



## IOWA

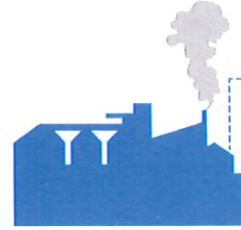
### Voluntary Easement Miles Acquired

- Over 362 miles now signed
- Over 887 landowners have signed, equating more than 1,545 agreements executed

OVER  
**362**  
miles

### Iowa Utilities Board

- Permit Application Submitted to Iowa Utilities Board January 2022 – Docket Number HLP-2021-0001
- Decision requested June 2023
- Iowa Utilities Board accepting comments at [iub.iowa.gov](http://iub.iowa.gov)



### Investors

- Ethanol Plant Partners
- John Deere
- Continental Resources
- Tiger Infrastructure
- TPG Rise Climate
- Summit Agricultural Group

### Partners

- 32 ethanol plants across 5 states (Nebraska, Iowa, Minnesota, North Dakota, South Dakota)
- Minnkota Power Cooperative (CO<sub>2</sub> storage) giving Summit Carbon Solution access to the largest of only three permitted CO<sub>2</sub> storage sites in the United States.



Construction Anticipated Start Date: **August 2023**



- A gas in atmospheric conditions.
- A dense phase deep underground or in a pipeline. A dense phase has the viscosity of a gas but a density closer to that of a liquid.
- Nonexplosive and noncombustible.
- Dispersed as a gas when introduced to conditions outside the pipeline.
- CO<sub>2</sub> pipelines have an excellent safety record exceeding pipelines that carry other materials.
- Transported at ambient temperature that does not affect the surrounding soil.

### Pipeline Transport Is Critical to Carbon Capture & Storage

Transporting carbon dioxide by pipeline is the safest method for the large volumes of CO<sub>2</sub> that will be captured and permanently stored. With more than 5,000 miles of infrastructure currently operating in the United States, carbon dioxide pipelines have an excellent safety record.

Carbon capture and storage utilizes longstanding technology that is safe for landowners and communities.

- CO<sub>2</sub> capture is already deployed at more than 40 ethanol plants.
- There are 5,000 miles of existing CO<sub>2</sub> pipelines in the United States regulated by the Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA).
- Captured CO<sub>2</sub> is permanently and safely stored deep underground based on EPA standards.

### Pipelines Are Highly Regulated

Stringent requirements for the safe design, construction, and operation of CO<sub>2</sub> pipelines have been established by the DOT PHMSA. Additionally, constructing the Summit Carbon Solutions system requires permits from the following entities:

- |  |  |
|--|--|
| State:   | Federal:   |
| <ul style="list-style-type: none"> <li>• Iowa Utilities Board</li> <li>• Iowa Department of Natural Resources (DNR)</li> </ul> | <ul style="list-style-type: none"> <li>• United States Army Corps of Engineers</li> <li>• United States Fish and Wildlife</li> </ul> |

Summit Carbon Solutions is working with landowners, community leaders, stakeholders, and more with respect, honesty, and transparency to obtain the necessary rights from the landowners for any proposed temporary and permanent easements.

### Summit Carbon Solution's Pipeline is Overbuilt for Safety

Summit Carbon Solutions' pipeline will be built beyond federal specifications in these ways:

- PHMSA - 195.248 Pipeline Location - requires 3ft depth below ground level. Summit Carbon Solutions will be at 4ft minimum depth.
- PHMSA - 195.210 Pipeline Location - requires 50ft setback from all dwellings. Summit Carbon Solutions is designing the pipeline that far exceeds the minimum setback.
- PHMSA - 195.250 Clearance Between Pipe and Underground Structures – Any new pipe must be at least 12" away from any other underground pipe or structure. Summit Carbon Solutions' best practice is 24".
- PHMSA 49 CFR Part 195 defines minimum requirements like the spacing between block valves, which is no more than 20 miles apart and in some cases less for Summit Carbon Solutions' pipeline.

Summit Carbon Solutions will employ a computer based, computational leak detection system that continuously monitors the operation of the pipeline from a manned control center. Similar leak detection systems are currently being utilized in the operation of numerous pipelines across the United States. Data will be continuously collected from pressure sensors, flowmeters, and temperature sensors installed along the pipeline and used to identify abnormal operating conditions. In the unlikely event of a leak, the system will provide information necessary to locate the leak, isolate the pipeline segment, and mitigate risk.

