

**FIRST ENGROSSMENT**

**ENGROSSED SENATE BILL NO. 2260**

Introduced by

Senators Burckhard, Barta, Roers

Representatives Berg, Satrom

1 A BILL for an Act to amend and reenact sections 47-20.2-01, 47-20.2-02, 47-20.2-03,  
2 47-20.2-05, and 47-20.2-06 of the North Dakota Century Code, relating to the North Dakota  
3 coordinate system zones.

4 **BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:**

5 **SECTION 1. AMENDMENT.** Section 47-20.2-01 of the North Dakota Century Code is  
6 amended and reenacted as follows:

7 **47-20.2-01. North Dakota coordinate system zones defined.**

8 1. The systems of plane coordinates which have been established by the national  
9 oceanic and atmospheric administration national ocean survey/national geodetic  
10 survey or its successors for defining and stating the geographic positions or locations  
11 of points on the surface of the earth within this state are, ~~as of July 1, 1989,~~ to be  
12 known and designated as the North Dakota coordinate system of 1927 ~~and~~ the North  
13 Dakota coordinate system of 1983, the North Dakota statewide coordinate system of  
14 2022, and the North Dakota low-distortion coordinate system of 2022. For the purpose  
15 of the use of ~~these~~ the North Dakota coordinate systems of 1927 and 1983, the state is  
16 divided into a north zone and a south zone:

- 17 4. a. The area now included in the following counties constitutes the north zone:  
18 Divide, Williams, McKenzie, Mountrail, Burke, Renville, Ward, McLean, Bottineau,  
19 McHenry, Sheridan, Pierce, Rolette, Towner, Benson, Wells, Foster, Eddy,  
20 Ramsey, Cavalier, Pembina, Walsh, Nelson, Grand Forks, Griggs, Steele, Traill.  
21 2. b. The area now included in the following counties constitutes the south zone:  
22 Dunn, Golden Valley, Slope, Bowman, Adams, Hettinger, Stark, Mercer, Oliver,

1 Morton, Grant, Sioux, Emmons, Burleigh, Kidder, Logan, McIntosh, Stutsman,  
2 Barnes, LaMoure, Dickey, Cass, Ransom, Sargent, Richland.

3 2. For the purpose of the use of the North Dakota statewide coordinate system of 2022,  
4 the state is covered by one, statewide zone.

5 3. For the purpose of the use of the North Dakota low-distortion coordinate system of  
6 2022, the state has been divided into sixteen, low-distortion projection zones:

7 a. Beulah zone, which includes Dunn, McLean, and Mercer counties.

8 b. Bismarck zone, which includes Burleigh, Kidder, Morton, and Oliver counties.

9 c. Bottineau zone, which includes Bottineau, Cavalier, Rolette, and Towner  
10 counties.

11 d. Bowman zone, which includes Adams, Bowman, Hettinger, and Slope counties.

12 e. Cannon Ball zone, which includes Grant and Sioux counties.

13 f. Carrington zone, which includes Eddy, Foster, Griggs, Sheridan, and Wells  
14 counties.

15 g. Devils Lake zone, which includes Benson, McHenry, Nelson, Pierce, and Ramsey  
16 counties.

17 h. Dickinson zone, which includes Billings, Golden Valley, and Stark counties.

18 i. Fargo zone, which includes Cass, Ransom, Richland, and Sargent counties.

19 j. Grand Forks zone, which includes Grand Forks, Pembina, Steele, Traill, and  
20 Walsh counties.

21 k. Jamestown zone, which includes Barnes and Stutsman counties.

22 l. Linton zone, which includes Emmons, Logan, and McIntosh counties.

23 m. Minot zone, which includes Renville and Ward counties.

24 n. New Town zone, which includes Burke and Mountrail counties.

25 o. Oakes zone, which includes Dickey and LaMoure counties.

26 p. Williston zone, which includes Divide, McKenzie, and Williams counties.

27 **SECTION 2. AMENDMENT.** Section 47-20.2-02 of the North Dakota Century Code is  
28 amended and reenacted as follows:

29 **47-20.2-02. North Dakota coordinate system names defined.**

30 1. As established for use in the north zone, the North Dakota coordinate system of 1927  
31 or the North Dakota coordinate system of 1983 is named, and in any land description

1 in which it is used it must be designated the North Dakota coordinate system of 1927,  
2 north zone, or the North Dakota coordinate system of 1983, north zone. As established  
3 for use in the south zone, the North Dakota coordinate system of 1927 or the North  
4 Dakota coordinate system of 1983 is named, and in any land description in which it is  
5 used it must be designated the North Dakota coordinate system of 1927, south zone,  
6 or the North Dakota coordinate system of 1983, south zone.

