

Technical Memo 4

Date: Monday, July 10, 2017

Project: Northeast Pierre Transportation Plan

To: Steve Gramm, Study Advisory Team

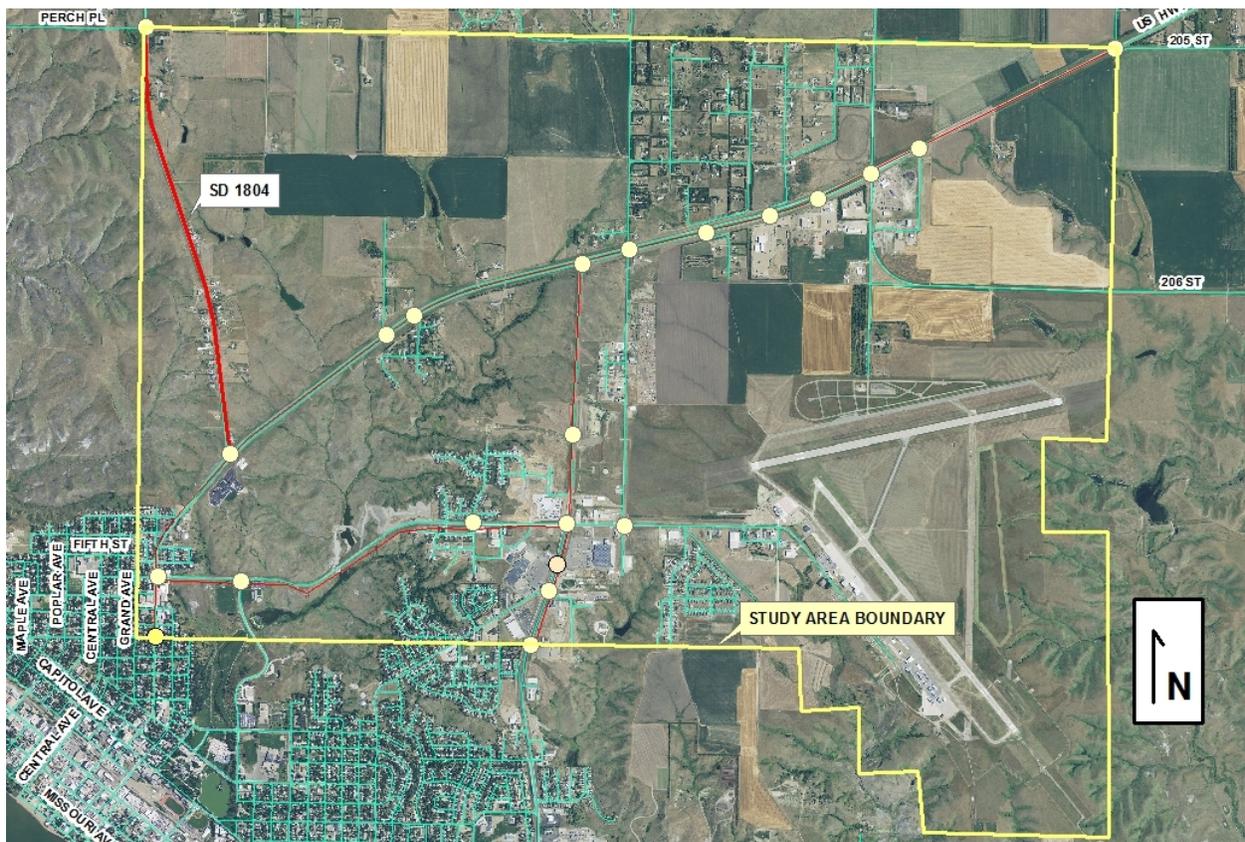
From: Rick Laughlin

Subject: Access Plan, SD 1804 corridor

This Technical Memo describes the analysis of access points in the SD 1804 corridor in northeast Pierre, SD. The analysis is being performed as part of the Northeast Pierre Transportation Plan and compares the existing access points to standards currently in State administrative rules and Local standards being proposed for the City of Pierre.

Study Area

The study area for the Northeast Pierre Transportation Plan has been defined as the northern part of the City of Pierre and the adjacent land suitable for development. The study area and SD 1804 corridor are shown in the map below.



The SD 1804 corridor is a two-lane rural cross-section. Intersections exist at the following locations:

- US 14/US 83
- Range Rd./Perch Pl.

All intersections in the corridor are currently controlled by stop signs on the minor street approaches.

Land Use and Zoning

Land use along the roadway is characterized by generally small lots with residential functions interspersed among agricultural areas. The agricultural land adjacent to the corridor is zoned for future residential development in sections 21, 22, 27, and 28.

