

North Dakota Transmission  
Authority  

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North Dakota Industrial Commission

## **BIL 40101(d) Application**

**Project Title:**

Overhead to Underground

**Applicant:**

City of Lakota/Lakota Municipal Utilities

**Date of Application:**

11/20/2023

\*updated 9/11/24

**Amount of Grant Request:**

\$1,707,109.30

**Total Amount of Proposed Project:**

\$2,626,322

**Duration of Project:**

November '24 – January '26 (14 months)

**Point of Contact (POC):**

Amie Vasichek

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701-247-2454

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lakotact@polarcomm.com

**POC Address:**

PO Box 505

Lakota, ND 58344

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### Applicant Description

The City of Lakota is in Nelson County, ND and is also the county seat. As such, the City of Lakota provides critical emergency response service and provides critical service to the Good Samaritan Home, an elderly care home. Reliable electric and water service is critical to the health and safety of those residents. The City of Lakota also serves a large agriculture trade area and is home to a large Cenex Harvest States Agronomy Facility. Given the northern tier climate, the planting, spraying, and harvest windows are short. Any interruption in providing service to the region's agriculture producers has a significant impact on food & energy production.

The City of Lakota has a population of 680 residents and continues to grow. The City of Lakota owns and operates its own utility, Lakota Municipal Utilities, which provides electricity, water, and sewer to our customers. The Lakota Municipal Utilities sold 14,936,673 kWh to its customers in 2024.

According to the Climate and Economic Justice Screening Tool, Lakota and Nelson County are rated 65<sup>th</sup> percentile for low median income. In 2024, Lakota Municipal Utilities had on average 25 households on fuel assistance with the state funded assistance program; each averaging 65% LIHEAP Cost Share. The Lakota Municipal Utilities makes every effort to assist its utility customers by seeking assistance during dire financial times; connecting them to resources such as Red River Community Action, Salvation Army and Red Cross. Lakota Public School has approximately 22% of the student population qualified for the free/reduced meal program. These are significant factors our utility considers when anticipating needed maintenance work and improvements to the utility system. Our utility has affordable rates for our customers, increasing rates to cover the actual cost of improvements would not be burdensome on our customer base.

## Project Description

Over the course of 5 years, our utility experienced dozens of outages, mostly due to overhead line failures. A report generated from the APPA eReliability Tracker indicates the severity with each outage. Nearly 50% of our outages were due to overhead failure resulting in more than 76 hours of downtime and resulting in 380 of our customers without power during that time.

The city of Lakota and Lakota Municipal Utilities would like to convert the overhead electrical lines to underground throughout town. This project would address the aging system and the City of Lakota does not have journeyman linemen on staff to complete necessary maintenance or handle outages. The age and condition of the grid increases the likelihood of weather-induced outages, and supply chain issues can delay the repair of damaged equipment. Our most recent outage occurred on July 7<sup>th</sup>, 2024 and resulted in utility customers being without electricity for over 48 hours. This recent outage resulted in hiring two different contract services to assist with replacing damaged transformers and \$50,000 in expense.

The city of Lakota & Lakota Municipal Utilities will follow NDCC and bid the entire project with the requirement of the contractor to follow the RTES, NEPA AND DBA guidelines.

Lakota Municipal Utilities has a bucket truck and other equipment that will be used to assist with the project and help mitigate overall costs. Over the course of 10 years, Lakota Municipal has hired over \$440,000 in sub-contractors/Journeymen Lineman for repair work needed to the distribution system. This cost does not include other expenses such as engineering, equipment, and in-kind labor that have been incurred.

Through this project, the City of Lakota's goal is to reduce the number of outage events by 80% and the duration of outages to 2 hours per customer per year.

## Standards of Success

In 2020 Missouri River Energy Services (MRES) conducted an assessment of Lakota's Distribution System. In the provided assessment, it was noted one of the high priority items was to replace or upgrade the aging wooden electrical poles. North Dakota is known for high winds; with the condition our electrical poles are in it is very likely to have pole failures leading to frequent outages. This raises a safety concern or a risk of harming a person or destruction of property with the fragile aging poles. Although it is understood this measure is more expensive up front, we feel it is more cost-effective in the long run. Putting the overhead lines underground will require less

maintenance and are less likely to need repairs or replacement over time. With the increased protection from severe weather, it will be less likely to have outages and related damages.

