall, et al) for a *ballot\_measure\_contest* that would appear on the ballot. BallotMeasureSelection extends single-csv-ballot-selection-base.

Tag	Data	Re-	Re-	Description			Error Handling
	Type	quired	?peats	?			
se-	xs:st	r <b>Re</b> g	Sin-	Selection	n	text	If the element is invalid or not present, the implementa-
lec-		quired	gle	for a <i>bal-</i>		bal-	tion is required to ignore the BallotMeasureSelection con-
tion				lot_mea	isure_c	ontest	taining it.

```
id, sequence_order, selection
bms001,1,Proposition A
bms002,2,Proposition B
```

### ballot\_selection\_base

A base model for all ballot selection types: ballot\_measure\_selection, candiate\_selection, and party\_selection.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
se-	xs:i	n <b>Op</b> pge	rSin-	The order in which a selection can be listed on the	If the field is invalid or
quence	_order	tiona	l gle	ballot or in results. This is the default ordering, and	not present, then the im-
				can be overridden by OrderedBallotSlectionIds in or-	plementation is required to
				dered_contest.	ignore it.

#### hours open

A structured way of describing the days and hours that a place such as a *office* or *polling\_location* 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	Re-	Re-	Description	Error Handling		
	Type	quire	døeats	\$?			
sched	l- single-	Re-	Re-	Defines a block of	At least one valid 'Schedule' must be present for		
ule	csv-	quire	<b>d</b> peats	days and hours that	HoursOpen to be valid. If no valid 'Schedule'_ is present,		
	schedule	•		a place will be open.	the implementation is required to ignore the HoursOpen el-		
					ement.		

#### 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	Re-	Re-	Description	Error Handling
	Type	quire	døeats	3?	
hours	single-	Op-	Re-	Blocks of hours in the date range in which the place	If the element is invalid or
	csv-	tional	peats	is open.	not present, then the im-
	hours				plementation is required to
					ignore it.
is_only_b	y <u>x</u> appo	in <b>Ope</b> a	nSin-	If true, the place is only open during the specified	If the field is invalid or
		tional	gle	time window with an appointment.	not present, then the im-
					plementation is required to
					ignore it.
is_or_by_	_axppoilnt			If true, the place is open during the hours specified	If the field is invalid or
		tional	gle	time window and may also be open with an appoint-	not present, then the im-
				ment.	plementation is required to
					ignore it.
is_subjec	t_xtos_xcha			If true, the place should be open during the specified	If the field is invalid or
		tional	gle	time window, but may be subject to change. People	not present, then the im-
				should contact prior to arrival to confirm hours are	plementation is required to
				still accurate.	ignore it.
start_date	xs:da	- 1	Sin-	The date at which this collection of start and end	If the field is invalid or
		tional	gle	times and options begin.	not present, then the im-
					plementation is required to
					ignore it.
end_date	xs:da		Sin-	The date at which this collection of start and end	If the field is invalid or
		tional	gle	times and options end.	not present, then the im-
					plementation is required to
					ignore it.

```
id, start_time, end_time, is_only_by_appointment, is_or_by_appointment, is_subject_to_

change, start_date, end_date, hours_open_id

sch001,07:00:00-06:00,22:00:00-06:00, true,,2016-10-10,2016-10-12, ho001

sch002,09:00:00-06:00,20:00:00-06:00, true,,,2016-10-13,2016-10-15, ho001

sch003,08:00:00-06:00,14:00:00-06:00,, true,2016-10-10,2016-10-15, ho002
```

#### hours

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

Tag	Data Type	Re-	Re-	Description	Error Handling
		quired?	peats?		
start_ti	mæingle-csv-	Op-	Sin-	The time at which	If the element is invalid or not present, then the
	time-with-	tional	gle	this place opens.	implementation is required to ignore it.
	zone				
end_tii	nesingle-csv-	Op-	Sin-	The time at which	If the element is invalid or not present, then the
	time-with-	tional	gle	this place closes.	implementation is required to ignore it.
	zone				

## time\_with\_zone

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
```

```
<HoursOpen id="hours0001">
    <Schedule>
2
     <Hours>
3
       <StartTime>06:00:00-05:00
4
       <EndTime>12:00:00-05:00
     </Hours>
     <Hours>
       <StartTime>13:00:00-05:00
       <EndTime>19:00:00-05:00
10
     <StartDate>2013-11-05
11
     <EndDate>2013-11-05
12
    </Schedule>
13
  </HoursOpen>
```

#### electoral\_district

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	Re-	Re-	Description	Error Handling
	Туре	quire	dpeats	s?	
ex-	ex-	Op-	Sin-	Other identifiers that link to external datasets (e.g.	If the element is invalid or
ter-	ter-	tional	gle	OCD-IDs)	not present, then the imple-
nal_ic	lentif <u>ie</u> r	kentifie.	rs		mentation is required to ig-
					nore it.
name	xs:s	t <b>Re</b> ng	Sin-	Specifies the electoral area's name.	If the field is invalid or not
		quire	dgle		present, then the implemen-
					tation is required to ignore
					the ElectoralDistrict
					object containing it.
num-	xs:i	n <b>Op</b> ge	e1Sin-	Specifies the district number of the district (e.g. 34, in	If the field is invalid or not
ber		tional	gle	the case of the 34th State Senate District). If a number	present, then the implemen-
				is not applicable, instead of leaving the field blank,	tation is required to ignore it.
				leave this field out of the object; empty strings are not	
				valid for xs:integer fields.	
type	dis-	Re-	Sin-	Specifies the type of electoral area.	If the field is invalid or not
	trict_1	ypaire	edgle		present, then the implemen-
					tation is required to ignore
					the ElectoralDistrict
					object containing it.
other_	<b>tyope:</b> s	t <b>0</b> թո	Sin-	Allows for cataloging a new <i>district_type</i> option when	If the field is invalid or not
		tional	gle	Type is specified as "other".	present, then the implemen-
					tation is required to ignore it.

# party\_selection

This element extends single-csv-ballot-selection-base to support contests in which the selections can be groups of one or more parties.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	d?peats	?	
party	_inds:II	r <b>re</b> -s	Sin-	One or more party IDs	If one or more parties referenced are invalid or not
		quire	d gle	which collectively represent	present, the implementation is required to ignore the
				a ballot selection.	PartySelection containing it.

```
id, sequence_order, party_ids
ps001,1,par01 par04
ps002,2,par02
ps003,3,par03
```

### ballot\_selection\_base

A base model for all ballot selection types: ballot\_measure\_selection, candiate\_selection, and party\_selection.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
se-	xs:i	n <b>tOp</b> ge	rSin-	The order in which a selection can be listed on the	If the field is invalid or
quence	_order	tiona	gle	ballot or in results. This is the default ordering, and	not present, then the im-
				can be overridden by OrderedBallotSlectionIds in or-	plementation is required to
				dered_contest.	ignore it.

# simple\_address\_type

 $\label{lem:addressType} A \; \text{SimpleAddressType represents a structured address.}$ 

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	dpeats	?	
struc-	xs:st	: <b>- Re-</b> -g	Sin-	The address line for a structured address.	If no Line1 is provided, the
tured_lii	ne_1	quire	d gle	Should include the street number, street	implementation should ignore the
				name, and any prefix and suffix.	SimpleAddressType.
struc-	xs:st	. 1 <b>Ор</b> ъд	Sin-	Additional field for an address	If no Line2 is provided, the im-
tured_lii	ne_2	tional	gle		plementation should ignore it.
struc-	xs:st	т <b>Ор</b> тд	Sin-	Additional field for an address	If no Line3 is provided, the im-
tured_lii	ne_3	tional	gle		plementation should ignore it.
struc-	xs:st	т <b>Re</b> эg	Sin-	The City value of a structured address.	If City is not provided, the im-
tured_ci	ty	quire	d gle		plementation should ignore the
					SimpleAddressType.
struc-	xs:st	: <b>-Re-</b> -g	Sin-	The State value of a structured address.	If State is not provided, the
tured_st	ate	quire	d gle		implementation should ignore the
					SimpleAddressType.
struc-	xs:st	т <b>Ор</b> ъд	Sin-	The ZIP code of a structured address.	If Zip is not provided, the im-
tured_zi	p	tional	gle		plementation should ignore the
					SimpleAddressType.

# **Enumerations**

# identifier\_type

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.

# candidate\_post\_election\_status

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.

# candidate\_pre\_election\_status

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	

### voter\_service\_type

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.

# district\_type

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.

### office\_term\_type

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.

### oeb enum

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.

# ballot\_measure\_type

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

### vote\_variation

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	<b>'Borda count'</b> _, where each voter can rank the options, and the rankings are assigned point values.				
cumu- lative	<b>'Cumulative voting'</b> _, where each voter can distribute their vote to up to <i>N</i> options.				
major- ity	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 <i>N</i> options.				
plural-	A 1-of-m method where the option with the most votes is elected, regardless of whether the option has				
ity	more than 50% of the vote.				
propor-	A 'proportional representation'_ method (other than STV), which is any system that elects winners in				
tional	proportion to the total vote.				
range	<b>'Range voting'</b> _, 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-	A 1-of-m method where the winner needs more than some predetermined fraction of the vote to be				
majority	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.				

# **Elements (Separate Pages)**

# ballot\_measure\_contest

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

Tag	l I	Re-	Re-	Description	Error Handling		
Type quiredβeats?  con_statementOpi-ng Sin-   Specifies a statement in opposition to the referendum. It does not   If the element							
con_s	tateme	_		Specifies a statement in opposition to the referendum. It does not	If the element		
		tiona	l gle	necessarily appear on the ballot.	is invalid or not		
					present, then the		
					implementation		
					is required to		
					ignore it.		
ef-	77.0.1.0	t <b>Opi-</b> n	~ Cin	Specifies what effect abstaining (i.e. not voting) on this proposi-	If the element		
rect_	of_abst	a <b>m</b> ona	gie	tion will have (i.e. whether abstaining is considered a vote against	is invalid or not		
				it).	present, then the		
					implementation		
					is required to		
					ignore it.		
full t	exats:	t <b>On</b> -n	a Sin-	Specifies the full text of the referendum as it appears on the ballot.	If the element		
		tiona		~F	is invalid or not		
		tiona			present, then the		
					implementation		
					is required to		
					ignore it.		
info_	unxis:a	ır <b>Qqb</b> JR	I Sin-	Specifies a URI that links to additional information about the ref-	If the field is		
		tiona	gle	erendum.	invalid or not		
					present, then the		
					implementation		
					is required to		
		. 0 . 1	G.		ignore it.		
pas-		t <b>Op</b> -n		Specifies the threshold of votes that the referendum needs in order	If the element		
sage_	thresh	oltiona	l gle	to pass. The default is a simple majority (i.e. 50% plus one vote).	is invalid or not		
				Other common thresholds are "three-fifths" and "two-thirds". If	present, then the		
				there are 'competing initiatives'_, information about their effect	implementation		
				on the passage of the BallotMeasureContest would go here.	is required to		
					ignore it.		
pro s	tateme	<b>nt(3ni</b> -n	a Sin-	Specifies a statement in favor of the referendum. It does not nec-	If the element		
pro_s		tiona		essarily appear on the ballot.	is invalid or not		
		попа	gic	essarily appear on the barrot.			
					present, then the		
					implementation		
					is required to		
					ignore it.		
sum-	xs:s	t <b>Op</b> -n	g Sin-	Specifies a short summary of the referendum that is on the ballot,	If the element		
mary	l I	tiona		below the title, but above the text.	is invalid or not		
					present, then the		
					implementation		
					is required to		
					ignore it.		
type	xs:	t <b>0:pi-</b> n	I= I	Specifies the particular type of ballot measure. Must be one of the	If the field is		
		tiona	l gle	valid ballot_measure_type options.	invalid or not		
					present, then the		
					implementation		
					is required to		
					ignore it.		
othan	twna	+O+- ~	a Sin	Allows for cataloging a new hallet measure time ention when			
other	_txpe s			Allows for cataloging a new <i>ballot_measure_type</i> option, when			
		tiona	gie	Type is specified as "other."	invalid or not		
					present, then the		
					implementation		
					is required to		
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id,abbreviation,ballot\_selection\_ids,ballot\_sub\_title,ballot\_title,elecoral\_district\_
→id,electorate\_specification,external\_identifier\_type,external\_identifier\_othertype,
→external\_identifier\_value,has\_rotation,name,sequence\_order,vote\_variation,other\_
→vote\_variation,con\_statement,effect\_of\_abstain,full\_text,info\_uri,passage\_threshold,
→pro\_statement,summary\_text,type,other\_type
bmc0001,HB2,bs001 bs002 bs003,Raising levy for School Bond,School Bond Issue,ed001,
→all registered voters,,54,false,School Bond,42,majority,,This is no good.,No effect,
→A measure to do raise funds for etc etc,www.ballotmeasure.com,two-thirds,Everything\_
→will be great.,It's a referendum about school funding,referendum,

# contest\_base

A base model for all Contest types: *ballot\_measure\_contest*, *candidate\_contest*, *party\_contest*, and *retention\_contest* (NB: the latter because it extends *ballot\_measure\_contest*).

Tag	Data Type	Re-	Re- døeats	Description s?	Error Han- dling
ab-	xs:st		<u> </u>	An abbreviation for the contest.	If the field is
bre-	20.50	tional		An abbreviation for the contest.	invalid or not
via-		tiona			present, then
tion					the implemen-
tion					tation should
					ignore it.
bal-	xs:ID	D(D) Fr C	Sin-	References a set of BallotSelections, which could be of any selec-	If the field is
	lection_i	-	1 1	tion type that extends <i>ballot_selection_base</i> .	invalid or not
101_50	iection_i	имона	gie	tion type that extends banoi_selection_base.	present, then
					*
					the implemen-
					tation should
1 1		0	G.	0.14464	ignore it.
bal-	xs:st	_		Subtitle of the contest as it appears on the ballot.	If the element
lot_su	b_title	tiona	l gle		is invalid or
					not present,
					then the im-
					plementation
					should ignore
					it.
bal-	xs:st	_		Title of the contest as it appears on the ballot.	If the element
lot_tit	le	tiona	l gle		is invalid or
					not present,
					then the im-
					plementation
					should ignore
					it.
elec-	xs:ID	₽ <b>Rē</b> -	Sin-	References an electoral_district element that represents the geo-	If the field is
toral_	district_i	d <mark>quire</mark>	<b>d</b> gle	graphical scope of the contest.	invalid, then
					the implemen-
					tation should
					ignore it.
elec-	xs:st	r <b>0p</b> -g	Sin-	Specifies any changes to the eligible electorate for this contest past	If the element
torate	specific	attiiooma	l gle	the usual, "all registered voters" electorate. This subtag will most	is invalid or
				often be used for primaries and local elections. In primaries, voters	not present,
				may have to be registered as a specific party to vote, or there may	then the im-
				be special rules for which ballot a voter can pull. In some local	plementation
				elections, non-citizens can vote.	should ignore
					it.
ex-	xs:st	r <b>Op.</b> -q	Sin-	Other identifiers for a contest that links to another source of infor-	If the element
ter-		tional		mation.	is invalid or
nal id	entifiers				not present,
_					then the im-
					plementation
					should ignore
					it.
has ro	otation o	o <b>0p.</b> a∶	n Sin-	Indicates whether the selections in the contest are rotated.	If the field is
		tional	1 1	***************************************	invalid or not
					present, then
					the implemen-
					tation should
					ignore it.
name	xs:st	r <b>Re</b> -a	Sin-	Name of the contest, not necessarily how it appears on the ballot	If the field is
===		-quire	1 1	(NB: BallotTitle should be used for this purpose).	invalid, then
178		•		Chapter 2. CSV	Documentation
				-	tation should
					ignore it.
se-	xs:in	t <b>@p</b> e	r Sin-	Order in which the contests are listed on the ballot. This is the	If the field is

# ballot measure selection

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

Tag	Data	Re-	Re-	Descr	iption		Error Handling
	Type	quired	?peats	?			
se-	xs:st	r <b>Re</b> g	Sin-	Selecti	on	text	If the element is invalid or not present, the implementa-
lec-		quired	gle	for	for a <i>bal-</i> tion is required to ig		tion is required to ignore the BallotMeasureSelection con-
tion				lot_me	asure_	_contest	taining it.

