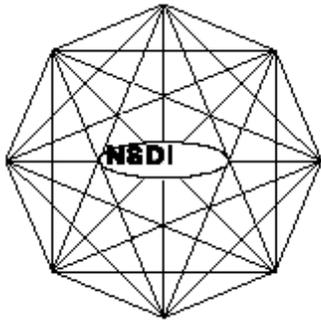


1



National Spatial Data Infrastructure

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6 Address Data Content Standard

7 Public Review Draft

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11 Subcommittee on Cultural and Demographic Data
 12 Federal Geographic Data Committee

13

14 April 17, 2003
 15 Version 2

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Federal Geographic Data Committee
 Department of Agriculture, Department of Commerce, Department of Defense, Department of Energy
 Department of Housing and Urban Development, Department of the Interior, Department of State
 Department of Transportation, Environmental Protection Agency
 Federal Emergency Management Agency, Library of Congress
 National Aeronautics and Space Administration, National Archives and Records Administration
 Tennessee Valley Authority

Federal Geographic Data Committee

Established by Office of Management and Budget Circular A-16, the Federal Geographic Data Committee (FGDC) promotes the coordinated development, use, sharing, and dissemination of geographic data.

The FGDC is composed of representatives from the Departments of Agriculture, Commerce, Defense, Energy, Housing and Urban Development, the Interior, State, and Transportation; the Environmental Protection Agency; the Federal Emergency Management Agency; the Library of Congress; the National Aeronautics and Space Administration; the National Archives and Records Administration; and the Tennessee Valley Authority. Additional Federal agencies participate on FGDC subcommittees and working groups. The Department of the Interior chairs the committee.

FGDC subcommittees work on issues related to data categories coordinated under the circular. Subcommittees establish and implement standards for data content, quality, and transfer; encourage the exchange of information and the transfer of data; and organize the collection of geographic data to reduce duplication of effort. Working groups are established for issues that transcend data categories.

For more information about the committee, or to be added to the committee's newsletter mailing list, please contact:

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113 1.0 INTRODUCTION

114

115 Addresses provide a means of locating people, structures and other spatial objects. More specifically, addresses
116 are used to reference and uniquely identify particular points of interest, to access and deliver to specific
117 locations, and as a means for positioning geographic data based on location.

118

119 Most organizations maintain address lists or have databases or datasets that contain addresses. In many
120 organizations, the primary purpose for creating and maintaining address lists and address information is mail
121 delivery. Organizations often have detailed specifications about the structure of their address information
122 without defining the content, i.e., the elements that constitute an address within their system. Knowledge of
123 both structure and content is required to successfully share information in a digital environment.

124

125 The purpose of this standard is to facilitate the exchange of address information. The Address Data Content
126 Standard (the Standard) simplifies the address data exchange process by providing a method for documenting
127 the content of address information.

128

129 1.1 Objective

130

131 The objective of the Standard is to provide a method for documenting the content of address information. As a
132 data usability standard, the Standard describes a way to express the content, applicability, data quality and
133 accuracy of a dataset or data element.

134

135 The Standard additionally codifies some commonly used discrete units of address information, referred to as
136 descriptive elements. It provides standardized terminology and definitions to alleviate inconsistencies in the use
137 of descriptive elements and to simplify the documentation process.

138

139 1.2 Scope

140

141 The Standard establishes the requirements for documenting the content of addresses. It is applicable to
142 addresses of entities having a spatial component¹. The Standard does not apply to addresses of entities lacking
143 a spatial component and specifically excludes electronic addresses, such as e-mail addresses.

144

145

146 1.3 Applicability

147

148 The Standard is to be used only in the exchange of addresses². The Standard places no requirement on internal
149 organization of use or structure of address data. However, the principles of the Standard can be extended to all
150 addresses, including addresses maintained within an organization, even if they are not shared.

151

152 1.4 Related Standards

153

154 The Address Data Content Standard recognizes several existing international, national, federal and agency
155 standards from which relevant information has been incorporated.

156

157 For dated references, only the edition cited applies. For undated references, the latest edition of the reference
158 document (including any amendments) applies.

159

160 1.4.1 International Standards –

161

162 ISO 11180:1993 Standard for Postal Addressing provides mailing address structure requirements.

163

¹ FGDC-approved standards apply to geospatial data. However, data associated with an address is clearly georeferenced and therefore is, through the address, considered to be geospatial data.

² The Standard does not require addresses be shared and does not provide guidelines for determining whether addresses can be shared. Some organizations are prohibited by statute, from sharing addresses or some part of address information due to requirements for confidentiality and security.

164 ISO/TC 211 19111, Geographic Information – Spatial Referencing by Coordinates describes the minimum data
165 required to define 1-, 2-, and 3-dimensional coordinate systems that can be the basis for geographic address
166 types.

167
168 ISO/TC 211 19112 Geographic Information – Spatial Referencing by Geographic Identifiers defines the
169 conceptual schema for spatial references based on geographic identifiers that can be the basis for physical and
170 postal address types.

171

172 1.4.2 National Standards –

173

174 1.4.2.1 United States –

175

176 ANSI X3.61-1986 American National Standard for Information Systems – Representation of Geographic Point
177 Locations for Information defines the use of longitude and latitude coordinates for geographic point locations.

178

179 1.4.2.2 United Kingdom –

180

181 BS 7666: Part 3 Spatial Datasets for Geographic Referencing: Specification for Address specifies a model and
182 structure for an address. BS 7666: Part 3 was used as a reference document.

183

184 1.4.3 FGDC Standards –

185

186 FGDC-STD-001-1998 Content Standard for Digital Geospatial Metadata (version 2.0) (CSDGM) defines the
187 metadata, part of which documents addresses for contacts (persons and organizations) associated with a
188 geospatial dataset. The CSDGM identifies the following metadata elements related to addresses: address type³,

³ The CSDGM domain for address type is “mailing”, “physical”, “mailing or physical”, free text. The ADCS uses the term “postal address type” in place of “mailing address type” because “postal” is defined in ISO 11180, and hence is the preferred definition.

189 address, city, state or province, postal code, and country. A data producer complying with the requirements of
190 both the CSDGM and the Standard will note one inconsistency; the Standard expands the CSDGM closed
191 domain of address type by recognizing a third address type: geographic. This inconsistency should not effect
192 compliance with the requirements of either standard.

