

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

SUBCHAPTER 85-40.2

LAND SURVEYING REGULATIONS

Part 001	General Provisions	§ 85-40.2-315	Clearance of Plat
§ 85-40.2-001	Authority	§ 85-40.2-320	Purpose of
§ 85-40.2-005	Purpose	Clearance	
§ 85-40.2-010	Force and Effect		
§ 85-40.2-015	Definitions		
Part 100	Land Surveyors	Part 400	Miscellaneous
§ 85-40.2-101	Professional Land Surveyors	Provisions	
§ 85-40.2-105	CNMI Government Land Surveyors	§ 85-40.2-401	Validity of Regulations
Part 200	Standards for the Practice of Land Surveying	Appendix I	Measures of Length and Area
§ 85-40.2-201	Procedure		Measures of Length
§ 85-40.2-205	Classification of Surveys		Measures of Area
§ 85-40.2-210	Measurement Specifications	Appendix II	Tables and Conversion Factors for Japanese Linear and Area Measurements
§ 85-40.2-215	Monuments		Linear Measurements
§ 85-40.2-220	Control Ties		Area Measurements
§ 85-40.2-225	Re-survey and Re-establishment of Lost Corners	Appendix III	Precision and Closure Standards
§ 85-40.2-230	Plat Standards and Field Notes		EDM Minimum Distance Standards
§ 85-40.2-235	Zoning Law and Regulations		Steel Taping Required for Lengths Below the Minimums
Part 300	Clearance and Recording of Plats and Surveys	Appendix IV	Construction and Dimensions for Standard CNMI Non-geodetic Control and Reference Monuments
§ 85-40.2-301	Seal of Registered Land Surveyor Required	Appendix V	Plat Drafting Standard
§ 85-40.2-305	Clearance and Recording Required	Appendix VI	The Federal Geographic Data Committee Geospatial Positioning Accuracy Standard
§ 85-40.2-310	Government Surveyors		

Subchapter Authority: 1 CMC § 2654.

Subchapter History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

Commission Comment: PL 1-8, tit. 1, ch. 13 (effective Aug. 10, 1978), formerly codified at 1 CMC §§ 2651, et seq., originally created a Department of Natural Resources within the Commonwealth government.

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

Executive Order 94-3 (effective August 23, 1994) reorganized the Commonwealth government executive branch, changed agency names and official titles and effected numerous other revisions. According to Executive Order 94-3 § 104:

Section 104. Department of Lands and Natural Resources.

The Department of Natural Resources is re-designated the Department of Lands and Natural Resources.

The full text of Executive Order 94-3 is set forth in the commission comment to 1 CMC § 2001.

In 1997, the Legislature passed the “Public Lands and Natural Resources Administration Act of 1997,” PL 10-57 (effective Apr. 18, 1997), codified as amended at 1 CMC §§ 2651-2691. PL 10-57 repealed and reenacted chapter 13, division 2 of title 1 of the Commonwealth Code, 1 CMC §§ 2651, et seq., and statutorily established the Department of Lands and Natural Resources (DLNR) with the structure, duties and responsibilities set forth in the act. See 1 CMC § 2651 and the commission comment thereto. 1 CMC § 2653(d) empowers DLNR to conduct surveys of public lands. 1 CMC § 2654 authorizes the Department of Lands and Natural Resources to adopt rules and regulations in furtherance of its duties and responsibilities.

The DLNR Division of Lands & Surveys (a predecessor to the Division of Land Registration and Surveys) first published Land Surveys Rules and Regulations pursuant to PL 1-8, chpt. 13, in 1980. The Division promulgated supplemental Division of Lands and Surveys Regulations in 1993. Both the 1980 and 1993 regulations were superseded by the 2002 Land Surveying Regulations codified in this subchapter. See § 80-40.2-010. The history of the former Division of Lands and Surveys Rules and Regulations is as follows: Amdts Adopted 15 Com. Reg. 11062 (Oct. 15, 1993); Amdts Emergency and Proposed 15 Com. Reg. 10666 (June 15, 1993) (effective for 120 days from June 3, 1993); Adopted 13 Com. Reg. 8531 (Dec. 15, 1991); Proposed 13 Com. Reg. 8075 (Oct. 15, 1991); Proposed 13 Com. Reg. 7850 (Aug. 15, 1991); Adopted 3 Com. Reg. 1114 (Feb. 23, 1981); Proposed 2 Com. Reg. 904 (Nov. 17, 1980).

The Division of Lands and Surveys and the Division of Land Registration were administratively consolidated by memorandum of the Secretary of the Department of Lands and Natural Resources dated June 23, 1995. For a complete history of the Division of Land Registration and Survey see the general commission comment to subchapter 40.1 of this title.

Part 001 - General Provisions

§ 85-40.2-001 Authority

The regulations in this subchapter are adopted herewith pursuant to authority vested in the Department of Lands & Natural Resources under PL 1-8 (1 CMC § 2654).

Modified, 1 CMC § 3806(d).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

§ 85-40.2-005 Purpose

The purpose of the regulations in this subchapter is to establish standards and procedures for the practice of land surveying in the Commonwealth of the Northern Mariana Islands.

Modified, 1 CMC § 3806(d).

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

§ 85-40.2-010 Force and Effect

The regulations in this subchapter shall be binding upon all persons and entities licensed to practice land surveying in the CNMI and also to officers and employees of the CNMI doing any land surveying work. These regulations, once adopted, hereby supersede all rules or regulations, which were previously published and adopted by the Department of Lands & Natural Resources that pertain to the practice of land surveying.

Modified, 1 CMC § 3806(d).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

§ 85-40.2-015 Definitions

(a) “Benchmark” means a permanent, official recorded mark, which establishes an elevation referenced to adopted datum. The marked point can be a natural or artificially constructed object.

(b) “Cadastral parcel index (CPI)” means a master index of designated land units, which is referred to survey plat numbering assignments.