```
id, sequence_order, selection
bms001,1,Proposition A
bms002,2,Proposition B
```

# ballot\_selection\_base

A base model for all ballot selection types: ballot\_measure\_selection, candiate\_selection, and party\_selection.

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	døeat	s?	
se-	xs:i	n <b>tOp</b> ge	rSin-	The order in which a selection can be listed on the	If the field is invalid or
quence	_order	tiona	l gle	ballot or in results. This is the default ordering, and	not present, then the im-
				can be overridden by OrderedBallotSlectionIds in or-	plementation is required to
				dered_contest.	ignore it.

## ballot\_style

A container for the contests/measures on the ballot.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired	? peats?	•	
image_uri	xs:any	≀U <b>O</b> pp <u>T</u> -	Sin-	Specifies a URI that returns	If the field is invalid or not present, then
		tional	gle	an image of the sample bal-	the implementation is required to ignore
				lot.	it.
or-	xs:IDF	REOPPS-	Sin-	Reference to a set of or-	If the field is invalid or not present, then
dered_conte	sts_ids	tional	gle	dered_contest	the implementation is required to ignore
					it.
party_ids	xs:IDF	RDPpS-	Sin-	Reference to a set of	If the field is invalid or not present, then
		tional	gle	:ref: 'multi-csv-party's.	the implementation is required to ignore
					it.

```
id,image_uri,ordered_contest_ids,party_ids
bs00010,http://i.giphy.com/26BoCh3PgT8ai45ji.gif,oc2025,par02
bs00011,http://i.giphy.com/3oEjHYDWEICgEpAOjK.gif,oc3000 oc2025,par01
```

#### 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	Re-	Re-	Description	Error Handling
	Туре		døeats		
bal-	xs:stri		Sin-	The candidate's name as it will be displayed on	If the element is invalid,
lot_nai		quire		the official ballot (e.g. "Ken T. Cuccinelli II").	then the implementation is required to ignore the Candidate element containing it.
con-	xs:stri	.n <b>Q</b> p-	Sin-	Contact and physical address information for	If the element is invalid or
tact_in	formation	tional		this Candidate and/or their campaign (see <i>contact_information</i> ).	not present, then the implementation is required to ignore it.
ex-	exter-	Op-	Sin-	Another identifier for a candidate that links to	If the element is invalid or
	nal_identi entifiers			another source of information (e.g. a campaign committee ID that links to a campaign finance system).	not present, then the implementation is required to ignore it.
file_da	texs:date	Op- tional	Sin- gle	Date when the candidate filed for the contest.	If the field is invalid or not present, then the implementation is required to ignore it.
is_incu	mbentoool	.eQapn-	Sin-	Indicates whether the candidate is the incumbent	If the field is invalid or not
		tional	gle	for the office associated with the contest.	present, then the implementation is required to ignore it.
is_top_	tixketbool	.eQpp-	Sin-	Indicates whether the candidate is the top of a	If the field is invalid or not
_		tional	gle	ticket that includes multiple candidates.	present, then the implementation is required to ignore it.
party_i	dxs:IDRE	EFOp-	Sin-	Reference to a party element with additional in-	If the field is invalid or not
		tional	gle	formation about the candidate's affiliated party.	present, then the implemen-
				This is the party affiliation that is intended to be presented as part of ballot information.	tation is required to ignore it.
per-	xs:IDRE	EFOp-	Sin-	Reference to a <i>person</i> element with additional	If the field is invalid or not
son_id		tional		information about the candidate.	present, then the implementation is required to ignore it.
post_e	le <b>ctiod<u>i</u>-</b> stati		Sin-	Final status of the candidate (e.g. winner, with-	If the field is invalid or not
	date_post	_&lonai	or <u>gl</u> etat	udrawn, etc).	present, then the implementation is required to ignore it.
pre_ele	ction <u>d</u> istatu date_pre_		Sin- n_gleatu	Registration status of the candidate (e.g. filed, asqualified, etc).	If the field is invalid or not present, then the implementation is required to ignore it.

