May 21, 2026

Mr. Jarvis Reidburn
Clark County Equalization Office
Clark County Courthouse
Clark, SD 57225

Re: Proposed Lamar Colony Wastewater Treatment Facility Conditional Use Permit
Clark County, SD
VPS Project No. 24026L

Dear Mr. Reidburn:

Please find included in this letter information relevant to the above-mentioned project. This information is provided for your evaluation to consider a formal conditional use application. The project involves a proposed Wastewater Treatment Facility. The proposed treatment facility is associated with a proposed Religious Farming Community for Lamar Hutterian Brethren Inc. The proposed Wastewater Treatment Facility would be located in the southeast quarter of section 21, T117N R58W.

Lamar Colony (Colony) is a new Hutterite colony, or daughter colony, being formed by Fordham Colony. As part of the development of the Colony, a wastewater treatment facility will be required. A site plan and other materials relevant to the proposed wastewater treatment facility are included as attachments to this letter.

Wastewater Treatment Facility

The wastewater treatment system has been sized for the maximum population of the colony, which is expected to be 150 people. The system will consist of a gravity sewer network draining to a lift station and two-cell stabilization pond that has been sized for total retention and disposal by evaporation. The system was designed using a per capita flow rate of 75 gallons per day, which is a figure historically accepted by the SD DANR for facilities with communal kitchens, laundries, and homes. The wastewater facility design will be designed to conform to all DANR requirements. The attached design calculations were prepared using procedures and requirements set forth by DANR, and the methods involved have been used satisfactorily on many Religious Farming Communities in the Dakotas, including the treatment ponds at Fordham Colony. Biological Oxygen Demand loadings per acre of surface area are designed to be well below (less than 33%) DANR allowed maximums, which should result in increased aerobic digestion of wastes and minimization of odor.

Chapter 4.31.1 of the Clark County Zoning Ordinance requires the site meets the requirements of the DANR. If the conditional use permit it approved by Clark County, plans and specifications and all required accompanying materials will be submitted to DANR for review. The applicant is

aware that approval by Clark County will be conditioned upon approval of all materials by DANR, and that construction cannot proceed until that point.

A design calculation summary for the sizing of the wastewater facility are included as an attachment to this letter. An Operation and Maintenance Manual for the facility is also included.

Chapter 4.31.2 of the Clark County Zoning Ordinance requests a site plan with the following information.

a. Present topography, soil types, and depth to groundwater

The attached site plan illustrates the present and proposed topography of the wastewater treatment pond site. The site has been located to avoid drainages to prevent potential surface water inflow. An existing approach from 170th Street will be used for access. Since no other modifications to the site are proposed, disturbance and regrading of the site beyond the lagoon perimeter will be minimal.

An attached soil map provides information on the surface soils around the proposed wastewater facility.

The following review of published geologic data was performed to determine the potential suitability of the site. A study of the geology and groundwater features of Clark County was performed by the SD Geological Survey and published in the report entitled "Geology and Water Resources of Clark County, South Dakota, Part I: Geology and Part II: Water Resources" (South Dakota Geological Survey Bulletin 29, 1986). Figures included with this letter indicate that the site of the proposed wastewater treatment facility is not located over any shallow aquifers less than 100 feet from the surface. This is further supported by the "First Occurrence of Aquifer Materials in Clark County" map published by the Department of Environment and Natural Resources in 2001, of which a copy is attached. The proposed site is also not located within the Aquifer Protection Area zoning regions (A or B) noted on the included Clark County Zoning map. A summary of the findings is as follows:

The region surrounding the area of the proposed wastewater facility lies within an area of glacial aquifers. The subsurface is dominated glacial drift, typically 150–300+ feet of clay till containing sand and gravel deposits. These coarse soils were formed by glacial outwash allowing for the formation of glacial aquifer formations. Beneath the glacial drift, Pierre Shale forms the bedrock surface and acts as a confining layer.

These aquifers are typically encountered at depths of about 50 to 200 feet and range from roughly 10 to 50 feet thick. The expected depth to the first aquifer beneath the wastewater facility expected to be 50-100+ feet. However local perched water conditions may occur.

Soil borings were conducted in the area of the proposed lagoons, using DANR design requirements for location and depth. As expected from the above resources, the borings encountered typical glacial till soils as expected from the above documents. The soils encountered consisted of predominantly clay soils of glacial till origin, which are considered suitable for the proposed

construction. Small (typically 1" or less) sand seams were observed at varying locations and elevations, but were not consistent in either. When penetrated, some seams were found to be waterbearing, as noted on the included boring logs. This type of inclusion is common and expected in glacial till soils, and is not expected to be a significant impediment to potential construction. No outwash soils indicative of shallow aquifers or useable quantities of groundwater were observed. Unweathered till was penetrated in one boring at less than 20 feet in depth, indicating that long term surface infiltration is limited.

The observed soils are deemed suitable for use as compacted embankments and liners. Testing of soil samples is expected to verify seepage can be limited to below permissible levels.

b, c and d. Location of existing water drainage, existing buildings, existing shelterbelts. Identification of roads leading to the site. Proposed changes at the site such as new shelterbelts, new buildings, changes in topography, new fence lines.

The proposed location of the treatment ponds will allow surface drainage to be directed away from the perimeter. Increases in runoff from the affected area are not expected, as the area of the ponds will be removed from the area contributing runoff. A map obtained from the FEMA database indicates the proposed ponds are in an area designated as minimal flood hazard.

Existing shelterbelts are shown on the site plan. No new plantings are planned at this time, nor are any other structures planned. The wastewater ponds will be provided with a safety exclusion fence around the perimeter. Drainage will be directed away from the proposed wastewater faculty as indicated on the site plan.

No additional roads or approaches are proposed. The remainder of the parcel containing the facility will remain in agricultural production.

e. Proposed monitoring wells, etc.

No monitoring wells are proposed. The applicant is aware the DANR and Clark County may require monitoring wells.

f. No sewage treatment plant/facility will be allowed within one thousand three hundred twenty (1,320) feet from the property line of the sewage treatment plant/facility to the nearest residence; excluding: the residence of the sewage treatment plant/facility operator.

