

PLSS CadNSDI Standard Domains of Values
October 2014 - Updated May 2015

Introduction

The Public Land Survey System (PLSS) Cadastral National Spatial Data Infrastructure (CadNSDI) publication data set standards were finalized as Version 2 in October of 2012. A zipped file containing the database documentation and schema is posted in the Cadastral Subcommittee's outreach page (<http://www.nationalcad.org>)

In Version 2 of the standard the domains of values were listed as recommended or suggested. Since October of 2012 the PLSS data for 20 of the 30 Public Domain states have been reviewed and standardized. Through that process the domains of values have been more clearly articulated and defined. The Subcommittee felt that a complete review of PLSS data was necessary before the domain of values could be finalized and this milestone has been reached.

This document provides the standardized domain of values for the elements with a standardized domain in PLSS CadNSDI data sets.

Most of the domains include a code and description. As database and GIS technology advances there is less reliance on coded values and increased ability to use the text or description of an attribute. The codes and descriptions have been finalized and standardized, but the Subcommittee acknowledges that some implementations may choose to use only the description and not the associated code. In some cases the code is used as part of a concatenated unique identification key and users that chose to not capture the standard code along with the standard description will need to use the standard code to generate concatenated keys.

Please note that because of the high degree of variability in the PLSS, not all codes and domains apply to all states.

Additional domain values should be submitted to the Cadastral Subcommittee for evaluation for inclusion in the standard domains. (<http://www.nationalcad.org>)

There may be some non-standard codes and code descriptions in existing PLSS CadNSDI data sets. These non-standard values will be addressed through regular maintenance.

Duplicate Coding

In cases where a PLSS rectangular feature is duplicated, for example two section 31s in a Township or two townships with the same state-principal meridian-township-range number and direction, the duplicate code is assigned with an A to the feature closest to the initial point and succeeding B, C, etc. to those further away from the initial point. There should never be an A duplicate code without a B duplicate code. Zero (0) in any duplicate field means there are no duplicates. Any letter indicates there are duplicates.

First Division Type

The first division is the first division of a PLSS Township and is most commonly a section. However, there are many types of first divisions and these are identified in the first division type. If an implementation uses a default value, it should be the Section. Also of note is that Tracts and Donation Land Claims (DLCs) are not a first division types. The tracts and DLCs are a PLSS Special Survey and are a metes and bounds survey protecting bona fide rights and are not part of the PLSS rectangular descriptions. Previous implementations may have included tracts and DLCs as a first division type but this has been corrected. In some eastern states there has been a first division terms a tract however the use of this term to describe these features will be transitioned over time and eventually the first division domain will not include Tract.

The first division type codes are two characters to assist in discerning between the first and second division type.

First Division Type Code	First Division Type Description	Notes
UA	Unsectionalized Area	Unsectionalized areas are lands that were never divided and no protraction or definition of division was generated. Over time these areas are expected to have division types added
SN	Section	The section is the most commonly occurring first division and is nominally one mile on a side. The section numbers are commonly 1 to 36 but section numbers as high as 48 have been identified.
LT	Lot	These are lots that occur only rarely in non-sectionalized Townships. In these cases the township is divided into lots, but again this is a rare occurrence.
PB	Protracted Block	Protracted Blocks are divisions that provide a defined division in unsurveyed PLSS Townships. Protracted Blocks are defined by the coordinate values of the corners.
FS	Fractional Section	Fractional sections are sections that are invaded by water or a protraction such that at least one quarter corner can not be established and the method for subdividing the section is modified. The fractional sections may not have been identified in some of the early standard implementations.
QT	Quarter Township	The quarter townships exist in Ohio only. These are divisions that quarter the township and in some cases the quarter township is quartered again into four lots or parcels.

TR	Tract	There are two uses of Tracts as a first division. (1) PLSS Tracts in the eastern states that should be in the PLSS Special Survey Feature Class but are included in the First Division as a transition to the fully compliant standard. (2) Paragraph 3-122 of the 1973 manual "when administration or disposal requires no subdivision, an island is given a tract number within a township. In such cases, the section lines need not be extended to the island."
UP *	Unsurveyed Protracted	Unsurveyed Protracted divisions are always a section but have not been measured by survey. The protraction diagram is a plan of survey.
UN *	Unsurveyed Unprotracted	Unsurveyed Unprotracted divisions are always sections but there is no survey or plan of survey. These divisions have been termed extended PLSS or PLSS grids in some implementations.
UK	Unknown	If the type of first division is not known than this code and description is available as a placeholder until the type of first division can be established.

* The Unsurveyed Protracted and Unsurveyed Unprotracted values reference the survey status or survey condition of a Section. The first division type for features coded as UP or UN is Section (SN). The Survey type code and description in the PLSS CadNSDI feature classes should be used to indicate the survey status of the feature. These domains are included as transitional values and will be eliminated over time.