```
id, ballot_name, external_identifier_type, external_identifier_othertype, external_
identifier_value, file_date, is_incumbent, is_top_ticket, party_id, person_id, post_
election_status, pre_election_status
can001, Jude Fawley,,,,2016-12-01, true, false, par01, per50001,, filed
can002, Arabella Donn,,,,2016-12-01, false, false, par02, per50002,, qualified
can003, John Coltrane,,,,2016-09-23, false, false, par02, per50003,, qualified
can004, Miles Davis,,,,2016-05-26, false, false, par01, per50004,, qualified
```

# candidate contest

CandidateContest extends *contest\_base* and represents a contest among candidates.

Tag		Re-	Re-	Description	Error Han-
		quire	•		dling
num-	xs:i	.r <b>@ipe</b> -g	e <b>S</b> in−	Number of candidates that are elected in the contest (i.e. "N" of N-of-	If the field
ber_e	lected	tional	lgle	M).	is invalid or
					not present,
					then the
					implemen-
					tation is
					required to
					ignore it.
of-	xs:]	D <b>OP</b>	S Sin-	References a set of office elements, if available, which give additional	If the field
fice_i		tional		information about the offices. <b>Note:</b> the order of the office IDs <b>must</b>	is invalid or
				be in the same order as the candidates listed in BallotSelectionIds. E.g.,	not present,
				if the various <i>BallotSelectionIds</i> reference <i>candiate_selection</i> elements	then the
				which reference the candidate for President first and Vice-President sec-	implemen-
				ond, the OfficeIds should reference the office of President first and the	tation is
				office of Vice-President second.	required to
					ignore it.
pri-	xs:]	D <b>OP</b> pEF	SSin-	References <i>party</i> elements, if the contest is related to a particular party.	If the field
mary	_party_	_i <b>dis</b> onal	l gle		is invalid or
					not present,
					then the
					implemen-
					tation is
					required to
					ignore it.
votes	_alkowi	e <b>rl1)</b> pe-g	eSin-	Maximum number of votes/write-ins per voter in this contest.	If the field
		tional			is invalid or
			_		not present,
					then the
					implemen-
					tation is
					required to
					ignore it.

id, abbreviation, ballot\_selection\_ids, ballot\_sub\_title, ballot\_title, electoral\_

district\_id, electorate\_specification, external\_identifier\_type, external\_identifier\_

othertype, external\_identifier\_value, has\_rotation, name, sequence\_order, vote\_variation,

other\_vote\_variation, number\_elected, office\_ids, primary\_party\_ids, votes\_allowed

cancon001, SE-1, bs001 bs002,, Governor of Virginia, ed001, all registered voters, fips,,

49, true, Governor, 1,,, 1, off001, par01, 1

cancon002, SE-2, bs003 bs004,, Lieutenant Governor of Virginia, ed001, all registered\_

ovoters, fips,, 49, true, Lt Governor, 2,,, 1, off002, par01, 1

#### contest base

A base model for all Contest types: *ballot\_measure\_contest*, *candidate\_contest*, *party\_contest*, and *retention\_contest* (NB: the latter because it extends *ballot\_measure\_contest*).

Debrotion   Sistem   An abbreviation for the contest.   If the field is invalid or not present, then the implementation should ignore it.	Tag	Data Type	Re-		Description :2	Error Han- dling
bal xs:xI POPS   Sin- lot_selection_distonal gle bal xs:xI POPS   Sin- lot_selection_d	ab-		<u> </u>	<u> </u>		
Single		73.50	1 -		All abbleviation for the contest.	
tion   bal   x   x   x   x   x   x   x   x   x			liona			
bal						-
Sub-    Sub-						
Bal-						
lot_selection_ditional gle   tion type that extends ballot_selection_base.   invalid or not present, then the implementation should ignore it.	bal-	xs.II	R <b>(D) F</b> -S	Sin-	References a set of BallotSelections, which could be of any selec-	•
bal   xs:st rOpg   Sintoral district idquiredgle   Specific amount   Specific and specific partial constitutions   Specific partial constitution   Specific partial constit		1			·	
bal- xs:st rOp-s   Sin- lot_sub_fitle   tional   se   bal- xs:st rOp-s   Sin- lot_sub_fitle   tional   se   bal- xs:st rOp-s   Sin- lot_sub_fitle   tional   se   bal- interpretation   should ignore it.   bal- interpretation   should ignore	101_50		a brona		tion type that extends button_betternon_butter.	
bal-   xs:st   rOp-q   Sin-   tional   gle   tional   tional   gle   tional   tional   gle   tional   t						-
Salation   Salation   Salation   Subtitle of the contest as it appears on the ballot.   If the element is invalid or not present, then the implementation should ignore it.						
Salidade   Salidade   Salidade   Subtitle						
Second   S	hal-	veiet	7 <b>(i)n</b> -0	Sin-	Subtitle of the contest as it appears on the hallot	
bal		1			Subtrac of the contest as it appears on the barrot.	
then the implementation should ignore it.    Selective   Single	101_30		tiona	gie		
Description   Person   Perso						
bal-						
bal-						_
Dal-						
Is invalid or not present, then the implementation should ignore it.	bol		xGn ~	Sin	Title of the contact as it appears on the hellot	
clec-   xs: ID   RRe-   Sin-   for field is invalid or not present, then the implementation should ignore it.		I			The of the contest as it appears on the bandt.	
then the implementation should ignore it.  electoral district idquire dgle district attional district idquire dgle specific attional district.  Electorate specific attional gle terror of the specific attional gle district idquire dgle district idquire dgle specific attional gle terror of the specific attional gle district.  Electorate specific attional gle district idquire dgle district idquire dgle district idquire dgle district.  Electorate specific attional gle district idquire dgle district idquire dgle district idquire dgle district.  Electorate specific attional gle district idquire dgle district idquire dgle district idquire dgle district.  Electorate specific attional gle district idquire dgle district idquire dgle district idquire dgle district.  Electorate specific attional gle district idquire dgle district idquir	101_11		uona	gie		
References an electoral_district element that represents the geographical scope of the contest.   If the field is invalid, then the implementation should ignore it.						-
Should ignore it.   Should ignore it.   Should ignore it.						
clec   xs:st  page   xs:st						_
electoral_district_dquiredgle district_dquiredgle district_dduiredgle district_dduiredgle district_dduiredgle district_dduiredgle district_dduiredgle district_dduiredgle district_dduiredgle district_dduiredgle graphical scope of the contest.  Specific antionan specific antionan district element that represents the geographical scope of the contest.  Specifics 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.  Copen tional gle district_dquiredgle district_element that represents the geographical scope of the contest.  References an electoral_district element that represents the geographical scope of the contest.  If the element is invalid or not present, then the implementation should ignore it.  If the field is invalid or not present, then the implementation should ignore it.  In ame						
toral_district_idquiredgle   graphical scope of the contest.   invalid, then the implementation should ignore it.    electorate   specific attitude   specific attitud	2122	T	DBE	Cin	Defendence on electoral district element that represents the goo	
the implementation should ignore it.  specificational gle special rules for which ballot a voter can pull. In some local elections, non-citizens can vote.  specificational gle tonal identifiers  specificational gle to special rules for which ballot a voter can pull. In some local elections, non-citizens can vote.  specificational gle tonal identifiers  specificational gle tonal gle tonal 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.  Indicates whether the selections in the contest are rotated.  If the field is invalid or not present, then the implementation should ignore it.  In the implementation should ignore it.  In the field is invalid or not present, then the implementation should ignore it.  In the field is invalid or not present, then the implementation should ignore it.  In the field is invalid or not present, then the implementation should ignore it.  In the field is invalid or not present, then the implementation should ignore it.  In the field is invalid or not present, then the implementation should ignore it.  In the field is invalid or not present, then the implementation should ignore it.  In the field is invalid, then the implementation should ignore it.						
clectorate   specifications   specifications   gle	torai_	uisuici	aquire	ugie	graphical scope of the contest.	· ·
cec-   xs:strOp-g   Sin-   torate   specificationna   gle   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.    ex-						
Specification   Specificatio						
torate specifications gle 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.    ex-	elec	vc.ct	γ(i)n α	Sin	Specifies any changes to the eligible electorate for this contest past	
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.  ex-						
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.  Single Sinter- nal_identifiers  Cope and Sintional gle it.  Indicates whether the selections in the contest are rotated.  Indicates whether the selections in the contest are rotated.  Indicates whether the selections in the contest are rotated.  In the field is invalid or not present, then the implementation should ignore it.  In the field is invalid or not present, then the implementation should ignore it.  In the field is invalid or not present, then the implementation should ignore it.  In the field is invalid or not present, then the implementation should ignore it.  In the field is invalid or not present, then the implementation should ignore it.  In the field is invalid or not present, then the implementation should ignore it.  In the field is invalid or not present, then the implementation should ignore it.	torate	Specific	ашкина.	gic	· · · · · · · · · · · · · · · · · · ·	
be special rules for which ballot a voter can pull. In some local elections, non-citizens can vote.  ex- ter- nal_identifiers  has_rotationlo of pean Sintional gle  name xs:st reg Sin quire dgle  name xs:st reg Sin quire dgle  he special rules for which ballot a voter can pull. In some local elections, non-citizens can vote.  be special rules for which ballot a voter can pull. In some local plementation should ignore it.  If the element is invalid or not present, then the implementation should ignore it.  If the field is invalid or not present, then the implementation should ignore it.  Name of the contest, not necessarily how it appears on the ballot (NB: BallotTitle should be used for this purpose).  Chapter 2. CSV Decumpnisation tation should ignore it.						
ex- ter- nal_identifiers  has_rotationic of tional gle  name xs:st reg gle  name xs:st						
it.  ex- ter- nal_identifiers  has_rotationio gle  name xs:st rReg Sin- tiona gle  name xs:st rReg Sin- tiona gle  Name of the contest, not necessarily how it appears on the ballot quiredgle  (NB: Ballot Title should be used for this purpose).  Other identifiers for a contest that links to another source of infor- not present, then the im- plementation should ignore it.  If the field is invalid or not present, then the implementation should ignore it.  Chapter 2. CSV Documentation should ignore it.						-
external_identifiers tional gle mation.    Name of the contest, not necessarily how it appears on the ballot quiredgle mation.					elections, non-entizens can vote.	_
ternal_identifiers tional gle mation.  has_rotation to a gle tional gle mation.  has_rotation to a gle tional	AV	vc•ct	r(i)n a	Sin	Other identifiers for a contest that links to another source of infor	**
nal_identifiers    nal_identifiers   nal_identif		X5.50				
then the implementation should ignore it.  has_rotationlo cOp-a n Sintional gle  name xs:st rResg Sin quiredgle  (NB: BallotTitle should be used for this purpose).  then the implementation should ignore it.  Chapter 2. CSV Documentation then the implementation should ignore it.		lantifiare		gic	mation.	
has_rotationlog Open Sintional gle  name xs:strReg quiredgle  Name of the contest, not necessarily how it appears on the ballot invalid, then (NB: BallotTitle should be used for this purpose).  Plementation should ignore it.  If the field is invalid or not present, then the implementation should ignore it.  If the field is invalid, then the invalid ignore it.	nai_ic	icituiici s				
has_rotation of tional gle  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:strReg Sin quiredgle (NB: Ballot Title should be used for this purpose).  Chapter 2. CSV Decumpatation tation should ignore it.						
has_rotation of the field is invalid or not present, then the implementation should ignore it.  name xs:st rReg Sin-quiredgle (NB: Ballot Title should be used for this purpose).  182  Chapter 2. CSV  it.  If the field is invalid or not present, then the implementation should ignore it.  Chapter 2. CSV  Open Sin- line field is invalid, then the field is invalid ignore it.						*
has_rotation						
invalid or not present, then the implementation should ignore it.    Name   xs:st   xReg   Sin quire dgle   NB: BallotTitle should be used for this purpose).   Chapter 2. CSV   Documentation should ignore it.	hac =	ntations -	(In a	Sin	Indicates whether the selections in the contest are rotated	
present, then the implementation should ignore it.  name xs:strReg Sin Name of the contest, not necessarily how it appears on the ballot invalid, then the implementation should ignore it.  182  Chapter 2. CSV  Decumpatation tation should ignore it.	1105_1	ULALBUID (			indicates whether the selections in the contest are folded.	
the implementation should ignore it.  name xs:strReg Sinquiredgle (NB: BallotTitle should be used for this purpose).  Chapter 2. CSV Decumpatation tation should ignore it.			uona	gic		
tation should ignore it.  name xs:st xReg Sinquiredgle (NB: BallotTitle should be used for this purpose).  Chapter 2. CSV Decumentation tation should ignore it.						
name xs:st rReg Sinquiredgle (NB: BallotTitle should be used for this purpose).						_
name xs:st rReg Sin-quiredgle Name of the contest, not necessarily how it appears on the ballot invalid, then Chapter 2. CSV Chapter 2. CSV Chapter 3. Chapter 4. CSV Decumentation tation should ignore it.						
quiredgle (NB: BallotTitle should be used for this purpose). invalid, then Chapter 2. CSV Decumentation tation should ignore it.	name	xs·st	rRe-a	Sin-	Name of the contest not necessarily how it appears on the hallot	•
182 Chapter 2. CSV Decumentation tation should ignore it.	name	210.00			7 **	
tation should ignore it.	182		1		Chapter 2. CSV	Decumentation
ignore it.					·	
9						
	se-	xs:ir	t <b>@p</b> e	r Sin-	Order in which the contests are listed on the ballot. This is the	•

# candiate selection

CandidateSelection extends ballot\_selection\_base and represents a ballot selection for a candidate contest.

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	dpeats	3?	
candi-	xs:I	D <b>O</b> p.f:	Sin-	References a set of <i>candidate</i> elements. The number of	If the field is invalid
date_ids		tional	l gle	candidates that can be references is unbounded in cases	or not present, then the
				where the ballot selection is for a ticket (e.g. "Presi-	implementation is re-
				dent/Vice President", "Governor/Lt Governor").	quired to ignore it.
en-	xs:I	D <b>O</b> pF	Sin-	References a set of <i>party</i> elements, which signifies one or	If the field is invalid
dorse-		tional	l gle	more endorsing parties for the candidate(s).	or not present, then the
ment_pa	arty_ids				implementation is re-
					quired to ignore it.
is_write	_ixas:b	<b>⊙0</b> ptea	ar <b>Sin</b> -	Signifies if the particular ballot selection allows for write-	If the field is invalid
		tional	gle	in candidates. If true, one or more write-in candidates are	or not present, then the
				allowed for this contest.	implementation is re-
					quired to ignore it.

```
id, sequence_order, candidate_ids, endorsement_party_ids, is_write_in
cs001,3,can004,par01,false
cs002,2,can001 can002,par03 par02,false
cs003,1,can003,par02 par03,true
```

#### ballot selection base

A base model for all ballot selection types: ballot\_measure\_selection, candiate\_selection, and party\_selection.

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	døeats	s?	
se-	xs:i	n <b>Op</b> pge	rSin-	The order in which a selection can be listed on the	If the field is invalid or
quence	_order	tiona	l gle	ballot or in results. This is the default ordering, and	not present, then the im-
				can be overridden by OrderedBallotSlectionIds in or-	plementation is required to
				dered_contest.	ignore it.

#### 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	1	Re-	Re- døeats	Description s?	Error Handling
date		da <b>Re</b> quire	Sin-	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 implementa- tion is required
					to ignore the
					Election ele-
					ment containing it.
elec-		t <b>Qp</b> -n		Specifies the highest controlling authority for election (e.g., fed-	If the element
tion_t	ype	tional	gle	eral, state, county, city, town, etc.)	is invalid or not present, then the
					implementation
					is required to
state	idxs:	n <b>a</b> ⊊r	Sin-	Specifies a link to the <i>State</i> element where the election is being	ignore it.  If the field is
state_	Id AS .	quire		held.	invalid, then
					the implementa-
					tion is required to ignore the
					Election ele-
					ment containing
is stat	tewaide k		a Sin-	Indicates whether the election is statewide.	it.  If the field is
15_5	C WAGE X	tional		indicates whether the election is statewide.	not present or in-
					valid, the imple-
					mentation is required to default
					to "yes".
name	xs:s	t <b>Qp</b> -n	- 1	The name for the election ( <b>NB</b> : while optional, this element is	If the element
		tional	gle	highly recommended).	is invalid or not present, then the
					implementation
					is required to
reg_	vc.	: <b>†Oni</b> -n	g <b>Sin</b> -	Specifies information about registration for this election either as	ignore it.  If the element
reg- is-	75.	tional		text or a URI.	is invalid or not
tra-					present, then the
tion_i	nto				implementation is required to
					ignore it.
ab-	xs:s	st <b>Op</b> -n		Specifies information about requesting absentee ballots either as	If the element
sen- tee ba	allot_in:	tional	gle	text or a URI	is invalid or not present, then the
100_01					implementation
					is required to
re-	ve	an <b>Opj</b> uR	⊺ Sin-	Contains a URI where results for the election may be found	ignore it.  If the field is
sults_	1	tional		Contains a Ord where results for the election may be found	invalid or not
					present, then the
					implementation is required to
					ignore it.
	g_hours	_	- 1	Contains the hours (in local time) that Election Day polling lo-	If the element
184		tional	gle	cations are open. If polling hours differ in specific paptage accestions, alternative hours may be specified in the <i>polling_location</i>	viloggimentation present, then the
				object (NB: this element is deprecated in favor of the more struc-	implementation
				tured :ref: 'multi-csv-hours-open' element. It is strongly encour-	is required to

id, 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
e001,10-08-2016, Best Hot Dog, State, st51, true, www.registrationinfo.com, You can vote\_
→absentee, http://hotdogcontest.gov/results, Noon to 3p.m., true, 10/08/2016, , ho002

# election\_administration

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

Type quiredpeats?  ab- xs:arQppRISin- Specifies the web address for informational gle tion on absentee voting.  If the field is invalid or not protection is required to	
sen- tional gle tion on absentee voting implementation is required to	
sen     nonat gie   non on absence voung.   implementation is required to	o ignore it.
tee_uri	
am_i_regissered Optin Sin- Specifies the web address for informa- If the field is invalid or not pro	esent, then the
tional gle   tion on whether an individual is regis-   implementation is required to	o ignore it.
tered.	
bal- xs: arQpbRISin- Specifies the web address for tracking If the field is invalid or not pro-	resent, then the
lot_tracking_uritional gle   information for a ballot cast by mail   implementation is required to	
bal- xs: arQpbRISin- Specifies the web address for tracking If the field is invalid or not pro-	resent, then the
lot_tracking_protionidngleur information for a provisional ballot.   implementation is required to	o ignore it.
To support EAC guidelines for "Pro-	
cessing Provisional Ballots" (https:	
//www.eac.gov/research-and-data/	
provisional-voting/)	
de- de- Re- Re- Describes the administrative body for There must be at least one	
part- part- quiredpeats a particular voter service. ment in each ElectionAdmir	
ment ment ment ment. If no valid Departme	
present, the implementation	
ignore the ElectionAdministration	tration object
that contains it/them.	
elec-   elec-   Op-   Sin-   A place for election administrators to   If the element is invalid or no	•
tion_noticion_noticional gle post last minute and emergency notifi- the implementation is require	ed to ignore it.
cations pertaining to the election.	
elec- xs: arQpbR I Sin- Specifies web address the administra- If the field is invalid or not pro-	
tions_uri tional gle tion's website. implementation is required to	
reg- xs: arQpbr I Sin- Specifies web address for information If the field is invalid or not pro	
istra- tional gle on registering to vote. implementation is required to	o ignore it.
tion_uri	
rules_urixs: arQppr I Sin-   Specifies a URI for the election rules   If the field is invalid or not pro	
tional gle and laws (if any) for the jurisdiction of implementation is required to	o ignore it.
the administration.	
what_is_ons_may@patkotSin-   Specifies web address for information   If the field is invalid or not pro-	
tional gle on what is on an individual's ballot. implementation is required to	
where dox i voto in Sin- The Specifies web address for infor- If the field is invalid or not pro-	· ·
tional gle   mation on where an individual votes   implementation is required to	o ignore it.
based on their address.	

## department

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	dpeats	3?	
con-	con-	Op-	Sin-	Contact and physical address information	If the element is invalid or not
tact_inform	ation_infor	mtional	gle	for the election administration body (see	present, then the implementa-
				contact_information).	tion is required to ignore it.
elec-	xs:IDRE	ГГОр-	Sin-	The individual to contact at the election	If the field is invalid or not
tion_officia	l_person_id	ltional	gle	administration office. The specified per-	present, then the implementa-
				son should be the election official.	tion is required to ignore it.
voter_servi	cemulti-	Op-	Re-	The types of services and appropriate	If the element is invalid or not
	csv-	tional	peats	contact individual available to voters.	present, then the implementa-
	voter-				tion is required to ignore it.
	service				

```
id, election_official_person_id, election_administration_id
dep01, per50002, ea123
dep02, per50002, ea345
dep03, per50002, ea625
dep04, per50002, ea625
```

## voter service

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired	l?peats	?	
con-	con-	Op-	Sin-	The contact for a particular voter	If the element is invalid or not
tact_informa	ti <b>on</b> ct_infor	mtional	gle	service.	present, then the implementation is
					required to ignore it.
description	xs:stri	.n <b>@p-</b>	Sin-	Long description of the services	If the element is invalid or not
		tional	gle	available.	present, then the implementation is
					required to ignore it.
elec-	xs:IDRE	FOp-	Sin-	The authority for a particular	If the field is invalid or not present,
tion_official_	_person_id	tional	gle	voter service.	then the implementation is required
					to ignore it.
type	voter_serv	у <b>і@</b> р#ур	e Sin-	The type of <i>voter service</i> .	If the field is invalid or not present,
		tional	gle		then the implementation is required
					to ignore it.
other_type	xs:stri	n <b>Q</b> p-	Sin-	If Type is "other", OtherType al-	If the field is invalid or not present,
		tional	gle	lows for cataloging another type	then the implementation is required
				of voter service.	to ignore it.

