

# Winter Operations 2024-2025

brookings  
SOUTH DAKOTA



# Event Classifications

## Class 1

- Light snow fall or mix precipitation
- Probability 0"- 2" snow accumulation
- City crews dispatched
- Contractors will not be activated
- Light plowing or de-icing application
- Street Supervisor to manage operations

CLASS 1 STORM  
1" - 2"



Notification to partners

# Event Classifications

## Class 2 Emergency Snow Route Advisory

- Moderate to heavy snow fall
- Probability of 2" – 6" snow accumulation
- No Parking on Emergency Snow Routes
- Emergency snow routes are priority
- Street Manager/Supervisor manage operations
- Snow Alert may be activated
- Contractors may be activated



CLASS 2 STORM  
2" - 6"



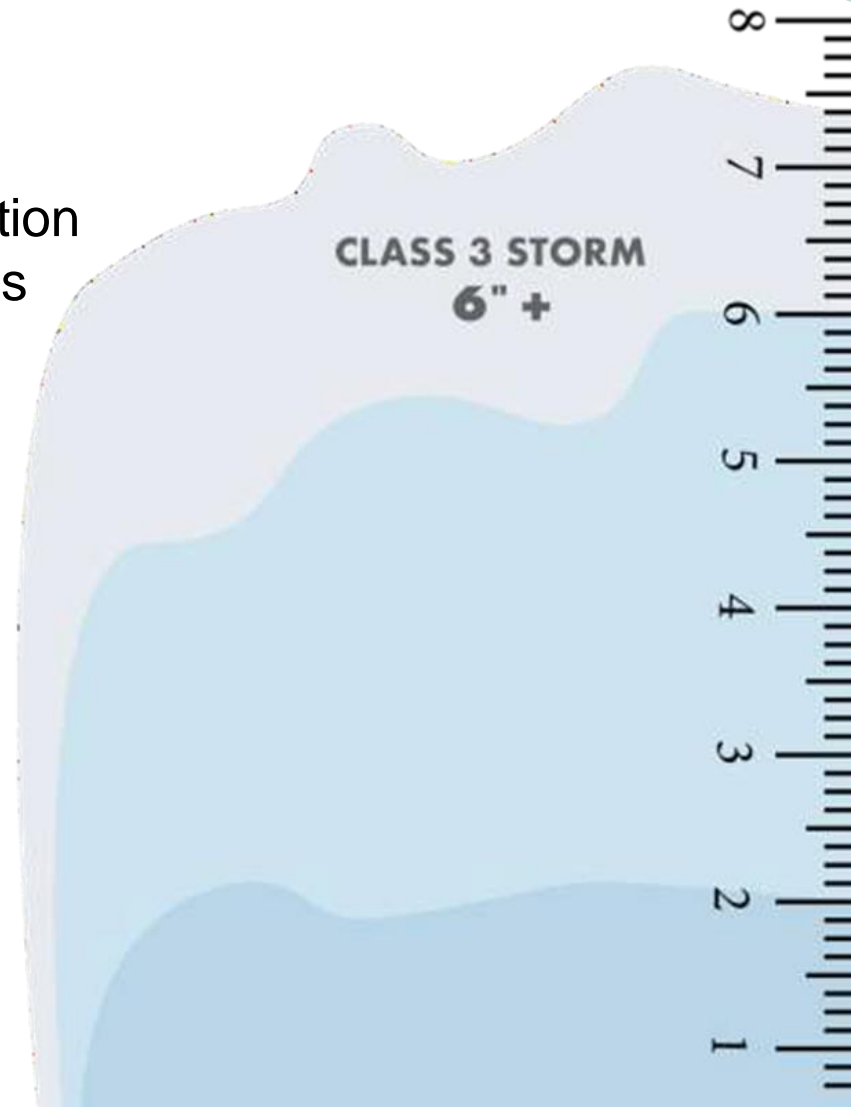
Notification to partners  
Social Media  
Civic Plus Alerts  
Press Release



# Event Classifications

## Class 3 Snow Alert

- Extremely heavy snowfall
- Probability 6"+ snow accumulation
- Occurs in 24-hour period or less
- Snow Alert Declaration
  - Street Manager
  - Acting Street Manager
  - Public Works Director
  - Chief of Police
  - City Manager
- Citywide Parking Ban
- Contractors Activated



Notification to partners  
Social Media  
Civic Plus Alerts  
Press Release

# Event Classifications

## Ice Storm

- Treated as a Class 1 Storm
- Class 1 procedures to be followed
- No issuance of contractors
- City-provided equipment only
  - Sand trucks with applicable materials
  - Motor graders with Sharq cutting edges



Notification to partners

# Current Operations



## Snow Alert Parking Ban

- 4"+ of snow accumulation
- Minimum of 4-hour notice
- Snow alert parking ban declaration
  - Street Manager, Acting Street Manager, Public Works Director,
  - Police Chief, City Manager
- Notification Outlets
  - City of Brookings website
  - Notify Me: Text and email notification alert system
  - City of Brookings Social Media
  - Snow Line: 605-697-7669
  - Television: KELO, Dakota News Now (KDLT & KSFY), Cable Channel 9 on Mediacom, Cable Channel 20 on Swiftel
  - FM and AM Radio: local stations
  - SDSU (Students and Faculty)



**Do you want to be**  
*in the know* **about**  
**PARKING BANS & OTHER**  
**CITY SNOW ALERTS?**

*Sign up for notifications* | CITYOFBROOKINGS-SD.GOV



Sign up for Notify Me alerts at [www.cityofbrookings-sd.gov/NotifyMe](http://www.cityofbrookings-sd.gov/NotifyMe)

- Provide contact information to create account and sign in.
- Choose to receive alerts via text and/or email.
- Scroll to Alert Center. Then select Emergency Alerts.