7 2. As established for use in the statewide zone, the North Dakota statewide coordinate  
8 system of 2022 is named, and in any land description in which it is used, it must be  
9 designated the North Dakota statewide coordinate system of 2022.

10 3. As established for use in the:

11 a. Beulah zone, the North Dakota coordinate system of 2022 is named, and in any  
12 land description in which it is used, it must be designated the Beulah zone of the  
13 North Dakota coordinate system of 2022;

14 b. Bottineau zone, the North Dakota coordinate system of 2022 is named, and in  
15 any land description in which it is used, it must be designated the Bottineau zone  
16 of the North Dakota coordinate system of 2022;

17 c. Bismarck zone, the North Dakota coordinate system of 2022 is named, and in  
18 any land description in which it is used, it must be designated the Bismarck zone  
19 of the North Dakota coordinate system of 2022;

20 d. Bowman zone, the North Dakota coordinate system of 2022 is named, and in any  
21 land description in which it is used, it must be designated the Bowman zone of  
22 the North Dakota coordinate system of 2022;

23 e. Cannon Ball zone, the North Dakota coordinate system of 2022 is named, and in  
24 any land description in which it is used, it must be designated the Cannon Ball  
25 zone of the North Dakota coordinate system of 2022;

26 f. Carrington zone, the North Dakota coordinate system of 2022 is named, and in  
27 any land description in which it is used it must be designated the Carrington zone  
28 of the North Dakota coordinate system of 2022;

29 g. Devils Lake zone, the North Dakota coordinate system of 2022 is named, and in  
30 any land description in which it is used, it must be designated the Devils Lake  
31 zone of the North Dakota coordinate system of 2022;

- 1           h. Dickinson zone, the North Dakota coordinate system of 2022 is named, and in  
2           any land description in which it is used, it must be designated the Dickinson zone  
3           of the North Dakota coordinate system of 2022;
- 4           i. Fargo zone, the North Dakota coordinate system of 2022 is named, and in any  
5           land description in which it is used, it must be designated the Fargo zone of the  
6           North Dakota coordinate system of 2022;
- 7           j. Grand Forks zone, the North Dakota coordinate system of 2022 is named, and in  
8           any land description in which it is used, it must be designated the Grand Forks  
9           zone of the North Dakota coordinate system of 2022;
- 10          k. Jamestown zone, the North Dakota coordinate system of 2022 is named, and in  
11          any land description in which it is used, it must be designated the Jamestown  
12          zone of the North Dakota coordinate system of 2022;
- 13          l. Linton zone, the North Dakota coordinate system of 2022 is named, and in any  
14          land description in which it is used, it must be designated the Linton zone of the  
15          North Dakota coordinate system of 2022;
- 16          m. Minot zone, the North Dakota coordinate system of 2022 is named, and in any  
17          land description in which it is used, it must be designated the Minot zone of the  
18          North Dakota coordinate system of 2022;
- 19          n. New Town zone, the North Dakota coordinate system of 2022 is named, and in  
20          any land description in which it is used, it must be designated the New Town zone  
21          of the North Dakota coordinate system of 2022;
- 22          o. Oakes zone, the North Dakota coordinate system of 2022 is named, and in any  
23          land description in which it is used, it must be designated the Oakes zone of the  
24          North Dakota coordinate system of 2022; and
- 25          p. Williston zone, the North Dakota coordinate system of 2022 is named, and in any  
26          land description in which it is used, it must be designated the Williston zone of  
27          the North Dakota coordinate system of 2022.

28           **SECTION 3. AMENDMENT.** Section 47-20.2-03 of the North Dakota Century Code is  
29 amended and reenacted as follows:

1           **47-20.2-03. North Dakota coordinate system defined.**

2           The plane coordinate values for a point on the earth's surface, used in expressing the  
3 geographic position or location of such point in the appropriate zone of this system, shall consist  
4 of two distances, expressed in United States survey feet [meters] and decimals of a foot [meter]  
5 when using the North Dakota coordinate system of 1927. One of these distances, to be known  
6 as the X-coordinate, shall give the position in an east-west direction; the other, to be known as  
7 the Y-coordinate, shall give the position in a north-south direction. These coordinates shall be  
8 made to depend upon and conform to plane rectangular coordinate values for the monumented  
9 points of the North American horizontal geodetic control network as published by the national  
10 ocean survey/national geodetic survey, or its successors, and the plane coordinates which have  
11 been computed on the systems defined in this chapter. Any such station may be used for  
12 establishing a survey connection to either North Dakota coordinate system. For the purposes of  
13 converting coordinates of the North Dakota coordinate ~~systems~~systems of 1983 and 2022 from  
14 meters to feet, the international survey foot must be used. The conversion factor is: one foot  
15 equals 0.3048 meter exactly.