(c) “Check print” means a working paper copy of a survey plat used to note omissions, errors or changes before the final plat is cleared.

(d) “Chief of party” means the CNMI government surveyor who is in charge of and responsible for the fieldwork of the survey and for reviewing the final draft plat for conformance with the fieldwork performed.

(e) “Clearance” means the process of checking land survey plats of both private and government survey work by a CNMI government surveyor to determine and verify that the parcel, lot, tract, or any other area numbers and plat names previously assigned by the Division are correct; and that such land survey plats are in conformance with the regulations in this subchapter. The clearance does not confirm or place legal liability with the Division for the survey work or the conformance with these regulations and other applicable CNMI laws, rules, and regulations. A land survey plat sealed and signed by a CNMI licensed surveyor and submitted to the Division is not a registered document until it has been cleared by the Division.

(f) “CNMI” means the Commonwealth of the Northern Mariana Islands.

(g) “CNMI interest land” means land that is owned, leased, or under the administrative control of the CNMI, which includes easements and rights-of-way

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

designated for public use. Land in dispute or negotiation between the CNMI and other parties are treated as CNMI interest land for survey purposes until there is a final disposition on the land. This term includes public land.

(h)(1) “Commonwealth surveyor” means the chief representative in land survey matters and applications, who has the authority to grant clearance of survey plats.

(2) Minimum qualifications

(i) Graduate from an accredited college or university with a major in civil engineering or surveying or equivalent, plus five years of responsible surveying work of which three years are at the level of a surveyor III of the CNMI civil service or higher.

(ii) Must be a licensed professional land surveyor in the United States or in the Commonwealth.

(i) “Control, cadastral” means permanent stations used as reference points for land surveys.

(j) “Control, geodetic” means a system of horizontal and or vertical stations, which have been established and adjusted by geodetic method (see appendix VI).

(k) “Control, horizontal” means correlated position data in two dimensions usually established with greater precision and accuracy than for land survey. Ties to horizontal control stations are frequently used to accurately position beginning points for land surveys.

(l) “Control, vertical” means measurements of stations for the determination of elevations with respect to an imaginary level surface, usually mean sea level.

(m) “Corner” means a position which determines boundaries. This term is not synonymous with the term “monument” even though they usually coincide.

(n) “Corner, lost” means a lost position of a corner.

(o) “Corner, witness” means a corner established on the line of the survey to witness a corner position which cannot be occupied or where a lasting monument cannot be constructed.

(p) “Division” means the Division of Land Registration and Survey under the Department of Lands and Natural Resources, Commonwealth of the Northern Mariana Islands.

(q) “DLS check number” means a plat number preassigned by the Division for both public and private land surveys. Public land survey plats have a land unit designation, e.g., 061 C 00 and private land survey plats have a sequential number followed by the year of filing with the Division, e.g., “2035/94,” “2036/94.” For the Island of Rota, survey plats are numbered in a 3000 series although there are early plats with numbers in the 2000 series.

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

- (r) “E.A. number” means, for land survey purposes, a land unit designation based on an exchange agreement between the CNMI and a private party.
- (s) “Geodetic classification” means the classification as listed in the U.S. Federal Geographic Data Committee Geospatial Positioning Accuracy Standards (see appendix VI). These standards are based on the ability of the survey to duplicate established control values replacing the previous observation closures methodology for point classification. Classified points are verified as being consistent with all other points in the network not just those within its own survey.
- (t) “Legal description” means a description recognized by law, which locates land units by identifiable labels (such as lot, block, tract, or homestead number) in a defined system rather than solely by listing courses or describing adjoining units or referring to natural or artificial monuments.
- (u) “Lot” means a component of the Japanese system for identifying and surveying single land units. The original lot numbers from the Japanese era are often still used in the CNMI with modifications and with some exceptions.
- (v) “Mean high water mark” means a mathematical determination of the plane of mean height of tidal waters in a locality.
- (w) “Metes and bounds” means a method of describing land units by length and direction or reference to any other means except legal description such as lot, block, or tract.
- (x) “Monument” means an artificial or natural object, which marks a corner or boundary.
- (y) “Monument reference” means a non-boundary monument set to reference a corner, which is in a hazardous or insecure position.
- (z) “Ordinary high water mark” means positions on the bank or shore of non-tidal waters, which by physical characteristics demonstrate distinct change or changes from the bed of the body of water to the upland. (See 2 CMC § 1213(k).)
- (aa) “Parcel” means the result of subdividing a land unit into six or less land units.
- (bb) “Plat” means a map showing the location and boundaries of distinct land units.
- (cc) “Plat, consolidation” means a survey plat, which represents the combining of two or more previously surveyed and designated land units into a single unit with a new designation.

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

- (dd) “Plat of survey, plan of survey, sketch of survey, right-of-way” means titles and similar titles denoting drawings with appropriate annotation, which represent land surveys. For officially cleared and recorded surveys, “survey plat” or “plat of survey” are the preferred terms.
- (ee) “Plat, parcel split” means the division of a land unit into two land units.
- (ff) “Plat, parceling or parcel” see “parcel” under this section.
- (gg) “Plat, relocation” see “resurveyed” under this section.
- (hh) “Plat, retracement” see “resurveyed” under this section. Retracement plats have DLS check numbers of 5000 or greater followed by the year they were filed with the Division, e.g., 5002/94.
- (ii) “Plat, revision” means a plat which has been changed on its face to correct errors or oversight.
- (jj) “Plat, severance” means a survey plat which represents the separation of a portion of a realty unit from the whole, usually for the purpose of creating or acquiring a right-of-way.
- (kk) “Plat, subdivision” means the division of land unit into seven or more units.
- (ll) “Plat, survey of” means a term used as a title for plats which represent survey of single land units and which do not fall into a special category such as a retracement plat. The title “survey plat” by itself should not be used. For example, the title “Survey of Tract 22011” correctly describes the plat purpose without inserting the word “plat.”
- (mm) “Point of beginning” means the first point on the boundary of a described land unit. After passing through all the successive courses, the description indicates return to the “point of beginning.”
- (nn) “Point of commencement” means a survey starting point, which is not on the boundary of the described land unit and is tied to the point of beginning.
- (oo) “Practice of land surveying” means, pursuant to § 3211(f)(2)(A) of 4 CMC, div. 3, any service or work, the adequate performance of which involves the application of special knowledge of the principles of mathematics, the related physical and applied sciences and the relevant requirements of law for adequate evidence to the act of measuring and locating lines, angles, elevations, natural and man-made features in the air, on the surface of the earth, underground workings, and on the beds of bodies of water for the purpose of determining areas and volumes, for the monumenting of property boundaries and for the platting and layout of lands and subdivisions thereof, including the topography, alignment and grades of streets and for the preparation and perpetuation of