193

194 FGDC-STD-003, Cadastral Data Content Standard (CDCS) provides a model for storing information about
195 geographic and physical type addresses for cadastral data collections. The CDCS additionally points to the
196 CSDGM metadata elements to provide information about locations of agents (persons, organizations or public
197 agencies) associated with parcels (see FGDC-STD-001-1998).

198

199 FGDC-STD-011-2001, Standard for a United States National Grid (SUSNG) defines a United States National
200 Grid (USNG) for use in spatial addressing applications. The SUSNG describes a system for creating address
201 types that is technically the same as the Military Grid Reference System, utilizing the public domain system's
202 use of the Universal Transverse Mercator (UTM) grid. SUSNG addresses are geographic addresses that can be
203 successfully documented using the Standard's address specification. The SUSNG applies to all spatial mapping
204 applications at scales of 1 to 1,000,000 and larger.

205

206 1.4.4 Agency Standards (United States) –

207

208 1.4.4.1 USPS

209

210 The United States Postal Service (USPS) maintains a standard, several manuals, and technical guidelines⁴ for
211 mailing type addresses.

212

⁴Many USPS standards, manuals and technical guidelines are available on the Internet (URL = <http://www.usps.gov>)

213 USPS Publication 28, Postal Addressing Standards provides a standardized address format and content. It
214 serves as the primary reference for identifying USPS-recognized data elements and mail delivery requirements.

215
216 USPS Domestic Mail Manual provides definitions and elements of a complete delivery address and other
217 information about domestic mail delivery.

218
219 USPS International Mail Manual provides definitions and elements of a complete delivery address and other
220 information about mail for delivery to foreign countries.

221
222 USPS Address Element Correction Technical Guide describes procedures for correcting USPS-recognized data
223 elements in mailpieces that have inaccurate or deficient addresses.

224
225 USPS TIGER (Topologically Integrated Geographic Encoding and Referencing) ZIP Zone Improvement Plan
226 1998 documentation provides information on the TIGER/ZIP file created by matching information from the
227 Census Bureau TIGER File to the USPS ZIP+4 Product and was used as a translation reference source.

228
229 USPS Addressing Standards for Puerto Rico and Virgin Islands describes the proper format for mailpieces sent
230 to Puerto Rico and the U.S. Virgin Islands.

231
232 The USPS maintains several documents of USPS-recognized data element domains. The Standard recognizes
233 the USPS domains as approved domains for mailing address type descriptive elements.

234 USPS Official Abbreviations for States and Possessions

235 USPS Official Abbreviations for Street Suffixes

236 USPS Official Abbreviations for Secondary Unit Designators.

237
238 1.4.4.2 Other U.S. Agency Standards used in developing the Address Standard's descriptive elements
239 (Appendix B (normative)) and the Standard's documentation requirements:

240

241 United States Department of Housing and Urban Development's (HUD) Address Quality Standards (draft)

242

243 Centers for Disease Control's (CDC) Common Data Element Implementation Guide (draft)

244

245 The National Archives and Records Administration's Historic American Building Survey

246

247 The National Archives and Records Administration's Historic American Engineering Record

248

249 The United States Census Bureau's Master Address File (MAF) Documentation (version 5.0).

250

251 The United States Environmental Protection Agency's (EPA) Contact Information Data Standard (Draft)

252

253 The United States Environmental Protection Agency's (EPA) Latitude/Longitude Data Standard (final)

254

255

256 1.4.5 Agency Standards (Canada) –

257

258 The Canadian Post Corporation's T575003 Version #2, The Canadian Addressing Standard Handbook provides

259 Canada-specific mailing address structure requirements.

260

261 1.5 Standards Development Process

262

263 The Standard is a new standard; no prior versions exist. The FGDC Subcommittee on Cultural and

264 Demographic Data (SCDD) sponsored the development of the Standard. Appendix E (informative) lists SCDD

265 member agencies. The Standard was drafted, reviewed and discussed at SCDD meetings from 1996 through

266 2003. A Public Review was conducted in 2001. Since then significant changes have been made to the standard

267 that requires, in the opinion of the SCDD Committee, a second Public Review. Support from SCDD members

268 included the contribution of agency specifications in the early stages of development, circulating the Standard

269 throughout agencies for additional review and comment at various stages of development, and ensuring a broad
270 review of the Standard.

271
272 Federal, state, local, and private sector organizations reviewed the Standard and commented during its
273 development.

274
275 Papers and presentations about the Standard and its development given during the process are listed in
276 Appendix E (informative).

277
278 1.6 Maintenance Authority

279
280 The U.S. Department of Commerce, Census Bureau, Geography Division, maintains the Address Data Content
281 Standard for the Federal Geographic Data Committee. Address any questions to Chief, Geography Division,
282 U.S. Bureau of the Census.

283
284 2.0 DEFINITIONS AND ABBREVIATIONS

285
286 2.1 Definitions – For the purposes of the Standard, the following definitions apply.

287
288 Address – The means of referencing an object for the purposes of unique identification and location.

289 *[BS 7666: Part 3]*
290 NOTE: The Standard does not apply to electronic mail objects.

291
292 Addressee – The final recipient to which a piece of mail is addressed.

293
294 EXAMPLES 1. Occupant
295 2. Mr. John Smith
296 3. ABC Company

297

298 Address Group – A list, dataset or database containing addresses.

299

300 Address Specification – The data content of an address group. This includes an address purpose, an address
301 type and descriptive elements. If the address type is postal, the specification includes address structures.

302

303 Address Structure – The USPS arrangement for the postal address type that contains all the address elements
304 necessary for mailing a letter. The Standard identifies four address structures: A Business Address Structure, a
305 Residential Address Structure, a Military Address Structure and a Puerto Rico Address Structure.

306

307 Address Type – The method of referencing an address. The Standard identifies three address types: geographic,
308 postal and physical.

309

310 Alias – A descriptive element that is a name, differing from the ‘Name’ descriptive element, commonly used by
311 the data producer to refer to the address information.

312

313 Contact – The person, firm, or establishment associated with an address.

314

315 NOTE: A contact for an address may or may not be the addressee of the address. Differences between a contact and
316 addressee are (1) an addressee is commonly associated with only one type of address, a postal address, while a contact can
317 be associated with all types of addresses, including a postal address, a geographic address or a physical address; (2) by
318 definition, an addressee’s association with an address is “limited” to receiving mail at an address while a contact’s
319 association with an address can be much broader (refer to EXAMPLES); and (3) a contact, in the case of a USPS delivery
320 style postal address, does not necessarily reside at the address, whereas an addressee is believed to reside at a USPS delivery
321 style postal address.