The included area map indicates the perimeter of the parcel containing the facility, which is the southeast quarter of section 21. An offset of 1320 feet from the perimeter of the southeast quarter is also shown. No residences are located within 1320 feet of the perimeter of the southeast quarter of section 21, including those proposed for occupation by the applicant under the application for a Religious Farming Community.

As no other setbacks are listed as required by Section 4.31, the treatment ponds have been located to comply with the yard setbacks for the Ag District.

Section 3.04.01.6

The following is provided to address the items listed in the above section.

a. Entrance to the property will be private via an existing approach from 170th Street.

b. Off street parking and loading areas will not be required. No on-street activities will be allowed.

c. None required.

d. The existing shelterbelt along 170th Street may be maintained or replanted.

e. Signage will be limited to posting of trespassing and safety notices.

f. Yard setbacks are met by the proposed structures.

g. The proposed use is listed as a conditional use for the Ag District.

h. Access to the site will be private via an existing approach from 170th Street. Vehicle access is expected to be limited to light vehicles.

We hope the information included is helpful in considering the application. If there are any questions associated with any attached materials, please contact us at any time.

Sincerely,

Brian Friedrichsen

Brian Friedrichsen, PE
Senior Environmental Engineer

Enc.

1320' RESIDENCE SETBACK FROM PERIMETER OF PARCEL CONTAINING WWTF (SE $\frac{1}{4}$ SECTION 21)

SE $\frac{1}{4}$ OF SECTION 21 PERIMETER

N

800'

PROPERTY LINE

WASTEWATER TREATMENT FACILITY

370'

260'

150'

170TH ST

20 21 29 28

21 20 28 27

100' MIN.

PROPOSED SHELTERBELT

CEMETERY

150' 150'

SCHOOL

100' MIN.

HOUSE (134' X 72' TYP)

SHED

COMMUNITY BUILDING/ KITCHEN/CHURCH

900'

GARDEN SHED

LIFT STATION

668'

ANIMAL BARN

STORAGE BUILDING

FARM SHOP

420TH AVE

421ST AVE

150' MIN.

GRAIN HANDLING/ STORAGE

GRAIN PROCESSING/ MILL

UTILITY BUILDING

FUTURE MANUF. SHOP

FUTURE CONCRETE BATCH PLANT

MAIN ACCESS ROAD

PROPANE TANK

SCALE

HALF-MILE LINE

REV.	DATE	DESCRIPTION	BY	CHKD

DATE: 5/21/26

DRAWN: RR

CHECKED: BF

111 KANSAS AVE SE, SUITE A, HURON, SD 57350

AREA MAP

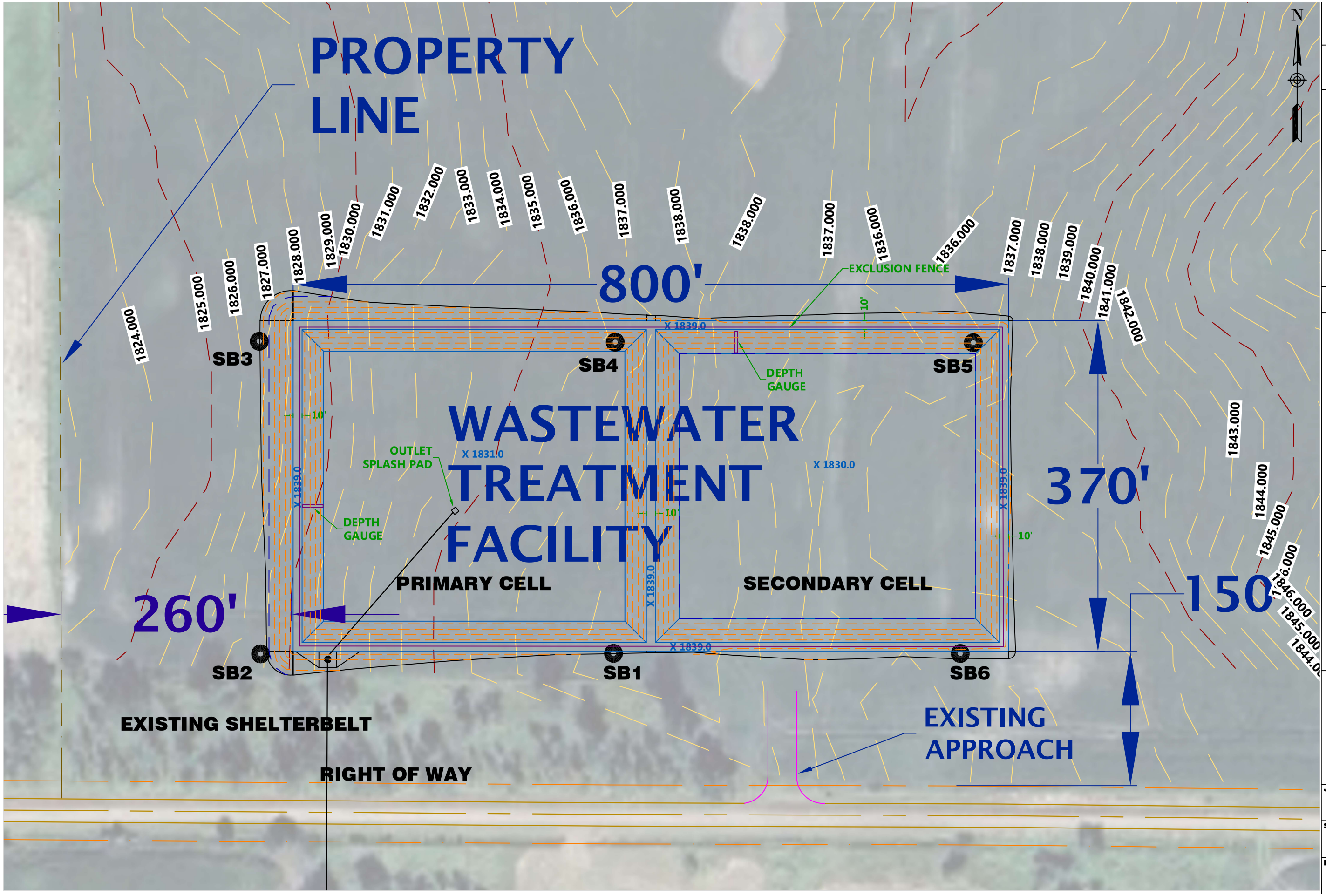
LAMAR HBI WWTF

VANTAGE POINT SOLUTIONS LLC

JOB NO: 24026L

SCALE: 1"=800'