This provides a more reliable service to our citizens and businesses. This project also has a positive economic impact by reducing outage-caused downtime for our Lakota business community.

As stated in the 2024 MRES assessment, the overall distribution pole condition requires replacement. Our primary sub-contractor, North Holt Electric, is approximately 75 miles away and during times of need are not always able to make Lakota Municipal Utility a priority as they also service other customers. This consideration would potentially have Lakota without power for an extended timeframe.

This project will not require new rights of way, impeded access to any natural resources, historical tribal lands, or important cultural locations. During this project, a brief access restriction to certain areas for reasons of safety may occur, however, interruptions will be planned in cooperation with any businesses and residential areas affected.

This project will involve construction, maintenance and repair of public infrastructure in the United States and Lakota Municipal Utilities recognizes our obligations under Build America, Buy America (BABA) in our design, procurement and contract management.

## Project Timeline

If awarded, we anticipate this project to begin summer 2025, however we are also aware the extended time it will take for the appropriate transformers to be built and delivered. This may cause a delay in the project, but we will work with our contractor to proceed with as much prep work as possible leading up to delivery of the transformers. We estimate the 12-15 months for the delivery of the transformers, but are hopeful that wait time for these critical items has significantly decreased prior to awarding of the grant.

### Project Milestones:

1. Bid Packet/Advertise: December 2024-January 2025
2. Contracts signed/Bid Award/Order Materials – January-April 2025
3. Installation – April 2025-November 2025
4. Final Inspection: November 2025-January 2026

## Project Budget

Contractor Labor and Equipment - \$2,165,565

Mobilization - \$72,000

Engineering Services - \$ 150,000

Contingencies (10%) - \$238,757

Total estimated project cost - \$2,626,322

The city of Lakota is fully prepared to provide 35% cost match of the project amounting to \$919,212.70. We anticipate financing a portion of the cost match in addition to utilizing some of our reserves.

North-Holt Electric, Inc  
East Grand Forks, MN 56721

City of Lakota Electric Utilitiy  
Lakota, ND 58344

15-Nov-23  
estimated cost  
overhead to Ugrd  
conversion

Conductor materials

	4/0 primary 15 kv wire`	60,000 ft	\$	210,000.00	
	1/0 primary 15kv wire	5600	\$	19,600.00	
	secondary 240 volt wire	10,500	\$	21,000.00	
	copper grounding	1,400	\$	1,400.00	
11/15/2023	Total		\$	252,000.00	
8/23/2024	Revised up 7% inflation				\$ 269,640.00

Cabinet materials

	3 phse junction cabinets	73	\$	182,500.00	
	secondary pedestals	50	\$	25,000.00	
count ?	1 phase pad transformer	80	\$	200,000.00	LOW
count ?	3 phase transformers	15	\$	90,000.00	LOW
	moduals	219	\$	21,900.00	
	200 amp elbows	862	\$	258,600.00	
	200 amp pro caps	438	\$	43,800.00	
	grd crimps	657	\$	32,850.00	
	grd rods	73	\$	17,300.00	
11/15/2023	totals		\$	871,950.00	
8/23/2024	Revised up 9% inflation				\$ 950,425.00

# Estimated costs continued

## Labor & Equipment excavation

trench/ Bore	20,000 ft	\$	360,000.00
Misc excavation	200 units	\$	160,000.00
Secondary pole canverstions	100 units	\$	150,000.00
11/15/2023 Totals		\$	670,000.00
8/23/2024 Revised for Federal wages est increase 15%		\$	770,500.00
11/15/2023 Mobilization		\$	72,000.00
8/23/2024 Mobilization		\$	72,000.00
11/15/2023 Engineering service cost ??		\$	100,000.00
8/23/2024 Engineering service 5-9% ?? total project costs		\$	150,000.00
11/15/2023 estimated project costs		\$	1,875,950.00
8/23/2024 Revised Est project costs		\$	2,212,565.00

## NOTE

no overhead line demo cost

no meetings/outage scheduling

No professional engineer service  
staking sheets / etc.