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

maps, record plats, field note records and property descriptions that represent these surveys.

(pp) “Reference point” means a defined position, which is specifically located relative to another defined position.

(qq) “Resurvey” means a retracement of the line of an earlier survey. Restoration of original conditions is the paramount objective. Barring gross errors or omissions, previous survey records are adhered to and recovered corners are held fixed. New bearings, distances and areas are usually reported and platted.

(rr) “Subdivision” see “plat, subdivision” under this section.

(ss) “Survey, as-built” means to obtain horizontal and vertical data for the location and dimension of existing improvements.

(tt) “Survey, boundary” means to establish or reestablish lines for or between political entities.

(uu) “Survey, cadastral” means to create or identify land units for ownership or administrative purposes.

(vv) “Survey, control” means to provide horizontal or vertical positions for the support of subsidiary surveys or mapping.

(ww) “Survey; geodetic” means to provide a high order of precision and accuracy incorporating mathematical parameters of the size and shape of the earth. Control surveys are often geodetically related.

(xx) “Survey, land” means to determine extent and specific outlines of units of land; includes cadastral survey.

(yy) “Survey reconnaissance” means to provide location and relational data in response to planning or administrative needs, usually of a lower order than a cadastral or land survey.

(zz) “Survey, special purpose” means to conduct a survey for a specific purpose other than other types of survey as defined herein.

(aaa) “Survey, subdivision” see “plat, subdivision” under this section.

(bbb) “Survey, topographic” means to determine vertical relation between horizontally positioned ground features and artificial objects.

(ccc) “Tie” means a survey connection from a point of known position to a point that is desired.

(ddd) “Tract” means a land unit designation related to the CNMI Homestead Program.

Modified, 1 CMC § 3806(d), (e), (f), (g).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

Commission Comment: The original paragraphs of subsection (h) were not designated. The Commission designated subsections (h)(1) and (h)(2).

In subsections (q), (kk) and (ll), the Commission moved punctuation inside of the closing quotation marks. The Commission inserted commas after the words “rules” in subsection (e), “leased” in subsection (g), and “tract” in subsection (t) pursuant to 1 CMC § 3806(g).

Part 100 - Land Surveyors

§ 85-40.2-101 Professional Land Surveyors

(a) Pursuant to § 3212 of 4 CMC, div. 3, in order to safeguard life, health, and property no person except those exempted shall practice land surveying in the Commonwealth unless the Board of Professional Licensing licenses such person.

(b) Surveys, which delineate land and property boundaries, units of ownership or possession, subdivision and resurveyed, in whole or in part must be conducted under the complete direction and control of a land surveyor licensed to practice in the CNMI.

Modified, 1 CMC § 3806(f).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

§ 85-40.2-105 CNMI Government Land Surveyors

(a) Pursuant to § 3213(b) of 4 CMC, div. 3, persons practicing land surveying solely as officers or employees of the Commonwealth during the terms of office or employment are exempted from the licensing requirements by the Board of Professional Licensing.

(b) CNMI government land surveyors can conduct or provide consultation for survey of government properties or to re-surveyed private land which are the subject of title determination related to CNMI or previous government action or decision or to perform any type of survey for administrative needs. Private land may only be surveyed to gather evidence in support of CNMI interest land or in conjunction with private land and adjoining CNMI interest land.

Modified, 1 CMC § 3806(f).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

Part 200 - Standards for the Practice of Land Surveying

§ 85-40.2-201 Procedure

- (a) The land surveyor must make a diligent search for pertinent recorded documents. Copies of applicable deeds, maps and title report or title opinion may be necessary. If the subject property is referenced to or described as an aliquot part of the public land survey, or a fraction thereof, relevant government plats, field notes, and special instruction should additionally be consulted when appropriate.
- (b) The land surveyor must thoroughly examine this information and the date it was acquired.
- (c) The land surveyor must diligently search for and identify monuments and other physical evidence which could affect the location of the subject property's boundaries. A reasonable attempt must be made to recover controlling monuments for reference thereto. The position of controlling monuments which have been obliterated should be recovered or reestablished using the best available evidence. Physical evidence of apparent use and possible rights in the subject property by others should be evaluated. Lines of possession and occupation must be located, described, and where practical, made an age determination.
- (d) The land surveyor must conduct field measurements necessary to adequately relate the position of all apparent evidence pertinent to the boundaries of the property. All findings resulting from the field investigation must be accurately and completely recorded and retained permanently.
- (e) The land surveyor must make computations to verify the correctness of the field data acquired and to confirm that measurement results are within acceptable tolerance limitations. Computations must be made to determine the relative position of all found evidence.
- (f) In the event of a material discrepancy or disagreement with the measurements or monument corner positions of another land surveyor, the land surveyor must make a reasonable attempt to contact the other land surveyor and attempt to resolve the disagreement.
- (g) The land surveyor must make an analysis, reach a final conclusion, and set monuments so as to represent the location consistent with the best evidence available of corner position and boundary lines. The land surveyor must advise the client of discrepancies, which raise doubts concerning the boundary lines of the subject property and should provide the client with a copy of the survey report.
- (h) The land surveyor shall prepare a scaled drawing of the results of survey for presentation to the client unless adequate existing information is available.