Access Criteria

The SD 1804 corridor within the study area has been classified in two sections under the South Dakota Administrative Rules. The sections are:

- 2-lane section within Pierre urban boundary – Urban Fringe classification
- Rural 2-lane section – Rural classification

A copy of the classification map is attached to this memorandum. No changes to the existing access classifications are recommended at this time. Any changes will require consultation with the City of Pierre and formal adoption by the South Dakota Transportation Commission.

Access criteria for each classification are specified in the South Dakota Administrative Rules. The criteria are shown below:

ACCESS CLASS	SIGNAL SPACING DISTANCE (MILE)	MEDIAN OPENING SPACING (MILE)	MINIMUM UNSIGNALIZED ACCESS SPACING (FEET)	ACCESS DENSITY INCREMENT	DENIAL OF DIRECT ACCESS WHEN OTHER AVAILABLE
Interstate	N/A	N/A	N/A	N/A	Yes
Expressway	½	½	2640	½ mile	Yes
Free Flow Urban	½	½ F, ¼ D	1320	¼ mile	Yes
Intermediate Urban	½	½ F, ¼ D	660	660 feet	Yes
Urban Developed	¼	¼	100	2/block face	Yes
Urban Fringe	¼	½ F, ¼ D	1000	5/side/mile	Yes
Rural	N/A	N/A	1000	5/side/mile	Yes

NOTES:

1. Access to the Interstate system is governed by SDDOT interchange policy. No new access shall be provided on non-interstate routes within 1/8 mile of interstate ramp terminals.
2. N/A = Not Applicable, F = Full Movement – all turns and through movements provided, D = Directional Only – certain turning and through movements not provided.
3. SDDOT may defer to stricter local standards.
4. SDDOT will seek opportunities to reduce access density wherever possible.
5. Rural class minimum unsignalized access spacing may be reduced to 660' by the Area Engineer, based on results of an engineering study as described in § 70:09:02:01.

Physical Constraints

The corridor exists in the rolling terrain of the Missouri River breaks. Areas of steep grades exist in the corridor that will affect the ability to develop the property adjacent to the roadway and will also affect the ability to build roads to provide access.

These physical constraints and the location of existing access points will have to be considered when planning future access points in the corridor.

Planned Access Points

One of the goals of the Northeast Pierre Transportation Plan is providing roadway facilities in the SD 1804 corridor that meet future transportation needs in terms of capacity and safety. Analysis for the plan includes:

- Evaluation of the size of the roadways to meet future needs
- Evaluation of the feasibility of providing roadways in relation to the physical constraints
- Evaluation of the existing and future roadway facilities in relation to pertinent standards

The scope of this analysis allows the detailed planning of access locations throughout the corridor and constitutes an access plan which supersedes the normal access criteria, as defined in South Dakota Administrative Rule.

Access Inventory and Recommendations

An inventory of existing corridor access points and recommended actions for existing and future access points are provided in spreadsheets attached to this memo, indexed by mile reference marker. Maps of the access locations are also attached.