Disclaimer: The City of Brookings recommends residents do not rely on SMS text messaging as their primary source to receive emergency alert information. SMS text messages may be blocked by your carrier or filtered/flagged as SPAM, causing you not to receive the message. A secondary source (e.g., email, local media) should be used in addition to text messages. The City of Brookings is not liable for delayed or undelivered messages.

# Current Operations



## Priority of Snow Routes

- Emergency snow routes designated in **RED**
- Major arterial and collector routes designated
  - **GREEN** and **BLUE**
- Other through-streets.
- Cul-de-sacs and other streets with no outlet.
- Alleys when snow accumulation greater than 4" or ice accumulation greater than 1/2" as confirmed by Street Manager.
- Snow removal brochure
  - Provides public information



# Current Operations



## City Equipment

- Public Works Department

- (5) Motor graders with wings

- (5) Loaders

- (3) Loaders with plow & wing
    - (1) Bucket
    - (1) Snowblower (2 Primary, 2 backups)

- (5) Trucks with plows and sanders

- (1) Single Axle
    - (4) Tandem

- (4) Trucks for snow hauling

- (1) Single Axle end dump
    - (1) Tandem end dump
    - (2) Tractors with side dump trailer

- (2) Skid steers with Kage attachments

- Parks Department

- (3) Loaders

- (1) Tandem end dump truck

# Current Operations



# Current Operations





# Current Operations





# Current Operations





# Current Operations



# Current Operations



## City Staff (Average 14 staff/event)

- Public Works Department (Streets & Solid Waste Divisions)
  - (1) Manager
  - (2) Supervisor
  - (1) Mechanic
  - (5) Heavy Equipment Operators (1-2 Solid Waste)
  - (4) Advance Equipment Operators
  - (1) Street Maintenance Technician
- Park & Rec Department (Downtown Core)
  - (2-3) Operators

# Current Operations

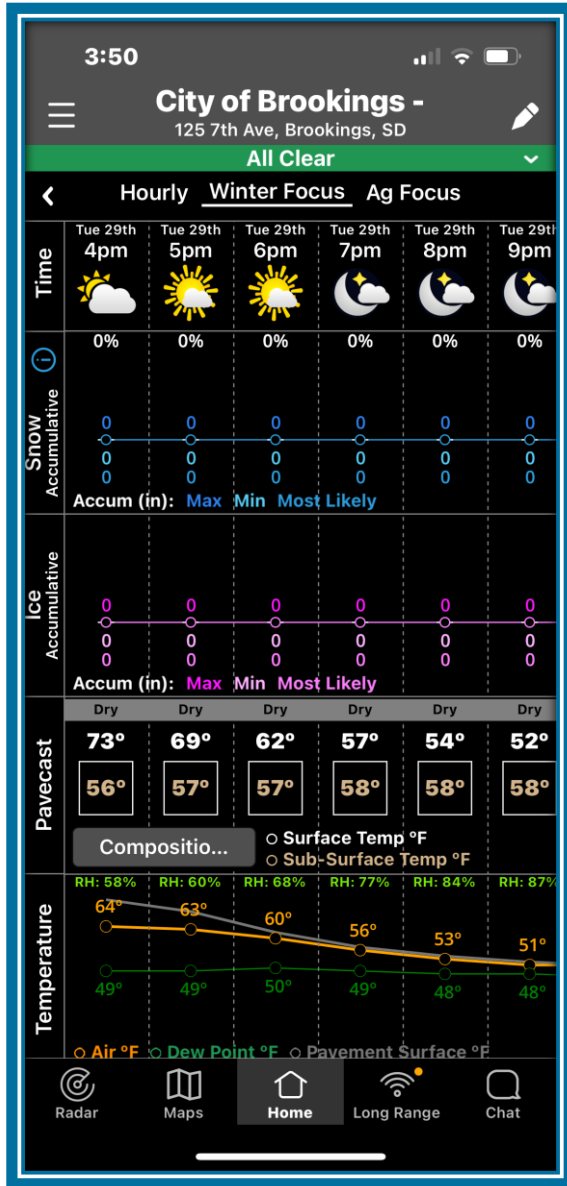


## Contracted Equipment with Operators

- Contractors are used to assist the City in snow removal operations to provide a more efficient means of snow removal
- Contractor equipment is bid every year.
  - Call out is per specific area or price per cubic yard
  - Creates consistency and most cost effective means
- Assist in specific areas of city or hauling of snow.
- Equipment provided:
  - (5) Motor graders with wings
  - (5) Loaders
    - (4) Loaders with reversible plows (alleys and cul-de-sacs)
    - (1) Loader for push pile at snow dump
  - (4) End dump trucks
  - (6) Tractors with side dump trailers

