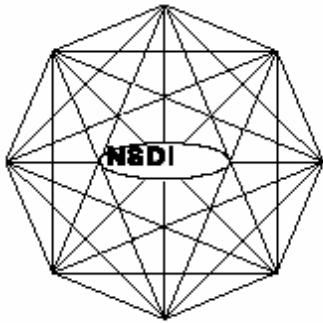


1



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

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14 December 2000

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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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111 1. INTRODUCTION

112

113 Addresses are widely used by many organizations. Addresses reference and uniquely identify particular points
114 of interest, are used to access and deliver information to specific locations, and can serve as the basis for
115 aggregating data by location. Addresses are a means of referencing primarily spatial objects, though addresses
116 can additionally reference objects lacking a spatial component (an example being an electronic address).

117

118 Many organizations maintain address lists or have databases and datasets that contain addresses. Organizations
119 typically have detailed specifications about the structure of their address information but documentation about
120 the content of the address information is limited. Knowledge of both structure and content is required to
121 successfully share information.

122

123 The purpose of this standard is to facilitate the sharing of address information. The Address Data Content
124 Standard (the Standard) accomplishes this by providing a method for documenting the content of address
125 information and simplifies the documentation process by recognizing some commonly used discrete units of
126 address information.

127

128 1.1 Objective

129

130 The objective of the Standard is to provide a method for documenting the content of address information. The
131 Standard is a Federal Geographic Data Committee (FGDC) data usability standard. Data usability standards
132 describe how to express the applicability or essence of a dataset or data element and include data quality,
133 assessment, accuracy, and reporting or documentation standards.

134

135 The Standard additionally standardizes some commonly used discrete units of address information, referred to
136 as “descriptive elements”. It provides standardized terms and their definitions to alleviate inconsistencies in the
137 use of the 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.

142

143 The Standard is applicable to addresses of objects having a spatial component¹. The Standard does not apply to
144 addresses of objects lacking a spatial component and specifically excludes electronic addresses.

145

146 The Standard is applicable to shared addresses². However, the principles of the Standard can be extended to all
147 addresses, including addresses maintained within an organization that are not shared.

148

149 1.3 Applicability

150

151 Data producers or maintainers shall comply with the requirements of the Standard when they share their address
152 information with data users.

153

154 The Standard places no requirement on internal organization use of address data.

155

156 1.4 Related Standards

157

158 Standards at the international, national and agency level, as well as FGDC-endorsed standards, are reviewed.

159

160 1.4.1 International Standards - ISO 11180:1993 Standard for Postal Addressing provides mailing address
161 structure requirements. ISO 11180 was used as a reference document.

162

¹ FGDC-approved standards apply to 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 cannot share addresses or some part of address information due to requirements for confidentiality and security.

163 ISO/TC 211 19111 N934, Geographic Information – Spatial Referencing by Coordinates (second committee
164 draft) describes the minimum data required to define 1-, 2-, and 3-dimensional coordinate systems that can be
165 the basis for geographic address types. ISO 19111 was used as a reference document.

166

167 ISO/TC 211 19112 N822 Geographic Information – Spatial Referencing by Geographic Identifiers (second
168 committee draft) defines the conceptual schema for spatial references based on geographic identifiers that can
169 be the basis for physical and mailing address types. ISO 19112 was used as a reference document.

170

171 1.4.2 National Standards (United States) - None.

172

173 1.4.3 National Standards (United Kingdom) - BS 7666: Part 3 Spatial Datasets for Geographic Referencing:
174 Specification for Address specifies a model and structure for an address. BS 7666: Part 3 was used as a
175 reference document.

176

177 1.4.4 FGDC Standards - FGDC-STD-001-1998 Content Standard for Digital Geospatial Metadata (version
178 2.0) (CSDGM) defines metadata for documenting addresses for contacts (persons and organizations) associated
179 with a geospatial dataset. The CSDGM identifies the following address-associated metadata elements: address
180 type³, address, city, state or province, postal code, and country. The Standard identifies a reporting mechanism
181 for the content of address information that is distinct from and does not effect the CSDGM requirement for
182 creating metadata. A data producer complying with the requirements of both the CSDGM and the Standard will
183 note one inconsistency--the Standard expands the CSDGM closed domain of address type by recognizing a
184 third address type: geographic. This inconsistency should not effect compliance with the requirements of either
185 standard.

186

187 FGDC-STD-003, Cadastral Data Content Standard (CDCS) provides a model for storing information about
188 geographic and physical type addresses for cadastral data collections. The CDCS-recognized entities and
189 attributes relevant to the sharing of address information can be translated into the Standard's descriptive

190 elements (see subsections 3.1 and 3.1.3) with a minimum of work by recording their name and the CDCS as the
191 reference document for their definition. The CDCS additionally points to the CSDGM address-associated
192 metadata elements to provide information about locations of agents (persons, organizations or public agencies)
193 associated with parcels (see FGDC-STD-001-1998).

194
195 The FGDC proposal for a Standard for a United States National Grid for Spatial Addressing (SUSNGSA)
196 (draft) states the SUSNGSA will define a United States National Grid for use in spatial addressing type
197 applications. The SUSNGSA will offer a system for creating address types that is technically the same as the
198 Military Grid Reference System, taking advantage of that public domain system’s use of the Universal
199 Transverse Mercator grid. SUSNGSA addresses will be geographic addresses that and can be successfully
200 documented using the Standard’s address specification.