322

323 EXAMPLES 1. An owner responsible for paying the property tax for a rented dwelling

324 2. A renter living in a dwelling

325 3. A federal agency maintaining a national monument

326 4. A mining company leasing the mineral rights on a government land parcel

327 5. A business renting a post office box

328

329 Coordinate Reference System – A coordinate reference system is a coordinate system that is related to the real
330 world by a datum [ISO 19111]

331

332 Data Producer – A person or organization that owns, controls, or maintains an address group and has decided to
333 share the data.

334

335 Data User – The person or organization receiving a data transfer.

336

337 Descriptive Elements – Discrete units of address information stored for an address group to document all the
338 information about an address, or addressee, or contact, that is stored to meet the address purpose.

339

340 Location – A location is an identifiable place in the real world [ISO 19112]

341

342 EXAMPLES 1. Eiffel Tower

343 2. Madrid, Spain

344 3. California

345

346 Mailpiece – A single addressed article of mail, usually a letter, flat, card, or parcel (USPS pub. 32).

347

348 2.2 Abbreviations

349

350 ANSI American National Standards Institute

351 CDCS Cadastral Data Content Standard

352 Census Unites States Census Bureau

353 CSDGM Content Standard for Digital Geospatial Metadata

354	EPA	Environmental Protection Agency
355	FDIS	Final Draft International Standard
356	FGDC	Federal Geographic Data Committee
357	ISO	International Organization for Standardization
358	NIMA	National Imagery and Mapping Agency
359	SUSNG	Standard for a United States National Grid
360	The Standard	Address Data Content Standard
361	USGS	United States Geological Survey
362	USNG	United States National Grid
363	USPS	United States Postal Service
364	UTM	Universal Transverse Mercator

365

366

367

368 3.0 REQUIREMENT FOR AN ADDRESS SPECIFICATION

369

370 An address specification shall accompany an address group distributed by a data producer or maintenance
371 agency to a data user. It documents the data content of an address group, but does not assign an obligation to
372 the physical structure of the data. The address specification explains why the address database was created,
373 what type of addresses are in the database, and what type of information or descriptive elements, are stored in
374 the database. The diagram used to develop the address specification is presented in Appendix A (informative).

375

376 3.1 **Address Purpose** – An address purpose identifies the data producer’s rationale for creating an address
377 group. A minimum of one address purpose shall be recorded for each address group, but more than one address
378 purpose may be recorded. When address groups are created for multiple purposes, the primary address purpose
379 shall be used, if only one address purpose is recorded.

380

381 3.2 **Address Type** – An address type identifies the method of categorizing an address. The Standard
 382 recognizes three address types: Geographic, Postal and Physical. The following table defines each address type.
 383 A minimum of one address type shall be recorded using the address type primary name.

384

Address type primary name	Address type alias name(s)	Address type definition
Geographic	Positional	Set of precise and complete geographic descriptors that use a coordinate reference system to provide the unique location of an object.
Postal	Mailing	Set of precise and complete information on the basis of which an item can be forwarded and delivered to an addressee. (ISO 11180)
Physical	Situs, Delivery	Set of precise and complete information that indicates, by relationship or description, the permanent and unique location of an object.

385 Table 1. Address Types

386
 387 Additionally, if an address belongs to more than one address type, all applicable address types shall be recorded.
 388 An address group may contain one set of addresses belonging to multiple address types (example 1b), or
 389 multiple sets of addresses with each set belonging to a different address type (example 2). In each case, when
 390 more than one applicable address type exists it shall be recorded.

391

- 392 EXAMPLES
- 393 1. a) An address group contains one set of addresses consisting of entry point (building
 394 entrance) latitude/longitude coordinates. One address type is recorded: geographic.
 - 395 b) An address group contains one set of addresses consisting of both entry point
 396 latitude/longitude coordinates and overnight delivery location. Two address types
 397 are recorded: geographic and physical.
 - 398 2. An address group contains two sets of addresses: one set consisting of only entry
 399 point latitude/longitude coordinates and one set of addresses consisting only of
 400 overnight delivery location. Two address types are recorded: geographic and
 401 physical.

402

403 There is one exception to the requirement to record all address types: an address can be both a postal address
 404 and a physical address. This occurs when the postal address is an actual site location (such as a street address)

405 rather than a pick-up location (such as a post office box). In this case, the data producer may record the primary
406 address type, based on the address purpose.

407

408 EXAMPLES 1. The address group contains street addresses of Federal agencies (who often maintain post
409 office boxes) for the purpose of overnight parcel delivery. The addresses belong to both the
410 physical and postal address types. The data producer elects to record one address type:
411 physical.

412 2. The address group contains USPS-recognized postal addresses within the city of Baltimore,
413 MD for the purpose of delivering bulk-rate promotional material for a dry-cleaner. A large
414 number of the addresses belong to both the physical and postal address types. The data
415 producer elects to record one address type: postal.

416

417 **3.2.1 Address Structures** – The USPS identifies four address structures. This structure is an USPS
418 arrangement that contains all the elements necessary for mailing a letter using the postal address type. There
419 are four address structures: Residential Address Structure, Business Address Structure, Puerto Rico Address
420 Structure and Military Address Structure. Each structure has a unique set of address information for achieving a
421 complete postal address⁵. A decision tree showing the appropriate structure is shown in Appendix A
422 (informative).

423

424 **3.3 Descriptive Elements** – A descriptive element identifies a discrete unit of information stored for an
425 address group. Descriptive elements document all the information about an address, an addressee, or a contact
426 that has been stored to meet the address purpose. Appendix B (normative) lists descriptive elements recognized
427 by the Standard as commonly stored discrete units of information for an address group. These descriptive
428 elements are organized by address type. Appendix C (normative) records the recognized descriptive elements’
429 name, definition and source documentation.

430

⁵ The USPS considers a complete postal address to be all USPS-recognized data elements necessary to allow an exact match with the current USPS ZIP+4 file to obtain the finest level of ZIP+4 code.