```
id, description, election_official_person_id, type, other_type, department_id
vs01, A service we provide, per50002, other, overseas-voting, dep01
vs00, Elections notifications, per50002, other, voter-registration, dep02
vs02, Pencil sharpening, per50002, other, office-help, dep03
vs03, Guided hike to polling place, per50002, other, polling-places, dep03
vs04, Bike messenger ballot delivery, per50002, other, absentee-ballots, dep03
```

# contact\_information

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. *election\_administration*, *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		Re-	Re-	Description	Error Handling
	Type	quire	døeats		
ad-	xs:s	t <b>Op</b> -n	gRe-	The "location" portion of a mailing address. See usage note.	If the field is invalid
dress	_line	tional	peats		or not present, then
			-		the implementation is
					required to ignore it.
di-	xs:s	t <b>Op</b> i-n	gSin-	Specifies further instructions for locating this entity.	If the element is in-
rec-		tional			valid or not present,
tions					then the implementa-
					tion is required to ig-
					nore it.
email	xs:s	t <b>Op</b> i-n	aRe-	An email address for the contact.	If the field is invalid
		- 1	peats		or not present, then
			1		the implementation is
					required to ignore it.
fax	xs:s	t <b>Op</b> i-n	aRe-	A fax line for the contact.	If the field is invalid
		- 1	peats		or not present, then
			1		the implementation is
					required to ignore it.
hours	XS:S	t <b>Op</b> i-n	⊲ Sin-	Contains the hours (in local time) that the location is open	If the element is in-
		tional		(NB: this element is deprecated in favor of the more structured	valid or not present,
				:ref: 'multi-csv-hours-open' element. It is strongly encouraged	then the implementa-
				that data providers move toward contributing hours in this for-	tion is required to ig-
				mat).	nore it.
hours	_øpen]	<b>iæp</b> -F	Sin-	References an hours_open element, which lists the hours of	If the field is invalid
	_	tional	gle	operation for a location.	or not present, then
					the implementation is
					required to ignore it.
lat_lo	nlgat_lo	<i>n</i> <b>@</b> p-	Sin-	Specifies the latitude and longitude of this entity.	If the element is in-
		tional	gle		valid or not present,
					then the implementa-
					tion is required to ig-
					nore it.
name	xs:s	t <b>Op</b> -n	g Sin-	The name of the location or contact. See usage note.	If the field is invalid
		tional	gle		or not present, then
					the implementation is
					required to ignore it.
phone	e xs:s	t <b>0p</b> -n		A phone number for the contact.	If the field is invalid
		tional	peats		or not present, then
					the implementation is
					required to ignore it.
uri	xs:	ar <b>Qpb</b> JR		An informational URI for the contact or location.	If the field is invalid
		tional	peats		or not present, then
					the implementation is
					required to ignore it.

```
id, address_line_1, address_line_2, address_line_3, directions, email, fax, hours, hours_
open_id, latitude, longitude, latlng_source, name, phone, uri, parent_id
ci0827, The White House, 1600 Pennsylvania Ave,,, josh@example.com,, Early to very late,,
o,,, Josh Lyman, 555-111-2222, http://lemonlyman.example.com, off001
ci0828, The White House, 1600 Pennsylvania Ave,,, josh@example.com,, Early to very late,,
o,,,, Josh Lyman, 555-111-2222, http://lemonlyman.example.com, vs01
```

# election notice

Tag	Data	Re-	Re-	Description	Error Handling	
	Type	quire	d peats	?		
elec-	xs:st	: <b>Re</b> ng	Sin-	The last minute or emergency noti-	If the element is invalid, then the im-	
tion_noti	tion_notice_text   quired gle		<b>d</b> gle	fication text should be placed here.	plementation is required to ignore th	
					ElectionNotice element containing it.	
elec-	xs:st	<b>.1Ор</b> -19	Sin-	Optional URL for additional infor-	If the field is invalid or not present, then the	
tion_noti	notice_uri   tional gle		e_uri   tional gle   mation related to the last minute or		implementation is required to ignore it.	
				emergency notification.		

#### voter\_service

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired	l?peats	?	
con-	con-	Op-	Sin-	The contact for a particular voter	If the element is invalid or not
tact_informa	ti <b>on</b> ct_infor	mtional	gle	service.	present, then the implementation is
					required to ignore it.
description	xs:stri	n <b>Q</b> p-	Sin-	Long description of the services	If the element is invalid or not
		tional	gle	available.	present, then the implementation is
					required to ignore it.
elec-	xs:IDRE	FOp-	Sin-	The authority for a particular	If the field is invalid or not present,
tion_official_	person_id	tional	gle	voter service.	then the implementation is required
					to ignore it.
type	voter_ser	г <b>і@</b> р‡ур	e Sin-	The type of <i>voter service</i> .	If the field is invalid or not present,
		tional	gle		then the implementation is required
					to ignore it.
other_type	xs:stri	n <b>@p</b> -	Sin-	If Type is "other", OtherType al-	If the field is invalid or not present,
		tional	gle	lows for cataloging another type	then the implementation is required
				of voter service.	to ignore it.

```
id, description, election_official_person_id, type, other_type, department_id vs01, A service we provide, per50002, other, overseas-voting, dep01 vs00, Elections notifications, per50002, other, voter-registration, dep02 vs02, Pencil sharpening, per50002, other, office-help, dep03 vs03, Guided hike to polling place, per50002, other, polling-places, dep03 vs04, Bike messenger ballot delivery, per50002, other, absentee-ballots, dep03
```

## electoral district

2

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	Re- Re-	Description	Error Handling
	Туре	quiredßea	ts?	
ex-	ex-	Op- Sin-	Other identifiers that link to external datasets (e.g.	If the element is invalid or
ter-	ter-	tional gle	'OCD-IDs'_)	not present, then the imple-
nal_ic	lentif <u>ie</u> r	kentifiers		mentation is required to ig-
				nore it.
name	xs:s	t <b>Rė</b> ng Sin-	Specifies the electoral area's name.	If the field is invalid or not
		<b>quired</b> gle		present, then the implemen-
				tation is required to ignore
				the ElectoralDistrict
				object containing it.
num-	xs:i	n <b>Op</b> geiSin-	Specifies the district number of the district (e.g. 34, in	If the field is invalid or not
ber		tional gle	the case of the 34th State Senate District). If a number	present, then the implemen-
			is not applicable, instead of leaving the field blank,	tation is required to ignore it.
			leave this field out of the object; empty strings are not	
			valid for xs:integer fields.	
type	dis-	Re- Sin-	Specifies the type of electoral area.	If the field is invalid or not
	trict_1	y <b>quired</b> gle		present, then the implemen-
				tation is required to ignore
				the ElectoralDistrict
				object containing it.
other_	typae:s	t <b>0p</b> ոց Sin-	Allows for cataloging a new <i>district_type</i> option when	If the field is invalid or not
		tional gle	Type is specified as "other".	present, then the implemen-
				tation is required to ignore it.

# $external\_identifier$

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	dpeats	s?	_
type	ident	i <b>f</b> Ricer	_Siynpe	Specifies the type of identifier. Must be one of	If the field is invalid or not
		quire	<b>d</b> gle	the valid types as defined by <i>identifier_type</i> .	present, the implementa-
					tion is required to ignore the
					ElectionIdentifier con-
					taining it.
other	_txpe st	r <b>Op</b> g	Sin-	Allows for cataloging an	If the field is invalid or not present,
		tiona	gle	ExternalIdentifier type that falls	then the implementation is re-
				outside the options listed in identifier_type.	quired to ignore it.
				Type should be set to "other" when using this	
				field.	
value	xs:st	r <b>Re</b> g	Sin-	Specifies the identifier.	If the field is invalid or not
		quire	dgle		present, the implementa-
					tion is required to ignore the
					ElectionIdentifier con-
					taining it.

ed001,ocd-id,,ocd-division/country:us/state:ny/borough:brooklyn,Brooklyn,1,borough,ed002,other,community-board,4,CB 4,2,other,community-board

#### external identifiers

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 contest base
- electoral\_district
- locality
- office
- party
- precinct
- state

Tag	Data	Re-	Re-	Description	Error Handling	
	Type quired@eats?		s?			
ex-	ex-	Re-	Re-	Defines the identifier and	At least one valid <b>ExternalIdentifier</b> must be present	
ter-	ter-	quire	<b>d</b> peats	the type of identifier it	for ExternalIdentifiers to be valid. If no valid	
nal_id	entif <u>ie</u> ir	lentifie	r	is (see 'ExternalIdenti-	<b>ExternalIdentifier</b> is present, the implementation is	
				fier'_ for complete infor-	required to ignore the ExternalIdentifiers ele-	
				mation).	ment.	

# hours open

A structured way of describing the days and hours that a place such as a *office* or *polling\_location* 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	Re-	Re-	Description	Error Handling
	Type	quire	dpeats	s?	
sched	l-sched	- Re-	Re-	Defines a block of	At least one valid Schedule must be present for HoursOpen
ule	ule	quire	<b>d</b> peats	days and hours that a	to be valid. If no valid <i>Schedule</i> is present, the implementation
				place will be open.	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	Re-	Re-	Description	Error Handling
	Туре	quire	dβeats	3?	
hours	hours	Op-	Re-	Blocks of hours in the date range in which the place	If the element is invalid or
		tional	peats	is open.	not present, then the im-
					plementation is required to
					ignore it.
is_only_b	y <u>x</u> appo			If true, the place is only open during the specified	If the field is invalid or
		tional	gle	time window with an appointment.	not present, then the im-
					plementation is required to
					ignore it.
is_or_by_	_appoilo			If true, the place is open during the hours specified	If the field is invalid or
		tional	gle	time window and may also be open with an appoint-	not present, then the im-
				ment.	plementation is required to
					ignore it.
is_subjec	t_xcs_ch			If true, the place should be open during the specified	If the field is invalid or
		tional	gle	time window, but may be subject to change. People	not present, then the im-
				should contact prior to arrival to confirm hours are	plementation is required to
				still accurate.	ignore it.
start_date	xs:d		Sin-	The date at which this collection of start and end	If the field is invalid or
		tional	gle	times and options begin.	not present, then the im-
					plementation is required to
					ignore it.
end_date	xs:d	а <b>О</b> ф-	Sin-	The date at which this collection of start and end	If the field is invalid or
		tional	gle	times and options end.	not present, then the im-
					plementation is required to
					ignore it.

```
id, start_time, end_time, is_only_by_appointment, is_or_by_appointment, is_subject_to_

change, start_date, end_date, hours_open_id

sch001,07:00:00-06:00,22:00:00-06:00, true,,2016-10-10,2016-10-12, ho001

sch002,09:00:00-06:00,20:00:00-06:00,true,,2016-10-13,2016-10-15, ho001

sch003,08:00:00-06:00,14:00:00-06:00,,true,2016-10-10,2016-10-15, ho002
```

# hours

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

Tag	Data	Re-	Re-	Description	Error Handling	
	Туре	quired?	peats?			
start_ti	start_timeime_with_zOp- Sin-		Sin-	The time at which	If the element is invalid or not present, then the	
		tional	gle	this place opens.	implementation is required to ignore it.	
end_tin	netime_with_	<b>z0p</b> ₽	Sin-	The time at which	If the element is invalid or not present, then the	
		tional	gle	this place closes.	implementation is required to ignore it.	

# time\_with\_zone

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

```
<HoursOpen id="hours0001">
    <Schedule>
2
      <Hours>
3
        <StartTime>06:00:00-05:00
        <EndTime>12:00:00-05:00
      </Hours>
      <Hours>
        <StartTime>13:00:00-05:00
        <EndTime>19:00:00-05:00
      </Hours>
10
      <StartDate>2013-11-05
11
      <EndDate>2013-11-05</EndDate>
12
    </Schedule>
13
  </HoursOpen>
```

#### internationalized text

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 <code>contest\_base\*</code> Any element that extends <code>ballot\_selection\_base\*</code> candidate \* <code>contact\_information\*</code> election \* election\_administration\* office \* party \* person \* polling\_location\* source NOTE: Internationalized Text is not currently supported for CSV submissions. "

Tag	Data	Re-	Re- Re- Description			Erro	r Hand	ling						
	Туре	e quiredøeats?												
text	xs:s			Contains										for
		quire	<b>d</b> peats	translations	of a	Int	ernat	ional	izedT	ext to	be val	id.	If no	valid
				particular	Tex	t is p	resent,	the in	nplementa	ation is	requi	ired to ig	gnore	
				of text.		the InternationalizedText element.								

## language\_string

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.