(i) The land surveyor must certify only those matters personally known to be absolutely true and must declare all other items only to the limit of the land surveyor's knowledge and belief.

(j) The land surveyor must prepare and cause to be recorded corner records and record of survey documents if a material discrepancy exists in angular and/or linear call as compared with new survey value as defined under the regulations in this subchapter.

Modified, 1 CMC § 3806(d).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

Commission Comment: The Commission inserted a comma after the word "conclusion" in subsection (g) pursuant to 1 CMC § 3806(g).

§ 85-40.2-205 Classification of Surveys

(a) Class A - Urban Surveys

Surveys of land lying inside a city or town; this includes, but is not limited to; surveys of urban business district properties and highly developed commercial properties.

(b) Class B - Suburban Surveys

Surveys of land lying outside urban areas; this land is used almost exclusively for single-family residential use or residential subdivision.

(c) Class C - Rural Surveys

Surveys of land such as farms and other underdeveloped land outside the suburban area, which may have a potential future development.

(d) Class D - Mountain and Marshland Surveys

Surveys of land that normally lies in remote areas with difficult terrain and which usually has limited potential for development.

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

§ 85-40.2-210 Measurement Specifications

Land surveyors must comply with the following measurements for the performance of land surveying in the CNMI.

(a) In order to apply the specifications to achieve the required accuracy the land survey must first classify the survey relative to the "class of survey" listed above.

(b) The U.S. survey foot (English system) was the adopted standard during the Naval Administration. The metric system was the authorized standard for linear and area

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

measurements during the T.T. Administration and it was carried forward and adopted for the CNMI (see appendix I). Angular measurements are expressed in degrees, minutes, and seconds in sexagesimal system, increments of 60.

(c) Appendix II is the Table and Conversion Factors for the Japanese Linear and Area Measurements. The original source of these tables is unknown, however, it has been used as a conversion guide for many years. The factors in appendix II are required to be used for record conversion calculations.

(d) Appendix III is the Table of Precision and Closure Standard. The table contains required accuracy for public and private land surveys and the required precision standard. Precision is the quality of the operation leading to the result and accuracy is the quality of the result of the survey. Precision is inherent in the fieldwork and the survey results. The survey plat must graphically show conformance with required accuracies. Angular and distance precision are equally important for maintaining an acceptable accuracy balance.

(e) Vertical control and topographic surveys may be reported in feet or meters. Vertical control surveys shall be based on a level loop from an established benchmark or between established benchmarks. The datum used shall be stated on the finished drawing. Assumed datums are permitted. At least one site benchmark shall be established near the survey and described on the finished drawing. Vertical control and topographic surveys are not required to be cleared by the Division but this exclusion does not relieve conformance with the standards of this section.

(f) Surveys conducted solely for vertical datum using advanced techniques such as GPS are not subject to the standard of this section except for minimum accuracy, monuments and finished drawing requirements.

(g) Horizontal positions shall be platted to 1/20th of the map or drawing scale. Accuracy standards for contour lines are required to be within ½ of the contour interval with 80% assurance and within a full contour interval with 100% assurance.

Modified, 1 CMC § 3806(f), (g).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

Commission Comment: In subsection (e), the Commission changed “requires” to “required” to correct a manifest error.

§ 85-40.2-215 Monuments

Geodetic control monuments, horizontal and vertical, are required to meet current construction and positioning standards of recognized U.S. government agencies such as the National Geodetic Survey of the U.S. Department of Commerce, the U.S. Army Corps of Engineers, or the Federal Highway Administration, (see appendix VI for standard).

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

(a) All monuments, whether set or found, must be described and specifically identified as set or found, whenever shown on maps or referred to in documents prepared by the land surveyor. Description of monuments must be sufficient in detail to readily facilitate future recovery and to enable positive identification, including map reference.

(b) Monuments are required to be magnetically detectable, not less than 4 inches in diameter, not less than 16 inches in length, and shall bear the land surveyor's license number.

(c) Monument construction, durability, setting condition and identification for private surveys must be acceptable to the Division (see appendix IV for illustration of standard monument). Non-geodetic control monuments are required to have minimum dimension of 4" by 6" by 16" (top, bottom and height) and be set in a concrete mix of four parts aggregate, three parts sand and one parts cement. An identification cap marked "CM" shall be imbedded in the monument top. In areas of thin soil or surface bedrock, alternative monument types are acceptable if pre-approved by the Commonwealth Surveyor.

(d) Monuments which are more than 30 meters distant from the adjacent monument of the same survey are required to be referenced to at least two points by bearing and distance unless only one nearby stable point exists. Reference monument construction standard is identical to those of corner monuments except that the inscription "RM" is required. Examples of acceptable reference points are corners of concrete foundations, stable fence posts, estimated centers of trees and rights-of-way markers. Bearing reference can be used such as a permanent radio antenna or points on other tall structures. Other possibilities are broken glass placed at the bottom of the monument hole and ties to chiseled marks on a rock outcrop.

(e) On-line monuments will be established when the distance between adjacent corners in the same survey exceeds 50 meters.

(f) The willful or malicious destruction or impairment of an establish survey monument, whether placed by a licensed or government surveyor, is a misdemeanor punishable by a fine of not more than one thousand dollars, or by imprisonment of not more than ninety days, or both.

Modified, 1 CMC § 3806(e), (f).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

§ 85-40.2-220 Control Ties

(a) One corner of each land survey (platted unit) is required to be tied to an established control point of first through third order, class 1, or at least meeting class A standards (appendix III). Control points shall be outside of the exterior boundaries of the concurrent survey with the tie distance no less than 25 meters. Bearing establishment for

concurrent land survey shall be determined by the direction between two control points, which are at least 50 meters apart.