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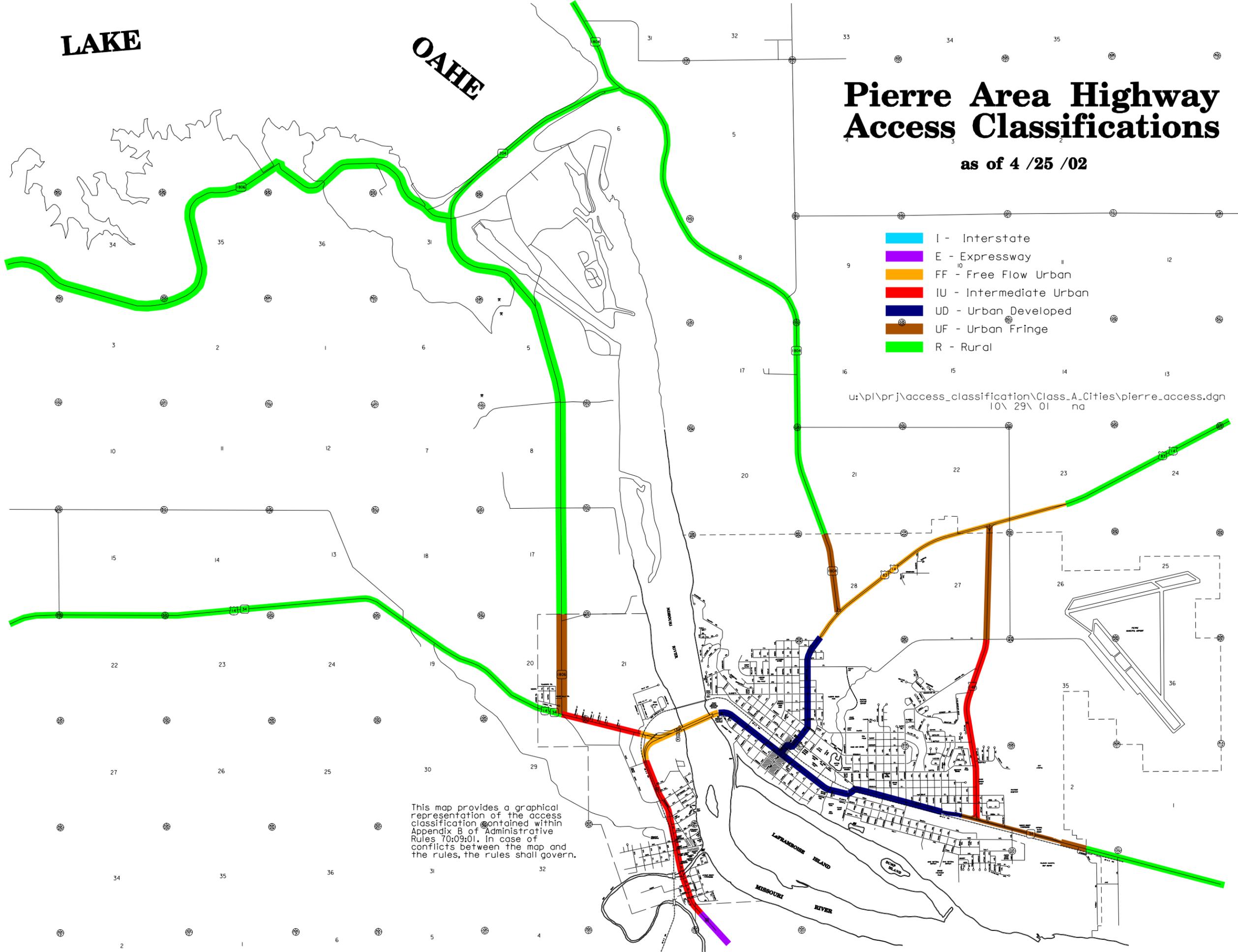
Pierre Area Highway Access Classifications

as of 4 /25 /02

- I - Interstate
- E - Expressway
- FF - Free Flow Urban
- IU - Intermediate Urban
- UD - Urban Developed
- UF - Urban Fringe
- R - Rural

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This map provides a graphical representation of the access classification contained within Appendix B of Administrative Rules 70:09:01. In case of conflicts between the map and the rules, the rules shall govern.



ACCESS INVENTORY AND RECOMMENDATION

SD 1804

ACCESS NUMBER	MRM	OFFSET	SIDE	ACCESS IDENTIFICATION	RECOMMENDATION
1	250.52	--	BOTH	US 14 EASTBOUND	
2	250.59	--	BOTH	US 14 WESTBOUND	
3	250.63	--	--	END US 14 TURN LANES	
4		0.04	RIGHT	COMMERCIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY*
5		0.07	LEFT	FIELD ENTRANCE	RETAIN FOR EXISTING AG USE ONLY
6		0.14	LEFT	FIELD ENTRANCE	RETAIN FOR EXISTING AG USE ONLY
7		0.22	LEFT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING AG USE ONLY
8		0.28	LEFT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
9		0.30	RIGHT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
10		0.30	LEFT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
11		0.34	LEFT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
12		0.37	LEFT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
13		0.40	RIGHT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
14		0.40	LEFT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
15		0.43	RIGHT	FIELD ENTRANCE	ALIGN WITH ACCESS 16 WHEN PROPERTY DEVELOPS
16		0.45	LEFT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
17		0.50	RIGHT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
18		0.51	LEFT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
19		0.54	RIGHT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
20		0.55	LEFT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
21		0.60	RIGHT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
22		0.60	LEFT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
23		0.63	LEFT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
24		0.65	RIGHT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
25		0.72	RIGHT	PLANNED ACCESS	RETAIN FOR POTENTIAL SECTION LINE INTERSECTION
26		0.82	LEFT	FIELD ENTRANCE	ALIGN WITH ACCESS 27 WHEN PROPERTY DEVELOPS
27		0.84	RIGHT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
28		0.88	RIGHT	COMMERCIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
29		1.01	LEFT	FIELD ENTRANCE	RETAIN FOR EXISTING AG USE ONLY
30		1.11	RIGHT	FARM ENTRANCE	RETAIN FOR EXISTING USE ONLY
31		1.11	LEFT	FIELD ENTRANCE	RETAIN FOR EXISTING AG USE ONLY
32		1.23	RIGHT	FIELD ENTRANCE	PLANNED COLLECTOR STREET INTERSECTION
33		1.26	LEFT	FIELD ENTRANCE	RETAIN FOR EXISTING USE ONLY
34	252.00	--	--	MRM	
35		0.17	LEFT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
36		0.26	RIGHT	RESIDENTIAL DRIVEWAY	RETAIN FOR EXISTING USE ONLY
37		0.31	LEFT	FIELD ENTRANCE	RETAIN FOR EXISTING AG USE ONLY
38		0.46	RIGHT	RANGE ROAD	RETAIN EXISTING INTERSECTION
39		0.46	LEFT	PERCH PLACE	RETAIN EXISTING INTERSECTION