431 All descriptive elements deemed relevant by the data producer shall be recorded in an address specification.
 432 The amount of information that shall be recorded for a descriptive element varies, and depends upon whether or
 433 not the descriptive element is recognized by the Standard and is listed in Appendix C (normative). The
 434 recorded information shall include:

435

Descriptive element information	Definition	Obligation	Domain
Name	The generally acknowledged name by which the address information is commonly referred.	Mandatory.	Domain = either (1) the set of commonly used names from Appendix C (normative) or (2) the data producer's set of names if Appendix C (normative) does not include a descriptive element with the desired meaning
Alias	A name differing from Name, commonly used by the data producer when referring to the address information.	Conditional, required if the descriptive element is listed in Appendix C (normative) and the data producer refers to the descriptive element by a name other than the descriptive name listed in Appendix C (normative).	Free text
Definition	A statement expressing the essential nature of the address information.	Conditional, required if the descriptive element is not listed in Appendix C (normative) and Reference is not provided.	Free text
Reference	The standard, guideline, specification or documentation containing the definition of the descriptive element used by the data producer.	Conditional, required if (1) the descriptive element is listed in Appendix C (normative) or (2) the descriptive element is not listed in Appendix C (normative) and Definition is not provided.	1) Address Data Content Standard 2) Appropriate Standard

436 Table 2. Obligations for Recording Descriptive Element Information.

- 437
 438 EXAMPLES of descriptive element information that is provided based on Obligation
- 439 1. The descriptive element "ZIP+4" from Appendix A (normative) is used
 - 440 Name = ZIP+4
 - 441 Alias = ZIP Add-On
 - 442 Definition *Not required*
 - 443 Reference = Address Data Content Standard
 - 444 2. A descriptive element from Appendix A (normative) is not used

-
- 445 Name = Legal Area Description ID
446 Alias *Not required*
447 Definition *Not required*
448 Reference = FGDC Cadastral Data Content Standard
- 449 3. The descriptive element "State" from Appendix A (normative) is used
- 450 Name = State
451 Alias *Not required*
452 Definition *Not required*
453 Reference = Address Data Content Standard
- 454 4. A descriptive element from Appendix A (normative) is not used
- 455 Name = Low House Number 1
456 Alias *Not required*
457 Definition = Low House number one position in an address range
458 Reference = US Census Bureau MAF Documentation (*Not required*)

459
460
461
462
463

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- 571 [http://new.usps.com/cgi-bin/uspsbv/scripts/content.jsp?A=H&D=10090&K=H&U=X&U1=B&U2=H]
- 572
- 573 USPS, November 1997, Publication 28 Postal Addressing Standards, 120 pgs.
- 574 [http://pe.usps.gov]
- 575
- 576 USGS, January 1999, TIGER ZIP Improvement Plan 1998, 6 pgs.
- 577 [http://new.usps.com/cgi-bin/uspsbv/scripts/front.jsp?A=H&U=X&U1=B&U2=H]

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FGDC Document Number

Appendix A
(Normative)

CONFORMANCE TO THE STANDARD:
THE ADDRESS SPECIFICATION

Conforming to the Address Data Content Standard involves three parts. The first necessary component is the address group; the data that is to be exchanged. The second part involves explaining the data in the form of an address specification. Thirdly, metadata is necessary for documenting the data. The final product of the data transfer shall include all three parts: the address group, the address specification and the metadata. Note that the Standard does not impact the internal structure of the address group nor does it describe distribution processes.

Part 1 is the address group. This is the database of addresses that are to be exchanged. This structure may be in any form that the data producer chooses.

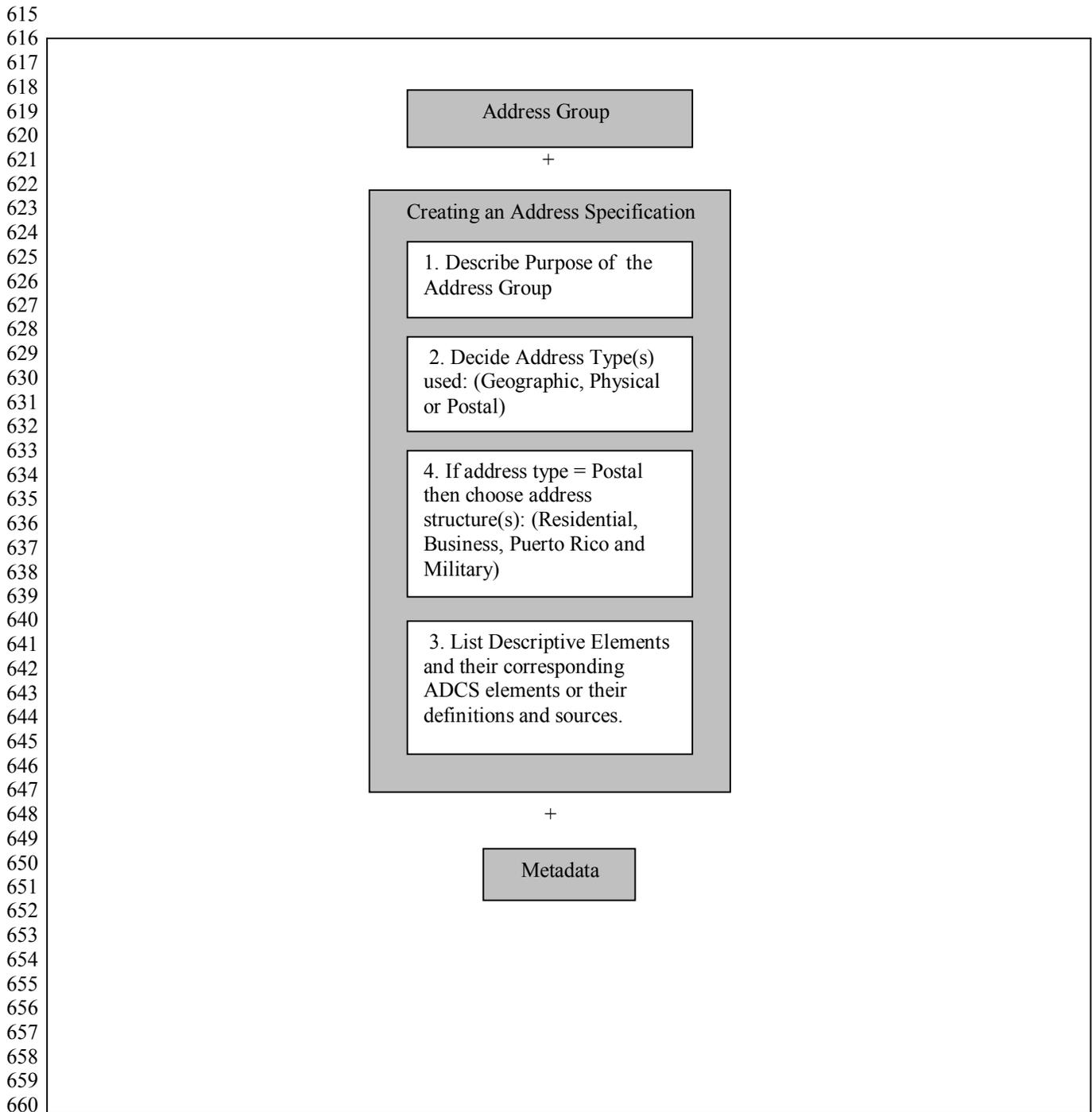
Part 2 outlines the procedures the data producer shall use to create an address specification. The address specification describes the address group sent by the data producer. It contains four parts: purpose, address type, address structures and descriptive elements (Figure A.1). Parts 1, 2 and 4 of the specification apply to all address groups, regardless of their address type. Part three is only relevant if the address type is postal.