201
202 1.4.5 Agency Standards (United States) - The United States Postal Service (USPS) maintains a standard and
203 several manuals and technical guidelines⁴ for mailing type addresses. The Standard recognizes mail delivery as
204 a primary purpose for creating and maintaining address lists and the address information contained in databases
205 and datasets. The Standard requires that a translation of address information to the USPS-recognized data
206 elements necessary for successful mail delivery be developed for mailing type addresses (see subsections 3.1
207 and 3.1.4)

- 208 1. USPS Publication 28, Postal Addressing Standards provides standardized (mailing) address format
209 and content. It was the primary reference for identifying USPS-recognized data elements and mail
210 delivery requirements.
- 211 2. The USPS Domestic Mail Manual also provides the definitions and elements of a complete delivery
212 address and other information about domestic mail delivery and was used as an alternate reference
213 source.

³ The CSDGM closed domain for address type is “mailing”, “physical” and “mailing or physical”.

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

- 214 3. The USPS International Mail Manual also provides the definitions and elements of a complete
215 delivery address and other information about mail for delivery to foreign countries and was used as an
216 alternate reference source.
- 217 4. The USPS Address Element Correction Technical Guide describes procedures for correcting USPS-
218 recognized data elements and was used as an alternate reference source.
- 219 5. The USPS TIGER (Topologically Integrated Geographic Encoding and Referencing) ZIP Zone
220 Improvement Plan 1998 documentation provides information on the TIGER/ZIP file created by
221 matching information from the Census Bureau TIGER File to the USPS ZIP+4 Product and was used
222 as a translation reference source.

223

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

- 226 1. USPS Official Abbreviations for States and Possessions
227 2. USPS Official Abbreviations for Street Suffixes
228 3. USPS Official Abbreviations for Secondary Unit Designators.

229

230 Additional agency standards used in developing the Standard's recognized descriptive elements (Appendix A
231 (normative)) and documentation requirements include:

- 232 1. United States Department of Housing and Urban Development's Address Quality Standards (draft)
233 2. Centers for Disease Control's Common Data Element Implementation Guide (draft)
234 3. The Environmental Protection Agency's Data Standard for Representation of Address Information
235 (draft)
236 4. The National Archives and Records Administration's Historic American Building Survey
237 5. The National Archives and Records Administration's Historic American Engineering Record
238 6. The United States Census Bureau's Master Address File (MAF) Documentation (version 5.0).

239

240 1.4.6 Agency Standards (Canada) – The Canadian Post Corporation’s T575003 Version #2, The Canadian
241 Addressing Standard Handbook provides Canada-specific mailing address structure requirements. T575003
242 was used as a reference document.

243

244 1.5 Standards Development Process

245

246 The Standard is a new standard; no prior versions exist. The FGDC Subcommittee on Cultural and
247 Demographic Data (SCDD) sponsored the development of the Standard. Appendix B (informative) lists SCDD
248 member agencies. The Standard was drafted, reviewed and discussed at scheduled SCDD meetings as an
249 agenda item beginning in 1996 through 1999. Invaluable support from SCDD members included (1) the
250 contribution of agency specifications in the early stages of development, (2) circulating the Standard throughout
251 agencies for additional review and comment at various stages of development, and (3) ensuring a broad review
252 of the Standard.

253

254 Federal, state, local, and private sector organizations reviewed the Standard and commented during its
255 development.

256

257 Papers and presentations about the Standard and its development given during the process are listed in
258 Appendix B (informative).

259

260 1.6 Maintenance Authority

261

262 The United States Census Bureau assumes maintenance responsibility for the Standard.

263

264 2. DEFINITIONS AND ABBREVIATIONS

265

266 For the purposes of the Standard, the following definitions apply.

267

268 2.1 address

269 means of referencing an object for the purposes of unique identification and location [*BS 7666: Part 3*]

270 NOTE the Standard does not apply to electronic mail objects

271

272 2.2 addressee

273 final recipient to which a piece of mail is addressed

274

275 EXAMPLES 1. Occupant

276 2. Mr. John Smith

277 3. ABC Company

278

279 2.3 contact

280 person, firm or establishment associated with an address

281

282 NOTE A contact for an address may, or may not, be the addressee of the address. Differences between a
283 contact and addressee are (1) an addressee is commonly associated with only one type of address, a
284 mailing address, while a contact can be associated with all types of addresses, including a mailing
285 address, a geographic address or a physical address; (2) by definition an addressee's association with an
286 address is "limited" to receiving mail at an address while a contact's association with an address can be
287 much broader (refer to EXAMPLES); and (3) a contact, in the case of a USPS delivery style mailing
288 address, does not necessarily reside at the address, whereas an addressee is believed to reside at a USPS
289 delivery style mailing address.