* ACCESS 4 SHOULD BE ALIGNED WITH ACCESS 5 IF ACCESS 5 BECOMES A PLATTED STREET PRIOR TO DEVELOPMENT AT ACCESS 4



Access Map 1 – SD 1804



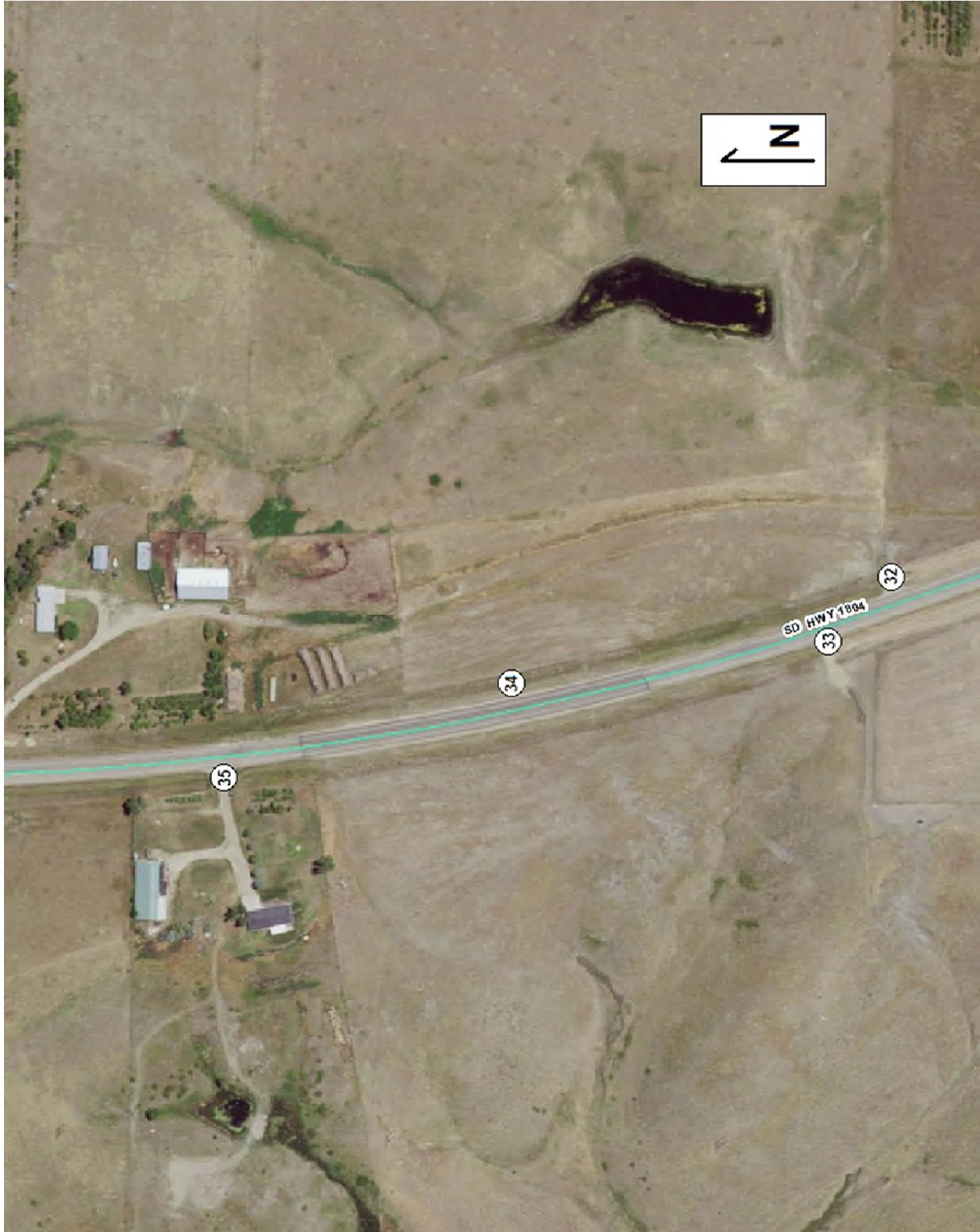
Access Map 2 – SD 1804



Access Map 3 – SD 1804



Access Map 4 – SD 1804



Access Map 5 – SD 1804



Access Map 6 – SD 1804