DWG: 1



REV.	DATE	DESCRIPTION	BY	CHKD

DATE: 5/21/26
DRAWN: RR
CHECKED: BF

SITE PLAN

LAMAR HBI WWTF

VANTAGE POINT SOLUTIONS LLC

1122 21st St. SW, HURON, SD 57350

JOB NO: 24026L

SCALE: 1"=100'

DWG: 2

LAMAR HBI WASTEWATER TREATMENT FACILITY

System Design Calculations Summary

Design Population = 150

Assumed Wastewater Flow Rate = 75 gallons per capita per day (page I-3 [1])

≈ 11,250 gpd or 469 gph or 7.81 gpm

Peak Hourly Flow:

$(18 + \sqrt{0.150})/(4 + \sqrt{0.150}) = 4.2$ (Ratio as determined by Figure 1: Ratio of Peak Hourly Flow to Design Average Flow)

∴ Peak Hourly Flow = 4.2 * 469 gph = 1,970 gph or 32.8 gpm

Minimum Lift Station Pump Capacity:

Min. Capacity = 2.5 * Peak Hourly Flow, gpm

∴ Min. Capacity = 2.5 * 32.8 gpm = 82 gpm (Use 100 gpm for velocity in forcemain)

Mean Annual Precipitation: 24.39 inches

Mean Annual Evaporation: 33.5 inches

Seepage Rate: 0.0625 inch per day maximum

Net Annual Loss in ponds, inches: 31.92

Required Surface Area at Net Annual Loss, acres: 4.74

Surface Area Provided at High Water Level, acres: 5.6 (5.04 at mid depth)

180 Days Wastewater Generation, gallons: 2,025,000

Wastewater Storage provided in primary cell, gallons: 2,600,463 (6,067,742 total in both cells)

BOD loading, per DANR requirement: 0.17 lb/PE/day

Primary cell BOD loading: 9.11 lb/acre (maximum allowed 30lb/acre)

Total facility BOD loading: 4.55 lb/acre (maximum allowed 20lb/acre)

OPERATION AND MAINTENANCE MANUAL

for the

LAMAR HUTTERIAN BRETHREN, INC.

DOMESTIC WASTEWATER TREATMENT FACILITY

CLARK COUNTY, SOUTH DAKOTA

May 15, 2026

Project No. 24026L

Producer: Lamar Hutterian Brethren, Inc.

Address: 510 Fordham Drive
Carpenter, SD 57322

Phone: (605) 233-0362

Project Location: SE ¼ Section 21, T117N R58W, Clark County, SD

The Owner acknowledges responsibility for the proper operation and maintenance of the wastewater treatment facility. Although the design is based on the best available technical knowledge, it must be recognized that any system creates some risks, and therefore needs to be properly operated and maintained, including periodic inspection. In addition, maximum efficiency cannot be obtained unless the system is properly operated and maintained so that it will function safely in its intended manner.

Recognizing this, this Manual has been prepared for operating and maintaining the system. The following items list the anticipated major and uncommon items of Operation and Maintenance for this system.

It is recommended that the following list be reviewed and be used as a checklist to ensure major elements of operation and maintenance are consistently being observed.

I. Operation

A. Inspection:

_____1. Entire system weekly.

_____2. Fences and safety signs.

_____3. Depth of wastewater in the primary and secondary cells.

_____4. Inspect all components for signs of damage or leakage.

_____5. Inspect earthwork for signs of seepage, rodent damage, settlement, misalignment, excessive vegetative growth, or erosion.

_____6. Inspect all concrete structures for signs of deterioration, damage, or leakage.

_____7. Inspect all pumps, valves, switches, wiring, and associated components to assure proper operation or determine the need for preventative maintenance.

_____8. Document all inspections on the form included with this manual, including all pertinent information.

_____9. No routine discharge from the system is allowed.

_____10. If a discharge from the system is found to have occurred, the producer must report the discharge as soon as possible, but no later than twenty-four hours after the discharge was discovered. The discharge must be reported to the State of South Dakota at (605) 773-3351, or (605) 773-3231 after normal business hours.

B. Daily Operation:

_____1. For safety, cover all openings when not in use. Be certain the covers provide ventilation, as explosive, poisonous, and suffocating gases are produced by wastewater. This applies to all enclosed areas where wastewater is present.

_____2. All lagoon liner bottoms shall be kept submerged a minimum of one foot at all times, even if the ponds are not yet being used. If there is less than one foot of water, additional water will need to be added to prevent the clay from shrinking and cracking. If cracking occurs, contact Vantage Point Solutions to evaluate the liner.

_____3. Upon completion of the lagoons, two feet of fresh water shall be placed in all cells. Sewage may then be added to the cells.

_____4. Two feet of liquid must be maintained in all cells at all times to assure proper treatment.

_____5. Divert stormwater and runoff from outside lagoons from entering collection system and the lagoons. Maintain grading on the tops of berms to drain outward.

_____6. Confine travel of vehicles and livestock to designated areas to prevent erosion and enhance vegetation.

_____7. Maintain grades around all components such as manholes to assure positive surface drainage away from the structures in all directions. Fill any settled areas which may collect water.

_____8. Transfer liquid from primary to secondary cells as necessary to maintain adequate freeboard and storage capacity. The liquid levels are not to exceed the maximum operating depth markers.

II. Maintenance

_____1. Extreme care must be exercised before entering any wastewater structure or enclosure for maintenance. This should include operation by experienced and knowledgeable workmen in pairs, using safety harnesses and forced ventilation/oxygen supplying masks. All operators should familiarize themselves with the dangers of wastewater gases, special wiring needs and ventilation needs. “NO SMOKING, OPEN FLAMES, OR SPARKS” and other appropriate signs should be posted to warn persons of the present dangers.