1. Address Purpose – the data producer’s reason for creating the address group. (*Section. 3.1*)
2. Address Type – the method of categorizing an address. These addresses can either be geographic, postal or physical. (*Section. 3.2*)
3. Address Structure – the USPS sanctioned address lines in the address group. An address

603 structure must be identified if the address type is postal. There are four address structures: business,
604 residential, military or Puerto Rico. (*Section. 3.2.1*) Use the Postal Address Structure Decision Tree
605 (Figure A.2) to choose the appropriate address structure

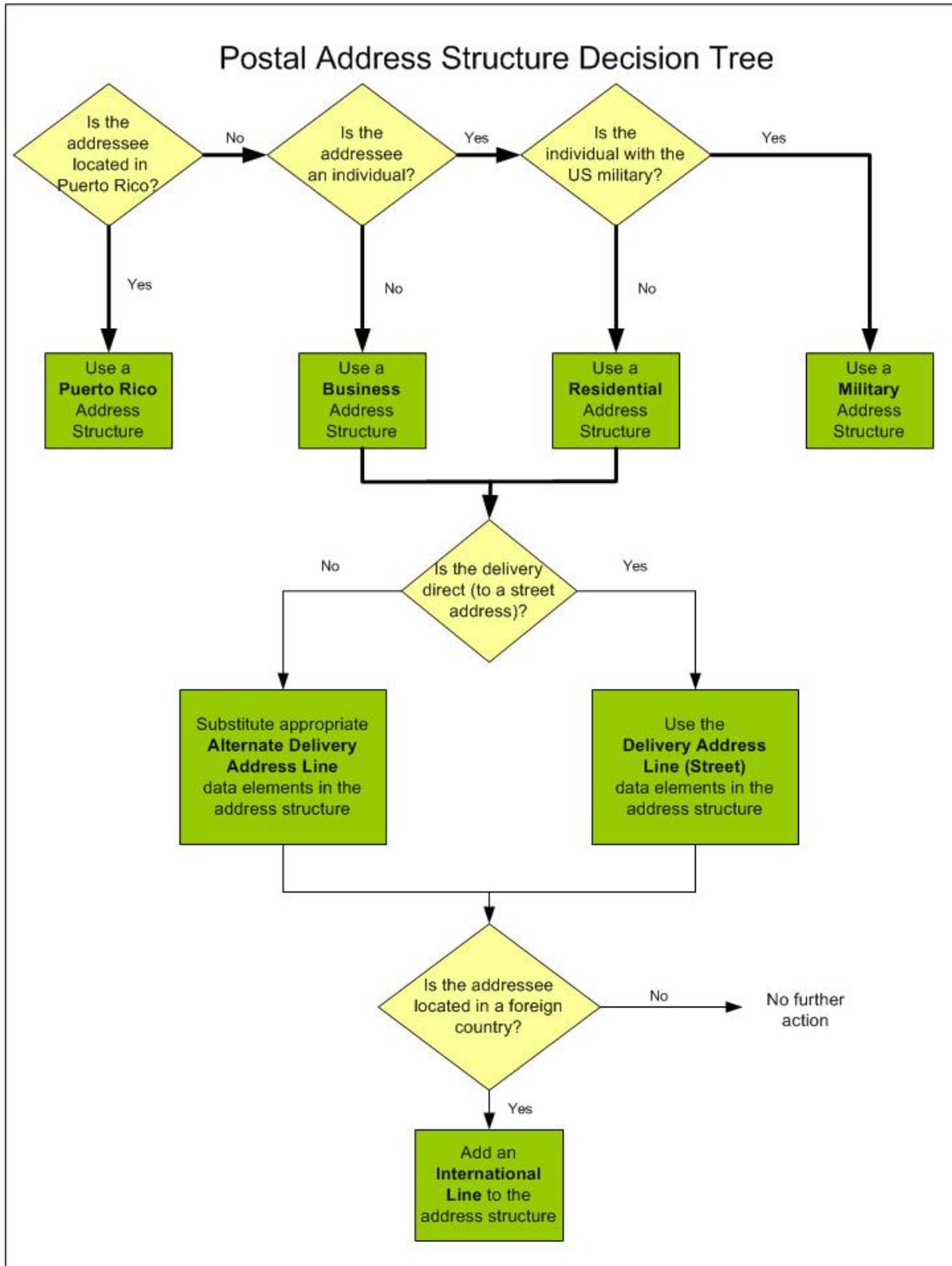
606 4. Descriptive elements – the discrete units of information that are in the address group. The descriptive
607 elements recognized by the standard are listed in Appendix C. If a data producer uses a descriptive
608 element not recognized by the standard, the data producer will give the descriptive element’s name, the
609 corresponding ADCS descriptive element if applicable or a definition and reference. (*Section 3.3*)
610 .
611

612 **Part 3** is the Metadata. The metadata that accompanies the address data shall conform to the FGDC Content
613 Standard for Digital Geospatial Metadata, Version 2. This metadata shall provide information about the quality,
614 condition, source and other important characteristics of the address group.



661 **Figure A.1: Address Data Content Standard Final Products**
662
663
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665

666 Figure A.2 Postal Address Structure Decision Tree
667



668

669 Appendix B

670 (Normative)

671 DESCRIPTIVE ELEMENTS BY ADDRESS TYPE

672

673

674 Appendix B lists the descriptive elements recognized by this standard, grouped by address type. Refer to
675 Appendix C for the definitions and source information.