```
SallotTitle>

Text language="en">Retention of Supreme Court Justice</Text>

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

(BallotTitle>
```

### locality

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	døeat	s?	
elec-	xs:I	D <b>O</b> PEF	Sin-	Links to the locality's elec-	If the field is invalid or not present,
tion_a	dminist	rationa <u>.</u>	Liogle	tion_administration object.	then the implementation is required to
					ignore it.
ex-	ex-	Op-	Sin-	Another identifier for a locality that links to	If the element is invalid or not
ter-	ter-	tional		another dataset (e.g. 'OCD-ID'_)	present, then the implementation is
	entif <u>le</u> r				required to ignore it.
is_mai	l_xonlyt	-		Determines if the locality runs mail-only	If the field is missing or invalid, the
		tional	l gle	elections. If this is true, then all precincts a	implementation is required to assume
				part of the locality will also run mail-only	IsMailOnly is false.
				elections. Drop boxes may be used in ad-	
				dition to this flag using a polling location	
				record configured as a Drop Box.	
name	xs:s	t <b>Re</b> -n		Specifies the name of a locality.	If the field is invalid, then the im-
		quire	dgle		plementation is required to ignore the
					Locality element containing it.
polling	_kocat			Specifies a link to a set of the locality's	If the field is invalid or not present,
		tional	l gle	:ref:'polling locations <multi-csv-polling-< td=""><td>the implementation is required to ig-</td></multi-csv-polling-<>	the implementation is required to ig-
				location>'s. If early vote centers or ballot	nore it. However, the implementation
				drop locations are locality-wide, they should	should still check to see if there are
				be specified here.	any polling locations associated with
					this locality's state.
state_i	dxs:I		Sin-	References the locality's <i>state</i> .	If the field is invalid, then the im-
		quire	dgle		plementation is required to ignore the
					Locality element containing it.
type	dis-	Op-	Sin-	Defines the kind of locality (e.g. county,	If the field is invalid or not present,
	trict_	<i>ty</i> pional	l gle	town, et al.), which is one of the various <i>Dis</i> -	then the implementation is required to
				trictType enumerations.	ignore it.
other_	type:s	-	i= i	Allows for defining a type of locality that	If the field is invalid or not present,
		tional	l gle	falls outside the options listed in <i>District</i> -	then the implementation is required to
				Type.	ignore it.

```
id, election_administration_id, external_identifier_type, external_identifier_othertype,

--external_identifier_value, is_mail_only, name, polling_location_ids, state_id, type,

--other_type
loc001, ea123, ocd-id,, ocd-division/country:us/state:co/county:denver, true, Locality #1,

--poll001 poll002, st51, city,
loc002, ea345,,,,, Locality #2,, st51, other, unique type
```

# office

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

Data	Re-	Re-	Description	Error Handling
Type	quire	dpeat	s?	
xs:II	FOEIPF-	Re-	Links to the contact_information ele-	If the element is invalid or not present,
nation_i	d tional	peats	ment associated with the office.	then the implementation is required to
				ignore it.
xs:st	: 1 <b>Op</b> 1-g	Sin-	A brief description of the office and its	If the element is invalid or not present,
	tional	gle	purpose.	then the implementation is required to
				ignore it.
xs:II	PRE-	Sin-	Links to the <i>electoral_district</i> element	If the field is invalid or not present,
ct_id	quire	dgle	associated with the office.	the implementation is required to ig-
				nore the Office element containing
				it.
xs:II	F <b>O2p5</b> -	Sin-	Other identifiers that link this office to	If the element is invalid or not present,
ers	tional	gle	other related datasets (e.g. campaign	then the implementation is required to
			finance systems, OCD IDs, et al.).	ignore it.
xs:da	at@p-	Sin-	Specifies the date and time when a	If the field is invalid or not present,
ne	tional	gle	candidate must have filed for the con-	then the implementation is required to
			test for the office.	ignore it.
xs:bo	о <b>Ор</b> еа:	n Sin-	Indicates whether the office is parti-	If the field is invalid or not present,
	tional	gle	san.	then the implementation is required to
				ignore it.
xs:st	<b>: rRe</b> +g	Sin-	The name of the office.	If the field is invalid or not present,
	quire	dgle		the implementation is required to ig-
				nore the Office element containing
				it.
xs:II	р <b>Юр</b> -S	Sin-	Links to the <i>person</i> element(s) that	If the field is invalid or not present,
_persor	_tidənal	gle	hold additional information about the	then the implementation is required to
			current office holder(s).	ignore it.
term	Op-	Sin-	Defines the term the office can be held.	If the element is invalid or not present,
	tional	gle		then the implementation is required to
				ignore it.
	Type  xs:II ation_i  xs:st  xs:II ct_id  xs:II ers  xs:da e  xs:bd  xs:st	Type quire  xs:IDHOP- lation_id tional  xs:st_IOp-g tional  xs:IDHOP- ers tional  xs:datOp- ne tional  xs:booOp-artional  xs:st_IRe-g quire  xs:IDHOP-S person_tithnal	Type quire deats  xs:IDFOPF- lation_id tional peats  xs:strOpp-g Sintional gle  xs:IDFOPF- Sintional gle  xs:IDFOPF- Sintional gle  xs:datOp- le tional gle  xs:booOpe-an Sintional gle  xs:strRe-g Sinquired gle  xs:strRe-g Sinquired gle  xs:IDFOPF-S Sinquired gle  xs:IDFOPF-S Sinquired gle	Type quiredpeats?  Restation_id tional peats  Restation_id tional gle  Exs:IDFOF  Sintional gle  Exs:IDFOF  Exs:IDFOF  Sintional gle  Exs:IDFOF  Exs:IDFOF  Sintional gle  Exs:IDFOF  Exs:IDFOF  Sintional gle  Exs:IDFOF  Ex

```
id,electoral_district_id,external_identifier_type,external_identifier_othertype,

→external_identifier_value,filing_deadline,is_partisan,name,office_holder_person_ids,

→term_type,term_start_date,term_end_date

off001,ed001,,,,,true,Deputy Chief of Staff,per50003,full-term,2002-01-21,

off002,ed001,,,,,true,Deputy Deputy Chief of Staff,per50001,unexpired-term,2002-01-

→21,

off003,ed001,,,,,false,General Secretary of Secretaries,per50004,full-term,2002-01-

→21,
```

#### term

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired	quired?peats?		
term_ty	peof-	Op-	Sin- Specifies the type of office		If the field is invalid or not present, the imple-
	fice_tern	ı <u>ti</u> ynal	gle	term (see office_term_type for	mentation is required to ignore the Office el-
				valid values).	ement containing it.
term_sta	urt <u>x</u> datdat	еОр-	Sin-	Specifies the start date for the	If the field is invalid or not present, then the
		tional	gle	current term of the office.	implementation is required to ignore it.
term_en	d <u>x</u> datedat	еОр-	Sin-	Specifies the end date for the	If the field is invalid or not present, then the
		tional	gle	current term of the office.	implementation is required to ignore it.

# contact\_information

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. *election\_administration*, *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		Re-	Re-	Description	Error Handling
			døeat		
ad-	xs:s	t <b>Op</b> i-n	gRe-	The "location" portion of a mailing address. See usage note.	If the field is invalid
dress	_line	tiona	peats		or not present, then
					the implementation is
					required to ignore it.
di-	xs:s	t <b>Op</b> i-n	g Sin-	Specifies further instructions for locating this entity.	If the element is in-
rec-		tiona			valid or not present,
tions					then the implementa-
					tion is required to ig-
					nore it.
email	xs:s	st <b>Opi</b> -n	gRe-	An email address for the contact.	If the field is invalid
		_	peats		or not present, then
			1		the implementation is
					required to ignore it.
fax	xs:s	t <b>Op</b> i-n	a Re-	A fax line for the contact.	If the field is invalid
		_	peats		or not present, then
			1		the implementation is
					required to ignore it.
hours	XS:S	t <b>Op</b> -n	a Sin-	Contains the hours (in local time) that the location is open	If the element is in-
110 411	110.	tiona		(NB: this element is deprecated in favor of the more structured	valid or not present,
		trona		:ref: 'multi-csv-hours-open' element. It is strongly encouraged	then the implementa-
				that data providers move toward contributing hours in this for-	tion is required to ig-
				mat).	nore it.
hours	_øpen]	iÆm⊹F	Sin-	References an <i>hours_open</i> element, which lists the hours of	If the field is invalid
110 411		tiona		operation for a location.	or not present, then
		urona.		operation for a fortune in	the implementation is
					required to ignore it.
lat lo	nkut_lo	<i>n</i> Øn-	Sin-	Specifies the latitude and longitude of this entity.	If the element is in-
144_14	1.5	tiona		specifies the minute and longitude of this entity.	valid or not present,
			8.0		then the implementa-
					tion is required to ig-
					nore it.
name	XS.	t <b>Op</b> -n	a Sin-	The name of the location or contact. See usage note.	If the field is invalid
1141110	230 • 0	tiona		The hamb of the found of contact, occ abase note.	or not present, then
		liona	5.0		the implementation is
					required to ignore it.
nhone	e xs:s	: <del> </del> ()mi_n	rRe-	A phone number for the contact.	If the field is invalid
Phone	A5.5		peats	11 phone number for the contact.	or not present, then
		попа	Pears		the implementation is
					required to ignore it.
uri	vo	an <b>Opp</b> UR	T RA	An informational URI for the contact or location.	If the field is invalid
ull	A5.0		peats	m mornational ON for the contact of location.	or not present, then
		попа	Pears		the implementation is
					required to ignore it.
					required to ignore it.

```
id,address_line_1,address_line_2,address_line_3,directions,email,fax,hours,hours_
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0827,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0827,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,off001
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,off001
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,,Early to very late,,
open_id,latitude,longitude,latlng_source,name,phone,uri,parent_id
ci0828,The White House,1600 Pennsylvania Ave,,,josh@example.com,off001
```

# ordered contest

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

Tag	Data	Re-	Re-	Descrip-	Error Handling
	Type	quire	døeats	s?ion	
con-	xs:	D <b>Re</b> F	Sin-	Links to el-	If the field is invalid or not present, the implementation is required to
test_id	quiredgle ements that		ements that	ignore the OrderedContest element containing it.	
				extend con-	
				test_base.	
or-	IDRE	ΣF <b>Ω</b> p-	Sin-	Links to el-	If the field is invalid or not present, the implementation is required to
dered_b	allot_s	el <b>eictin</b> ai	h_gilts	ements that	ignore it. If an OrderedBallotSelectionIds element is not
				extend bal-	present, the presumed order of the selection will be the order of bal-
				lot_selection_blaste_selection_base-extended elements referenced by the underlying	
					contest_base-extended elements.

```
id, contest_id, ordered_ballot_selection_ids
oc2025, con001, bs001 bs002 bs003
oc3000, con002, bs001
```

# 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 *candidate\_contest* can use the **PrimaryPartyIds** field and a dummy Party object to indicate that the contest is a "Top-Two" primary).

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	_	døeats		
ab-	xs:s	t <b>Op</b> no	1 1	An abbreviation for the party name.	If the field is in-
bre-		tiona	l gle		valid or not present,
via-					then the implemen-
tion					tation is required to
					ignore it.
color	html_c	c <i>0</i> 0p <u>-</u> s	trSning-	The preferred display color for the party, for use in maps and	If the element is in-
		tiona	l gle	other displays.	valid or not present,
					then the implemen-
					tation is required to
					ignore it.
ex-	ex-	Op-	Sin-	Other identifiers that link this party to other related data sets	If the element is in-
ter-	ter-	tiona	l gle	(e.g. a campaign finance system, etc).	valid or not present,
nal_id	entif <u>ie</u> in	entifie	rs		then the implemen-
					tation is required to
					ignore it.
is_wri	te <u>x</u> in: b	о <b>О</b> ре <i>а</i>	nSin-	Signals if this political party is one that is officially recognized	If the field is in-
		tiona	l gle	by a local, state, or federal organization, or is a "write-in" in	valid or not present,
				jurisdictions which allow candidates to free-form enter their	then the implemen-
				political affiliation. If this field is not present then it is as-	tation is required to
				sumed to be false.	ignore it.
logo_i	urks:a	n <b>Øø</b> RI	Sin-	Web address of a logo to use in displays.	If the field is in-
		tiona	l gle		valid or not present,
					then the implemen-
					tation is required to
					ignore it.
name	xs:s	t <b>Op</b> no	Sin-	The name of the party.	If the element is in-
		tiona			valid or not present,
					then the implemen-
					tation is required to
					ignore it.