Hwy 1 east to H2O plant not included.  
could add about \$ 175,00.00 to project  
Labor,Materials & equipment.

No pricing for residential underground Or commercial accounts on private property.



Date \_\_\_\_\_ Project \_\_\_\_\_  
 By \_\_\_\_\_ Subject \_\_\_\_\_  
 Scale \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

TOTAL LAB. & Eq. 1,793,950. ✓

Mobil. 4% 72,000 -

Eng. Serv. 6%? 100,000 -

\$ 1,875,950.00 ? Big ?

NO DEMO ! Where to bring it?

Storage scheduled -

meetings

Staking & Engineering Service?

#### Office

20914 430th Avenue SW  
 East Grand Forks, MN

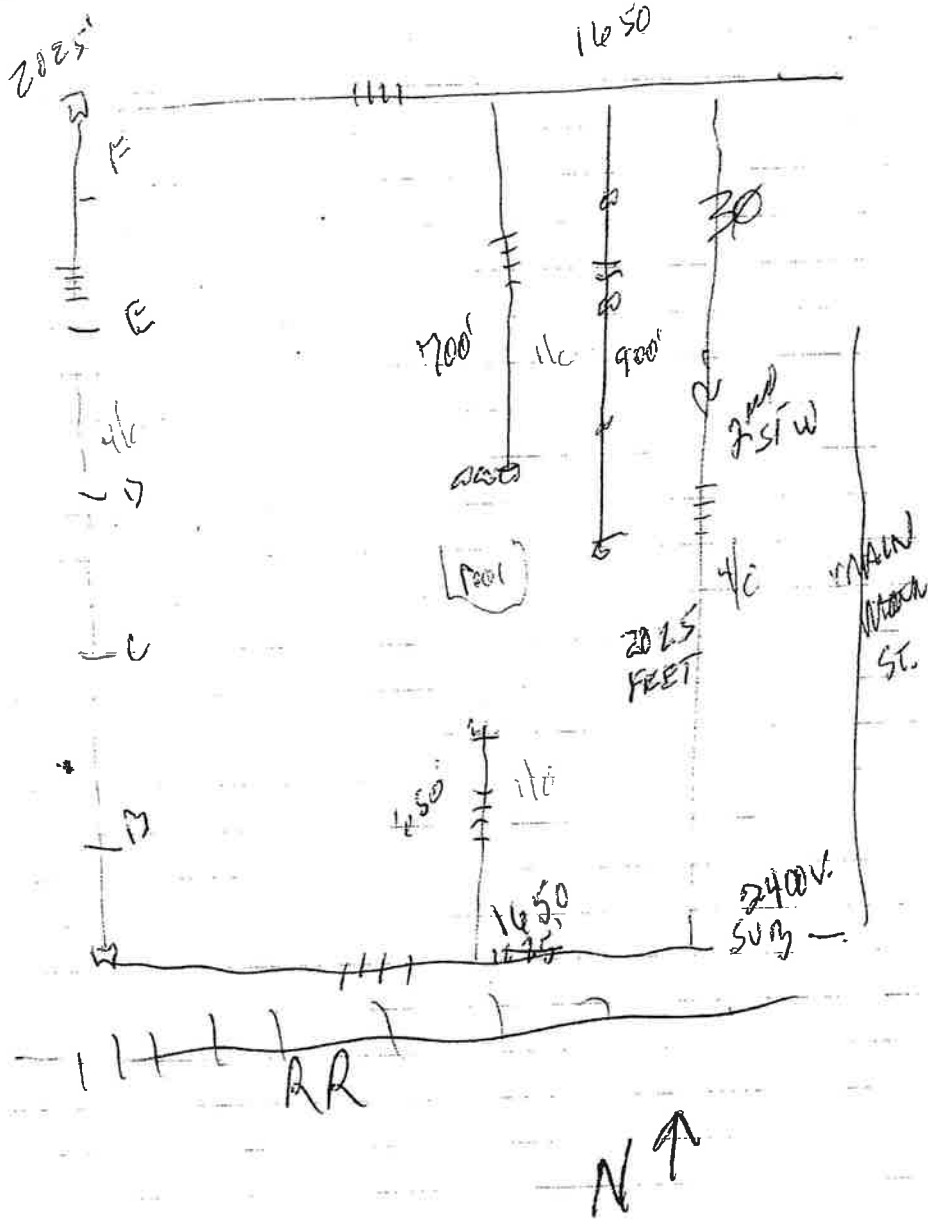
#### Phone

Office: 218-773-1251  
 Fax: 218-773-1591

#### Shop

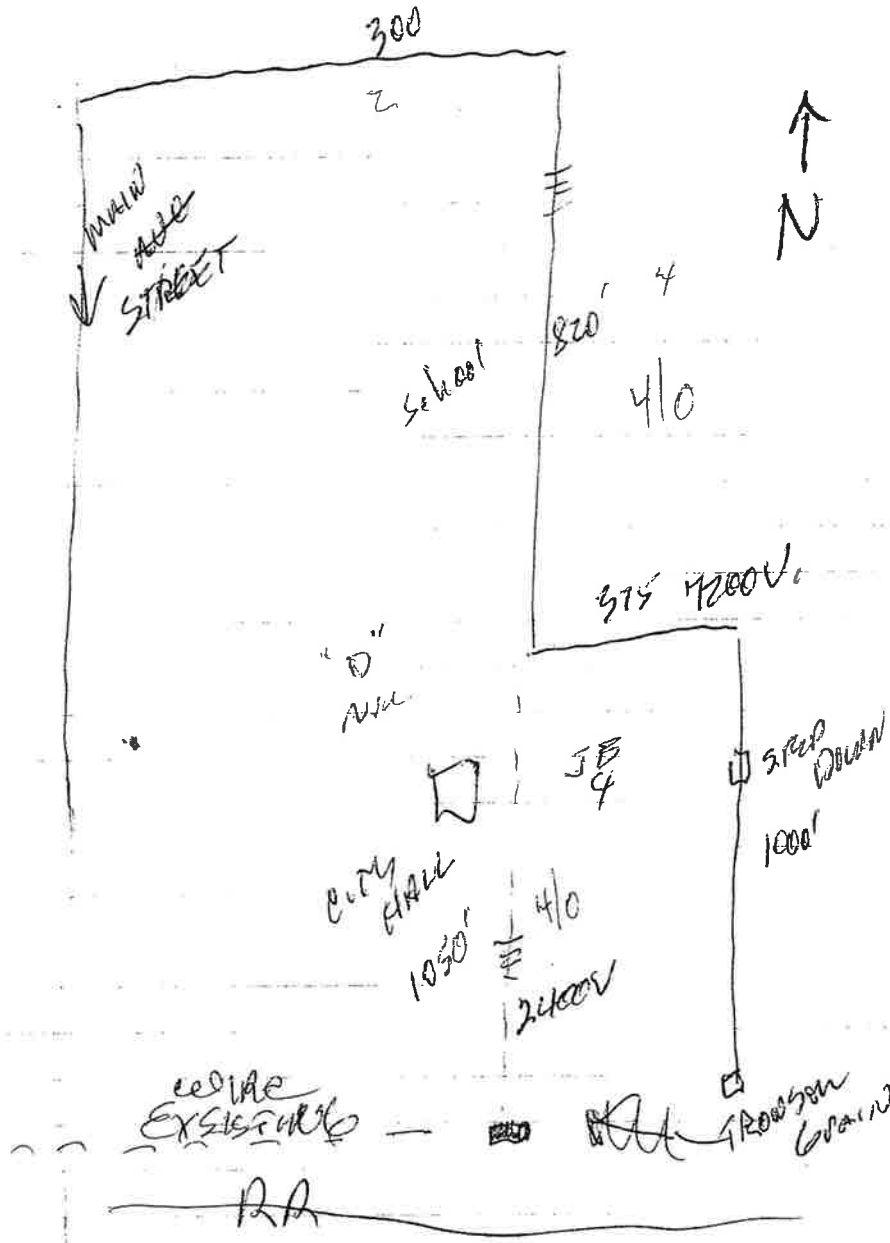
1111 15th Avenue NE  
 East Grand Forks, MN