290

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

292 2. A renter living in a dwelling

293 3. A Federal agency maintaining a national monument

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

295 5. A business renting a post office box

296

297 2.4 coordinate reference system

298 coordinate system which is related to the real world by a datum *[ISO 19111]*

299

300 NOTE For geodetic and vertical datums, it will be related to the Earth.

301

302 2.5 location

303 identifiable place in the real world *[ISO 19112]*

304

305 EXAMPLES 1. Eiffel Tower

306 2. Madrid

307 3. California

308

309 2.6 Abbreviations

310

311 Census Unites States Census Bureau

312 EPA Environmental Protection Agency

313 NIMA National Imagery and Mapping Agency

314 the Standard Address Data Content Standard

315 USGS United States Geological Survey

316 USPS United States Postal Service

317

318 3. REQUIREMENT FOR AN ADDRESS SPECIFICATION

319

320 An address specification shall accompany an address group⁵ that is distributed by a data producer⁶ or
321 maintenance agency to a data user.

322

323 3.1 The Address Specification

⁵ Within the context of the Standard, an address group is an address list or a database or dataset containing addresses.

⁶ Within the context of the Standard, a data producer is a person or organization that owns or maintains an address group and has decided to share the data.

324

325 An address specification documents the data content of an address group.

326

327 An address specification does not document the physical structure of an address group.

328

329 The diagram used to develop the address specification is presented in Appendix C (informative).

330

331 An address specification shall include an

- 332 • address purpose,
- 333 • the address type(s) and
- 334 • descriptive elements.

335

336 For an address group identified as having mailing addresses (address type = mailing, refer to Subsection 3.1.2),
337 an address specification shall additionally include an

- 338 • address crosswalk.

339

340 3.1.1 Address Purpose – An address purpose identifies the data producer’s rationale for creating an address
341 group. The address purpose may either explicitly describe intended use or alternately imply intended use.

342

343 NOTE Actual uses often differ from intended use and are not necessarily reflected in the address purpose.

344

345 A minimum of one address purpose shall be recorded.

346

347 More than one address purpose may be recorded.

348

349 When address groups are created for multiple purposes, the primary address purpose shall be recorded if only
350 one address purpose is recorded.

351

352 3.1.2 Address Type – An address type identifies the method of referencing an address. The Standard
 353 recognizes three address types: geographic, mailing and physical.

354

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.
Mailing	Postal	Set of precise and complete information on the basis of which an item can be forwarded and delivered to an addressee [<i>ISO 11180:1993 Postal Addressing</i>]
Physical	Situs, Delivery	Set of precise and complete information that indicates by relationship or by description the permanent and unique location of an object.

355 Table 1. Address Types

356 A minimum of one address type shall be recorded using the address type primary name.

357

358 Additionally, if an address belongs to more than one address type, all applicable address types shall be recorded.

359 An address group can contain one set of addresses belonging to multiple address types or multiple sets of
 360 addresses with each set belonging to a different address type. In each case, when more than one applicable
 361 address type exists it shall be recorded.

362

363 EXAMPLES

- 364 1. An address group contains one set of addresses consisting of entry point latitude/longitude
 365 coordinates. One address type is recorded: geographic.
 366 An address group contains one set of addresses consisting of both entry point
 367 latitude/longitude coordinates and overnight delivery location. Two address types are
 368 recorded: geographic and physical.
- 369 2. An address group contains one set of addresses consisting of only entry point
 370 latitude/longitude coordinates and one set of addresses consisting only of overnight delivery
 371 location. Two address types are recorded: geographic and physical.

372

372 There is one exception to the requirement to record all address types. An address can be both a mailing address
 373 and a physical address. This occurs when the mailing address is an actual site location (such as a street address)

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

376

377 EXAMPLE S 1. The address group contains street addresses of Federal agencies (who often maintain post
378 office boxes) for the purpose of overnight parcel delivery. The addresses belong to both the
379 physical and mailing address types. The data producer elects to record one address type:
380 physical.

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

385

386 3.1.3 Descriptive Elements – A descriptive element identifies a discrete unit of information stored for an
387 address group. Descriptive elements document all the information about an address, an addressee or a contact
388 that has been stored to meet the address purpose.

389

390 NOTE An address group can be part of a larger database. An address specification only includes descriptive
391 elements identifying discrete units of information related to the address group.

392

393 Some discrete units of information are commonly stored for address types. Appendix A (normative) lists
394 descriptive elements recognized by the Standard as commonly stored discrete units of information for an
395 address group. Appendix A (normative) records the recognized descriptive elements’

- 396 • name,
- 397 • definition and
- 398 • source documentation.

399

400 All descriptive elements deemed relevant by the data producer shall be recorded in an address specification.

401 The amount of information that shall be recorded for a descriptive element varies, depending on whether the

402 descriptive element is recognized by the Standard and is listed in Appendix A (normative). The recorded
 403 information shall include:

Descriptive element information	Definition	Obligation
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 A (normative) or (2) the data producer’s set of names if Appendix A (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 (1) the descriptive element is listed in Appendix A (normative) and the data producer refers to the descriptive element by a name other than the descriptive name listed in Appendix A (normative).
Definition	A statement expressing the essential nature of the address information.	Conditional, required if (1) the descriptive element is not listed in Appendix A (normative) and Reference is not provided.
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 A (normative) (then Domain = Address Data Content Standard) or (2) the descriptive element is not listed in Appendix A (normative) and Definition is not provided.