16           **SECTION 4. AMENDMENT.** Section 47-20.2-05 of the North Dakota Century Code is  
17 amended and reenacted as follows:

18           **47-20.2-05. North Dakota coordinate system origins defined.**

- 19           1. For the purposes of more precisely defining the North Dakota coordinate system of  
20 1927, the following definitions by the United States coast and geodetic survey are  
21 adopted:
- 22           a. The North Dakota coordinate system of 1927, north zone, is a Lambert conformal  
23 conic projection of the Clarke spheroid of 1866, having standard parallels at north  
24 latitudes, forty-seven degrees twenty-six minutes and forty-eight degrees  
25 forty-four minutes along which parallels the scale shall be exact. The origin of  
26 coordinates is at the intersection of the meridian one hundred degrees thirty  
27 minutes west of Greenwich and the parallel forty-seven degrees zero minutes  
28 north latitude. This origin is given the coordinates:  $x = 2,000,000$  feet [609.6  
29 kilometers], and  $y = 0$  feet [0 kilometers].
- 30           b. The North Dakota coordinate system of 1927, south zone, is a Lambert  
31 conformal conic projection of the Clarke spheroid of 1866, having standard

1                   parallels at north latitudes forty-six degrees eleven minutes and forty-seven  
2                   degrees twenty-nine minutes along which parallels the scale shall be exact. The  
3                   origin of coordinates is at the intersection of the meridian one hundred degrees  
4                   thirty minutes west of Greenwich and the parallel forty-five degrees forty minutes  
5                   north latitude. This origin is given the coordinates:  $x = 2,000,000$  feet [609.6  
6                   kilometers], and  $y = 0$  feet [0 kilometers].

7           2. For the purposes of more precisely defining the North Dakota coordinate system of  
8           1983, the following definition by the national ocean survey/national geodetic survey is  
9           adopted:

10          a. The North Dakota coordinate system of 1983, north zone, is a Lambert conformal  
11          conic projection of the North American datum of 1983, having standard parallels  
12          at north latitude of forty-seven degrees twenty-six minutes and forty-eight  
13          degrees forty-four minutes along which parallels the scale shall be exact. The  
14          origin of coordinates is at the intersection of the meridian one hundred degrees  
15          thirty minutes west of Greenwich and the parallel forty-seven degrees zero  
16          minutes north latitude. This origin is given the coordinates:  $x = 600,000.0000$   
17          meters, and  $y = 00.0000$  meters.

18          b. The North Dakota coordinate system of 1983, south zone, is a Lambert  
19          conformal conic projection of the North American datum of 1983, having standard  
20          parallels at north latitude of forty-six degrees eleven minutes and forty-seven  
21          degrees twenty-nine minutes along which parallels the scale shall be exact. The  
22          origin of coordinates is at the intersection of the meridian one hundred degrees  
23          thirty minutes west of Greenwich and the parallel forty-five degrees forty minutes  
24          north latitude. This origin is given the coordinates:  $x = 600,000.0000$  meters, and  
25           $y = 00.0000$  meters.

26          3. For the purposes of more precisely defining the statewide zone of the North Dakota  
27          coordinate system of 2022, the definition by the national ocean survey or national  
28          geodetic survey is the North Dakota coordinate system of 2022, statewide zone, a  
29          Lambert conformal conic projection of the North American Terrestrial Reference Frame  
30          of 2022. The origin of coordinates is at the intersection of the meridian one hundred  
31          degrees fifteen minutes west of Greenwich and the parallel forty-seven degrees thirty

1 minutes north latitude. This origin is given the coordinates: x = 838,200.0000 meters,  
2 and y = 342,900.0000 meters.