_____2. Repair any earth work, or erosion thereof, to original grade. Grade must maintain a slope away from all structures in all directions to prevent stormwater runoff from entering the system.

_____3. Maintain on site a complete set of pumps, valves, fittings, switches, controls, and any other components for the lift station. It is recommended that these components be changed out, rebuilt if necessary, and kept on hand as spares periodically.

_____4. Maintain an alarm system for the lift station. The alarm should be activated in case of power failure, pump failure, or any cause of lift station malfunction. The alarm

should be transmitted to an office or residence, or preferably multiple locations, of continuous occupation.

_____5. Maintain the provision for an emergency power supply for the lift station in the event of failure of the primary power supply. This can include in place or portable electric generation equipment, as well as in place or portable internal combustion pumping equipment.

_____6. Clean all sewer lines by jetting periodically to remove any buildup.

_____7. When jetting sewer lines, also clean any accumulation present in manholes.

_____8. Repair and revegetate any areas of significant erosion.

_____9. Repair any damaged system components.

_____10. Seal any areas where seepage is noted. Cracks in concrete structures must be sealed with a suitable high modulus sealant.

_____11. Repair fences, covers, safety signs, etc. to original specifications if damaged.

_____12. Remove and dispose of trash and debris that will affect the aesthetics or functioning of the system.

_____13. Remove any trees growing adjacent to structures or ponds to prevent root damage.

_____14. Apply herbicide as needed to retard growth of vegetation on the inside of the pond embankments so the integrity of the clay is not disturbed.

LAMAR HBI WWTF
OPERATION AND MAINTENANCE INSPECTION RECORD

DATE	TIME	COMPONENT INSPECTED	DAYS SINCE LAST INSPECTED	LAGOON WASTE WATER LEVEL ft.	APPROX. REMAINING FREEBOARD ft.	VISIBLE DISCHARGE OCCURRING OR HAS OCCURRED? yes/no	OTHER OBSERVATIONS OR COMMENTS	INSPECTOR

Permit requires documentation of weekly inspection be maintained. Best if performed at same time of day each time. Items to inspect include:

1 Presence of leaks, discharges, earth or building movement/settlement, or potential for same to occur
2 Condition of any fencing, warning signs, or barricades
3 Observe visible concrete for signs of deterioration, cracking, or spalling
4 Woody plant growth, erosion, or animal burrows near structures or lagoon
5 Releases and discharges must be reported within 24 hours of discovery to DANR, 605-773-3351, or to 605-773-3231 after normal business hours

Soil Map—Clark County, South Dakota
(Section 21)

Map Scale: 1:6,160 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

DAY COUNTY

SPINK COUNTY

CODINGTON COUNTY

HAMLIN COUNTY

BEADLE COUNTY

KINGSBURY COUNTY

R. 59 W. | R. 58 W. | R. 57 W. | R. 56 W.

97°50' 97°40' 97°30'

N. T. 119 118 117 116 115 114 113

45°00' 44°50' 44°40'

Qwlti Qwloc Qwlts2 Qwlte Qwltg Qwlts1 Qwloi Qwlo

Cottonwood Lake
Swan Lake
Reid Lake
Bailey's Lake
Antelope Lake
Willow Lake

CROCKER
BRADLEY
GARDEN CITY
RAYMOND
CLARK
NAPLES
VIENNA
WILLOW LAKE
CARPENTER

20 25 212 28

North

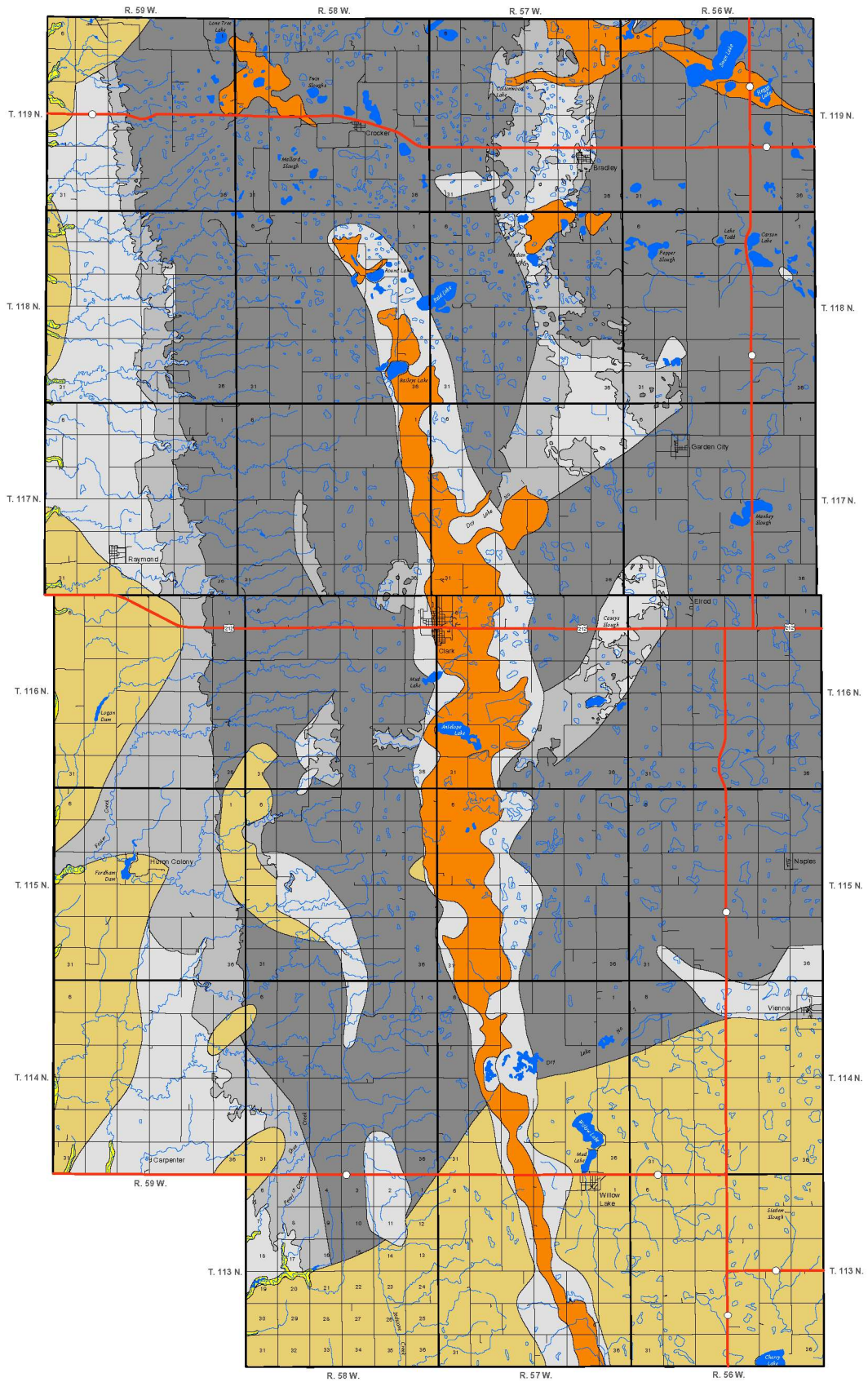
0 1 2 3 4 MILES
0 2 4 6 KILOMETERS
SCALE