404 Table 2. Obligations for Recording Descriptive Element Information.

405 EXAMPLES of descriptive element information that is provided based on Obligation

406 1. The descriptive element “ZIP+4” from Appendix A (normative) is used

407 Name = ZIP+4

408 Alias = ZIP Add-On

409 Definition *Not required*

410 Reference = Address Data Content Standard

411 2. A descriptive element from Appendix A (normative) is not used

412 Name = Legal Area Description ID

413 Alias *Not required*

414 Definition *Not required*

415 Reference = FGDC Cadastral Data Content Standard

416 3. The descriptive element “State” from Appendix A (normative) is used

417 Name = State

418 Alias *Not required*

419 Definition *Not required*

420	Reference =	Address Data Content Standard
421	4.	A descriptive element from Appendix A (normative) is not used
422	Name =	Low House Number 1
423	Alias	<i>Not required</i>
424	Definition =	Low House number one position in an address range
425	Reference =	US Census Bureau MAF Documentation (<i>Not required</i>)

426

427 3.1.4 Address Crosswalk – The USPS identifies several mailing structures for the mailing address type. The
428 required structure is based on several areas related to mailing, including to whom, where and how. Each mailing
429 structure has a unique set of address information for achieving a complete mailing address⁷. An address
430 crosswalk matches descriptive elements to each USPS-recognized data element (discrete item of information)
431 necessary for creating a complete mailing address.

432

433 An address crosswalk shall be created for an address group that includes mailing address types whose address
434 specification records address type = mailing.

435

436 An address crosswalk shall include one complete crosswalk for each identified applicable mailing address
437 structure. When an address crosswalk includes multiple crosswalks, a brief description on how to recognize the
438 address structure to be used for each address within the address group may be included as an addendum. (For
439 example, an indicator named “Delivery Type” could be included as a part of each address in a database.)

440

441 Appendix D (informative) is a suggested procedure for producing an address crosswalk. Appendix D
442 (informative) includes a decision tree for identifying USPS mailing address structures and a listing of the USPS-
443 recognized data elements for each mailing address structure.

444

445 Appendix F (information) is an example of an address specification containing an address crosswalk.

446

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⁷ The USPS considers a complete mailing 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.

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548
549

550
551
552

Appendix A

(normative)

RECOGNIZED DESCRIPTIVE ELEMENTS

Address type = MAILING		
Descriptive Element Name	Source ⁸	Definition
Addressee name/		
Name prefix	EPA ⁹	Title preceding the name of an individual. Examples: Judge, Mr., Mrs., Ms., Miss, Colonel
First name	EPA	Given name or nickname of an individual
Middle initial	EPA	First letter of the second (or more) names of an individual
Middle name	None	Second (or more) names given an individual preceding the individual's last name
Last name	EPA	Surname (i.e. family name) of the individual
Name qualifier	EPA	Qualifier indicating a person has the same name as another family member. Examples: Junior [Jr.], III
Educational achievements	EPA	One or more advanced degrees that may be important to an establishment (e.g., an educational institution). Examples: Ph.D., EdD, JD, MD
City	EPA	A finer partitioning of geographic subdivisions of a state or county, usually associated with additional levels of government.
County name	EPA	The primary administrative subdivision of a state in the United States
County FIPS code	Census	A three-digit code assigned by the National Institute of Standards and Technology (NIST) to identify each county and statistically equivalent entity within a State. The 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).
Country	EPA	The largest of the geo-political boundaries that define address areas of the world.
International postal code	EPA	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.
Rural route description	Census	Type of rural route; route, rural route, highway contract route, star route, or PSC.
Rural route number		Number assigned to the rural route
Rural route box number		Number of a box along the rural route
State name	Census	A type of governmental unit that is the primary legal subdivision of the United States.
State abbreviation	USPS	Two-character abbreviation for the name of a state, U.S. Territory, or Armed Forces ZIP Code Designation (“AA”, “AE”, or “AP”).
State FIPS code	Census	A two-digit FIPS code assigned by the NIST to identify each

⁸ The source indicates the agency documentation used for the listed definition.

⁹ EPA definitions are from the Data Standard for Representation of Address Information, SDC-0055-057-LF-5038

		State and statistically equivalent entity. The NIST assigns the codes based on the alphabetic sequence of state names (Puerto Rico and the Outlying Areas appear at the end); it documents these codes in a FIPS publication (FIPS PUB 5)
Street/		
Street number	EPA	The number assigned to a building or a land parcel along the street to identify location and to ensure accurate mail delivery
Fractional street number	USGS	A sub-number to a street number
Predirectional	EPA	The street vector, or direction the street has taken from some arbitrary starting point.
Street name	Census	Official name of a street assigned by a local governing authority.
Suffix	USPS	The trailing designator in a street address
Postdirectional	EPA	The directional symbol that represents the sector of a city where a street address is located
Secondary address identifier	EPA	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.
Secondary address range	USPS	A geographic direction which follows the Street Name
ZIP Code	USPS	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.
ZIP+4 Code	USPS	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.