3 4. For the purposes of more precisely defining the low-distortion projections as described  
4 under subsection 3 of section 47-20.2-01, the following definition by the national ocean  
5 survey or national geodetic survey is adopted:

6 a. The North Dakota coordinate system of 2022, Beulah zone, is a Lambert  
7 conformal conic projection of the North American Terrestrial Reference Frame of  
8 2022, the origin of coordinates is at the intersection of the meridian one hundred  
9 one degrees fifty-one minutes west of Greenwich and the parallel forty-seven  
10 degrees twenty-seven minutes north latitude. This origin is given the coordinates:  
11 x = 2,286,000.0000 meters, and y = 152,400.0000 meters;

12 b. The North Dakota coordinate system of 2022, Bismarck zone, is a Lambert  
13 conformal conic projection of the North American Terrestrial Reference Frame of  
14 2022, the origin of coordinates is at the intersection of the meridian one hundred  
15 degrees forty-five minutes west of Greenwich and the parallel forty-six degrees  
16 forty-eight minutes north latitude. This origin is given the coordinates: x =  
17 3,200,400.0000 meters, and y = 114,300.0000 meters;

18 c. The North Dakota coordinate system of 2022, Bottineau zone, is a Lambert  
19 conformal conic projection of the North American Terrestrial Reference Frame of  
20 2022, the origin of coordinates is at the intersection of the meridian ninety-nine  
21 degrees forty-two minutes west of Greenwich and the parallel forty-eight degrees  
22 thirty-six minutes north latitude. This origin is given the coordinates: x =  
23 1,371,600.0000 meters, and y = 152,400.0000 meters;

24 d. The North Dakota coordinate system of 2022, Bowman zone, is a Lambert  
25 conformal conic projection of the North American Terrestrial Reference Frame of  
26 2022, the origin of coordinates is at the intersection of the meridian one-hundred  
27 three degrees west of Greenwich and the parallel forty-six degrees eighteen  
28 minutes north latitude. This origin is given the coordinates: x = 3,810,000.0000  
29 meters, and y = 114,300.0000 meters;

30 e. The North Dakota coordinate system of 2022, Cannon Ball zone, is a Lambert  
31 conformal conic projection of the North American Terrestrial Reference Frame of

1           2022, the origin of coordinates is at the intersection of the meridian one-hundred  
2           one degrees eighteen minutes west of Greenwich and the parallel forty-six  
3           degrees eighteen minutes north latitude. This origin is given the coordinates: x =  
4           4,114,800.0000 meters, and y = 114,300.0000 meters;

5           f. The North Dakota coordinate system of 2022, Carrington zone, is a Lambert  
6           conformal conic projection of the North American Terrestrial Reference Frame of  
7           2022, the origin of coordinates is at the intersection of the meridian ninety-nine  
8           degrees eighteen minutes west of Greenwich and the parallel forty-seven  
9           degrees thirty-three minutes north latitude. This origin is given the coordinates: x =  
10           = 2,590,800.0000 meters, and y = 152,400.0000 meters;

11           g. The North Dakota coordinate system of 2022, Devils Lake zone, is a Lambert  
12           conformal conic projection of the North American Terrestrial Reference Frame of  
13           2022, the origin of coordinates is at the intersection of the meridian ninety-nine  
14           degrees twenty-seven minutes west of Greenwich and the parallel forty-eight  
15           degrees nine minutes north latitude. This origin is given the coordinates: x =  
16           1,676,400.0000 meters, and y = 152,400.0000 meters;

17           h. The North Dakota coordinate system of 2022, Dickinson zone, is a Lambert  
18           conformal conic projection of the North American Terrestrial Reference Frame of  
19           2022, the origin of coordinates is at the intersection of the meridian one hundred  
20           three degrees three minutes west of Greenwich and the parallel forty-seven  
21           degrees north latitude. This origin is given the coordinates: x = 2,895,600.0000  
22           meters, and y = 114,300.0000 meters;

23           i. The North Dakota coordinate system of 2022, Fargo zone, is a transverse  
24           mercator projection of the North American Terrestrial Reference Frame of 2022,  
25           the origin of coordinates is at the intersection of the meridian ninety-seven  
26           degrees twelve minutes west of Greenwich and the parallel forty-five degrees  
27           forty-five minutes north latitude. This origin is given the coordinates: x =  
28           4,991,100.0000 meters, and y = 00.0000 meters;

29           j. The North Dakota coordinate system of 2022, Grand Forks zone, is a transverse  
30           mercator projection of the North American Terrestrial Reference Frame of 2022,  
31           the origin of coordinates is at the intersection of the meridian ninety-seven