(b) New control points, which are established for the purpose of controlling a concurrent land survey, are not required to be pre-approved by the Commonwealth Surveyor for location and appropriate monumentation, but a copy of the coordinates for any such new control points must be provided to the Commonwealth Surveyor. The Commonwealth Surveyor should maintain a permanent file of the coordinates and detailed physical characteristics of any existing and new control points in the geodetic network.

Modified, 1 CMC § 3806(f).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

§ 85-40.2-225 Re-survey and Re-establishment of Lost Corners

(a)(1) The mathematics and geometry of previously cleared surveys are not conclusive evidence for reestablishment of boundaries and lost corners. Proportionate (mathematical) measurement methods for re-establishing a lost corner will be used only after the responsible surveyor has determined that all alternative sources of evidence have been exhausted. The order of importance of evidence for re-establishing corners and boundaries is:

- (i) Natural monuments and boundaries.
 - (ii) Original monuments.
 - (iii) Possession, which can be traced to the time of the original survey.
 - (iv) Measurement of the original survey.
 - (v) Area.
- (2) Advancement in measurement technology resulting in improved bearing, distance and coordinate accuracy for contemporary survey strengthens order (measurement of the original survey) but does not change the order of importance.

(b) Testimony of individuals, while offering potential valuable evidence, must be weighed under the following considerations.

- (1) The individual is qualified, i.e., has first hand knowledge of conditions in the vicinity of the survey since its completion.
- (2) Accurate and unbiased accounting by an individual of specific locations.
- (3) Final disposition of landowner rights rest with the Commonwealth Judiciary.

(c) When proportionate measurements become necessary for re-establishment, any professional accepted method may be used. A method, which best protects the landowner's rights as well as those on the adjoining property takes precedence. Sources of proportionate methods include text and reference books, generally used software adjustment program, and government documents such as the U.S. Bureau of Land Management Manual of Surveying Instructions.

(d) Licensed or government surveyors may enter on public or private land for the purpose of taking measurements, examining evidence of previous surveys, and implementing other survey work coinciding with the completion of a field survey, without prior permission of affected land owners, lessees, adjoining, or owners or lessees of land over which transit is necessary for access to the subject surveyed land(s). If such land owners, lessees or adjoining of transited land object in writing to the survey party's presence or activities, a court order must be obtained which permits the necessary entry for the performance and conduct of the survey. Such written objection should be forwarded to the Division in the case of public land being surveyed or to the responsible licensed surveyor for private survey work.

Modified, 1 CMC § 3806(f), (g).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

Commission Comment: The original paragraphs of subsection (a) were not designated. The Commission designated subsections (a)(1) and (a)(2).

In subsection (a)(2), the Commission changed "chance" to "change" to correct a manifest error.

§ 85-40.2-230 Plat Standards and Field Notes

(a) Field notes and cleared plats are permanent records. Original plat and field books done by a licensed or government surveyor shall be retained by the licensed surveyor or the Division. Certified copies of private survey work, which have been certified by the Division, will be permanently retained at the Division office through the means of microfiche or CD-ROM. Field notes collected by electronic means have the same retention requirements.

(b) Plats and field notes are sources of numeric, graphic, and descriptive data, which strongly support the establishment or re-establishment of boundaries or corners. They do not replace or override on the ground evidence such as natural authentic verified monuments.

(c) A plat, map, or sketch of a land survey is acceptable in terms of this section when it is certified by the responsible surveyor as meeting the requirements of the plat drafting standard (see appendix V) and has been cleared by the Division. The Commonwealth Surveyor maintains and provides when requested a set of standardized plat symbols. These symbols reduce the need for legends and symbols on the plat face.

(d) Revisions or corrections to a survey plat are made by changing the plat on its face to correct errors or oversights. Reasons for and dates of revisions are noted in the revisions section of the title block on the plat.

(e) The Division shall not make any changes to plats submitted for clearance by licensed surveyor. Plats with permanent or noticeable errors will be returned to the submitting party along with a letter outlining the discrepancies. This requirement does

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

not imply that the Division will routinely or thoroughly examine private land survey plats for errors or discrepancies except for the clearance procedures.

Modified, 1 CMC § 3806(f).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

§ 85-40.2-235 Zoning Law and Regulations

(a) The CNMI licensed surveyors will comply with any new zoning law and its regulations, if passed in the future. These applications include, but are not limited to, drafting requirements for tentative and final plans and showing of specific items such as utilities, topography, and drainage. Cognizance of lot width, area, and setback requirements is of particular importance.

(b) The Commonwealth Surveyor is required to review tentative and final plans submitted by the CNMI Zoning Office and respond within fourteen days with an endorsement or statement outlining discrepancies. The elements to be reviewed include lot and other numbering systems, bearings, distances, control ties, accuracy, locations and dimensions of easements and right-of-way, topography, lot dimension and areas, monument location and adequacy, curve data and any other significant data, information, or formats which the CNMI recognizes needs attention.

Modified, 1 CMC § 3806(e), (f).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

Part 300 - Clearance and Recording of Plats and Surveys

§ 85-40.2-301 Seal of Registered Land Surveyor Required

Pursuant to part of the paragraph of § 3219(e) of 4 CMC, div. 3, no maps or surveys shall be filed with any official of the Commonwealth unless stamped with the seal of a registered land surveyor.

Modified, 1 CMC § 3806(f).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

Commission Comment: With the exception of § 85-40.2-315, the Commission created the section titles in part 300.

§ 85-40.2-305 Clearance and Recording Required

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

All survey plans or plats signed and sealed by a CNMI licensed surveyor must be granted a clearance by the CNMI Commonwealth Surveyor from the Division and must be filed and recorded at the Commonwealth Recorder's Office, Commonwealth Superior Court.