553

Address type = GEOGRAPHIC		
Descriptive Element Name	Source	Definition
Latitude degree		First unit of measure; 0-360 degrees domain
Latitude minute		Second unit of measure; 60 minutes = 1 degree
Latitude Second		Third unit of measure; 60 seconds = 1 minute
Longitude degree		First unit of measure; 0-360 degrees domain
Longitude minute		Second unit of measure; 60 minutes = 1 degree
Longitude second		Third unit of measure; 60 seconds = 1 minute
UTM/		
Zone	NIMA	Segment of a grid dividing the Earth
Northing	NIMA	Distance in meters from the Equator
Easting	NIMA	Distance in meters from the Prime Meridian

554

Address type = PHYSICAL		
Descriptive Element Name	Source	Definition
Reference item	Census	Permanent object used to find the location of an address
From distance	Census	Distance from the reference item to the address location
From direction	Census	Direction of the address location from the reference item

582 National Archives and Records Administration

583 National Aeronautics and Space Administration

584 National Capital Planning Commission

585 Social Security Administration

586 Tennessee Valley Authority

587

588 B.2 PAPERS/PRESENTATIONS ABOUT THE STANDARD

589

590 Godwin, Leslie, panel discussion “What is the Current Situation of Addressing Standards”, 2nd Annual Street
591 Smart and Address Savvy Conference, the Urban and Regional Information Systems Association
592 (URISA), Baltimore, MD, October 2000.

593 Godwin, Leslie, “Address Data Content Standard, Comments Please!”, presented at the URISA 37th Annual
594 Conference and Exposition, Orlando, FL, August 2000.

595 Hartung, Valerie L., “The Federal Geographic Data Committee’s Address Data Content Standard Development
596 Process”, presented at the Annual Meeting, Association of American Geographers, Boston, MA, March
597 1998.

598 Ray, Christopher, “Help to Develop an Address Data Content Standard”, presented at the 1st Annual Street
599 Smart and Address Savvy Conference, the Urban and Regional Information Systems Association
600 (URISA), San Antonio, TX, October 1999.

601 Appendix C

602 (informative)

603 AN ADDRESS DIAGRAM

604

605 The address diagram (Figure C.1) graphically portrays the relationships between a data producer, addresses,
606 “other” data and an address specification. Relevant content aspects of addresses illustrate the need for the
607 components of an address specification for documenting address content. Only data content, not structure, of
608 addresses is considered. The address diagram does not portray all requirements of the Standard; for example,
609 the fact an address specification is required only when addresses are shared is not shown.

610

611

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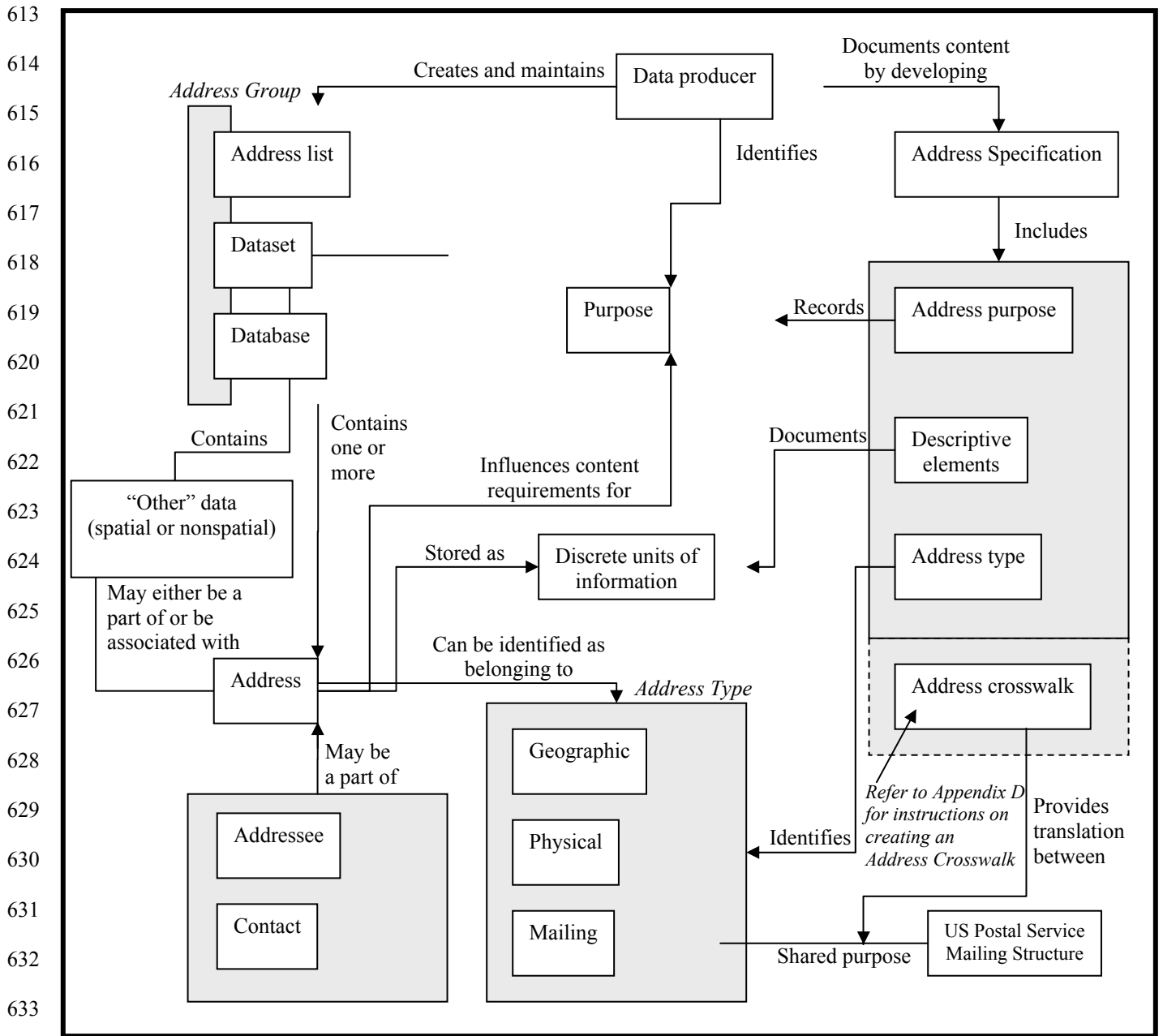