Second Division Type

The second division is the second division of the PLSS Township. The most commonly occurring second division types are aliquot parts and government lots. The Remainder Lot is a relatively new value and very few data sets will have this value initially.

Second Division Type Code	Second Division Type Description	Notes
A	Aliquot Part	An aliquot part is a division made by halving and quartering a section. These are identified by the cardinal position such as Northeast (NE).
B	Remainder Aliquot Part	Remainder Aliquot Parts are residuals or portions or significantly smaller than nominal aliquot parts. These may be left over after a special survey or other survey cuts into an existing aliquot part and a portion of the aliquot has not been designated as a government lot and is remaining as an aliquot part.
L	Lot	A subdivision of a section that is not designated as an aliquot part of a section and is identified by a number. A Government Lot, or Lot, may be regular or irregular in shape.
Q	Quarter Section	A quarter section is an aliquot part that divides the section into quarter parts only. In most cases quarter sections will be coded as A and the distinction between aliquot part and a quarter aliquot part is a state-by-state preference. The preferred coding is to use A for all aliquot parts.
O	Unnumbered Lot	An unnumbered government lot is an area of land that appears to be a government lot because of its location in the section and its acreage. Because Government Lots must be surveyed and have a number, it is expected that existing unnumbered government lots will gradually transition to either remainder aliquot parts or remainder government lots with a number.
V	Remainder Lot	A Remainder Government Lot or Remainder Lot are residuals or portions of Lots. These may be left over after a special survey or other survey cuts into an existing Lot.
U *	Unsurveyed Protracted	Unsurveyed Protracted divisions are always aliquot parts but have not been measured by survey. The protraction diagram is a plan of survey.
Z *	Unsurveyed Unprotracted	Unsurveyed Unprotracted divisions are always aliquot parts but there is no survey or plan of survey. These divisions have been termed extended PLSS or PLSS grids in some implementations.

* The Unsurveyed Protracted and Unsurveyed Unprotracted values reference the survey status or survey condition of a Section. The second division type for features coded as U or Z is Aliquot Part (A). The Survey type code and description in the PLSS CadNSDI feature classes should be used to indicate the survey status of the feature. These domains are included as transitional values and will be eliminated over time

PLSS Special Surveys

The code 2 for non-BLM tracts has not been widely used and these tracts may also be in the Survey System Feature class rather than in the PLSS Special Survey feature class. The domain value for code 2 is included in these domains to assist with migration and to handle those special situations, primarily in historical records, where pre-existing tracts are found on some plats.

The rest of these types are mentioned in some form in the BLM Manual of Survey Instruction. The PLSS non-rectangular surveys are a component of the division of public lands but do not follow the rules and layout of the rectangular PLSS.

In some cases lands coded as PLSS Special Surveys may be non-public domain lands and may be represented in the Survey System Feature Class.

Special Survey Type Code	Special Survey Type Description	Notes
2	Tract - Other than cadastral survey	A tract other than a cadastral survey tract is a piece of land that has the term tract as its designated land description on a survey document. The lands will typically have a number, name, or letter designation.
D	Allotment Survey	Allotment Survey is an allocation of discretionary assignment of lands.
E	Metes and Bounds	Metes and bounds surveys are required to define the boundaries of irregular areas of land, which are not conformable to rectangular subdivisions. Metes and bounds PLSS Special Survey Types are coded as a metes and bound if no other non-rectangular survey type can be identified.
F	Farm Unit Survey	Farm Unit Survey
G	Land Grant	A Land Grant is a portion of land that was claimed and occupied by a foreign power or government prior to survey. Land Grants are not the same as Grants of Land made to individuals prior to survey. Neither the Land Grant nor Grants of Land are part of the PLSS as the rights to these lands existed prior to the public land survey. The boundaries of these lands form a closing line for the PLSS surveys.
H	Homestead Entry	Homestead Entry is a metes and bounds survey made under the Homestead Act defining lands acquired under an entry for the purpose of acquiring title. Homestead entry surveys are numbered sequentially and uniquely within a state.
I	Indian Interest	This code and domain was originally Indian Allotment but has been expanded in the standard domains to include all Indian Interest lands including allotments, reservations and other lands.
J	Small Tract, Small Holding Claim	The survey made to delineate the tracts differs from a townsite survey in that it normally follows a pattern of progression subdivision down to the desired lot sizes without block designations or the segregation of streets and alleys. Regulations provide for reserving rights-of-way in the patents or leases.
M	Mineral Survey	A Mineral Survey is a lode claim, placer claim, or mill site established to mark the extent of public lands claimed for the development of minerals and intending to become a private interest. Not all mineral surveys complete to a patent and those that do not complete are reverted back to federal ownership in most cases.
N	Townsite Survey	There are many provisions for the executive withdrawal of public lands for townsite purposes. A townsite survey is a survey made within one or more regular units of the township subdivision by which the land is divided into blocks, streets, and alleys as a basis for the disposal of title in village or town lots.