676

677

678 **POSTAL ADDRESS TYPE:**

679

680 **Residential Address Structure:**

681 Addressee Name/

682 Name Prefix

683 First Name

684 Middle Initial

685 Middle Name

686 Last Name

687 Name Qualifier

688 Educational Achievements

689 Urbanization

690 Street/

691 Street Number

692 Fractional Street Number

693 Predirectional

694 Street Name

695 Suffix

696	Postdirectional
697	Secondary Address Identifier
698	Secondary Address Range
699	Highway Contract Route/
700	HC Route Number
701	HC Box Number
702	Rural Route/
703	Rural Route Description
704	Rural Route Number
705	Rural Route Box Number
706	Post Office Box
707	City
708	County/
709	County Name
710	County FIPS Code
711	State/
712	State Name
713	State Abbreviation
714	State FIPS Code
715	ZIP/
716	ZIP Code
717	ZIP+4 Code
718	International/
719	Country
720	International Postal Code
721	
722	

- 723 **Business Address Structure:**
- 724 Mailstop Code
- 725 Addressee Name/
 - 726 Name Prefix
 - 727 First Name
 - 728 Middle Initial
 - 729 Middle Name
 - 730 Last Name
 - 731 Name Qualifier
 - 732 Educational Achievements
 - 733 Individual Title
 - 734 Functional Title
- 735 Group, Department, Division Name
- 736 Business/Firm Name
- 737 Street/
 - 738 Street Number
 - 739 Fractional Street Number
 - 740 Predirectional
 - 741 Street Name
 - 742 Suffix
 - 743 Postdirectional
 - 744 Secondary Address Identifier
 - 745 Secondary Address Range
- 746 Highway Contract Route/
 - 747 HC Route Number
 - 748 HC Box Number
- 749 Rural Route/

750	Rural Route Description
751	Rural Route Number
752	Rural Route Box Number
753	Post Office Box
754	City*
755	County/
756	County Name
757	County FIPS Code
758	State/
759	State Name
760	State Abbreviation
761	State FIPS Code
762	ZIP/
763	ZIP Cod
764	ZIP+4 Code
765	International/
766	Country
767	International Postal Code
768	
769	
770	Military Address Structure:
771	Addressee Name/
772	Name Prefix
773	First Name
774	Middle Initial
775	Middle Name
776	Last Name

777	Name Qualifier
778	Educational Achievements
779	Rank
780	Division
781	Delivery Option #1/
782	CMR or Unit Number
783	Box Number
784	Delivery Option #2
785	Ship's Name
786	Post Office/
787	Army Post Office
788	Air Force Post Office
789	Fleet Post Office Box Number
790	State/
791	State Name
792	State Abbreviation
793	State FIPS Code
794	ZIP/
795	ZIP Code
796	ZIP+4 Code
797	
798	
799	Puerto Rico Address Structure:
800	Addressee Name/
801	Name Prefix
802	First Name
803	Middle Initial

804	Middle Name
805	Last Name
806	Name Qualifier
807	Educational Achievements
808	Condominium/Apartment
809	Street/
810	Street Number
811	Street Name
812	Suffix (Calle, Avenida)
813	Post Office Box
814	Rural Route
815	Rural Box (Buzon Rural)
816	Rural Route (Ruta Rural)
817	Urbanization Name
818	City
819	State/
820	State Name
821	State Abbreviation
822	State FIPS Code
823	ZIP/
824	ZIP Code
825	ZIP+4 Code
826	
827	
828	
829	

829 **GEOGRAPHIC ADDRESS TYPE:**

830

831 Latitude Degree

832 Latitude Minute

833 Latitude Second

834 Latitude Hemisphere

835 Longitude Degree

836 Longitude Minute

837 Longitude Second

838 Longitude Hemisphere

839 USNG Complete Value

840 UTM/

841 Grid Zone Designation

842 Northing

843 Easting

844

845

846 **PHYSICAL ADDRESS TYPE:**

847

848 Reference Item

849 From Distance

850 From Direction

851

852

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Appendix C
 Normative

DESCRIPTIVE ELEMENTS DEFINITIONS AND RELATIONSHIPS

Descriptive Element	Description	Source
Addressee	The person or organization to whom a mailpiece is addressed as shown in the delivery address	USPS
Alternate Delivery Address (Highway Contract Route)		
Alternate Delivery Address (Post Office Box)		
Alternate Delivery Address (Rural Route)		
Army/Air Force post office or Fleet post office box number	A branch of a designated USPS civilian post office that serves either Army or Air Force personnel	
Box Number		
Business/Firm Name Line		USPS
Calle, Avenida (street)	Street – used in Puerto Rico Address Structure	USPS
City	A finer partitioning of geographic subdivisions of a state or county, usually associated with additional levels of government	EPA
CMR or Unit Number		
Condominium / Apartment Name	For Puerto Rico only. The name of the public housing project without street names in which apartment numbers are not repeated. In these cases, the name of the housing project becomes the street name and apartment numbers become the primary number.	USPS
County name	The primary administrative subdivision of a state in the United States	EPA
County FIPS Code	The three-digit code assigned by the National Institute of Standards and Technology (NIST) to identify each county and statistically equivalent entity within a State. NIST assigns the codes based on the alphabetic sequence of county names, it documents these codes in a Federal Information Processing Standard (FIPS) publication (FIPS PUB 6-4)	Census
Country	The largest of the geo-political boundaries that define address areas of the world	EPA
Delivery Address Line; military (Option #1)		
Delivery Address Line; street or alternate	Primary address (the delivery point) with primary address number, pre-directional, street name, post-directional, secondary address identifier and secondary address range	USPS
Department of Organization	Within the US military, the division	USPS
Easting	Distance in a coordinate system, eastwards (positive) or westwards (negative) from a north-south reference line	ISO 19111 (FDIS)