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

§ 85-40.2-310 Government Surveyors

All surveys performed by CNMI government surveyors require the signature and title on the plat of the Chief of Party who was assigned to the survey and must be cleared by the Commonwealth Surveyor who must indicate his signature and title in the designated space on the plat.

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

§ 85-40.2-315 Clearance of Plat

(a)(1) The purpose of clearance of a survey plat or plan is to determine and verify that the lot, tract, parcel or other land units, numbers and plat names assigned by the Division are correct and that there is conformance with the plat standards of the regulations in this subchapter (see appendix V). The following is the procedure for pre-clearance:

(i) The licensed surveyor submits in writing to the Division stating the purpose of the proposed or pending survey, its location and estimated starting date along with a rough sketch showing location and design.

(ii) The Commonwealth Surveyor responds within five working days before the estimated starting date with an assignment of lot, tract, parcel, or other unit designation and specific name to be used on the plat.

(2) This procedure may change depending on the survey work and at the consent of both the licensed surveyor and the CNMI Commonwealth Surveyor.

(b) Clearance of a survey plat is not a warranty or other statement of accuracy of the private surveyor or map and places no liability with the CNMI government.

(c) The Division is required to process survey plats submitted for clearance within seven working days of their receipt. If a plat is rejected, the submitting party must be notified and informed of the reason(s) for rejecting within ten days of its receipt.

(d) The Commonwealth Surveyor cannot clear any parcel or subdivision survey plats, unless every lot or other land unit of the survey abuts an existing or planned roadway right-of-way having a minimum width of twenty feet.

(e) The survey plat or plan is not a legal survey, whether recorded or not, until it has been cleared by the Division.

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

(f) Once a survey plat is recommended for clearance, the Director of the Division or other delegated official approves the clearance by signing the plat. The plat is then authorized for recording at the Commonwealth Recorder's Office.

(g) Survey plats, which have been suspended by a CNMI court, will be retained in the CNMI Land Registration and Survey Office. The head of the office is responsible for clearly marking the plat "SUSPENDED," having it notarized and providing a copy to the CNMI Recorder's Office.

Modified, 1 CMC § 3806(d), (e), (f), (g).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

Commission Comment: The original paragraphs of subsection (a) were not designated. The Commission designated subsections (a)(1) and (a)(2).

In subsection (e), the Commission moved the comma after "suspended" inside of the closing quotation mark. The Commission inserted a comma after the word "parcel" in subsection (a)(1)(ii) pursuant to 1 CMC § 3806(g).

§ 85-40.2-320 Purpose of Clearance

Clearance indicates that the field and office work of the survey was performed in accordance with the standards for the practice of land surveying as required under the regulations in this subchapter.

Modified, 1 CMC § 3806(d).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

Part 400 - Miscellaneous Provisions

§ 85-40.2-401 Validity of Regulations

If any provision of the regulations in this subchapter shall be held invalid by a court of competent jurisdiction, the validity of the remainder of the regulations shall not be affected thereby.

Modified, 1 CMC § 3806(d).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

**Appendix I
Measures of Length and Area**

Measures of Length

Metric Denominations and Value		Equivalent in English System
Kilometers	1,000 meters	0.67137 mile, or 3,280 ft. and 10 in.
Hectometer	100 meters	328.08 ft.
Dekameter	10 meters	32.808 ft. or 393.7 inches
Meter	1 meter	3.28 ft. or 39.7 inches
Decimeter	1/10 of a meter	3.937 inches
Centimeter	1/100 of a meter	0.3937 inches
Millimeter	1/1000 of a meter	0.0394 inches

Measures of Area

Metric Denominations and Value		Equivalent in English System
Hectare	10,000 square meters	107.638.67 sq. ft. or 2.471 acres
Are	100 square meters	1,076 sq. ft. or 119.600 square yards
Centare	1 square meter	10.76 sq. ft., 1.190 sq. yd. or 1,550 sq. in.

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

**Appendix II
Tables and Conversion Factors for Japanese
Linear and Area Measurements**

Linear Measurements

Japanese		Meters	Feet	Inch
	1 Sun	0.03030303	0.099419184	1.193
10 Sun	1 Shaku	0.30303028	0.99419184	11.9303
6 Shaku	1 Ken	1.81818167	5.965151	
60 Ken	1 Cho	109.0909	357.90906	
36 Cho	1 Ri	3927.2724	12884.7262	

Linear measurements are based on 1 Cho = 109.0909 meters

Area Measurements

Japanese		Sq. Meters	Sq. Feet	Acre
	1 Shaku	0.033057783	0.355829595	
10 Shaku	1 Go	0.33057783	3.55829595	
10 Go	1 Bu (Tsubu)	3.3057783	35.5829595	
30 Bu	1 Se	99.177335	1067.488785	0.02451
10 Se	1 Tan	991.7335	10674.88785	0.2451
10 Tan	1 Cho	9917.335	106748.8785	2.451
36 Cho	1 Ri	357024.06	3842959.626	

Area measurements are based on 1 Tan = 991.7335 square meters

Note: All factors containing more than four decimal places are extrapolations empirically arrived at so as to provide a symmetrical quality from one end of each table to the other. 43,560 sq. ft. = 1 Acre or 4,047 sq. m.

Modified, 1 CMC § 3806(e), (f).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

**Appendix III
Precision and Closure Standards**

Survey Class	Direct Electronic ⁺ Readout	Number of Observations	of Maximum Spread ⁺ Mean	From	Angle Closure N=No. of Station	Linear Closure ⁺⁺ of
(Electronic Readout)						
A	10"	2 Direct/Reverse	10"		15" \ N	1:10000
B	20"	1 Direct/Reverse	20"		20" \ N	1:7500
C	2'	1 Direct/Reverse	30"		30" \ N	1:5000

**EDM Minimum Distance Standards
Steel Taping Required for Lengths Below the Minimums**

	EDM Accuracy Standard	Minimum Distance (Meters)	Linear Closure
A	5mm/10mm ⁺⁺⁺	54/102	1:10000
B	5mm/10mm	40/76	1:7500
C	5mm/10mm	27/51	1:5000

⁺ Comparable Standards are Micrometer and Scale Reading Theodolites, and Vernier Transits.