### Community Investment

Summit Carbon Solutions is looking to invest and volunteer in local communities. If there is somewhere we can invest in your community, please contact Kaylee Langrell 501-581-3348 or [Kaylee.langrell@tki360.com](mailto:Kaylee.langrell@tki360.com)

### Contact Information

For Emergency Management Questions:  
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For More Project Information or Interviews:  
**JESSE HARRIS**  
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## FREQUENTLY ASKED QUESTIONS:



### How does the Summit Carbon Solutions Project work?

By capturing CO<sub>2</sub> from the ethanol plants and transporting it via pipeline to North Dakota where it will be safely and permanently sequestered.

### What is the benefit of this project to the ethanol plants?

The Summit Carbon Solutions project will allow ethanol producers to sell their product in the growing number of markets that pay more for low carbon fuels.

### Why does lowering carbon intensity scores at ethanol plants matter?

The ability to sell into low carbon fuel markets is critical to maintain the viability of the ethanol long-term, protecting tens of thousands of jobs and strengthening an industry that purchases half of all the corn grown in the U.S.

### What happens if the easement is sold to another entity?

Easement rights are acquired with the land and are not impacted by future changes in ownership. Please see language directly from easement Assignment Clause: "The Pipeline Easement and Access Easement shall be permanent, and the Easements and provisions of this Agreement, including all benefits and burdens, shall run with the land."

### Who is liable if there is damage to the pipeline?

Summit Carbon Solutions holds landowner harmless in almost all circumstances. Please see language directly from easement indemnification clause: "Company agrees to indemnify and hold Landowner harmless from and against any claim or liability or loss from personal injury or property damage resulting from or arising out of the use of the Easements by Company, its servants, agents or invitees, excepting, however, such claims, liabilities or damages as may be due to or caused by the acts of Landowner, or its servants, agents or invitees."

## SAFETY INFORMATION



100% of the pipeline welds are inspected throughout using industry accepted testing methods, such as X-ray or ultrasound to ensure integrity, after which the welds are coated.



The pipeline is then hydrostatically tested, which involves filling the pipe with fresh water and pressuring it up to 125% or more of the maximum operating pressure, thereby ensuring the integrity of the pipe.



Block Valves are placed throughout the project line with a maximum distance of no more than 20 miles apart. These block valves will automatically shut if there is any degree of pressure or temperature change in the pipeline. These block valves are placed more frequently around high population areas and large waterways.



The pipeline will be monitored 24/7 by employees of Summit Carbon Solutions at the home office in Ames, Iowa



Summit Carbon Solutions will employ a large number of specialists to live and work locally to maintain the project line.



Summit Carbon Solutions has staff dedicated to working with and training emergency responders in each county. These staff have extensive background in emergency management and will provide multiple trainings and workshops to prepare county emergency response for any unlikely breach in the pipeline.

## SUMMIT CARBON SOLUTIONS WILL BE A GOOD STEWARD OF THE LAND:

- SCS will be good stewards of the land across our entire project area. Summit Carbon Solutions will protect and restore lands, topsoil, drain tiles, drainage systems, and more to their preconstruction levels.
- The average weight of construction equipment necessary for installing 6-inch diameter pipe is typically 40% to 80% less than the weight of equipment necessary for installing 36-inch diameter pipe.
- 240% crop damages paid up front
- Soil disturbance will also decrease with decreasing pipe diameter.
- SCS will warranty drain tile in perpetuity. Landowner has the option to use their preferred contractor or to use SCS's contractor.
- Each county will hire an ag inspector who will have authority to stop work in the interest of keeping the land in best condition possible.