Figure C.1 (informative) An Address Diagram.

635 Appendix D

636 (informative)

637 PRODUCING AN ADDRESS CROSSWALK

638

639 Appendix D is a “how to” document of three easy steps to producing an address crosswalk. An address
640 crosswalk is only required when an address group contains mailing addresses. One complete crosswalk is
641 required for each applicable mailing address structure (one address group may contain multiple mailing address
642 structures).

643

644 As the crosswalk utilizes an address group’s descriptive elements, creating the address crosswalk is the final
645 step in producing an address specification.

646

647 Additionally, the following information must be identified:

648

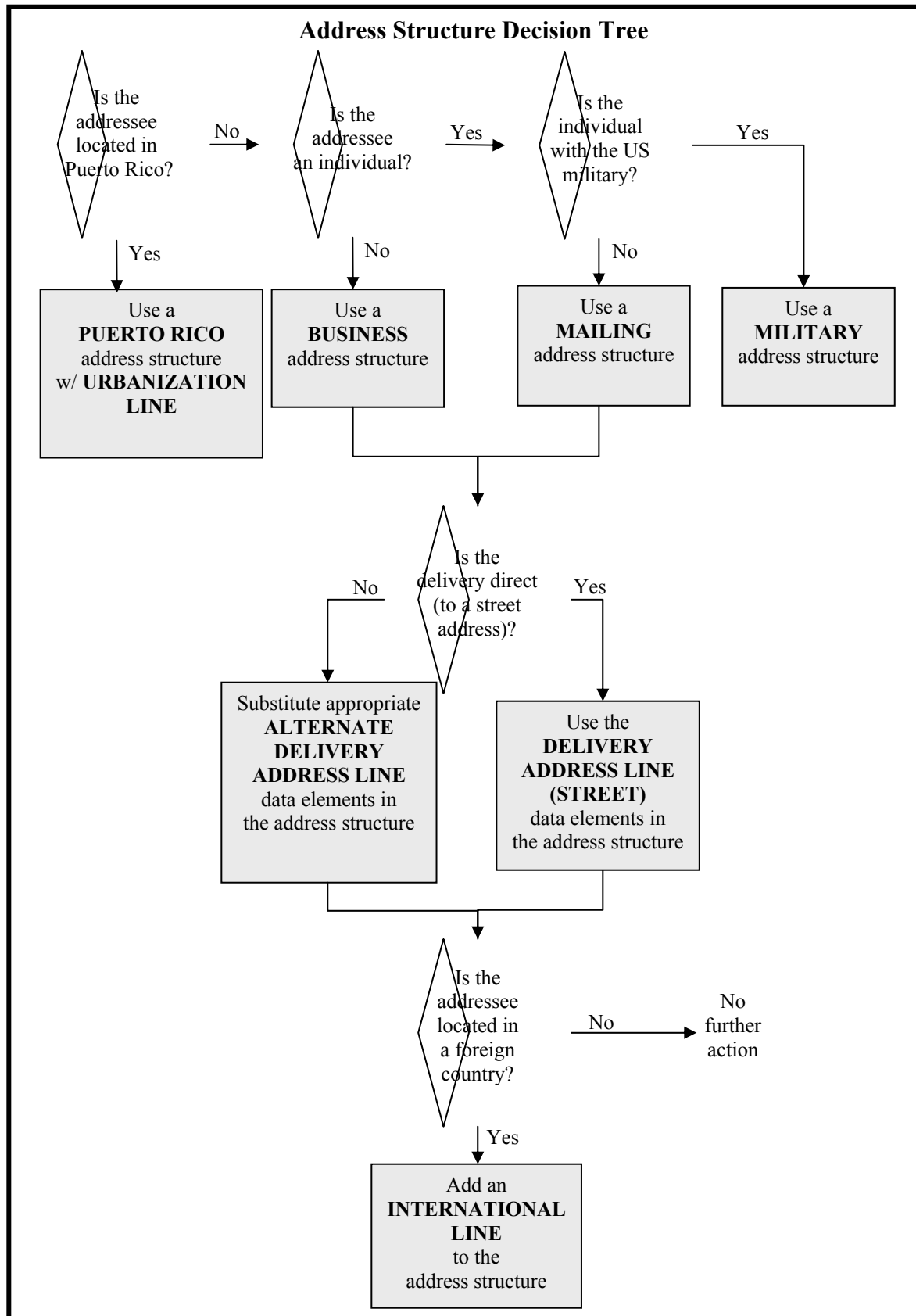
- 649 • The applicable USPS address structure(s) (i.e. individual vs. business addressee, military or non-military
650 addressee, international address, delivery type) and
- 651 • The applicable USPS address lines.