Educational Achievements	One or more advanced degrees that may be important to an establishment (I.e. educational institution) Examples: Ph.D., Ed.D., JD, MD	EPA
First Name	Given name or nickname of an individual	EPA
Fractional Street Number	A sub-number to a street number	USPS
From Direction	Direction of the address location from the reference item	Census
From Distance	Distance from the reference item to the address location	Census
Functional Title	An explanation of a person’s role in relation to a group, department, or division within a business	USPS
Grid Zone Designation	A 6-degrees of longitude by 8-degrees of latitude segment of the UTM system	NIMA
Group, Department, Division Name	A subdivision of the business	USPS
HC Box Number		
HC Route Number		
Individual Title	A profession or job classification held by a person within a business	USPS
Information/ Attention Line	Optional for additional address information; can be used to direct mail to a specific person or provide other information that facilitates delivery within a company	USPS
International Line	Country other than United States	USPS
International Postal Code	The postal code used for final sorting by local or regional delivery unit. Different countries have their own coding systems and formats for this code.	EPA
Key Line	Optional mailer information printed in or above the address or in the lower left corner of the envelope. The information in a keyline identifies the mailpiece and its’ presort level. Under some postage payment systems, the keyline is a required line that contains specific information about the mailpiece.	USPS
Last Line	City + State + ZIP+4 Code within the United States	USPS
Last Name	Surname (i.e. family name) of the individual	EPA
Latitude Degree	First unit of measure; domain: the degrees latitude shall be represented by a decimal number between 0 and 90 inclusive, with either N or S hemisphere, or alternately, +/-.	ANSI X3.61
Latitude Minute	Second unit of measure; 60 minutes = 1 degree	ANSI X3.61
Latitude Second	Third unit of measure; 60 seconds = 1 minute	ANSI X3.61
Latitude Hemisphere	North (N) or South (S) Hemisphere	ANSI X3.61
Longitude Degree	First unit of measure; domain: the degrees longitude shall be represented by a decimal number between 0 and 180 inclusive, with either E or W hemisphere, or alternately, +/-.	ANSI X3.61
Longitude Minute	Second unit of measure; 60 minutes = 1 degree	ANSI X3.61

Longitude Second	Third unit of measure; 60 seconds = 1 minute	ANSI X3.61
Longitude Hemisphere	East (E) or West (W) Hemisphere	ANSI X3.61
Mailstop Code	Box number for final sorting often assigned by private companies offering mailbox rental services to persons or businesses	USPS
Middle Initial		
Middle Name	Second (or more) names given an individual	EPA
Name prefix	Title proceeding the name of an individual. Examples: Judge, Mr., Mrs., Colonel	EPA
Name qualifier	Qualifier indicating a person has the same name as another family member. Examples: Junior [Jr.], III	EPA
Non-address Data Line	Any non-address data (such as account numbers, subscription codes, presort codes, advertising) should appear on this line that is placed above the Recipient Line or the Information/Attention Line, whichever is higher	USPS
Northing	Distance in meters from the Equator	ISO 19111 (FDIS)
Optional Endorsement Line	A series of specific printed characters on the top line of the address block that identifies the sorting level of a package or bundle and may contain an ACS participant code. The OEL is used in place of package labels.	USPS
PO Box Number	A locked box, located in the post office lobby or other authorized place that customers may rent for delivery of their mail	
Postdirectional	The directional symbol that represents the sector of a city where a street address is located. Example: E, W, S, N, NE, SE, NW, SW	EPA
Predirectional	The street vector, or direction the street has taken from some arbitrary starting point. Example: E, W, S, N, NE, SE, NW, SW	EPA
Primary Address Number		
Recipient Line	The name of the person or building to which the mailpiece is directed	USPS
Reference Item	Permanent object used to find the location of an address	Census
Rural Route (Ruta Rural)		
Rural Route Box (Buzon Rural)	Number of a box along the rural route	USPS
Rural Route Number	Number assigned to the rural route	USPS
Secondary Address Identifier	The room, suite, apartment, unit, or building designator and number that are used by the postal service for mail delivery and for assigning the ZIP+4 postal code	EPA
Secondary Address Range	A geographic direction which follows the Street Name	USPS
Ship's Name		
State Name	A type of governmental unit that is the primary legal subdivision of the United States	

State Abbreviation	Two-character abbreviation for the name of a state (MA, MD), U.S. Territory (VI), or Armed Forces ZIP Code Designation (AA, AE, AP)	
State FIPS	A two-digit FIPS code assigned by NIST to identify each State and statistically equivalent entity. NIST assigns the codes based on the alphabetic sequence of state names (NOTE: Puerto Rico and the Outlying Areas appear at the end); it documents these codes in FIPS PUB 5.	Census
Street Name	Official name of a street assigned by a local governing authority.	Census
Street Number	The number assigned to a building or a land parcel along the street to identify location and to ensure accurate mail delivery.	
Suffix	The trailing designator in a street address. Ex: St., Ave., Dr.	USPS
URB		
Urbanization	An area, sector, or development within a geographic area. This URB descriptor, commonly used in urban areas of Puerto Rico, is an important part of the addressing format as it describes the location of a given street.	USPS
Urbanization Name		
USNG complete value	USNG complete value, to include Grid Zone Designation, 100,000-m Square Identification, and coordinate values of 2-10 digits, i.e. 18SUJ22850705	FGDC
UTM	UTM grid overlays areas between 80-degrees South to 84-degrees North.	NIMA
ZIP Code	A five-digit code that identifies a specific geographic delivery area. ZIP Codes can represent an area within a state, an area that crosses state boundaries (unusual condition) or a single building or company that has a very high mail volume. "ZIP" is an acronym for Zone Improvement Plan.	USPS
ZIP+4 Code	ZIP equals the five-digit ZIP code (refer to ZIP Code) +4 describes the last four positions of a ZIP+4 code. Most delivery addresses are assigned a single ZIP+4 Code. However, large companies may be given a range of ZIP+4 Codes that can be used to route mail to a specific department.	USPS

Sources: ADCS
 USPS PUB 32 Glossary of Postal Terms May 1997

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Appendix D

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(Informative)

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ADDRESS SPECIFICATION: EXAMPLE

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(Under Construction)

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Note to reviewers: Would an example of an address specification be helpful for this standard?