```
id, abbreviation, color, external_identifier_type, external_identifier_othertype,

→external_identifier_value, logo_uri, name

par01, REP, ff0000, , , , http://example.com/elephant.png, Republican

par02, DEM, 0000ff, , , , http://example.com/donkey.png, Democrat

par03, GRN, efefef, , , , http://example.com/tree.png, Green

par04, WFP, ee99aa, , , , http://example.com/worker.png, Working Families Party
```

# html\_color\_string

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

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

# party\_contest

An extension of *contest\_base* which describes a contest in which the possible ballot selections are of type *party\_selection*. 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).

#### contest base

A base model for all Contest types: *ballot\_measure\_contest*, *candidate\_contest*, *party\_contest*, and *retention\_contest* (NB: the latter because it extends *ballot\_measure\_contest*).

Tag	Data Type	Re-	Re- døeats	Description s?	Error Han- dling
ab-	xs:st	<u> </u>	·	An abbreviation for the contest.	If the field is
bre-	X5.50	tional	I I	All aboleviation for the contest.	invalid or not
via-		tiona	gic		present, then
tion					the implemen-
tion					tation should
					ignore it.
hal	T	DO E.C.	Cin	Deferences a set of DelletCelections, which could be of any selec-	If the field is
bal-	xs:II		Sin-	References a set of BallotSelections, which could be of any selec-	
lot_se	lection_	id <b>s</b> iona.	gie	tion type that extends ballot_selection_base.	invalid or not
					present, then
					the implemen-
					tation should
1 1			a.		ignore it.
bal-	xs:st		Sin-	Subtitle of the contest as it appears on the ballot.	If the element
lot_st	b_title	tional	gle		is invalid or
					not present,
					then the im-
					plementation
					should ignore
					it.
bal-	xs:st		Sin-	Title of the contest as it appears on the ballot.	If the element
lot_tit	lle	tional	gle		is invalid or
					not present,
					then the im-
					plementation
					should ignore
					it.
elec-	xs:II		Sin-	References an electoral_district element that represents the geo-	If the field is
toral_	district_	id <b>quire</b>	dgle	graphical scope of the contest.	invalid, then
					the implemen-
					tation should
					ignore it.
elec-	xs:st		Sin-	Specifies any changes to the eligible electorate for this contest past	If the element
torate	specific	attuoma.	gle	the usual, "all registered voters" electorate. This subtag will most	is invalid or
				often be used for primaries and local elections. In primaries, voters	not present,
				may have to be registered as a specific party to vote, or there may	then the im-
				be special rules for which ballot a voter can pull. In some local	plementation
				elections, non-citizens can vote.	should ignore
					it.
ex-	xs:st		I I	Other identifiers for a contest that links to another source of infor-	If the element
ter-		tional	gle	mation.	is invalid or
nal_ic	lentifiers				not present,
					then the im-
					plementation
					should ignore
					it.
has_r	otation o			Indicates whether the selections in the contest are rotated.	If the field is
		tional	gle		invalid or not
					present, then
					the implemen-
					tation should
					ignore it.
name	xs:st		Sin-	Name of the contest, not necessarily how it appears on the ballot	If the field is
0.4.	01/ 0	quire		(NB: BallotTitle should be used for this purpose).	invalid, then
2.1. C	SV Spe	citicat	ion		the impleme <b>201</b>
					tation should
					ignore it.
se-	xs:ir	it <b>0p</b> e	r Sin-	Order in which the contests are listed on the ballot. This is the	If the field is

# party\_selection

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

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quire	quired?peats?		
party	_inds:II	r <b>re-</b> s	Sin-	One or more party IDs	If one or more parties referenced are invalid or not
	<b>quired</b> gle which collectively represent		which collectively represent	present, the implementation is required to ignore the	
				a ballot selection.	PartySelection containing it.

```
id, sequence_order, party_ids
ps001,1,par01 par04
ps002,2,par02
ps003,3,par03
```

## ballot\_selection\_base

A base model for all ballot selection types: ballot\_measure\_selection, candiate\_selection, and party\_selection.

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	døeat	s?	
se-	xs:i	n <b>tOp</b> ge	rSin-	The order in which a selection can be listed on the	If the field is invalid or
quence	_order	tiona	l gle	ballot or in results. This is the default ordering, and	not present, then the im-
				can be overridden by OrderedBallotSlectionIds in or-	plementation is required to
				dered_contest.	ignore it.

# person

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

- candidate
- election\_administration
- office

Contract information tidna   Peats	Tag	Data Type	Re-	Re- døeats	Description	Error Handling
valid or not present, then the implementation is required to ignore it.	con-		_			If the element is in-
date_of_birth_d a Op- tional gle  exter- ex- op- op- sin- al_identifiers  first_names::: Op- first_names::: Op- op- sin- tional gle not jets in the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the element is in- valid or not present, then the implementation is required to ignore it.  If the element is in- valid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is re- quired to ignore it.  If the field is invalid or not present, then the implementation is re- quired to ignore it.  If the field is invalid or not present, then the implementation is re- quired to ignore it.  If the field is invalid or not present, then the implementation is re- quired to ignore it.  If the field is invalid or not present, then the implementation is re- quired to ignore it.  If the field is invalid or not present, then the implementation is re- quired to ignore it.  If the field is invalid or not present, then the implementation is re- quired to ignore it.  If the field is invalid or not present, then the implementation is re- quired to ignore it.  If the field is invalid or not present, then the implementation is re- quired to ignore it.  If the field is invalid or not present, then the implementation is re- quired to ignore it.  If the field is invalid or not present, then the implementation is re- quired to ignore it.  If the					· ·	
date_ol_binh_ol_2Dp_tional_gle  date_ol_binh_ol_2Dp_tional_gle  server_cxor_op_sin_tional_gle  and_identifiers  cxter_cxor_op_sin_tional_gle  first_name_s:s_ol_op_o_sin_tional_gle  first_name_s:s_ol_op_o_sin_t				F		
date_of_birth_d a Op_tional   delta of birth   delta of birth   lift field is invalid or not present, then the implementation is required to ignore it.    first_names:s  Op=sin_tional   dentifiers for this person.   If the element is invalid or not present, then the implementation is required to ignore it.    first_names:s  Op=sin_tional   dentifiers for this person.   If the element is invalid or not present, then the implementation is required to ignore it.    full_names:s  Op=sin_tional   dentifiers for this person.   If the field is invalid or not present, then the implementation is required to ignore it.    full_names:s  Op=sin_tional   dentifiers for this person.   If the element is invalid or not present, then the implementation is required to ignore it.    full_names:s  Op=sin_tional   dentifiers for this person.   If the element is invalid or not present, then the implementation is required to ignore it.    last_names:s  Op=sin_tional   dentifiers for this person.   If the element is invalid or not present, then the implementation is required to ignore it.    last_names:s  Op=sin_tional   dentifiers for this person.   If the element is invalid or not present, then the implementation is required to ignore it.    last_names:s  Op=sin_tional   dentifiers for this person.   If the field is invalid or not present, then the implementation is required to ignore it.    last_names:s  Op=sin_tional   dentifiers for this person.   If the field is invalid or not present, then the implementation is required to ignore it.    last_names:s  Op=sin_tional   dentifiers for this person.   If the field is invalid or not present, then the implementation is required to ignore it.    last_names:s  Op=sin_tional   dentifiers for this person is dentifier.   dentifiers for the dentifiers for this person is dentifier.   dentifiers for the dentifiers for this person is dentifier.   dentifiers for this						
date_of_birthc a Option   deletion   delet						
tional gle  exter- exter- exter- cater- exter- cater- cate	date of	<b>birth</b> d	atOn-	Sin-	Represents the individual's date of birth.	
cxter- ex- Op-   Sin- Identifiers for this person.					·I	
Quired to ignore it.				8		-
Companies   Comp						-
nal_identifiers  first_names:st_Ops_Sintional gle  first_names:st_Ops_Sintional gle  surface  full_names:st_Ops_Sintional gle  full_names:st_Ops_Sintional gle  surface  full_names:st_Ops_Sintional gle  surface  full_names:st_Ops_Sintional gle  full_names:st_Ops_Sintional gle  surface  full_names:st_Ops_Sintional gle  full_names:	exter-	ex-	On-	Sin-	Identifiers for this person.	
then the implementation is required to ignore it.    First_names:st.Opsc   Sintional gle					Table in the paragraph	
first_names:s Deg Sintional gle Since to the associated party. This information is required to ignore it.  Full_names:s Deg Sintional gle Specifies a person's gender.  Full_names:s Deg Sintional gle Sintional gle Sintinal gle S	1101_100			_		_
first_names:s Describes a person's full name (NB: this information is internationalized_text because it sometimes appears on ballots in multiple languages).  Specifies a person's gender.  Full_names:s Describes a person's gender.  Specifies a person's gender.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or n						-
first_names:sist_Opeq Sintonal gle      Fill_names:sist_Opeq Sintonal gle    Specifies a person's full name (NB: this information is internationalized_text because it sometimes appears on ballots in multiple languages).     Specifies a person's gender.						_
tional gle    Compage   Sintantion   Specifies a person's full name (NB: this information is internationalized_text because it sometimes appears on ballots in multiple languages).    Specifies a person's gender.	first na	mæs•s	Omeg	Sin-	Represents an individual's first name	
full_names:s:st Ops   fine   f	11150_114				Teprosonis un morrisoni s mos manos	
quired to ignore it.   If the element is international is internationalized_text because it sometimes appears on ballots in multiple languages).   If the element is internationalized_text because it sometimes appears on ballots in multiple languages).   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, then the implementation is required to ignore it.   If the field is invalid or not present, t				810		
full_names:s S Ope   Sintona   gle   It the field is invalid or not present, then the implementation is required to ignore it.  gen_						
tional gle ternationalized_text because it sometimes appears on ballots in multiple languages).  segender tional gle tional gle Single	full nai	merc•c	nemor	Sin-	Specifies a person's full name (NR: this information is in-	
gender	run_na	neso. 5				
gender			tional	Sic		
gender					Tota in martiple languages).	
gender S:stOppg littonal gle Sintional gle S						
der tiona gle tiona gle last_names:: Oppo Sintiona gle last_name s:: Oppo Sintiona gle last_name last_name set last_name last_name last_name set last_name last_names (e.g. John Ronald Reuel Tolkien).    Mid-	gen-	VQ • Q	- film-c	Sin-	Specifies a person's gender	
last_namexs:stanamex:staname	_	20.0			Specifics a person s gender.	
last_name s : st Oppg Sintional gle tional	uci		lionar	Sic		
Represents an individual's last name.   If the field is invalid or not present, then the implementation is required to ignore it.						
mid- xs:s Dpg Retional gle first and last names (e.g. John Ronald Reuel Tolkien).  mid- xs:s Dpg Retional peats first and last names (e.g. John Ronald Reuel Tolkien).  mick- mame tional gle limit first and last names (e.g. John Ronald Reuel Tolkien).  mick- xs:s Dpg Sintional gle limit first and last names (e.g. John Ronald Reuel Tolkien).  mick- xs:s Dpg Sintional gle limit first and last names (e.g. John Ronald Reuel Tolkien).  mame limit first and last names (e.g. John Ronald Reuel Tolkien).  Mathematical Represents an individual's nickname.  Mathematical Represents the the implementation is required to ignore it.  Mathematical Represents the first and last names (e.g. Jn.).  Mathematical Represents the first and last names (e.g. Jn.) and present, then the implementation is required to ignore it.  Mathematical Represents the first and last names (e.g. Jn.) and present the implementation is required to ignore it.  Mathematical Represents the first and last names (e.g. Jn.) and present, then the implementation is required to ignore it.  Mathematical Represents the first and last names (e.g. Jn.) and present, then the implementation is required to ignore it.  Mathematical Represents the first and last names (e.g. Jn.) and present, then the implementation is required to ignore it.  Mathematical Represents the fi	last nai	merc•c	nemor	Sin-	Represents an individual's last name	
mid- xs:st. Opag Redle_name tional peats tional lost names (e.g. John Ronald Reuel Tolkien).  Represents any number of names between an individual's lift the field is invalid or not present, then the implementation is required to ignore it.  Represents an individual's nickname.  If the field is invalid or not present, then the implementation is required to ignore it.  Refers to the associated party. 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 candidate Partyld.  Specifies a prefix associated with a person (e.g. Dr.).  Specifies a prefix associated with a person (e.g. Dr.).  Specifies a prefix associated with a person (e.g. Dr.).  Specifies a prefix associated with a person (e.g. Jr.).  Specifies a suffix associated with a person (e.g. Jr.).  Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.	rast_nar	neso. 5			represents an marriadar s last name.	
mid- xs:st Opag Retional peats first and last names (e.g. John Ronald Reuel Tolkien).  nick- xs:st Opag Sintional gle littonal gle litt			lionar	510		
mid- dle_name tional peats first and last names (e.g. John Ronald Reuel Tolkien).  nick- name nick- name tional gle  Represents an individual's nickname.  If the field is invalid or not present, then the implementation is required to ignore it.  Refers to the associated party. This information is intended to be used by feed consumers to help them disambliguate the person's identity, but not to be presented as part of any ballot information. For that see candidate Partyld.  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.  Specifies a person's profession (NB: this information is internationalized_text because it sometimes appears on ballots in multiple languages).  Specifies a suffix associated with a person (e.g. Jr.).  Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.  Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.  Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.  Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.						-
dle_name tional peats first and last names (e.g. John Ronald Reuel Tolkien).  nick-name tional gle Represents an individual's nickname.  Party_id xs:IDIOFF tional gle Party_id xs:IDIOFF	mid-	XS:S	Oma	Re-	Represents any number of names between an individual's	
implementation is required to ignore it.  Represents an individual's nickname.    Party_id_xs:IDPF						
nick- name    Name   Na				Ι	(1.6)	
name tional gle represents an individual's nickname.    The field is invalid or not present, then the implementation is required to ignore it.						_
name tional gle party_id_xs:IDPOFF Sin_tional gle party_id_xs:IDPOFF Sin_tional gle prefix xs:s_DOFF Sin_tional gle prefix xs:s_DOFF Sin_tional gle pro_tional gle pro_tion	nick-	xs:s	.1 <b>O</b> m-a	Sin-	Represents an individual's nickname.	
party_id_xs:IDPOFF   Sintional gle   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.    pro-					·I	
party_id xs:IDOF Sintional gle lended 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</i> PartyId.  prefix xs:stOppg Sintional gle lended 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</i> PartyId.  prefix xs:stOppg Sintional gle lended to be used by feed consumers to help them disambiguate the person's identity, but not to be presented as part on the implementation is required to ignore it.  Specifies a prefix associated with a person (e.g. Dr.).  Specifies a person's profession (NB: this information is internationalized_text because it sometimes appears on ballots in multiple languages).  Specifies a suffix associated with a person (e.g. Jr.).  Suffix xs:stOppg Sinternationalized_text because with a person (e.g. Jr.).  Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.				U		_
party_id_xs:IDPpF Sin- tiona gle tended 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</i> PartyId.  prefix xs:stDppg Sin- tiona gle Specifies a prefix associated with a person (e.g. Dr.).  pro- xs:stDppg Sin- tiona gle Specifies a person's profession (NB: this information is internationalized_text because it sometimes appears on ballots in multiple languages).  Specifies a suffix associated with a person (e.g. Jr.).  Specifies a suffix associated with a person (e.g. Jr.).  Specifies a suffix associated with a person (e.g. Jr.).  Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.						_
tional gle tended 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</i> <b>PartyId</b> .  prefix xs:st Opag Sintional gle 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.  pro-tended to be used by feed consumers to help them disambiguate the person's identity, but not to be presented as part quired to ignore it.  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.  If the element is invalid or not present, then the implementation is required to ignore it.  Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.	party io	l xs:Il	DEDEF	Sin-	Refers to the associated <i>party</i> . This information is in-	
biguate the person's identity, but not to be presented as part of any ballot information. For that see <i>candidate</i> <b>PartyId</b> .  prefix	1 3-					
of any ballot information. For that see <i>candidate</i> <b>PartyId</b> . quired to ignore it.  prefix xs:st Opag Sintional gle  pro- fes- sion  Specifies a person's profession (NB: this information is internationalized_text because it sometimes appears on ballots in multiple languages).  Specifies a suffix associated with a person (e.g. Dr.).  Specifies a person's profession (NB: this information is invalid or not present, then the implement is invalid or not present, then the implementation is required to ignore it.  Specifies a person's profession (NB: this information is invalid or not present, then the implementation is required to ignore it.  Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.  Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.				C		_
prefix xs:st Opag Sintional gle  propositional gle  xs:st Opag Sintional gle  propositional gle  xs:st Opag Sintional gle  xs:st Opag Sintional gle  xs:st Opag Sintional gle  xs:st Opag Sintional gle  ternationalized_text because it sometimes appears on ballots in multiple languages).  Specifies a person's profession (NB: this information is invalid or not present, then the implementation is required to ignore it.  Suffix xs:st Opag Sintional ople  xs:st Opag Sintional ople  Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.  If the field is invalid or not present, then the implementation is required to ignore it.						_
tional gle  pro- pro- tional gle  pro- tional gle  sion  sion  total gle  sion  sion  total gle  sion  Specifies a person's profession (NB: this information is internationalized_text because it sometimes appears on ballots in multiple languages).  Specifies a person's profession (NB: this information is internationalized_text 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.  Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.	prefix	xs:s	<b>O</b> p-a	Sin-		
implementation is required to ignore it.  pro- pro- pro- pro- pro- pro- pro- pro	•					
pro- fes- sion  si				C		_
profession   Specifies a person's profession (NB: this information is internationalized_text 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.    suffix   xs:st Opag   Sin- 2.1.   Specifies a suffix associated with a person (e.g. Jr.).   If the field is invalid or not present, then the implementation is required to ignore it.						_
fession  tional gle  ternationalized_text because it sometimes appears on ballots in multiple languages).  valid or not present, then the implementation is required to ignore it.  suffix xs:st Opag Sin- 2.1. CSV Specification gle  suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.	pro-	xs:s	<b>O</b> ma	Sin-	Specifies a person's profession ( <b>NB</b> : this information is <i>in</i> -	
suffix xs:st Opag Sin- suffix period of the field is invalid or not present, then the implementation is required to ignore it.  Specification is suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.						
tion is required to ignore it.  Specifical suffix associated with a person (e.g. Jr.).  Specifical suffice as suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.				_		_
nore it.  Suffix xs:st.Opmg Sin- 2.1. CSV Specification gle  Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the implementation is required to ignore it.						
suffix xs:st. Oppg Sin- Specifies a suffix associated with a person (e.g. Jr.).  If the field is invalid or not present, then the present implementation is required to ignore it.						_
implementation is required to ignore it.	suffix	xs:s	t <b>O</b> ma	Sin-	Specifies a suffix associated with a person (e.g. Jr.).	
implementation is required to ignore it.	2.1. CS	V Spec	ificati	op <sub>le</sub>	1	
quired to ignore it.				J		implementation is re-
	title	xs:s	<b>Din</b> a	Sin-	A title associated with a person ( <b>NB</b> : this information is <i>in</i> -	If the element is in-