652

653

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Step 1 Determine the applicable USPS address structure using the Address Structure Decision Tree



708 Step 2 Determine all applicable USPS address lines by matching the address structure(s) and specific address
709 line(s) identified in Step 1 with the address structures below. Refer to the general descriptions of
710 address lines (Figure D-1) to determine if the optional address lines listed in the selected address
711 structure are applicable. Place a checkmark by all applicable address lines in Figure D-1.

712

713 **ADDRESS STRUCTURES**

714 **Business Address Structure**

715 Optional Endorsement Line (outside the scope of the Standard)

716 Key Line Data (outside the scope of the Standard)

717 POSTNET Address Block Barcode (outside the scope of the Standard)

718 Mailstop Code (optional)

719 Information/Attention Line (optional)

720 Individual Title (optional)

721 Functional Title (optional)

722 Group, Department, Division Name (optional)

723 Business/Firm Name Line

724 Delivery Address Line; street or alternate

725 Last Line

726 International Line (conditional)

727

728 **Mailing Address Structure**

729 Non-address Data Line (optional)

730 Information/Attention Line (optional)

731 Recipient Line

732 Delivery Address Line; street or alternate

733 Last Line

734 International Line (conditional)

735 **Military address structure**

- 736 Addressee Name
- 737 Department of Organization
- 738 Delivery Address Line; military
- 739 Last Line; military

740

741 **Puerto Rico address structure**

- 742 Addressee Name
- 743 Delivery Address Line; street or alternate
- 744 Urbanization Line
- 745 Last Line

746 **ADDRESS LINES – GENERAL DESCRIPTIONS and APPLICABILITY (in alphabetical order)**

USE <input checked="" type="checkbox"/>	Address Line	General Description
	Addressee Name	Rank (if applicable) and name of the person to whom the mailpiece is directed
	Business/Firm Name	Name of the business or firm
	Delivery Address Line; street, alternate or military	Primary address (the delivery point)
	Department of Organization	Within the US military, the division
	Functional Title	An explanation of a person’s role in relation to a group, department, or division within a business
	Group, Department, Division Name	A subdivision of the business
	Individual Title	A profession or job classification held by a person within a business
	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
	International Line	Country other than United States
	Last Line	City + State + ZIP+4 Code within the United States
	Mailstop Code	Box number for final sortation often assigned by private companies offering mailbox rental services to persons or businesses
	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
	Recipient Line	The name of the person, firm or building to which the mailpiece is directed
	Urbanization Line	“URB” + the name of an area, sector, or residential development within a geographic area

747 Figure D-1 (informative) General descriptions of address lines.

- 748 Step 3 Complete the descriptive element column of the Address Crosswalk (Figure D-2) for all address
 749 structures and lines identified as applicable in Steps 1 and 2. Use Figure D-2 and the descriptive
 750 elements recorded in the Address Specification.
- 751 1. Indicate multiple descriptive elements may be used for a USPS data element by using commas to
 752 separate the descriptive elements. (Example: HC box number = HC box number, RR box
 753 number.)
 - 754 2. Indicate multiple descriptive elements must be used to create a complete USPS data element by
 755 using plus signs (+) between the listed descriptive elements (Example: Last name = Second last
 756 named + Last name.)
 - 757 3. Indicate a mandatory USPS data element has no matching descriptive element by placing the text
 758 “NO MATCH” in the descriptive element box.
- 759

Address Crosswalk			
Address Structure	Address Line	USPS data element	Descriptive element(s)
Business	Mailstop Code Line	Mailstop Code	
	Information/Attention Line	Name Prefix (optional)	
		First Name (optional)	
		Middle Initial (optional)	
		Middle Name (optional)	
		Last Name	
		Name Qualifier (optional)	
		Educational Achievements (optional)	
	Individual Title	Individual Title	
	Functional Title	Functional Title	
	Group, Department, Division Name Line	Group, Department, Division Name	
	Business/Firm Name Line	Business/Firm Name	
	Delivery Address Line (street)	Primary address number	
		Predirectional	
		Street name	
		Suffix	
		Postdirectional	
		Secondary address identifier	
	Alternate Delivery Address Line (Highway Contract Route)	HC route number	
		HC box number	
Alternate Delivery Address Line (Post Office Box)	PO Box number		
Last Line	City		
	State		

