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TO: Board of Education
FROM: Craig Wilford
SUBJECT: School Cancellation Guidelines and Process

In Kansas we are always exposed to a variety of weather conditions. These varying conditions cause a great many individuals to become involved in making the determination if it is appropriate to have school based on these conditions. The following are items we consider as we make decisions on having school during inclement weather.

Precipitation - This comes in the form of snow, ice, ice pellets, freezing rain or a condition referred to as a wintry mix. In all of these events, consideration is given to many factors including ground temperature and existing accumulations. The type of snow is also considered. The characteristics of wet snow are significantly different from a powdery or dry snow. Dry snows are usually more prone to drifting which causes us to then consider wind direction and velocity. Winds from the north generally result in drifting on east-west bus routes while winds from a more westerly direction result in more drifting on north-south routes.

No specific depth of snow is designated as to cancelling school but, all other factors being equal, snow accumulations up to four inches generally don't present significant problems. However, we rarely receive four inches of snow without first a layer ice and fairly heavy winds, so our experience has been that a classic four-inch snowfall in south central Kansas is rare. Our ability to use in-house and/or contracted services for heavy snow removal in parking lots, circle drives, access drives, etc. is considered along with how much time remains prior to school staff/student arrival.

Snows on the weekend usually provide us with more recovery time than overnight snows during the week. Once again, our typical wintry mix of rain, followed by freezing rain, followed by blowing snow, followed by more freezing rain makes each removal operation different. One of our biggest challenges is when ice becomes bonded to asphalt parking lots and concrete sidewalks. Ice melt and sand applications on sidewalks and sand applications on parking lots can help, but only a period of warming temperatures can economically remove this type of accumulation. Any decision includes a consideration as to how much bonded ice has accumulated under the snow.

Temperature/Chill Factor – No specific minimum temperature has been established as grounds for cancelling school. Generally, sub-zero ambient temperatures in south central Kansas are fairly rare and short lived. However, sub-zero chill factors occur almost every year and we find that this value demands much more consideration. While the threshold for chill factors is not defined by a number

due to so many other variables, chill factors in the range of -15F to -20F play a significant role in the decision making process.

Wind – As stated earlier, wind direction and velocity are part of every decision. Wind compounds winter weather situations by intensifying chill factors and reducing visibility when accompanied by snow.

Visibility – Visibility is rarely a significant issue on its own, but restrictions such as ice fog, or blowing snow conditions are always considered as a factor.

Forecast – Forecasts are also considered when making decisions on school closings. We have learned from experience that making a decision based solely on a forecast often results in regret. Instead, forecasts are used as an educated prediction of weather trends to be considered along with other factors.

Snow Removal Manpower- Consideration is given to the availability of snow/ice removal crews. Back-to-back snow/ice events could place crews at less than full strength on a given day. In this case, available manpower may not be able to adequately clear sidewalks, roads and parking lots in the time available.

Building Access – Consideration is given to the current condition of sidewalks, roadways and parking lots.

Mechanical Systems – Consideration is given to the operational status of boilers and other gas-fired heating systems to insure that we have warm buildings before we open them for business. On extremely cold days, plumbing systems are also checked to insure that no pipes are frozen.

Bus Conditions – Wintry weather can significantly delay the departure of buses from the bus barn due to the time required to clear snow and ice from the bus windshield and other critical areas such as doors and lights. Depending on the temperature and chill factor, consideration is also given to our ability to start enough buses to cover all routes.

Bus Driver Availability – Some of our bus drivers do not live in Derby. Therefore, consideration is given to their ability to get to work and the time it will take them to make the trip. In past years, drifted snow or extreme ice on some of the more remote streets has resulted in many drivers being unable to get to work.

Neighboring Districts – We also spend significant time communicating with our neighboring districts to ensure we all have the same information.

Before the Storm

Snow Teams – Long before the first freeze, the Maintenance Supervisor meets with the Maintenance Foreman and the grounds team leader to assemble three mobile snow removal teams consisting of approximately six people each. Each team is assigned several school sites as their area of responsibility for snow removal. These teams are augmented by fixed snow removal resources (building custodians) who clear snow at their assigned building only. Additionally, three grounds maintenance personnel are assigned to operate heavy dump trucks, large tractors and other specialized equipment as part of our snow response.

Contract Services – When storms bring heavy snowfalls, usually over five inches, our crews are augmented by two local contractors who assist with removal of accumulated snow at the Derby High School, Derby North Middle School, Derby Middle School and Wineteer. The Maintenance Supervisor coordinates with these contractors during the run-up to a storm and continues to communicate with them until we either give them the go-ahead to begin snow removal or cancel the need for their services. After particularly heavy snow falls, we may also use these contractors on parking lots at Cooper, Carlton and Oaklawn.