First Occurrence of Aquifer Materials in Clark County, South Dakota

State of South Dakota
William J. Janklow, Governor

South Dakota Geological Survey
Derric L. Iles, State Geologist

Department of Environment and Natural Resources
Division of Financial and Technical Assistance
Geological Survey
Aquifer Materials Map 2
Ann R. Jensen, 2001



Explanation

This map is intended for use as a tool to aid in identifying areas underlain by aquifer material. The aquifer materials shown on this map are categorized below. This map does not show individual aquifers. There may be more than one type of aquifer material present in an area. However, only the aquifer material that would be first encountered is shown. Within the boundaries of any given map unit, there may be localized areas where aquifer material is absent. The thickness and permeability of aquifer material may vary significantly. Also, no attempt was made to distinguish between saturated and unsaturated material. Therefore, not all of the areas defined on this map may be an aquifer. Site-specific information should always be examined when making land management or water development decisions.

First occurrence is generally less than or equal to 50 feet below land surface

- **Alluvium:** Consists of clay and silt with minor amounts of sand and gravel
- **Sand and Gravel:** First occurrence is generally at land surface
- **Sand and Gravel:** First occurrence is generally below land surface. May not be uniform in depth and thickness and may be discontinuous in lateral extent.

First occurrence is generally greater than 50 feet and less than or equal to 100 feet below land surface

- **Sand and Gravel:** May not be uniform in depth and thickness and may be discontinuous in lateral extent

First occurrence is generally greater than 100 feet below land surface

- **Sand and Gravel:** May not be uniform in depth and thickness and may be discontinuous in lateral extent
- **Dakota Formation:** Consists of interbedded siltstone, sandstone, and shale

- Major highway
- Road
- Township boundary
- River or stream
- Lake
- Slough or intermittent lake

For township section numbering system, see T. 113 N., R. 58 W.

This map was developed from lithologic logs and published reports. The major sources of information were:

Christensen, C. M., 1987, *Geology and water resources of Clark County, South Dakota; Part I: Geology*: South Dakota Geological Survey Bulletin 29, 39 p.

Hamilton, L. J., 1978, *Major aquifers in Clark County, South Dakota*: South Dakota Geological Survey Information Pamphlet 16, 9 p.

_____1986, *Geology and water resources of Clark County, South Dakota; Part II: Water resources*: South Dakota Geological Survey Bulletin 29, 62 p.

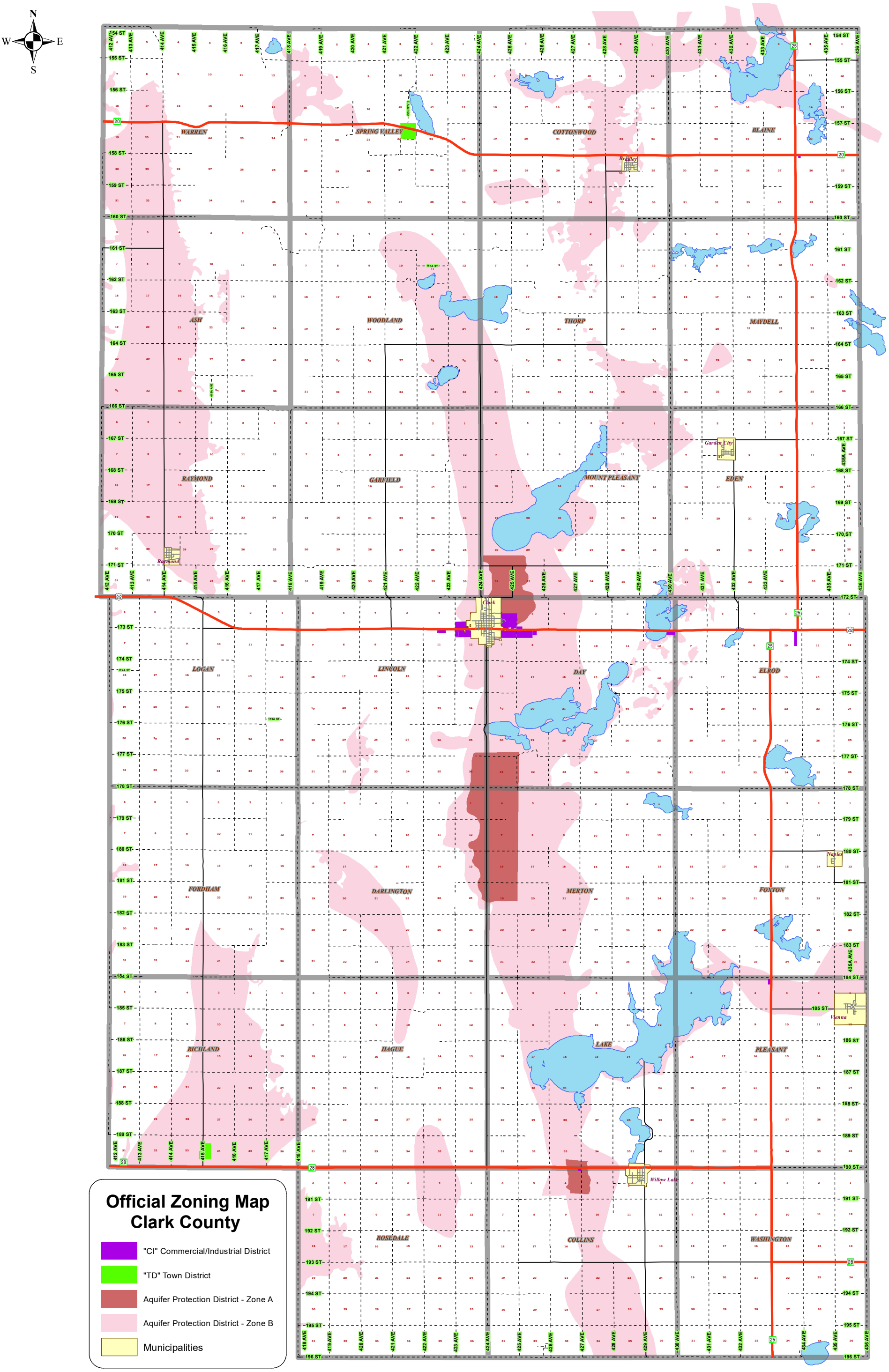
Schroeder, W., 1977, *Sand and gravel resources in Clark County, South Dakota*: South Dakota Geological Survey Information Pamphlet 15, 31 p.