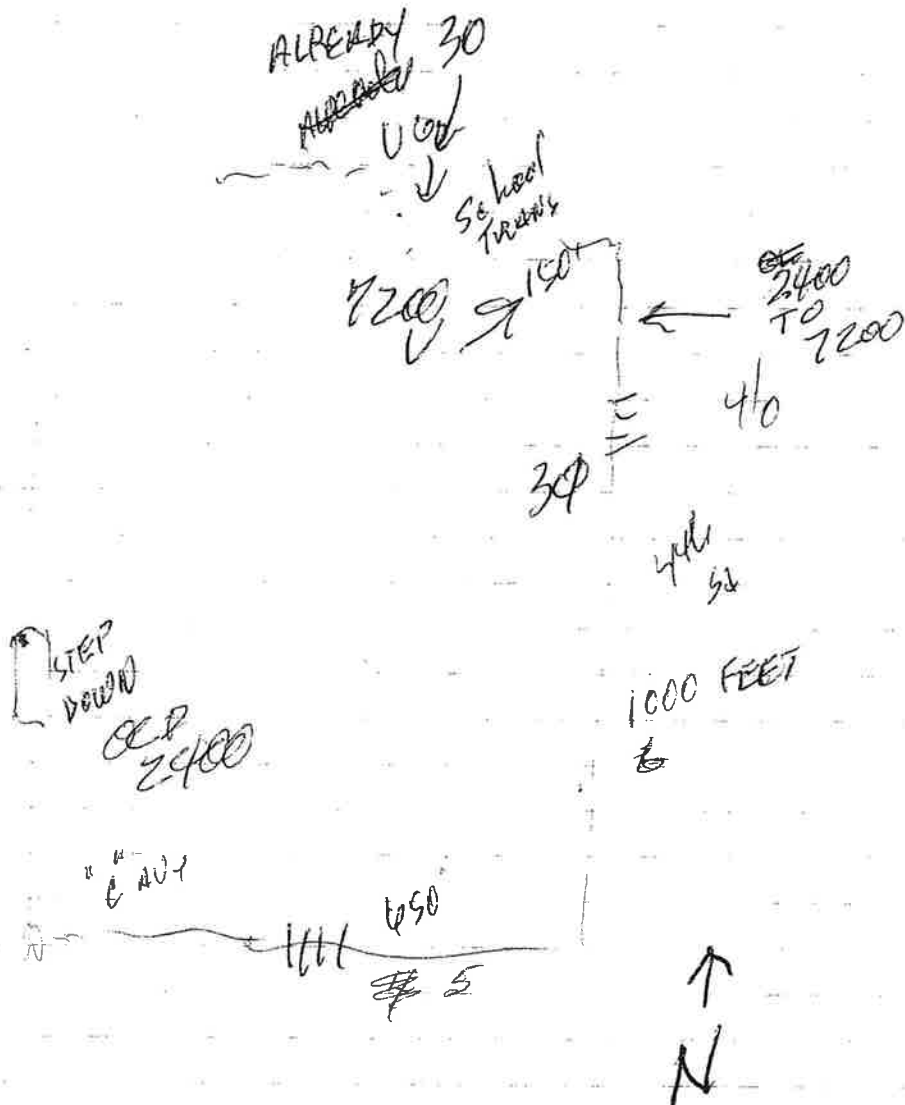
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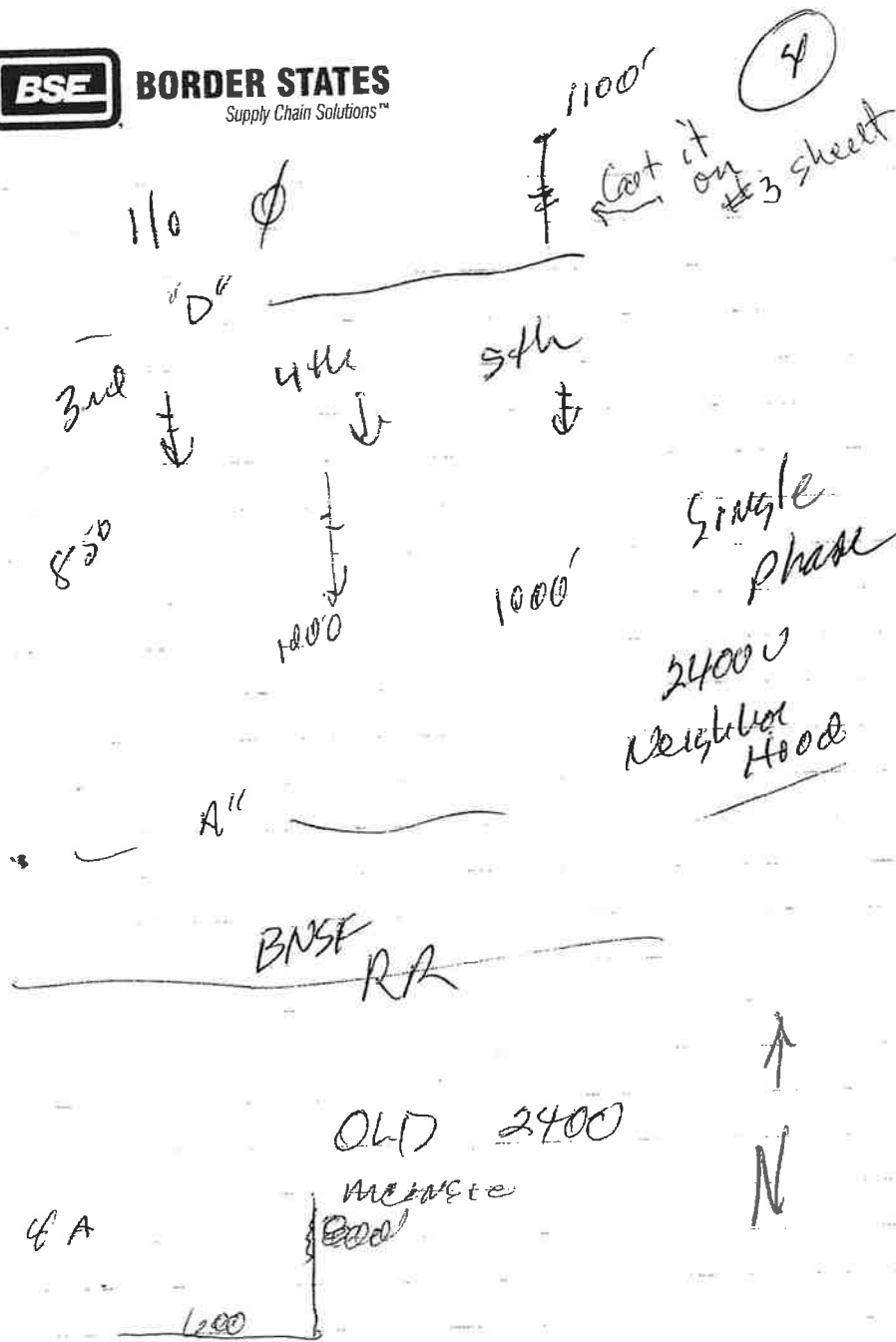