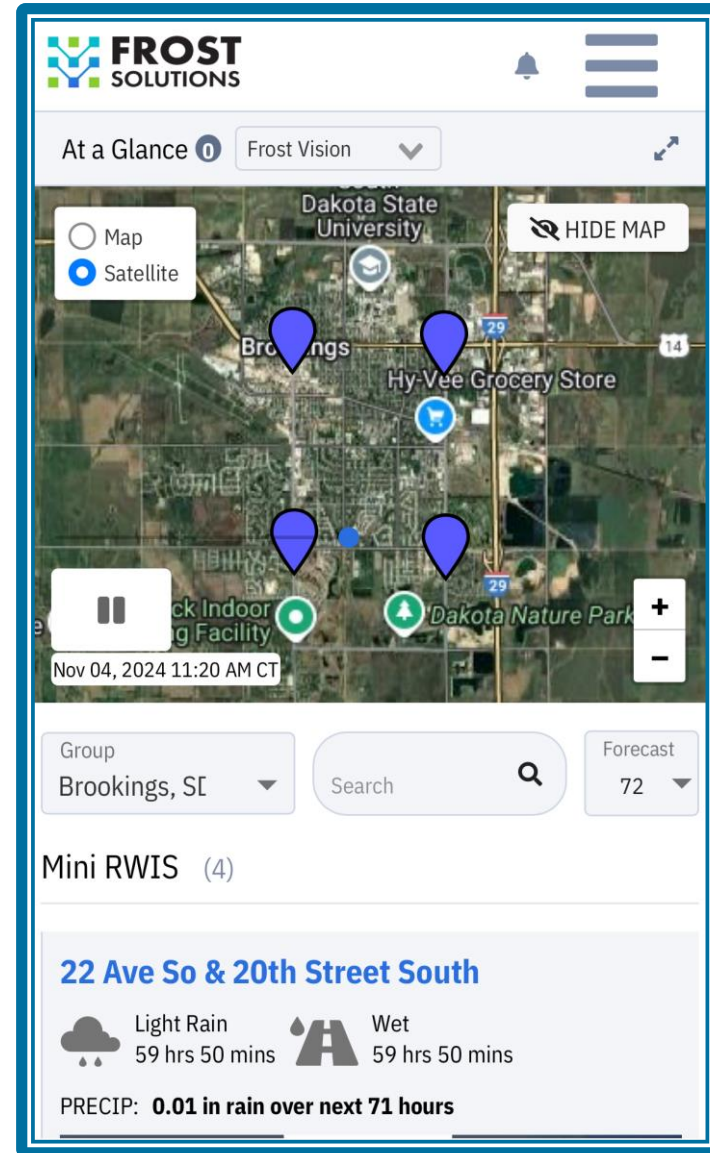
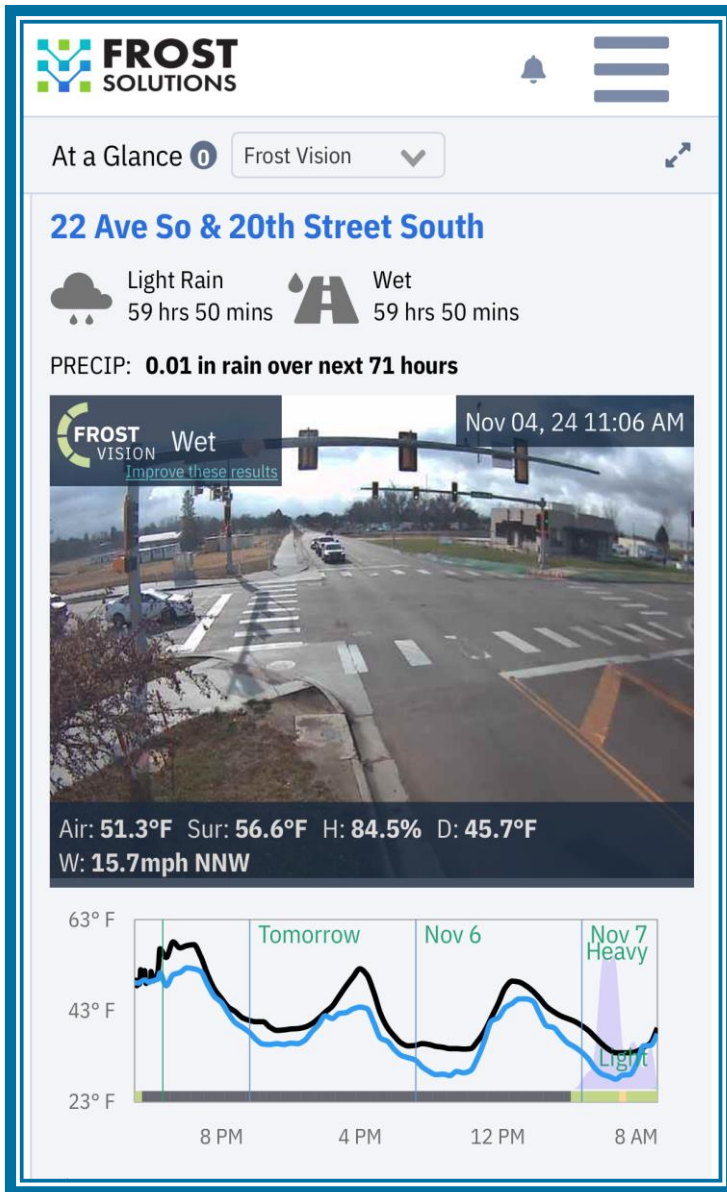