Equipment – In recent years we have purchased two large snow blowers for sidewalks and two snow blades that can be mounted on dump trucks and tractors. We will continue to update our snow removal equipment but do not plan to add significantly more equipment than we have now to avoid reaching the point of diminishing returns. Snow and ice removal implements (snow shovels, spud bars, etc.) are stockpiled in various locations for easy access by snow removal crews.

Supplies - Ice melt is pre-positioned in each building and larger amounts are stockpiled in the grounds maintenance facility to replenish building supplies as required. We routinely stock 80% of our anticipated annual ice melt needs before the first frost. Urea and sand are readily available from local suppliers but we stockpile enough of each to respond to at least one storm and replenish stockpiles as required.

Weather Watch – Daily, sometimes hourly, weather checks are routine for central office administrators and operations supervisors during the winter weather season. While not perfect, local forecasters generally provide sound information that we use to formulate a response plan for each storm. And, since no two storms are alike, our response plans are modified accordingly.

During the Storm

Most storms that impact our ability to conduct operations within a reasonable margin of safety occur late in the evening or throughout the night. This timing necessitates an evaluation of roads, building access and heating systems so that the superintendent can make a school decision prior to 6:00 a.m. Information is gathered from district staff by observing road conditions throughout the district and visiting school sites. Snow crews usually begin their storm days between 3:00 a.m. and 6:00 a.m., depending on storm conditions. Ice melt may be spread the evening before the storm if warranted. If the storm arrives on a weekend, snow crews are called in as necessary to put us in the best position to conduct school operations on Monday. Unless unusual circumstances arise, we do not initiate snow removal until it stops snowing.

Decision Process – Several mornings each winter, we are required to make a decision on whether or not to cancel school due to weather conditions. This process begins well in advance of the 6:00 a.m. decision time as storm data is collected and forecasts are monitored. The Superintendent, the Director of Operations, the Maintenance Supervisor and the Transportation Supervisor make detailed road condition observations no later than 4:30 a.m. The Transportation Supervisor makes roadway observations on key out-of-town bus routes and then proceeds to the bus barn. Once there he or she meets with mechanics to assist in starting buses as required so that the diesel engines are warm when drivers arrive. They also remove snow and ice from buses as needed. The Director of Operations and the Maintenance Supervisor make roadway observations in the Wineteer, Oaklawn and Derby areas. The Superintendent also makes roadway observations in the Derby area. The Director of Operations is in contact with operations supervisors, and sometimes other school districts, throughout the early morning hours. The Director of Operations also communicates with the Superintendent and relays observations and recommendations. By 6:00 a.m. a final decision is made by the Superintendent.

If the Superintendent decides to cancel school, the administrative calling tree is initiated. Principals then initiate calling trees within their own buildings. Once notified, the Assistant Superintendent for Human Resources alerts local media, posts information online including the district website and Facebook, and initiates the Skyward Skylert notification system. Within minutes, television stations, radio stations and the Wichita Eagle are notified. Skyward Skylerts are sent to guardians that have signed up for such notifications in Skyward's Family Access. Skylerts are also sent to staff members. If the Superintendent does not decide to cancel or delay the start of school, the administrative calling tree is not activated.

If a storm strikes or intensifies after students and staff are in a safe and warm environment, and learning is in progress, we are very reluctant to dismiss school early. Releasing students early often results in students returning to their homes with no adult supervision or lacking the ability to enter their home. In almost every case, we feel this risk outweighs the potential benefits of an early release.

After the Storm

Mobile and fixed snow removal crews begin by clearing one entrance at each elementary school and at least two entrances at each secondary school. Principals designate these entrances, and staff is instructed to use them since they are the safest entrance. Once this work is completed, crews return to each attendance center and clear additional entrances, sidewalks and parking lots to the extent possible before staff and students arrive. Once the parking lots fill with cars we have limited ability to clear snow until the lots are empty and snow removal crews return, usually the next day. Depending on temperature, snow compaction and how much ice has bonded to the parking lots and sidewalk surfaces, additional snow/ice clearing resumes where possible. At some point, due to surface conditions, we have to wait for higher temperatures to clear the remaining snow and ice.

It is worthwhile to note that urgent demands for specialized maintenance e.g. electrician, plumber, HVAC, locksmith, etc. occur while snow removal operations are in progress. The Maintenance Supervisor monitors these demands and re-directs needed resources as required to maintain safe learning environments. The Maintenance Supervisor also travels from site to site to evaluate and prioritize snow removal operations until he or she is satisfied that all objectives are met. Additionally, work leaders closely monitor individuals involved with snow removal to ensure that they do not compromise their own safety through overexertion.