South Dakota Geological Survey, Lithologic logs database.

The Geological Survey, Department of Environment and Natural Resources, engages in an ongoing data collection and interpretation process. An outcome of that process is to reflect those interpretations on maps such as this one. Reasonable efforts have been made to ensure that this map accurately reflects the source data used in its preparation. This map is date specific. As additional data become available, geologic interpretations may be revised and the map may be updated by the Geological Survey. This map should not be enlarged or otherwise used in an attempt to interpret more detail than can be seen at the 1:100,000 scale.

Index map of South Dakota showing the location of Clark County

Publication Date: April 3, 2001



FIRST DISTRICT GIS

Disclaimer

RESTRICTION OF LIABILITY

First District makes no claims, promises or guarantees about the accuracy, completeness, or adequacy of the map data and expressly disclaims liability for errors and omissions of the data content. No warranty of any kind implied, expressed or statutory, including but not limited to the warranties of non infringement of third party rights, title, merchantability, and fitness for a particular purpose is given with respect to this map.

0 1,500 3,000 6,000 9,000 12,000 Feet

List of Amendments:

1. 3. 5.
2. 4. 6.

Official Zoning Map
Ordinance 02-23

This is to certify that this Official Zoning Map supersedes and replaces the Official Zoning Map adopted by Ordinance 01-14 as part of the Zoning Ordinance of Clark County, State of South Dakota.

Chairperson
Clark County Commissioners Date

Clark County Auditor Date

SOIL BORING LOG

Vantage Pont Solutions 111 Kansas Ave. SE, Huron, SD 57350

Boring # **SB1**

Soil Description	WL	Depth	Geo.	Elevation	Sample ID	USCS
Topsoil		0.0	Topsoil	1838.3	SB1 0'-1'	OL
		0.5		1837.8		
Clay with sand. dark brown. moist medium stiff to stiff		1.0		1837.3	SB1 1'-2'	
		1.5		1836.8		
		2.0		1836.3		
		2.5		1835.8		
		3.0		1835.3		
		3.5		1834.8		
		4.0		1834.3		
		4.5		1833.8		
Sandy clay. brown/olive. moist. stiff		5.0		1833.3	SB1 2'-9'	
		5.5		1832.8		
		6.0		1832.3		
		6.5		1831.8		
		7.0		1831.3		
		7.5		1830.8		
		8.0		1830.3		
		8.5		1829.8		
		9.0		1829.3		
		9.5		1828.8		
		10.0	Weathered	1828.3		
		10.5	Till	1827.8		CL
		11.0		1827.3		
		11.5		1826.8		
		12.0		1826.3		
Sandy clay, brown/olive/gray, moist stiff to very stiff		12.5		1825.8	SB1 9'-17'	
		13.0		1825.3		
		13.5		1824.8		
		14.0		1824.3		
		14.5		1823.8		
		15.0		1823.3		
		15.5		1822.8		
		16.0		1822.3		
		16.5		1821.8		
	▽	17.0		1821.3		
Sandy clay, brown, moist to wet, soft		17.5		1820.8	SB1 17'-18.5'	
		18.0		1820.3		
		18.5		1819.8		
		19.0		1819.3		
		19.5		1818.8		
		20.0		1818.3		
		20.5		1817.8		
		21.0		1817.3		
Sandy clay, dark brown, moist (unsaturated), medium stiff to		21.5		1816.8	SB1 18.5'-25'	
		22.0		1816.3		
		22.5		1815.8		
		23.0		1815.3		
		23.5		1814.8		
		24.0		1814.3		
		24.5		1813.8		
END OF BORING		25.0		1813.3		
		25.5		1812.8		

NOTE: **Water level at time of boring: 18' in confined soft clay layer.**

Water Level:	18' @ TOB	VPS #	Date of Boring: 5/15/2026
Method:	Split Spoon	24026L	Page: 1 of 1
Driller:	RR	Chkd by: BF	Elevation: 1838.3
Sampler:	CH	Project:	
Recorded By:	CH	LAMAR HBI WWTF	
Entered By/Date:	RR 5/17/26		