# Monitoring & Patrol

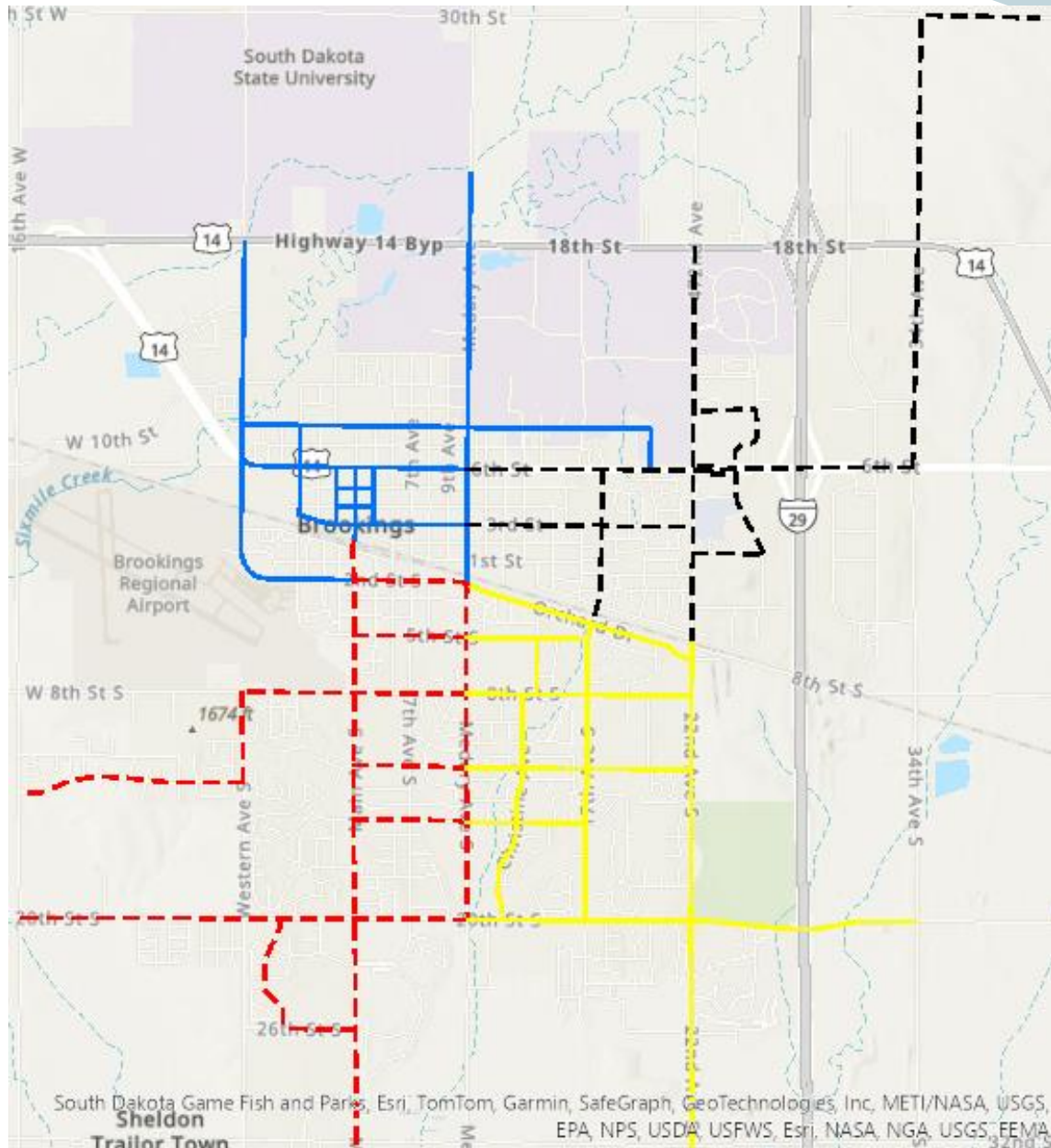


- *On call supervisor monitors weather and road conditions*
- *Patrols routes as needed*
- *Dispatches on call staff as needed*

# Monitoring & Patrol



- (1) supervisor & (4) staff on call each week. Large events require all staff, other departments and contractor support.