```
id, date_of_birth, first_name, gender, last_name, middle_name, nickname, party_id, prefix,

→profession, suffix, title

per50001, 1961-08-04, Barack, male, Obama, Hussein, ,par02, ,President, II, Mr. President

per50002, 1985-11-21, Carly, female, Jepsen, Rae, ,par01, ,Recording Artist,,

per50003, 1926-09-23, John, male, Coltrane, William, Trane, par02, ,Recording Artist, Saint,

per50004, 1926-05-26, Miles, male, Davis, Dewey, ,par01, ,Recording Artist, III,
```

### contact\_information

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. *election\_administration*, *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		Re-	Re-	Description	Error Handling
			døeat		
ad-	xs:s	t <b>Op</b> i-n	gRe-	The "location" portion of a mailing address. See usage note.	If the field is invalid
dress	_line	tiona	peats		or not present, then
					the implementation is
					required to ignore it.
di-	xs:s	t <b>Op</b> i-n	g Sin-	Specifies further instructions for locating this entity.	If the element is in-
rec-		tiona			valid or not present,
tions					then the implementa-
					tion is required to ig-
					nore it.
email	xs:s	st <b>Opi</b> -n	gRe-	An email address for the contact.	If the field is invalid
		_	peats		or not present, then
			1		the implementation is
					required to ignore it.
fax	xs:s	t <b>Op</b> i-n	a Re-	A fax line for the contact.	If the field is invalid
		_	peats		or not present, then
			1		the implementation is
					required to ignore it.
hours	XS:S	t <b>Op</b> -n	a Sin-	Contains the hours (in local time) that the location is open	If the element is in-
110 411	110.	tiona		(NB: this element is deprecated in favor of the more structured	valid or not present,
		trona		:ref: 'multi-csv-hours-open' element. It is strongly encouraged	then the implementa-
				that data providers move toward contributing hours in this for-	tion is required to ig-
				mat).	nore it.
hours	_øpen]	iÆm⊹F	Sin-	References an <i>hours_open</i> element, which lists the hours of	If the field is invalid
110 411		tiona		operation for a location.	or not present, then
		urona.		operation for a fortune in	the implementation is
					required to ignore it.
lat lo	nkut_lo	<i>n</i> Øn-	Sin-	Specifies the latitude and longitude of this entity.	If the element is in-
144_10	1.5	tiona		specifies the minute and longitude of this entity.	valid or not present,
			8.0		then the implementa-
					tion is required to ig-
					nore it.
name	XS.	t <b>Op</b> -n	a Sin-	The name of the location or contact. See usage note.	If the field is invalid
1141110	230 • 0	tiona		The hamb of the found of contact, occ abase note.	or not present, then
		liona	5.0		the implementation is
					required to ignore it.
nhone	e xs:s	: <del> </del> ()mi_n	rRe-	A phone number for the contact.	If the field is invalid
Phone	A5.5		peats	11 phone number for the contact.	or not present, then
		попа	Pears		the implementation is
					required to ignore it.
uri	vo	an <b>Opp</b> UR	T RA	An informational URI for the contact or location.	If the field is invalid
ull	A5.0		peats	m mornational ON for the contact of location.	or not present, then
		попа	Pears		the implementation is
					required to ignore it.
					required to ignore it.

```
id, address_line_1, address_line_2, address_line_3, directions, email, fax, hours, hours_
open_id, latitude, longitude, latlng_source, name, phone, uri, parent_id
ci0827, The White House, 1600 Pennsylvania Ave,,, josh@example.com,, Early to very late,,
o,,, Josh Lyman, 555-111-2222, http://lemonlyman.example.com, off001
ci0828, The White House, 1600 Pennsylvania Ave,,, josh@example.com,, Early to very late,,
o,,,, Josh Lyman, 555-111-2222, http://lemonlyman.example.com, vs01
```

# polling location

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

Tag	Data	Re-		Description	Error Handling
	Type		døeats		
sim- ple_a	simpl ddress_1			Represents the various structured parts of an address to a polling location.	One of AddressStructured and AddressLine should be present for a given Polling Location. If none is present, the implementation is required to ignore the
					PollingLocation element containing it.
ad- dress	xs:st _line	_	Re- l peats	Represents the various parts of an address to a polling location.	One of AddressStructured and AddressLine should be present for a given Polling Location. If none is present, the implementation is required to ignore the PollingLocation element containing it.
di- rec- tions	xs:st	tional		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	xs:st	nOprg tiona		Contains the hours (in local time) that the polling location is open ( <b>NB</b> : this element	If the element is invalid or not present, then the implementation is
				is deprecated in favor of the more structured <i>hours_open</i> element. It is strongly encouraged that data providers move toward contributing hours in this format).	required to ignore it.
hours	_opæn <u>⊺</u> i	tiona	Sin- l gle	Links to an <i>hours_open</i> 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.
is_dr	o <b>koek</b> ⊼do	c <b>Op</b> ea tiona		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.
is_ea	rly <u>x s</u> vo <b>t</b> ir	gOpea tiona		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.
lat_ln	glat_lon	gOp- tional	Sin- l gle	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:st	tional		Name of the polling location.	If the field is invalid or not present, then the implementation is required to ignore it.
photo	<b>_¤usi:</b> st	tional		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.

id, name, address\_line, structured\_line\_1, structured\_city, structured\_state, structured\_ →zip, directions, hours, photo\_uri, hours\_open\_id, is\_drop\_box, is\_early\_voting, latitude,

<sup>→</sup>longitude, latlng\_source

poll001,ALBERMARLE HIGH SCHOOL,,2775 Hydraulic Rd,Charlottesville,VA,22901,Use back\_

odor, 7am-8pm, www.picture.com, ho001, false, true, 38.0754627, 78.5014875, Google Maps (continues on next page)

(continued from previous page)

poll002, Public Library, Main St Denver CO,,,,,,next to the checkout counter, 7am-8pm, www.picture.com,, false, true, 38.0754627, 78.5014875, Google Maps

## lat\_long

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

Tag	Data	Re-	Re-	Description	Error Handling
	Туре	quire	dpeats	<b>;</b> ?	
lati-	xs:do	ou <b>Re</b> ⊦e	Sin-	The latitude of the polling location.	If the field is invalid, then the
tude		quire	d gle		implementation is required to
					ignore it.
lon-	xs:do	ou <b>Re</b> ⊦e	Sin-	The longitude of the polling location.	If the field is invalid, then the
gi-		quire	d gle		implementation is required to
tude					ignore it.
latlng	somecest	<b>: 101p</b> +g	Sin-	The system used to perform the lookup from lo-	If the field is invalid or not
		tional	gle	cation name to lat/lng. For example, this could	present, then the implementa-
				be the name of a geocoding service.	tion is required to ignore it.

# simple\_address\_type

A SimpleAddressType represents a structured address.

Tag	Data	Re-	Re-	Description	Error Handling	
	Type	quired peats?		?		
struc-	xs:st	т <b>Re</b> -19	Sin-	The address line for a structured address.	If no Line1 is provided, the	
tured_lii	ne_1	quire	d gle	Should include the street number, street	implementation should ignore the	
				name, and any prefix and suffix.	SimpleAddressType.	
struc-	xs:st	т <b>Ор</b> тд	Sin-	Additional field for an address	If no Line2 is provided, the im-	
tured_lii	ne_2	tional	gle		plementation should ignore it.	
struc-	xs:st	т <b>Ор</b> тд	Sin-	Additional field for an address	If no Line3 is provided, the im-	
tured_lii	ne_3	tional	gle		plementation should ignore it.	
struc-	xs:st	: <b>-Re-</b> -g	Sin-	The City value of a structured address.	If City is not provided, the im-	
tured_ci	tured_city quired gle		d gle		plementation should ignore the	
					SimpleAddressType.	
struc-	xs:st	: <b>-Re-</b> -g	Sin-	The State value of a structured address.	If State is not provided, the	
tured_st	ate	quire	d gle		implementation should ignore the	
					SimpleAddressType.	
struc-	xs:st	т <b>Ор</b> тд	Sin-	The ZIP code of a structured address.	If Zip is not provided, the im-	
tured_zi	p	tional	gle		plementation should ignore the	
					SimpleAddressType.	

## 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 Re- Re- Type quired@eats	Description s?	Error Handling
bal- xs: IDAFF Sin- lot_style_id tional gle	Links to the <i>ballot_style</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.
elec- xs: IOPEFS Sintoral_district_titonal_gle	Links to the :ref:'multi-csv-electoral-district's (e.g., congressional district, state house district, school board district) to which the entire precinct/precinct split belongs. <b>Highly Recommended</b> if candidate information is to be provided.	If the field is invalid or not present, then the implementation is required to ignore it.
ex- ex- Op- Sin- ter- ter- tional gle nal_identifiersntifiers	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.
is_mailkenly@i-eaSin- tional gle	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.
lo- xs: TREF Sincal- quiredgle ity_id	Links to the <i>locality</i> that comprises the precinct.	If the field is invalid, then the implementation is required to ignore the Precinct element containing it.
name xs:st <b>Re</b> -ngSin- quiredgle	Specifies the precinct's name (or number if no name exists).	If the field is invalid, then the implementation is required to ignore the Precinct element containing it.
num- xs:stOpi-ngSin- ber tional gle	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.
pollingxlscationsitsSintional gle	Specifies a link to the precinct's <i>polling_location</i> object(s).	If the field is invalid or not present, then the implementation is required to ignore it.
precincts split Toping Sintional gle	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 <b>must</b> 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:stOp-ngSintional gle	Specifies the ward the precinct is contained within.	If the field is invalid or not present, then the implement
2.1. CSV Specification		tation is required <b>409</b> ignore it.