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**BORDER STATES**  
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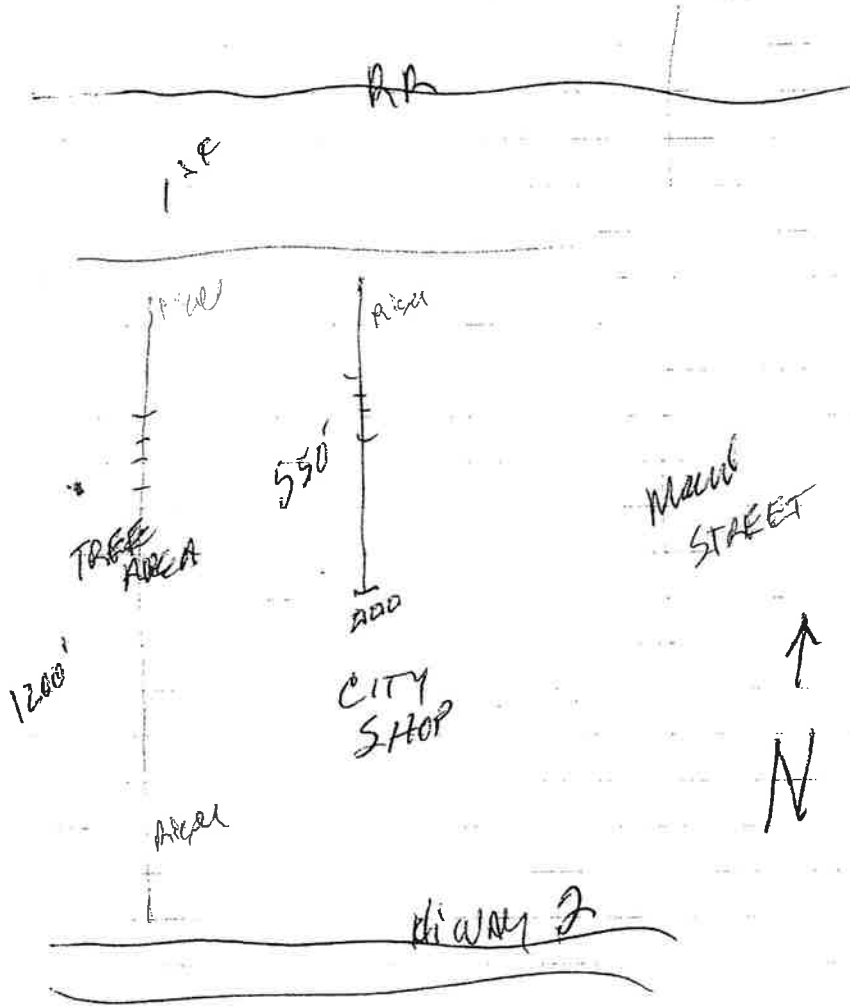