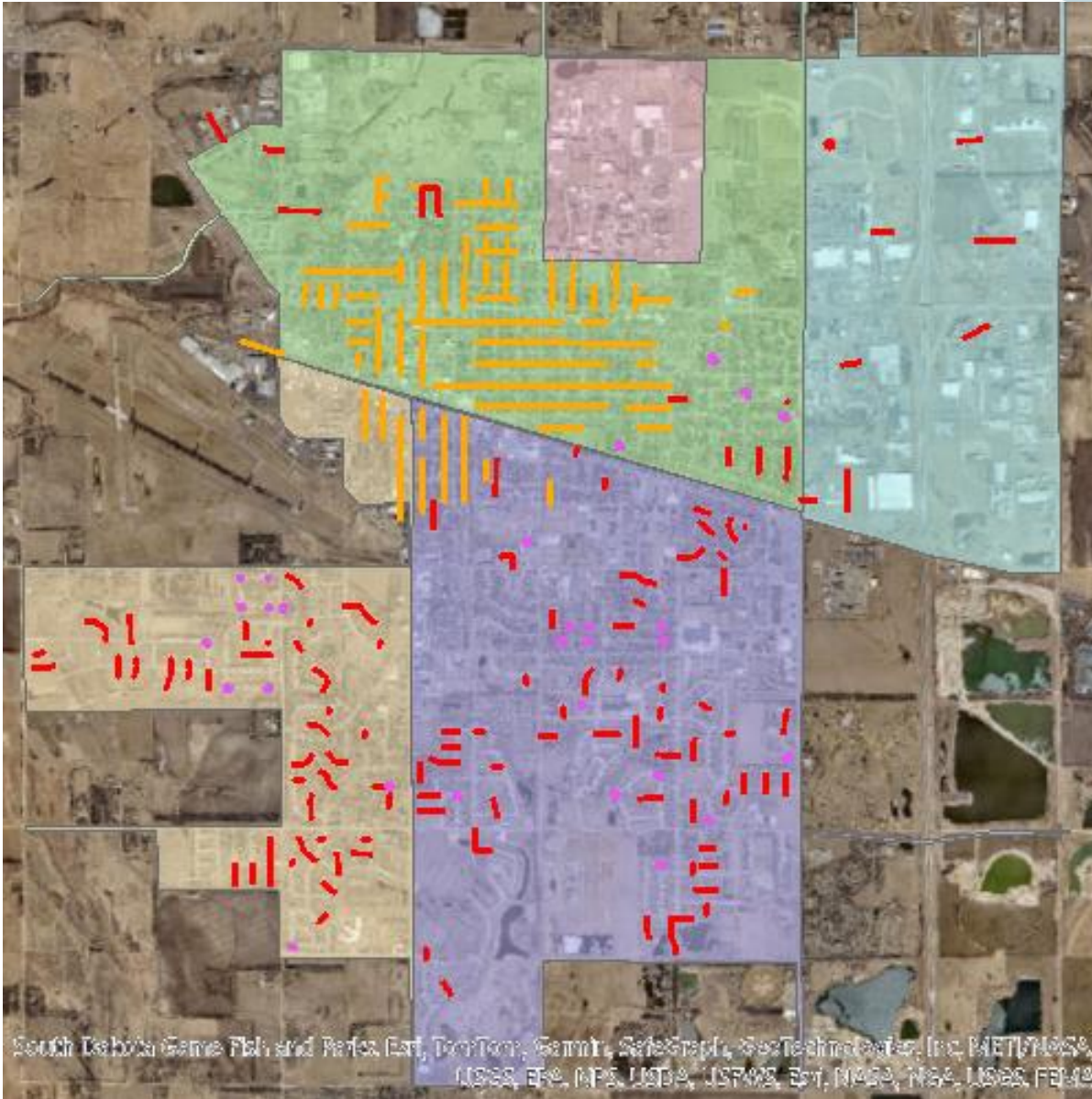
## Sanding Routes

- NE - Black
  - NW - Blue
  - SE - Red
  - SW - Yellow
- 
- Over 330 lane miles of roadway are maintained during winter operations.



## Snow Removal Zones

- City – Green, Blue, Downtown Core
- Bowes Construction – Purple
- Austreims Excavating LLC- Tan and all alleys