```
id,ballot_style_id,electoral_district_ids,external_identifier_type,external_
identifier_othertype,external_identifier_value,is_mail_only,locality_id,name,number,
identifier_othertype,external_identifier_value,is_mail_only,locality_id,name,number,
identifier_othertype,external_identifier_value,is_mail_only,locality_id,name,number,
identifier_othertype,external_identifier_type,external_
identifier_type,external_
identifier_type,exte
```

# retention\_contest

RetentionContest extends *ballot\_measure\_contest* and represents a contest where a candidate is retained in a position (e.g. a judge).

Tag	Data	Re-	Re-	Description	Error Handling
	Type	quired	quired?peats?		
can-	xs:ID	r <b>Re</b> -	Sin-	Links to the can-	If the field is invalid or not present, the implementation
di-		quired	gle	didate being re-	is required to ignore the RetentionContest element
date_id				tained.	containing it.
of-	xs:ID	R <b>Oip</b> F-	Sin-	Links to the infor-	If the field is invalid or not present, then the implementa-
fice_id		tional	gle	mation about the	tion is required to ignore it.
				office.	

#### 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	Re-	Re-	Description	Error Handling
	Type	quire	dßeats	s?	
name	xs:st	r <b>Re</b> g	Sin-	Specifies the name of the organization that	If the field is invalid, then the im-
		quire	<b>d</b> gle	is providing the information.	plementation is required to ignore
					the Source element containing
					it.
vip_id	xs:st	r <b>Re</b> -g	Sin-	Specifies the ID of the organization. VIP	If the field is invalid, then the im-
		quire	dgle	uses <b>FIPS</b> _ codes for this ID.	plementation is required to ignore
					the Source element containing
					it.
date_time	xs:da			Specifies the date and time of the feed pro-	If the field is invalid, then the im-
		quire	dgle	duction. The date/time is considered to be	plementation is required to ignore
				in the timezone local to the organization.	the Source element containing
					it.
descrip-	xs:st	r <b>0p</b> -g	Sin-	Specifies both the nature of the organiza-	If the element is invalid or not
tion		tional	gle	tion providing the data and what data is in	present, then the implementation
				the feed.	is required to ignore it.
organiza-	xs:st	r <b>0p</b> -g	Sin-	Specifies a URI to the home page of the	If the field is invalid or not present,
tion_uri		tional	l gle	organization publishing the data.	then the implementation is re-
					quired to ignore it.
feed_conta	ct <u>x</u> isa foīrīi	n <b>aŒijō</b> n_	icSin-	Reference to the <i>person</i> who will respond	If the element is invalid or not
		tional	gle	to inquiries about the information con-	present, then the implementation
				tained within the file.	is required to ignore it.
terms_of_u	se <u>x</u> sırian	у <b>Ор</b> -I	Sin-	Specifies the website where the Terms of	If the field is invalid or not present,
		tiona	lgle	Use for the information in this file can be	then the implementation is re-
				found.	quired to ignore it.
version	xs:st	r <b>Re</b> -g	Sin-	Specifies the version of the data	If the field is invalid, then the im-
		quire	<b>d</b> gle		plementation is required to ignore
					the Source element containing
					it.

id, date\_time, description, name, organization\_uri, terms\_of\_use\_uri, vip\_id, version source01,2016-06-02T10:24:08, SBE is the official source for Virginia data, "State\_ → Board of Elections, Commonwealth of Virginia", http://www.sbe.virginia.gov/, http:// → example.com/terms,51,5.1

#### 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	Re-	Re-	Description	Error Handling
	Type	quire	dpeats	s?	
elec-	xs:I	D <b>1ROFpF</b>	Sin-	Links to the state's election administration object.	If the field is invalid or
tion_adı	ninistra	ti oiro <u>n</u> iad	lgle		not present, then the im-
					plementation is required
					to ignore it.
exter-	ex-	Op-	Sin-	Other identifier for the state that relates to another	If the element is in-
nal_ider	ti <b>fae</b> rs	tional	lgle	dataset (e.g. 'OCD-ID'_).	valid or not present, then
	nal_id	entifier	S		the implementation is
					required to ignore it.
name	xs:s	t <b>Re</b> ng	Sin-	Specifiers the name of a state, such as Alabama.	If the field is invalid,
		quire	dgle		then the implementation
					is required to ignore
					the State element con-
					taining it.
polling_	location	D <b>radip</b> ers	Sin-	Specifies a link to the state's <i>polling locations</i> . If early	If the field is invalid or
		tional	gle	vote centers or ballot drop locations are state-wide (e.g.,	not present, then the im-
				anyone in the state can use them), they can be specified	plementation is required
				here, but you are encouraged to only use the <i>precinct</i>	to ignore it.
				element.	

## street\_segment

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 Re- Re- Type quired@eats	Description 5?	Error Handling
ad- xs:stOpp-ngSin- dress_directionional_gle	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:stRe-ngSin- quiredgle	The city specifies the city or town of the address.	If the field is invalid, then the implementation is required to ignore the StreetSegment element containing it.
in- xs:boopt-eaSin- cludes_all_addicessegle	Specifies if the segment covers every address on this street. If this is <i>true</i> , then the values of <b>StartHouseNumber</b> and <b>EndHouseNumber</b> should be ignored. The value of <b>OddEvenBoth</b> must be <i>both</i> .	If the field is invalid or not present, then the implementation is required to ignore it.
in- xs:bdopi-eaSin- cludes_all_strtictsal gle	Specifies if the segment covers every street in this city. If this is <i>true</i> , then the values of <b>OddEvenBoth</b> , <b>StartHouseNumber</b> , <b>End-HouseNumber</b> , <b>StreetName</b> , and <b>Zip</b> should be ignored.	If the field is invalid or not present, then the implementation is required to ignore it.
odd_even/_botOp-  Sin- tional gle	Specifies whether the odd side of the street (in terms of house numbers), the even side, or both are in included in the street segment.	If the field is not present or invalid, the implementation is required to ignore the StreetSegment containing it.
precinct id DREF Sinquiredgle	References the <i>precinct</i> that contains the entire street segment.	If the field is invalid, then the implementation is required to ignore the StreetSegment element containing it.
start_housse_im@phose Sin- tional gle	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 <b>IncludesAllAddresses</b> or <b>IncludesAllStreets</b> are true, if the field is not present or invalid, the implementation is required to ignore the StreetSegment element containing it. If the <b>StartHouseNumber</b> is greater than the <b>EndHouseNumber</b> , the implementation should ignore the element containing them.
end_horuse_into page Sintional gle	The house number at which the street segment ends. This value is necessary for the street segment to make any sense. Unless IncludesAllAddresses or IncludesAll-Streets 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 Street-Segment element containing it. If the EndHouseNumber is less than the StartHouseNumber, the implementation should ignore the element containing it.
house_numbetOpprefiSin- tional gle	Part of a street address. It may contain letters or slashes (e.g., 'B' in 'B22 Main St'). If this value is present then <b>StartHouseNumber</b> must be equal to <b>EndHouseNumber</b> . This field cannot be used if <b>IncludesAllAddresses</b> or <b>IncludesAllStreets</b> are true.	If the field is invalid or not present, then the implementation is required to ignore it.
house_numbetQsinffsin- tional gle	Part of a street address. It may contain letters or slashes (e.g., 1/2 in '22 1/2 Main St'). If this value is present then <b>StartHouse-Number</b> must be equal to <b>EndHouseNumber</b> . This field cannot be used if <b>IncludesAl-</b>	If the field is invalid or not present, then the implementation is required to ignore it.
2.1. CSV Specification	lAddresses or IncludesAllStreets are true.	213
state xs:st <b>Re</b> -ngSin- quiredgle	Specifies the two-letter state abbreviation of the address.	If the field is invalid, then the implementation is required to ignore the StreetSegment element contain-

```
id,address_direction,city,includes_all_addresses,includes_all_streets,odd_even_both,

→precinct_id,start_house_number,end_house_number,house_number_prefix,house_number_

→suffix,state,street_direction,street_name,street_suffix,unit_number,zip

ss000001,N,Washington,false,false,odd,pre90113,101,199,,,DC,NW,Delaware,St,,20001

ss000002,S,Washington,true,false,both,pre90112,,,,,DC,SE,Wisconsin,Ave,,20002

ss000003,N,Washington,false,false,even,pre90113,100,100,A,1/2,DC,NW,Delaware,St,,

→20001
```

#### **Enumerations (Separate Pages)**

#### ballot measure type

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

## candidate\_post\_election\_status

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.

## candidate\_pre\_election\_status

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	

### district type

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'
1	if to wiship, which may be different than a town see the winder in
utility	A non-water public or municipal utility district.
*	
utility	A non-water public or municipal utility district.
utility village	A non-water public or municipal utility district.  A village district.

# identifier\_type

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.

# oeb\_enum

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.

# office\_term\_type

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.

# vote\_variation

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	<b>Borda count</b> , where each voter can rank the options, and the rankings are assigned point values.	
cumu- lative	<b>'Cumulative voting'</b> _, where each voter can distribute their vote to up to <i>N</i> options.	
major- ity	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 <i>N</i> options.	
plural-	A 1-of-m method where the option with the most votes is elected, regardless of whether the option has	
ity	more than 50% of the vote.	
propor- tional	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	<b>'Ranked choice voting'</b> (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-	A 1-of-m method where the winner needs more than some predetermined fraction of the vote to be	
majority	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.	

## voter\_service\_type

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	aces This department handles the selection and management of polling places.	
voter-registration	ter-registration The department that manages voter registration.	
other	Any other service not covered by the above descriptions.	

**Best Practices** 

# 3.1 Data Best Practices

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

# 3.1.1 Naming convention

While many of the Voting Information Project's data processes are managed by software, the quality of the entire system relies on human intervention, especially for error reporting and quality control. For this reason, VIP files should follow a naming convention that describes the contents of each individual feed file in an accessible way.

The file containing the VIP feed should be named using the following convention:

```
vipfeed-${FIPS}-${ELECTION_DATE}-${STATE}[-${LOCAL}].{xml|zip}
```

An explanation of each of the segments of the file naming convention above are as follows:

- \${FIPS} The FIPS code for the jurisdiction.
- \${ELECTION\_DATE} The date of the election in ISO 8601 format.
- \${STATE} The full state name (e.g. Alaska, Arkansas, etc...) and not the abbreviation. If there are spaces in the state name, they should be substituted with underscores (e.g. New York -> New\_York).
- \${LOCAL} (optional) This additional identifier should be used if the file contains data from a specific jurisdiction. As with \${STATE} above, all spaces should be substituted with underscores. For example, if the data contained in the file only covers Maricopa County, AZ for the November 6, 2012 election, the file name would be vipfeed-04013-2012-11-06-Arizona-Maricopa County.xml.
- {xml|zip} If the file is an uncompressed XML document, the extension should be .xml. If the file is zipped, the file extension should end with .zip.

For a final example, vipfeed-19-2012-11-06-Iowa.zip denotes Iowa's (NB: the FIPS code for IA is 19) feed for the Nov 6, 2012 election that has been compressed.

# 3.1.2 Element Identifiers

Most elements within the VIP feed require unique identifiers, xs:ID data types. Conformance to xs:ID requires the identifying record to:

- begin with a letter or underscore
- only contain letters, digits, hyphens and periods
- be unique across the VIP data set

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, were 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

#### 3.1.3 File Structure

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

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.

## 3.1.4 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.

# 3.1.5 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:

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

# 3.1.6 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 (&#xA;) should be used to enforce line break styling.

In all fields the characters <, >, and & should be encoded &lt;, &gt;, and &amp; respectively.