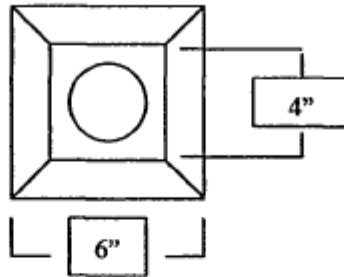
⁺⁺ Linear Closure are Computed after Angular Balance.

⁺⁺⁺ PPM Figures as Stated by Manufacturers, E.G. (+ or .5mm+ or - 5ppm), are not significant to Land Surveying Closure and Standards.

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

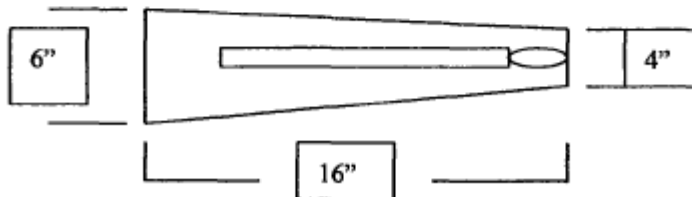
**Appendix IV
Construction and Dimensions for Standard CNMI Non-geodetic Control and
Reference Monuments**

TOP VIEW



**PLASTIC CAP MARKED "GOV'T CNMI" SET
ATOP REBAR AND FLUSH WITH MONUMENT TOP**

SIDE VIEW



History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

**Appendix V
Plat Drafting Standard**

Whenever a surveyor conducts a land survey of properties, a plat showing the result shall be prepared and a copy furnished to the client. The plat shall conform to the following requirements and shall include the following information.

A. Information Block:

1. Plat name and number(s) are shown in the title block (approximately 6 ½ x 2 ½ inch space) in the lower right side adjacent to the plat borders. Use maximum size letters, which fit the block. DLS Check No. should be placed below the plat name and number. Approximate location name should be placed in the lower left corner in small letters in this same block, e.g., “Chalan Rueda.” The name of the island should be placed in the lower right corner in small letters in this same block, e.g. “Saipan MP.”
2. There should be at least seven (7) blank lines approximately ½ inch high across half of the information block width for initials and dates as needed. For government survey plats, acknowledgment by the plat draftsman and Public Land Office officials are required. The initials are for identification purposes only to ensure that Public Land Office is informed of the existence of the plat. This requirement does not sanction clearance of the survey or a plat. The right hand side of this block states the plat scale, indicates sheet number for multiple sheet plats (show number of each sheet in conjunction with total sheets). The remainder of space is for optional entries.
3. The individual or company name of the responsible surveyor or the name and title of the Division head with address and phone number should also be included.
4. For private survey plats, the certification states the following: “I (name of land surveyor), hereby certify that this map was prepared by me or under my direct supervision and that it is based upon a field survey made (insert date), in conformance with all applicable laws and regulations.” The signature, date and seal of the land surveyor shall be affixed directly under the certification statement. The same certification is used for government or public land survey work and is signed and dated by the Commonwealth Surveyor or by the government surveyor who was officially assigned to conduct the platted survey. A seal is not required for government survey work and the stamping or sealing of this survey is prohibited.
5. Clearance of a land survey plats is under the authority of the Commonwealth Surveyor or his designee. Once clearance of a survey plat is recommended by the Commonwealth Surveyor, final approval is granted by the Director of Land Registration and Survey, and the plat may then be filed with the Commonwealth Recorder’s Office.

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

6. Survey plats notarized by a notary public attesting to the signature and date of filing is not entered in the information block and do not carry or imply any clearance of the plat.

B. Drawing Block

1. Each plat sheet is 24 inches by 36 inches, matte surface polyester film, 7 to 10 mm thick with a 1 inch margin on three sides and a 2 inch margin on the left side. There should be at least three (3) grid tic marks with coordinate values shown along the bottom border line and at, least three (3) grid tic marks with coordinate values shown along the left border. Internal crosses should be drawn at each projected intersection of the tic marks.

2. The survey location map should be in the upper right hand corner designating the survey site and showing the appropriate grid coordinate system.

3. On the space between the information block and the location map, state the survey's primary purpose and the basis for bearing and coordinate data. Example: (a) This survey is for the purpose of delineating a proposed Right-of-Way through Lots 1763-4 and 1763-5, (b) Survey established by connection to triangulation stations GAR and PEAK as shown (omit statement such as "all distance are in meters, U.O.N."). References are for the sole purpose of citing previous surveys, which have a relationship to the platted survey. Omit legend symbols, which are standard as shown on the list maintained by the Commonwealth Surveyor.

4. Avoid extraneous labeling and notes i.e., the graphic scale is labeled "meters" and not "graphic scale."

5. Label match lines for surveys shown on multiple plat sheets.

6. There should be a North arrow, graphic scale and statement on all sheets.

7. Lengths are shown to the nearest centimeter and bearings to the nearest 10 seconds. Precise figures are optionally permitted but should be consistent throughout the platted unit. Areas of each surveyed unit are shown to the nearest square meter. Precise area statement is optionally permitted.

8. Location, width and purpose of easements should be shown and the data can be stated in the notes.

9. Curve data, i.e., central angle, radius, length of curve, chord length and chord bearing can be shown on a table placed on the plat face and keyed by capital letter to the actual location on the plat.

Modified, 1 CMC § 3806(f), (g).

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).

Commission Comment: In subsections A.1., B.3., and B.4., the Commission moved periods inside of the closing quotation marks. In subsection A.2., the Commission corrected the spelling of “acknowledgment.”