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Supply Chain Solutions™

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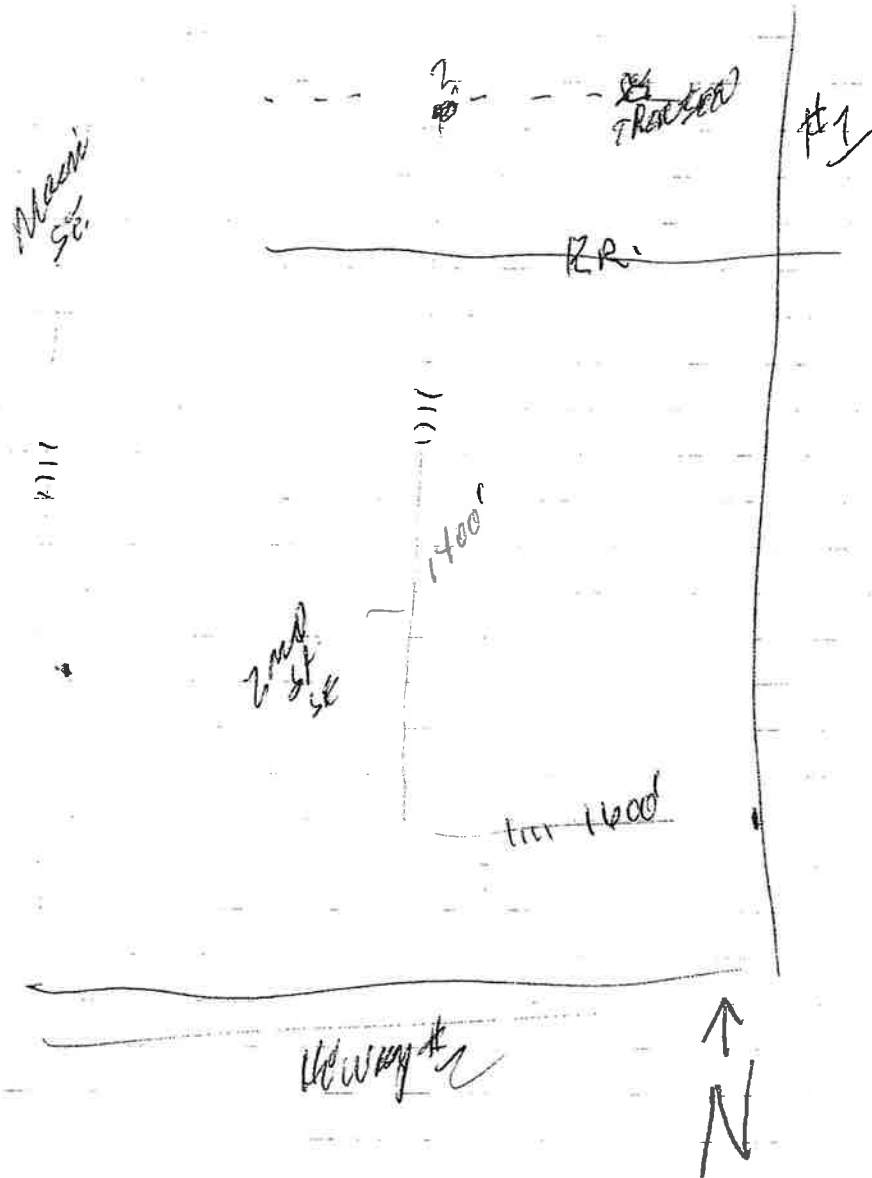
South  
of  
TRACKS