SOIL BORING LOG

Vantage Pont Solutions 111 Kansas Ave. SE, Huron, SD 57350

Boring # **SB2**

Soil Description	WL	Depth	Geo.	Elevation	Sample ID	USCS
Topsoil		0.0	Topsoil	1828.7	SB2 0'-0.5'	OL
		0.5		1828.2		
		1.0		1827.7		
		1.5		1827.2		
		2.0		1826.7		
		2.5		1826.2		
Clay with sand, brown, moist, medium stiff		3.0		1825.7	SB2 0.5'-7'	
		3.5		1825.2		
		4.0		1824.7		
		4.5		1824.2		
		5.0		1823.7		
		5.5		1823.2		
		6.0		1822.7		
		6.5	Weathered	1822.2		
		7.0	Till	1821.7		CL
		7.5		1821.2		
		8.0		1820.7		
Lean clay with sand, brown/gray, moist, medium stiff to stiff		8.5		1820.2	SB2 7'-10'	
		9.0		1819.7		
		9.5		1819.2		
		10.0		1818.7		
		10.5		1818.2		
		11.0		1817.7		
		11.5		1817.2		
		12.0		1816.7		
Sandy clay, dark brown/gray, moist, stiff		12.5		1816.2	SB2 10'-15'	
		13.0		1815.7		
		13.5		1815.2		
		14.0		1814.7		
		14.5		1814.2		
END OF BORING		15.0		1813.7		
		15.5		1813.2		
		16.0		1812.7		
		16.5		1812.2		
		17.0		1811.7		
		17.5		1811.2		
		18.0		1810.7		
		18.5		1810.2		
		19.0		1809.7		
		19.5		1809.2		
		20.0		1808.7		
		20.5		1808.2		
		21.0		1807.7		
		21.5		1807.2		
		22.0		1806.7		
		22.5		1806.2		
		23.0		1805.7		
		23.5		1805.2		
		24.0		1804.7		
		24.5		1804.2		
		25.0		1803.7		
		25.5		1803.2		

NOTE: Water level at time of boring: None

Water Level:	NA @ TOB	VPS #	Date of Boring: 5/15/2026
Method:	Split Spoon	24026L	Page: 1 of 1
Driller:	RR	Chkd by: BF	Elevation: 1828.7
Sampler:	CH	Project:	
Recorded By:	CH	LAMAR HBI WWTF	
Entered By/Date:	RR 5/17/26		

SOIL BORING LOG

Vantage Pont Solutions 111 Kansas Ave. SE, Huron, SD 57350

Boring # **SB3**

Soil Description	WL	Depth	Geo.	Elevation	Sample ID	USCS
Topsoil		0.0	Topsoil	1826.6	SB3 0'-1'	OL
		0.5		1826.1		
		1.0		1825.6		
Lean clay with sand, dark brown/black, moist, medium stiff to stiff		1.5		1825.1	SB3 1'-2'	
		2.0		1824.6		
		2.5		1824.1		
		3.0		1823.6		
		3.5		1823.1		
		4.0		1822.6		
		4.5		1822.1		
Lean sandy clay, brown/olive, moist, medium stiff to stiff		5.0		1821.6	SB3 2'-8'	
		5.5		1821.1		
		6.0		1820.6		
		6.5	Weathered	1820.1		
		7.0	Till	1819.6		CL
		7.5		1819.1		
		8.0		1818.6		
		8.5		1818.1		
		9.0		1817.6		
		9.5		1817.1		
Sandy clay, brown/gray, moist, stiff		10.0		1816.6	SB3 8'-12.5'	
		10.5		1816.1		
		11.0		1815.6		
		11.5		1815.1		
		12.0		1814.6		
		12.5		1814.1		
		13.0		1813.6		
Sandy clay, dark brown/gray, moist stiff to very stiff		13.5		1813.1	SB3 12.5'-15'	
		14.0		1812.6		
		14.5		1812.1		
END OF BORING		15.0		1811.6		
		15.5		1811.1		
		16.0		1810.6		
		16.5		1810.1		
		17.0		1809.6		
		17.5		1809.1		
		18.0		1808.6		
		18.5		1808.1		
		19.0		1807.6		
		19.5		1807.1		
		20.0		1806.6		
		20.5		1806.1		
		21.0		1805.6		
		21.5		1805.1		
		22.0		1804.6		
		22.5		1804.1		
		23.0		1803.6		
		23.5		1803.1		
		24.0		1802.6		
		24.5		1802.1		
		25.0		1801.6		
		25.5		1801.1		

NOTE: Water level at time of boring: None

Water Level:	NA @ TOB	VPS # 24026L	Date of Boring: 5/15/2026
Method:	Split Spoon		Page: 1 of 1
Driller:	RR	Chkd by: BF	Elevation: 1826.6
Sampler:	CH	Project: LAMAR HBI WWTF	
Recorded By:	CH		
Entered By/Date:	RR 5/17/26		

SOIL BORING LOG

Vantage Pont Solutions 111 Kansas Ave. SE, Huron, SD 57350

Boring # **SB4**

Soil Description	WL	Depth	Geo.	Elevation	Sample ID	USCS
Topsoil		0.0	Topsoil	1836.1	SB4 0'-1'	OL
		0.5		1835.6		
		1.0		1835.1		
Lean clay with sand, dark brown/black, moist , medium stiff		1.5		1834.6	SB4 1'-2'	
		2.0		1834.1		
		2.5		1833.6		
		3.0		1833.1		
		3.5		1832.6		
Lean clay with sand, brown, moist, medium stiff to stiff		4.0		1832.1	SB4 2'-7'	
		4.5		1831.6		
		5.0		1831.1		
	TOB	5.5		1830.6		
		6.0		1830.1		
		6.5		1829.6		
		7.0		1829.1		
		7.5		1828.6		
		8.0		1828.1		
		8.5		1827.6		
		9.0		1827.1		CL
Sandy clay, brown/olive, moist (unsaturated), stiff		9.5		1826.6	SB4 7'-12.5'	
		10.0	Weathered	1826.1		
		10.5	Till	1825.6		
		11.0		1825.1		
		11.5		1824.6		
		12.0		1824.1		
		12.5		1823.6		
		13.0		1823.1		
		13.5		1822.6		
		14.0		1822.1		
		14.5		1821.6		
		15.0		1821.1		
		15.5		1820.6		
Sandy clay, dark brown/gray, moist, stiff		16.0		1820.1	SB4 12.5'-20'	
		16.5		1819.6		
		17.0		1819.1		
		17.5		1818.6		
		18.0		1818.1		
		18.5		1817.6		
		19.0		1817.1		
		19.5		1816.6		
END OF BORING		20.0		1816.1		
		20.5		1815.6		
		21.0		1815.1		
		21.5		1814.6		
		22.0		1814.1		
		22.5		1813.6		
		23.0		1813.1		
		23.5		1812.6		
		24.0		1812.1		
		24.5		1811.6		
		25.0		1811.1		
		25.5		1810.6		