K	Townsite Block	A Townsite Block is a block within a townsite. The Townsite Block needs the townsite designation to uniquely identify it.
Y	Townsite Outlot	A Townsite Outlot is a lot designated for public or community use within a townsite.
P	BLM Parcel	BLM Parcel
Q	Donation Land Claim	Donation Land Claims are portions of land that are 160 or 320 acres in size granted under the Donation Land Act of 1850 to citizens who resided in the Oregon Territory. These are not the same as donation lands that were public lands donated or granted as an incentive for construction, such as railroad donations.
S	United States Survey - Alaska Only	United States Surveys exist only in Alaska. These are similar in form to Townsite Surveys and provide for the disposal of public lands for occupation and settlement.
T	Tract	A tract is portion of land that protects a bona fide right. Tracts are metes and bounds surveys that define the perimeter of lands settled between the time of the plan of survey and the actual field survey. Settlement occurred following the boundaries intended to be as defined in the rectangular survey but do not conform to the actual rectangular survey. Tracts are always contained within a PLSS Township and PLSS Township lines encompass the tracts. Tracts are numbered within the Township taking the next highest number available after the highest section number.
X	Exchange	An exchange survey is a portion of land that has been described to support the exchange of private lands and public lands. These are metes and bounds surveys.

Principal Meridians

Principal Meridian Code	Principal Meridian Description
01	1st Meridian
02	2nd Meridian
03	3rd Meridian
04	4th Meridian
05	5th Meridian
06	6th Meridian
07	Black Hills Meridian
08	Boise Meridian
09	Chickasaw Meridian
10	Choctaw Meridian
11	Cimarron Meridian
12	Copper River Meridian
13	Fairbanks Meridian
14	Gila-Salt River Meridian
15	Humboldt Meridian
16	Huntsville Meridian
17	Indian Meridian
18	Louisiana Meridian
19	Michigan Meridian
20	Montana Meridian
21	Mount Diablo Meridian
22	Navajo Meridian
23	New Mexico Meridian
24	St. Helena Meridian
25	St. Stephens Meridian
26	Salt Lake Meridian
27	San Bernardino Meridian
28	Seward Meridian
29	Tallahassee Meridian
30	Uintah Meridian
31	Ute Meridian
32	Washington Meridian
33	Willamette Meridian
34	Wind River Meridian
36	Between the Miamis
37	Muskingum River
38	Ohio River Base
44	Kateel River Meridian
45	Umat Meridian
46	Extended Fourth Meridian
47	West of the Great Miami
48	Base Line of the US Military Survey
99	Not Applicable

State Names and Codes

Abbreviation	State Name	State FIPS Code
AL	ALABAMA	01
AK	ALASKA	02
AZ	ARIZONA	04
AR	ARKANSAS	05
CA	CALIFORNIA	06
CO	COLORADO	08
CT	CONNECTICUT	09
DE	DELAWARE	10
DC	DISTRICT OF COLUMBIA	11
FL	FLORIDA	12
GA	GEORGIA	13
HI	HAWAII	15
ID	IDAHO	16
IL	ILLINOIS	17
IN	INDIANA	18
IA	IOWA	19
KS	KANSAS	20
KY	KENTUCKY	21
LA	LOUISIANA	22
ME	MAINE	23
MD	MARYLAND	24
MA	MASSACHUSETTS	25
MI	MICHIGAN	26
MN	MINNESOTA	27
MS	MISSISSIPPI	28
MO	MISSOURI	29
MT	MONTANA	30
NE	NEBRASKA	31
NV	NEVADA	32
NH	NEW HAMPSHIRE	33
NJ	NEW JERSEY	34
NM	NEW MEXICO	35
NY	NEW YORK	36
NC	NORTH CAROLINA	37
ND	NORTH DAKOTA	38
OH	OHIO	39
OK	OKLAHOMA	40
OR	OREGON	41
PA	PENNSYLVANIA	42
RI	RHODE ISLAND	44
SC	SOUTH CAROLINA	45
SD	SOUTH DAKOTA	46
TN	TENNESSEE	47
TX	TEXAS	48
UT	UTAH	49
VT	VERMONT	50
VA	VIRGINIA	51
WA	WASHINGTON	53

WV	WEST VIRGINIA	54
WI	WISCONSIN	55
WY	WYOMING	56
US	National	
AS	AMERICAN SAMOA	60
GU	GUAM	66
PR	PUERTO RICO	72
VI	US VIRGIN ISLANDS	78
MP	N. MARIANA ISLANDS	69