		ZIP Code	
	International Line	Country	
Mailing	Information/Attention Line	Information/Attention Line Data Element(s)	
	Recipient Line	Name prefix (optional)	
		First Name (optional)	
		Middle Initial (optional)	
		Middle Name (optional)	
		Last Name	
		Name Qualifier (optional)	
		Educational Achievements (optional)	
	Delivery Address Line (street)	Primary address number	
		Predirectional	
		Street name	
		Suffix	
		Postdirectional	
		Secondary address identifier	
	Alternate Delivery Address Line (Highway Contract Route)	HC route number	
		HC box number	
	Alternate Delivery Address Line (Post Office Box)	PO Box number	
	Last Line	City	
		State	
		ZIP Code	
International Line	Country		
Military	Addressee Name	Name Prefix (optional)	
		First Name (optional)	
		Middle Initial (optional)	
		Middle Name (optional)	
		Last Name	
		Name Qualifier (optional)	
		Educational Achievements (optional)	
	Department of Organization	Division	
	Delivery Address Line (military) – Option #1	CMR or Unit Number	
		Box Number	
Delivery Address Line (military) – Option #2	Ship's Name		
Last Line (military)	Army/Air Force post office or Fleet post office box number		
	State abbreviation		
	ZIP+4 Code		
Puerto Rico	Addressee Name	Name Prefix (optional)	
		First Name (optional)	
		Middle Initial (optional)	
		Middle Name (optional)	
		Last Name	
		Name Qualifier (optional)	

		Educational Achievements (optional)	
Street and Number		Calle, Avenida (street)	
		Primary Address Number	
		Street Name	
Alternate Delivery Address (Post office box)		PO Box number	
Alternate Delivery address (Rural Route)		Rural Box (Buzon Rural)	
		Rural Route (Ruta Rural)	
Urbanization		URB	
		Urbanization Name (second Address Identifier)	
Last Line		City	
		State	
		ZIP Code	

760 Figure D-2 (informative) Sample Address Crosswalk.

761
762
763
764
765
766
767

Appendix E

(informative)

ADDRESS SPECIFICATION EXAMPLE

An Address Specification, with address crosswalk, for the Centers for Disease Control’s (CDC) database address information, based on the CDC Common Data Element Implementation Guide (Draft) (Version 1.6).
 Author: Standards Committee, Health Information and Surveillance Systems Board.

Purpose	To reach, via mail, CDC respondents (?)		
Address Type	Mailing		
Descriptive Elements:			
Name	Alias	Definition	Reference
Last Name		Last name, surname, family name, first part of hyphenated name (including hyphen) for multi-part names	<i>CDC Common Data Element Implementation Guide (Draft) Version 1.6</i>
Second last name		Second last name, surname, family name, second part of hyphenated name for multi-part names	
First name	FNAME		<i>ADCS Address Data Content Standard</i>
Middle name		Middle name or initial	
Second middle name		Second middle name or initial	
Name qualifier	SUFFIX		ADCS
Name prefix	PREFIX		ADCS
Educational Achievements	DEGREE		ADCS
Maiden Name		Maiden name	
Rural Route number	RRHNUM	Rural route or highway contract number	
Rural Route Box	RRHCBOX	Rural route or highway contract box number	
PO Box number	PO BOX		ADCS
Military APO address	APO	?	
Secondary address unit indicator abbreviation	UIND	Secondary address unit indicator abbreviation	
Unit or apartment number	UNUM	Unit or apartment number	
Street primary address number	STNUM		ADCS
Street name	STNAME		ADCS
Street suffix	STDESIG		ADCS

Predirectional	PREDIR		ADCS
Postdirectional	POSTDIR		ADCS
Secondary address	SECOND	Secondary address (Fireside Nursing Home, etc., Puerto Rican Urbanization)	
City	CITY		ADCS
State	STATE	Either FIPS PUB 5-2 Code or USPS PUB 25 two-letter State code, Province	
ZIP		Either FIPS PUB 55-5 Zip Code or foreign postal code	
Country Code	COUNTRY		ADCS
County FIPS Code	COUNTY		ADCS
TRACT		Census tract, FIPS-55 or Block Numbering Area (BNA), six digit code with decimal point	

768

Address Crosswalk				
Address Structure	Address Line	USPS data element	Descriptive element(s)	
Mailing	Recipient Line	Name prefix	Name Prefix	
		First Name	First Name	
		Middle Name	Middle Name	
		Last Name	Second last name + Last name	
		Name Qualifier	Name qualifier	
	Delivery Address Line (street)	Educational Achievements	Educational Achievements	Educational Achievements
			Primary address number	Street primary address number
			Predirectional	Predirectional
			Street name	Street name
			Suffix	Street suffix
	Alternate Delivery Address Line (Highway Contract Route)	Postdirectional	Postdirectional	Postdirectional
			Secondary address identifier	Secondary address unit indicator abbreviation + Unit or apartment number
	Alternate Delivery Address Line (Post Office Box)	HC number	HC number	Rural route number
	Last Line	Box number	Box number	PO box number
			City	City
			State	State
	Military	Department of Organization	City	City
State			State	
ZIP Code			ZIP	
Military	Addressee Name	Refer to Mailing Address Structure Recipient Line Information		
		Department of Organization	Division	NO MATCH
		Delivery Address Line (military)	CMR or Unit Number + Box Number	Military APO address

769

770

Note: If “Military APO address” descriptive element is provided for an address, the address is a military address. No indicators or flags are set to distinguish mailing from military addresses.