1 degrees twenty-four minutes west of Greenwich and the parallel forty-six degrees  
2 thirty minutes north latitude. This origin is given the coordinates:  $x =$   
3 1,981,200.0000 meters, and  $y = 00.0000$  meters;

4 k. The North Dakota coordinate system of 2022, Jamestown zone, is a Lambert  
5 conformal conic projection of the North American Terrestrial Reference Frame of  
6 2022, the origin of coordinates is at the intersection of the meridian ninety-eight  
7 degrees thirty-six minutes west of Greenwich and the parallel forty-six degrees  
8 fifty-seven minutes north latitude. This origin is given the coordinates:  $x =$   
9 3,505,200.0000 meters, and  $y = 114,300.0000$  meters;

10 l. The North Dakota coordinate system of 2022, Linton zone, is a Lambert  
11 conformal conic projection of the North American Terrestrial Reference Frame of  
12 2022, the origin of coordinates is at the intersection of the meridian ninety-nine  
13 degrees fifty-one minutes west of Greenwich and the parallel forty-six degrees  
14 eighteen minutes north latitude. This origin is given the coordinates:  $x =$   
15 4,381,500.0000 meters, and  $y = 114,300.0000$  meters;

16 m. The North Dakota coordinate system of 2022, Minot zone, is a transverse  
17 mercator projection of the North American Terrestrial Reference Frame of 2022,  
18 the origin of coordinates is at the intersection of the meridian one hundred one  
19 degrees twenty-seven minutes west of Greenwich and the parallel forty-six  
20 degrees thirty minutes north latitude. This origin is given the coordinates:  $x =$   
21 1,104,900.0000 meters, and  $y = 00.0000$  meters;

22 n. The North Dakota coordinate system of 2022, New Town zone, is a transverse  
23 mercator projection of the North American Terrestrial Reference Frame of 2022,  
24 the origin of coordinates is at the intersection of the meridian one hundred two  
25 degrees twenty-seven minutes west of Greenwich and the parallel forty-six  
26 degrees thirty minutes north latitude. This origin is given the coordinates:  $x =$   
27 762,000.0000 meters, and  $y = 00.0000$  meters;

28 o. The North Dakota coordinate system of 2022, Oakes zone, is a transverse  
29 mercator projection of the North American Terrestrial Reference Frame of 2022,  
30 the origin of coordinates is at the intersection of the meridian ninety-eight  
31 degrees eighteen minutes west of Greenwich and the parallel forty-five degrees

1           forty-five minutes north latitude. This origin is given the coordinates: x =  
2           4,686,300.0000 meters, and y = 00.0000 meters; and

3           p. The North Dakota coordinate system of 2022, Williston zone, is a transverse  
4           mercator projection of the North American Terrestrial Reference Frame of 2022,  
5           the origin of coordinates is at the intersection of the meridian one hundred three  
6           degrees twenty-seven minutes west of Greenwich and the parallel forty-six  
7           degrees thirty minutes north latitude. This origin is given the coordinates: x =  
8           457,200.0000 meters, and y = 00.0000 meters.

9           **SECTION 5. AMENDMENT.** Section 47-20.2-06 of the North Dakota Century Code is  
10          amended and reenacted as follows:

11           **47-20.2-06. North Dakota coordinate system - Use of term.**

12           The use of the North Dakota coordinate system of 1927 north zone or south zone, ~~or the~~  
13          North Dakota coordinate system of 1983 north zone or south zone, the North Dakota statewide  
14          coordinate system of 2022, or the North Dakota low-distortion coordinate system of 2022 on  
15          any map, report of survey, or other document must be limited to coordinates based on the North  
16          Dakota coordinate systems as defined in this chapter. The map, report, or document must  
17          include a statement describing the standard of accuracy, as defined by the national ocean  
18          survey/national geodetic survey, maintained in developing the coordinates shown therein. The  
19          coordinates must be established in conformity with these standards:

- 20           1. No coordinates based on the North Dakota coordinate system, purporting to define the  
21           position of a point on a land boundary, may be presented to be recorded in any public  
22           records or deed records unless the point is connected to ~~a triangulation or traverse~~  
23           ~~station~~the national spatial reference system and established in conformity with the  
24           standards prescribed in this chapter.
- 25           2. Coordinate values used in land descriptions under this section must be certified by a  
26           duly registered professional land surveyor under the laws of this state.