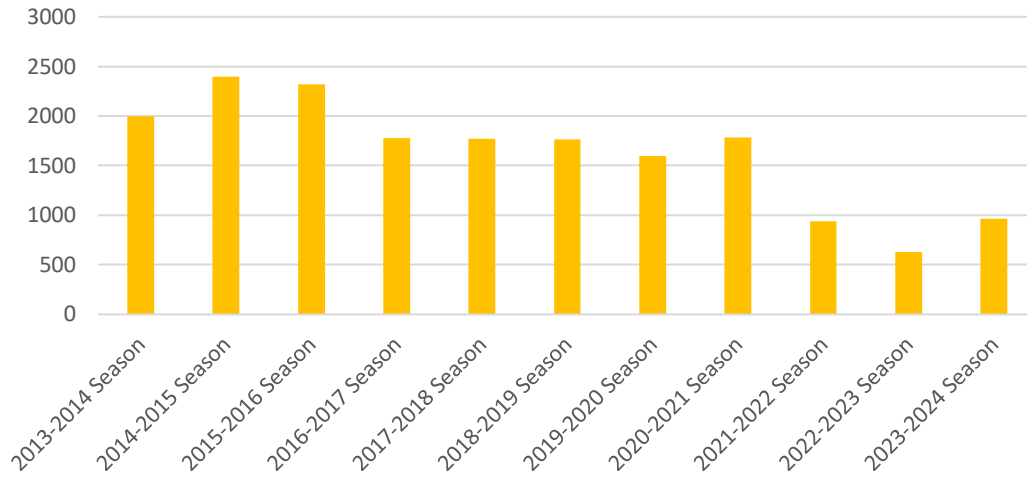




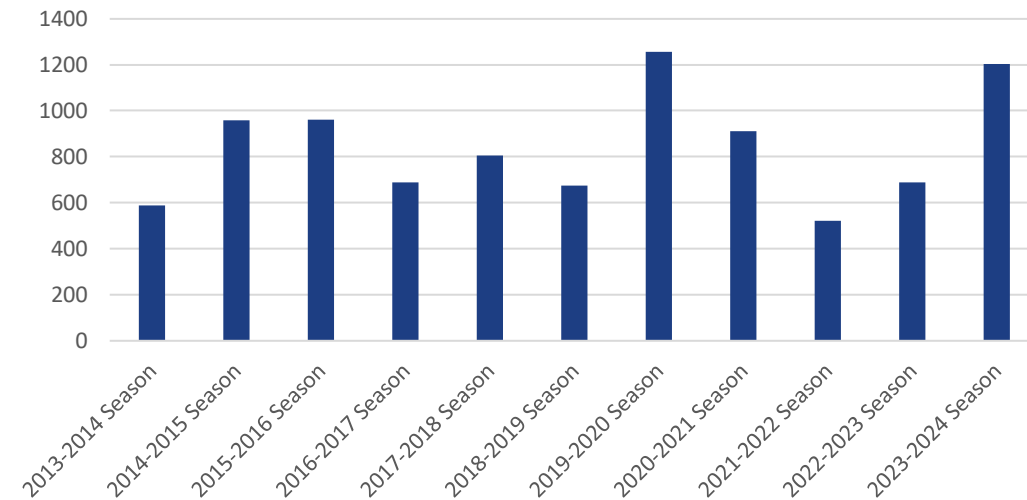
# Materials



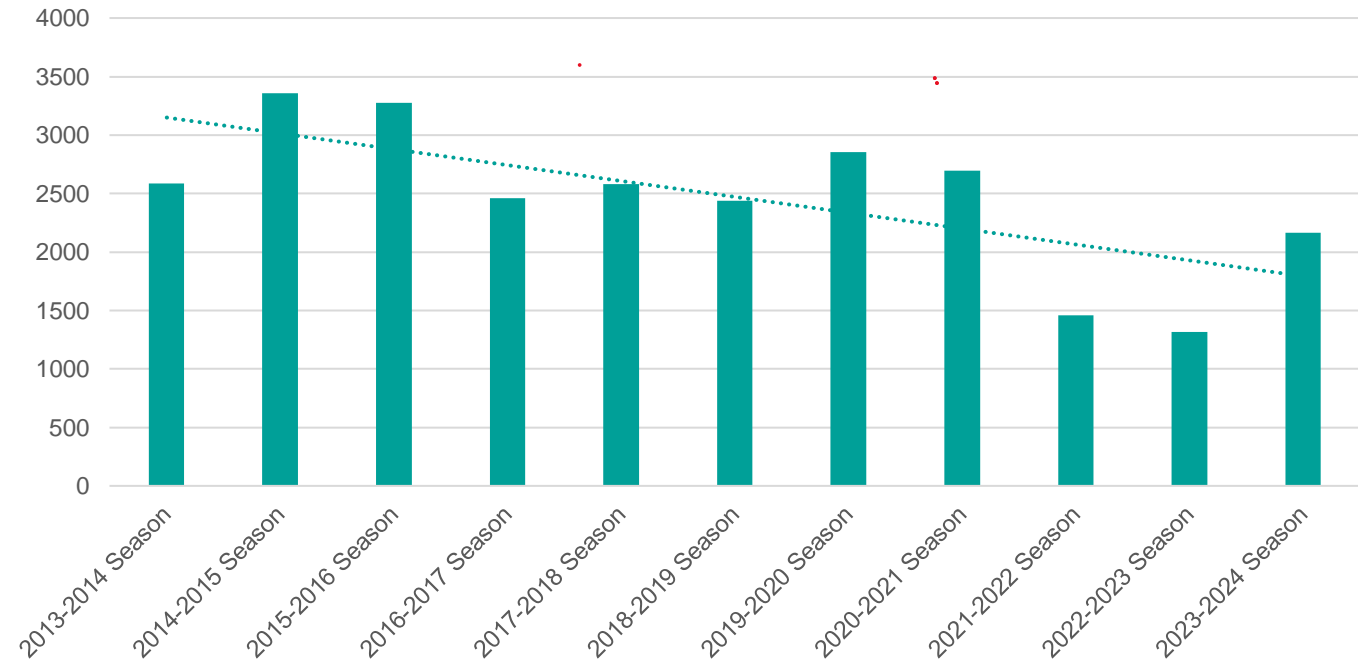
Sand Tons



Salt Tons

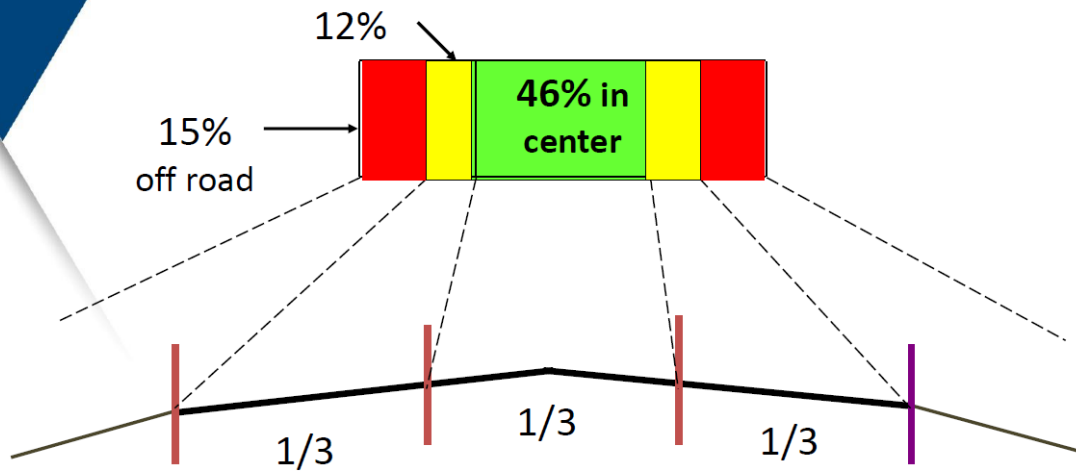


Total Material (Tons)