Appendix VI
The Federal Geographic Data Committee Geospatial Positioning Accuracy Standard

The following excerpts and comments are from the Federal Geographic Data Committee (FGDC) and Geospatial Accuracy Standard (draft 2/97). The FGDC is composed of fourteen (14) major U.S. government departments and agencies, which have a vested interest in the development and maintenance of high quality control points and positional accuracy.

Standard

The Geospatial Positioning Accuracy Standards provide a common methodology for reporting the horizontal and vertical accuracy of clearly defined features where the location is represented by a single point coordinate. Examples are survey monuments, prominent landmarks such as church spires, standpipes, radio towers, tall chimneys, mountain peaks, and targeted photogrammetric control points. Compatibility of spatial data is increased by providing users with consistency for comparing positional accuracy derived by different methods for the same points.

All spatial applications, i.e., geodetic networks, cartographic, engineering, construction, facilities management and hydrographic positioning, develop standard based on a horizontal component with the radius of a circle of uncertainty, such that the true (theoretical) location of a point falls within the circle 95% of the time. Standards for the vertical component are based on a linear uncertainty value, such that the true (theoretical) location of the point falls within + or - of the linear uncertainty value 94% of the time.

The method used to determine accuracy is defined. Examples are statistical testing, least squares adjustment, results, comparison with value of higher accuracy, repeat measurements estimation and other methods.

Horizontal coordinate values should be in the North American Datum of 1983 (NAD 83). Vertical coordinate values should be in the North American Vertical Datum, (NAVD 88 actually means the sea level for the CNMI). If coordinate values are not from the National coordinate system, then identify the local coordinate system (Mariana Islands District Coordinate System of 1966) and state its relationship to the National coordinate system.

Geodetic Networks

Part 2 of the Geospatial Positioning Accuracy Standards states accuracy reporting for geodetic surveys. Geodetic control surveys establish a basic network from which supplemental surveying and mapping work emanates. They are comprised of a framework of redundant, interconnected, permanent monument control points which are singular elements of a defined reference system.

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

Geodetic surveys are conducted with much greater quality assurance and rigorous accuracy requirements than those of control surveys for generating engineering, construction, topographic mapping, or cadastral surveys.

The U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Geodetic Survey maintains accuracy standards for geodetic networks for the Federal Geodetic Control Subcommittee, of the Federal Geographic Data Committee.

Accuracy Classification

Horizontal, Ellipsoid Height, Orthometric Height

Classification	95% Confidence (< or =)
1 millimeter	0.001 meters
2 millimeter	0.002 meters
5 millimeter	0.005 meters
1 centimeter	0.010 meters
2 centimeter	0.020 meters
5 centimeter	0.050 meters
1 decimeter	0.100 meters
2 decimeter	0.200 meters
5 decimeter	0.500 meters
1 meter	1.000 meters
2 meter	2.000 meters
5 meter	5.000 meters

Classification Procedures

1. The survey measurements, field records, sketches and other documentation are examined to verify compliance with the specifications for the intended accuracy of the survey.

2. Results of minimally constrained least squares adjustment of the survey measurements are examined to ensure correct weighting of the observation and be free of blunders.
3. Local and network accuracy measures computed by random error propagation determine the provisional accuracy. In contrast to a constrained adjustment where coordinates are obtained by holding fixed the datum values of the existing network control, accuracy measures are computed by weighing datum values in accordance with the network accuracy of the existing network control.
4. The survey accuracy is checked by comparing minimally constrained adjustment results against established control. The result must meet a 95% confidence level. This comparison takes into account the network accuracy of the existing control as well as systematic effects such as crustal motion or datum distortion. If the comparison fails, then both the survey and network measurements must be scrutinized to determine the source of the problem.

Local and Network Accuracy

The local accuracy of a control point is a value expressed in centimeters that represents the uncertainty in the coordinates of the control point relative to the coordinates of other directly connected, adjacent control points at the 95% confidence level. The reported local accuracy is an approximate average of the individual local accuracy values between this control point and other observed control points used to establish the coordinates of the control point.

The network accuracy of a control point is a value expressed in centimeters that represents the uncertainty in the coordinates of the control point with respect to the geodetic datum of the 95% confidence level.

Local accuracy can be a valuable tool for checking relatively between nearby control points. For example, closure determination between two control points in a specific project area can be quite useful for the surveyor. Network accuracy will be more useful for the application such as the development of geographic or land information system which often rely on positional tolerance associated with a set of coordinates. Network accuracy measures how well coordinates approach an ideal, error free datum.

Geodetic control on the CNMI, both previously and newly established, is required to be reported in local accuracy and network accuracy for each component (horizontal control, ellipsoid height and orthometric height).

Geodetic Control Monuments

With the latest improved instrumentation and technology such as the Global Positioning System (GPS) and the efficient capability for processing data through the use of speed

TITLE 85: DEPARTMENT OF LANDS AND NATURAL RESOURCES

computers, such as the least squares adjustment the standards previously used by federal agencies to establish geodetic monuments in the CNMI have changed.

The classic geodetic monuments establishment, new or appropriate existing standards published by the National Geodetic Survey of the Federal Highway Administration, are adopted by the CNMI government. The Commonwealth Surveyor will evaluate which standard will be used in consultation with other CNMI departments and agencies.

Three important national geodetic survey publications, which address control monument establishment and maintenance are:

1. Standards and Specifications for Geodetic Control Networks
2. Geometric Geodetic Accuracy Standards and Specifications for using GPS Relative Positioning Techniques
3. Specification for Horizontal Control Marks 2

Modified, 1 CMC § 3806(f).

History: Adopted 24 Com. Reg. 19046 (Mar. 19, 2002) (superseding all previous land surveying regulations); Proposed 24 Com. Reg. 18890 (Jan. 29, 2002).