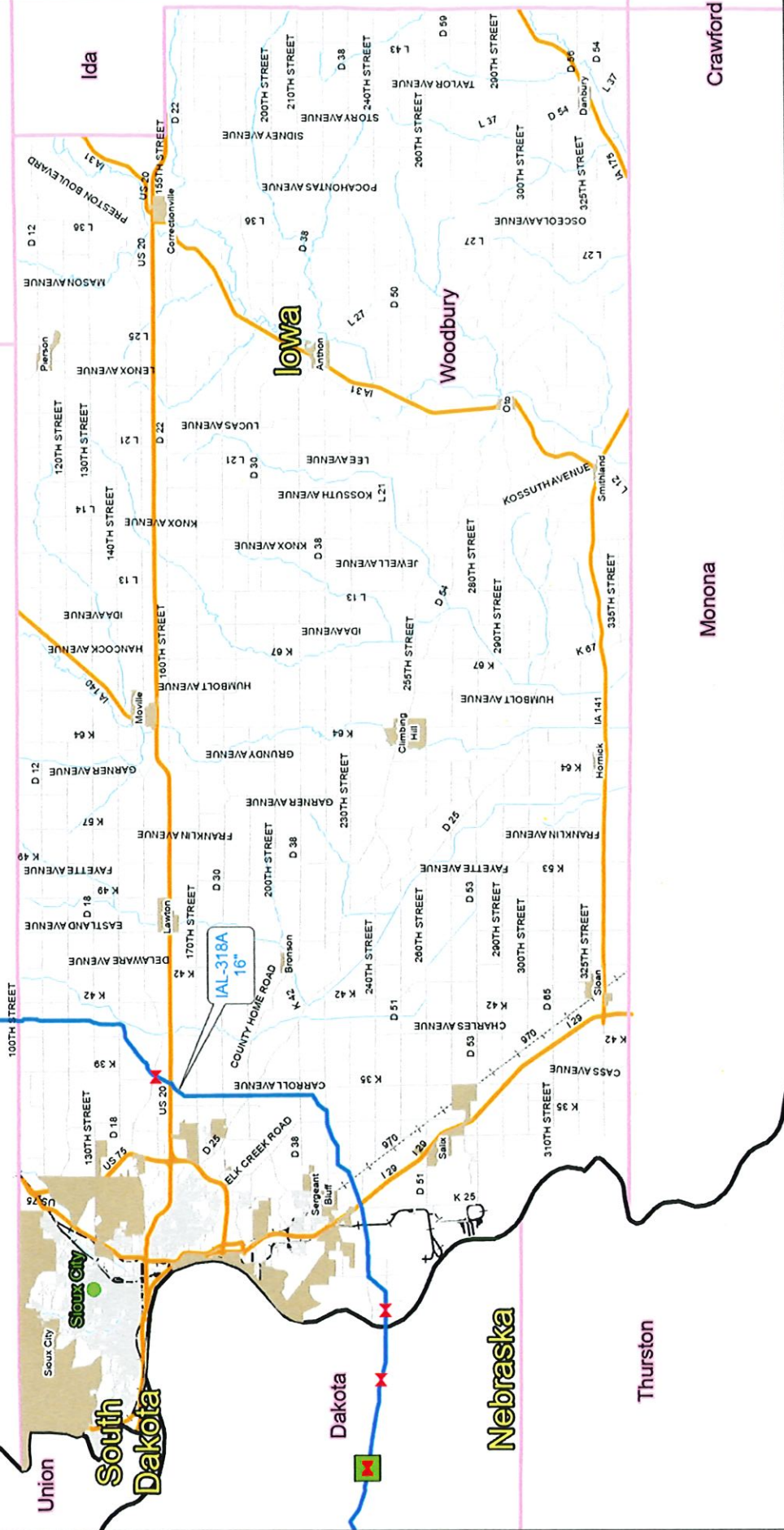




Cherokee

Plymouth

Union



**SUMMIT  
CARBON  
SOLUTIONS**

Woodbury County Iowa Pipeline Mileage Overview	
COUNTY: WOODBURY	DRAWN BY: CC
STATE: IOWA	CREATED BY:
REV. NO.	REVISION
DATE	DATE
ISSUED FOR REVIEW	2022-09-23
<b>PRELIMINARY ROUTE SUBJECT TO CHANGE</b>	
DATE: 10/20/22	PROJECTION: NAD 83

## 20.52 MILES OF ANTICIPATED PIPELINE WOODBURY COUNTY IOWA

Pipeline centerline is based on the 09/27/2022 route.

	Participating Ethanol Plant
	County Seat
	Mainline Valve
	Pump Station
	Highly Populated Areas
	State Boundary
	County Boundary

	Route
	Primary Road
	Secondary Road
	Local Road
	Railroad
	River