**BORDER STATES**  
Supply Chain Solutions™

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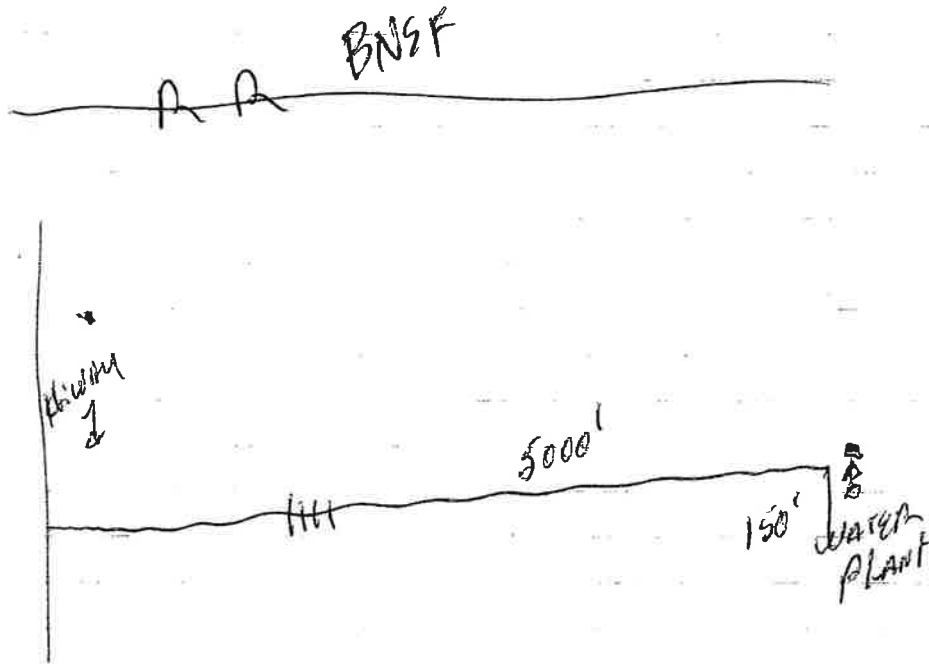




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EAST



# Causes Pie Chart

# Lakota Municipal Utilities

Start Date:

09/11/2021

📅

End Date:

09/11/2024

📅

Includes outages that started on the End Date.

Top-level Cause

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▼

Substation:

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▼

Circuit:

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▼

Report on Outage:

- ☒ Count
- ☐ Duration
- ☐ Customers Interrupted