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870 Appendix E
871 (Informative)
872 THE DEVELOPMENT PROCESS
873 E.1 PARTICIPANTS
874 FGDC Subcommittee on Cultural and Demographic Data member agencies participating in the Standard
875 development process:
876 Department of Agriculture, National Resources Conservation Service
877 Department of Agriculture, U.S. Forest Service
878 Department of Commerce, Census Bureau (Chair)
879 Department of Commerce, Office of Ocean Resources, Conservation, and Assessment
880 Department of Defense, the CADD/GIS Technology Center for facilities, infrastructure, and environment
881 Department of Defense, U.S. Army Corp of Engineers
882 Department of Health and Human Services, National Center for Health Statistics
883 Department of Health and Human Services, Centers for Disease Control
884 Department of Housing and Urban Development
885 Department of the Interior, Bureau of Indian Affairs
886 Department of the Interior, Bureau of Land Management
887 Department of the Interior, Fish and Wildlife Services
888 Department of the Interior, National Park Service
889 Department of the Interior Office of Self-Governance
890 Department of the Interior, U.S. Geological Survey
891 Department of Justice, Bureau of Justice Statistics
892 Department of Justice, Civil Rights Division
893 Department of Justice, Federal Bureau of Investigation
894 Department of Labor, Bureau of Labor Statistics
895 Department of State, Office of the Geographer
896 Environmental Protection Agency

897 Federal Emergency Management Agency

898 Library of Congress, Geography and Map Division

899 National Archives and Records Administration

900 National Aeronautics and Space Administration

901 National Capital Planning Commission

902 Social Security Administration

903 Tennessee Valley Authority

904

905 E.2 PAPERS/PRESENTATIONS ABOUT THE STANDARD

906

907 O'Connor, Anne, "The Address Data Content Standard" Presented to the FGDC Coordination Group,

908 Washington, D.C. April 1, 2003.

909 O'Connor, Anne, "The Address Data Content Standard" Presented to the FGDC Standards Working Group,

910 Reston, VA. December 18, 2002.

911 McCready, Matthew, "The Address Standard" Presented to the Subcommittee on Cultural and Demographic

912 Data, Washington, DC. June 18, 2002.

913 Godwin, Leslie, "What is the Current Situation of Addressing Standards", panel discussion, 2nd Annual Street

914 Smart and Address Savvy Conference, the Urban and Regional Information Systems Association (URISA),

915 Baltimore, MD, October 2000.

916 Godwin, Leslie, "Address Data Content Standard, Comments Please!" presented at the URISA 37th Annual

917 Conference and Exposition, Orlando, FL, August 2000.

918 Ray, Christopher, "Help to Develop an Address Data Content Standard", presented at the 1st Annual Street

919 Smart and Address Savvy Conference, the Urban and Regional Information Systems Association (URISA),

920 San Antonio, TX, October 1999.

921 Hartung, Valerie L., "The Federal Geographic Data Committee's Address Data Content Standard Development

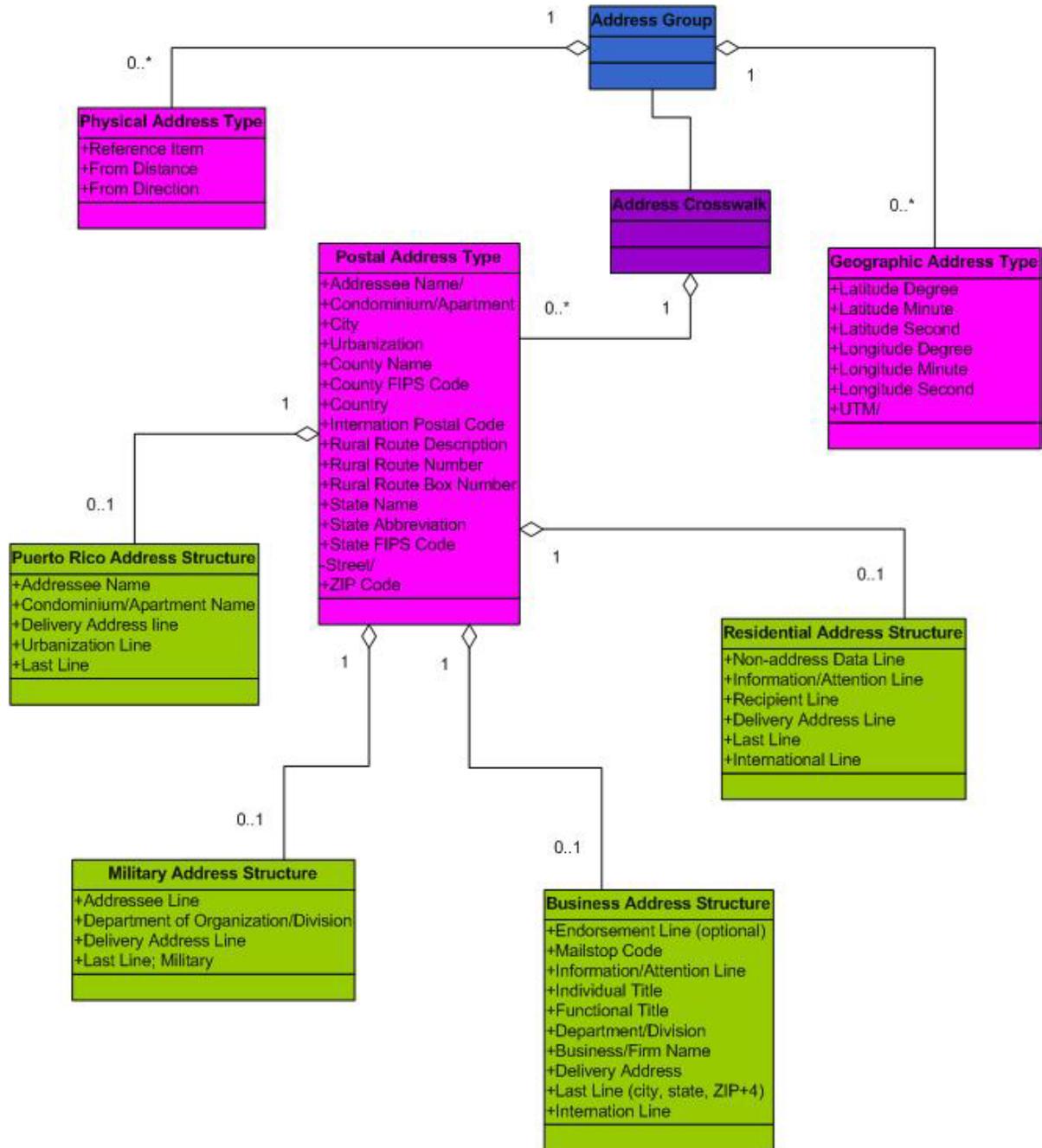
922 Process", presented at the Annual Meeting, Association of American Geographers, Boston, MA, March

923 1998.

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Appendix F
 (Informative)
 UML ADDRESS SPECIFICATION MODEL



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Figure F. UML Address Specification Model