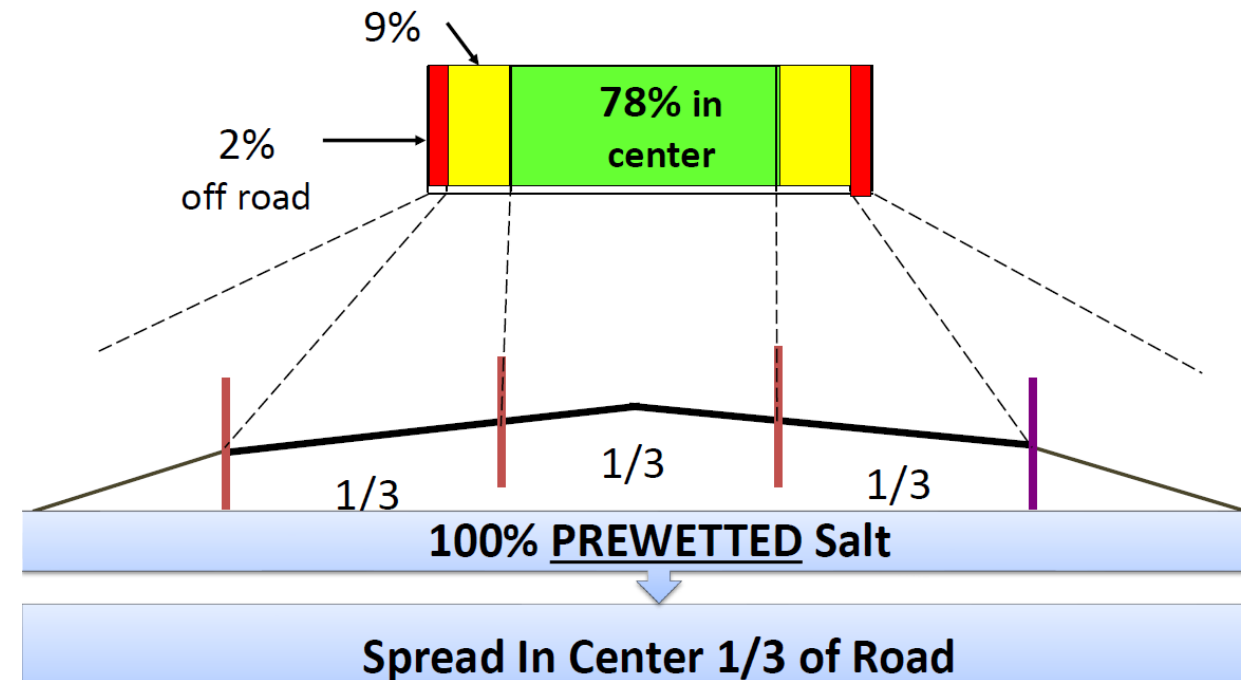


# Pre Wetting

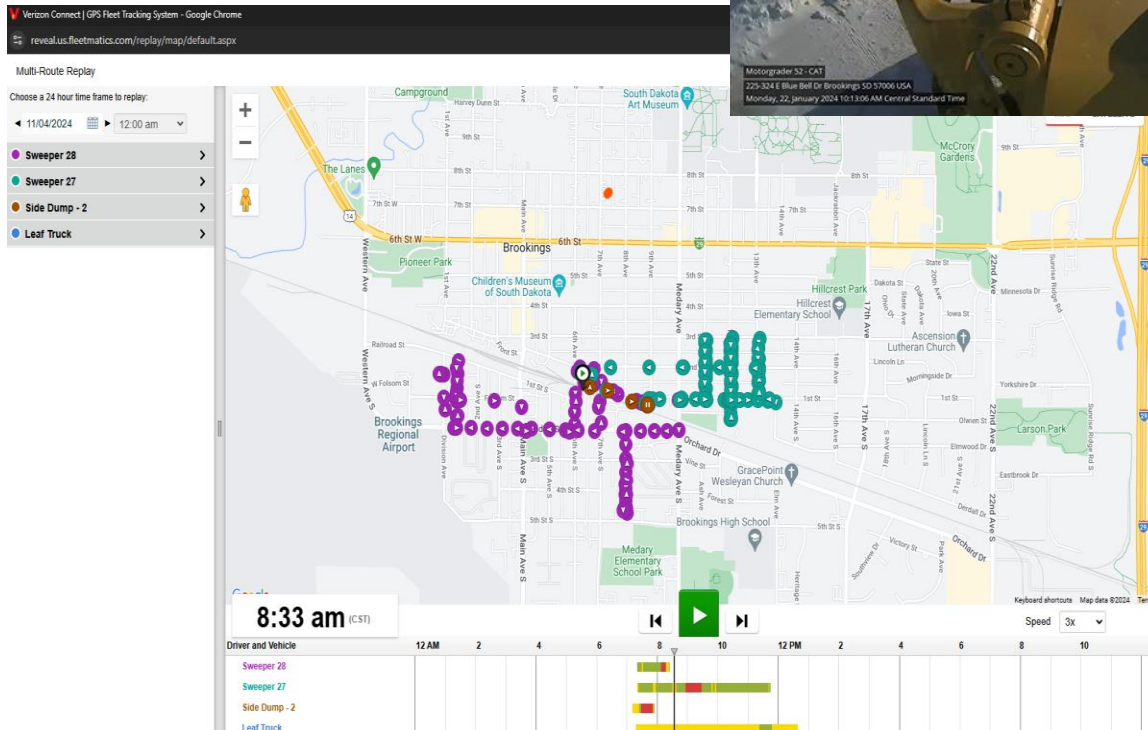
Typical Scatter Pattern  
of Road Salt



Typical Scatter of  
Pre-wet Road Salt



# Technology



- Using Automated vehicle locating (AVL) and telematics to optimize winter operations
- Currently Verizon Reveal
- Advantages
  - Number of active units and when routes were completed
  - Playback of events
  - Improved safety and emergency response time by knowing where all units are in real time.
  - Improved public response with data verification

# Downtown Core



## City of Brookings Notice

### Parking Ban

#### DON'T GET TOWED

SIGN UP FOR TEXT & EMAIL ALERTS



SCAN OR VISIT US AT:  
[www.cityofbrookings-sd.gov](http://www.cityofbrookings-sd.gov)

#### Tonight Downtown Brookings (2:00 a.m. - 5:30 a.m.)

The City of Brookings Street's Division will be conducting snow removal operations in the downtown core tonight (see map). All vehicles parked on the streets will be subject to ticketing and towing between the hours of 2:00 a.m. - 5:30 a.m. Visitors are strongly encouraged to park in the public parking lots (see map).