NOTE: Water level at time of boring: 6' (1" sand seam)

Water Level:	6' @ TOB
Method:	Split Spoon
Driller:	RR
Sampler:	CH
Recorded By:	CH
Entered By/Date:	RR 5/17/26

VPS # 24026L

Chkd by: BF

Date of Boring: 5/15/2026

Page: 1 of 1

Elevation: 1836.1

Project: LAMAR HBI WWTF

SOIL BORING LOG

Vantage Pont Solutions 111 Kansas Ave. SE, Huron, SD 57350

Boring # **SB5**

Soil Description	WL	Depth	Geo.	Elevation	Sample ID	USCS
Topsoil		0.0	Topsoil	1836.5	SB5 0'-1'	OL
		0.5		1836.0		
Lean clay with sand, light brown/gray, moist, medium stiff		1.0		1835.5		
		1.5		1835.0	SB5 1'-2'	
Lean sandy clay, brown/olive, moist, medium stiff		2.0		1834.5		
		2.5		1834.0		
		3.0		1833.5	SB5 2'-4'	
		3.5		1833.0		
Sandy clay, brown/olive, moist, stiff		4.0		1832.5		
		4.5		1832.0		
		5.0		1831.5		
		5.5		1831.0		
		6.0		1830.5		
		6.5		1830.0		
		7.0		1829.5		
		7.5		1829.0		
		8.0		1828.5		
		8.5		1828.0		
		9.0		1827.5		
		9.5		1827.0	SB5 4'-16'	CL
		10.0	Weathered	1826.5		
		10.5	Till	1826.0		
		11.0		1825.5		
		11.5		1825.0		
		12.0		1824.5		
		12.5		1824.0		
		13.0		1823.5		
		13.5		1823.0		
		14.0		1822.5		
		14.5		1822.0		
		15.0		1821.5		
		15.5		1821.0		
	(TOB)	16.0		1820.5		
Sandy clay, dark brown/gray, moist, stiff to very		16.5		1820.0		
		17.0		1819.5		
		17.5		1819.0		
		18.0		1818.5	SB5 16'-20'	
		18.5		1818.0		
		19.0		1817.5		
		19.5		1817.0		
END OF BORING		20.0		1816.5		
		20.5		1816.0		
		21.0		1815.5		
		21.5		1815.0		
		22.0		1814.5		
		22.5		1814.0		
		23.0		1813.5		
		23.5		1813.0		
		24.0		1812.5		
		24.5		1812.0		
		25.0		1811.5		
		25.5		1811.0		

NOTE: Water level at time of boring: 16'

Water Level:	16' @ TOB	VPS #	Date of Boring: 5/15/2026
Method:	Split Spoon	24026L	Page: 1 of 1
Driller:	RR	Chkd by: BF	Elevation: 1836.5
Sampler:	CH	Project:	
Recorded By:	CH	LAMAR HBI WWTF	
Entered By/Date:	RR 5/17/26		

SOIL BORING LOG

Vantage Pont Solutions 111 Kansas Ave. SE, Huron, SD 57350

Boring # **SB6**

Soil Description	WL	Depth	Geo.	Elevation	Sample ID	USCS
Topsoil		0.0	Topsoil	1836.3	SB6 0'-1'	OL
		0.5		1835.8		
Lean sandy clay, brown, moist, medium stiff		1.0		1835.3		
		1.5		1834.8		
		2.0		1834.3	SB6 0.5'-3.5'	
		2.5		1833.8		
		3.0		1833.3		
Sandy clay, brown moist, medium stiff		3.5		1832.8		
		4.0		1832.3		
		4.5		1831.8		
		5.0		1831.3		
		5.5		1830.8		
	(TOB)	6.0		1830.3		
		6.5		1829.8		
		7.0		1829.3		
		7.5		1828.8		
		8.0		1828.3	SB6 3.5'-13.5'	
		8.5		1827.8		
		9.0		1827.3		CL
		9.5		1826.8		
		10.0	Weathered Till	1826.3		
		10.5		1825.8		
		11.0		1825.3		
		11.5		1824.8		
		12.0		1824.3		
		12.5		1823.8		
		13.0		1823.3		
Sandy clay, dark brown/gray, moist, stiff		13.5		1822.8		
		14.0		1822.3		
		14.5		1821.8		
		15.0		1821.3	SB6 13.5'-16.5'	
		15.5		1820.8		
		16.0		1820.3		
Sandy clay, dark gray, very slight weathering, moist, very stiff		16.5		1819.8		
		17.0		1819.3		
		17.5		1818.8		
		18.0		1818.3	SB6 16.5'-20'	
		18.5		1817.8		
		19.0		1817.3		
		19.5		1816.8		
END OF BORING		20.0		1816.3		
		20.5		1815.8		
		21.0		1815.3		
		21.5		1814.8		
		22.0		1814.3		
		22.5		1813.8		
		23.0		1813.3		
		23.5		1812.8		
		24.0		1812.3		
		24.5		1811.8		
		25.0		1811.3		
		25.5		1810.8		

NOTE: Water level at time of boring: 7' (trace in sand seam)

Water Level:	7' @ TOB
Method:	Split Spoon
Driller:	RR
Sampler:	CH
Recorded By:	CH
Entered By/Date:	RR 5/17/26

VPS # 24026L

Chkd by: BF

Date of Boring: 5/15/2026

Page: 1 of 1

Elevation: 1836.3

Project: LAMAR HBI WWTF

National Flood Hazard Layer FIRMette

97°48'56"W 44°55'32"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

97°48'19"W 44°55'6"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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