City of Brookings Government  
2d · 🌐

!! IMPORTANT SNOW REMOVAL INFO: !! Starting at 2 a.m. (overnight Friday), the City of Brookings Street Division will remove snow in the downtown core from 3rd Avenue to 5th Avenue and from 6th Street to the railroad tracks. Vehicles must be removed by 2:00 AM. Violators will be subject to ticketing and towing, per city ordinance (Sec. 82-464) that prohibits parking in the business section between 2:00 AM and 5:30 AM.

See our map: The downtown core snow removal area is o... See more

Downtown Core Snow Pickup Area



15

3 comments 10 shares

- Public Notice
  - Social Media
  - Flyers
- Timing
  - Sidewalk Clearing
  - 2:00 AM – 5:30 AM
- Resources



# Challenges



- Timing of events (overnight, midday, holidays)
- Projected end time of event
- Weather predictions (projecting 1-3" develops into 5-6")
- Advance notice for advisory & alerts (Minimum 4 hour notice)
- Single shift crew (Target 14 hour shifts, Leave)
- Companies & individuals pushing snow into right of way
- Vehicles in roadway during Snow Alert

# Future Opportunities

- One page winter maintenance report following end of season
- City snow storage site use
- Boulevard parking – responsible party for clearing & hauling
- Updating emergency routes (Master Transportation Plan)
- Curbside sidewalk - responsible party for clearing & hauling
- Expanding Anti-Icing and De-icing capabilities
  - Brine, storage, additional materials
- Route optimization via technology

# Future Opportunities

- Review and update uniform codes and actions for violations
  - Piling of snow in right of way or sight triangles
  - Ticketing
  - Towing
- Marketing Plan & Education
- Snow Contractors Education and licensing
- Clarify expectation on Downtown Core
- After Action Reports



# Thank you

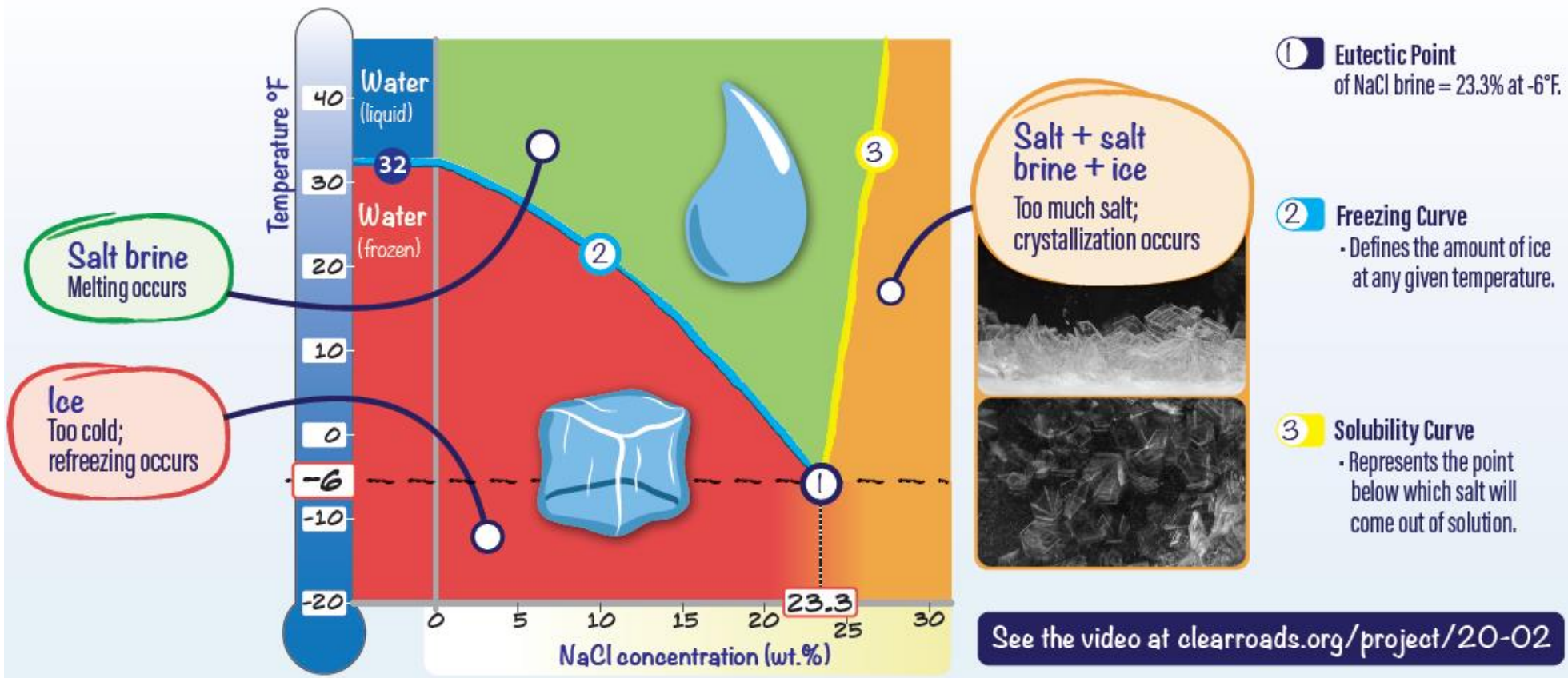


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# Salt

- **Is more salt better?** Increasing the concentration beyond 23.3 percent will not help melt more snow and ice, and the salt will be wasted.



# Fleet Updates



- New snowblower in 2024
- New motor grader in 2024
- New loader with wing in 2024
- New skid steer in 2024
- New side dump trailer with used tractor in 2023
- Two new plow/sander trucks ordered in 1st quarter 2024  
expected arrival date fall of 2025



# Salt Shed





# Cutting Edges

