

# City of Leavenworth Snow & Ice Control Policy Manual



**Department of Public Works**

**Street Division**

[www.lvks.org](http://www.lvks.org)

**CITY OF LEAVENWORTH  
SNOW AND ICE REMOVAL OPERATION PLAN**

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**CITY OF LEAVENWORTH  
SNOW AND ICE REMOVAL OPERATION PLAN**

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## A. INTRODUCTION

The purpose of the Snow and Ice Removal Operation Plan is to provide all personnel who are involved in snow and ice removal a single source document which clearly defines the City of Leavenworth's policies and procedures in all snow and ice operations.

All snow and ice control operations are considered emergency in nature due to public safety and economic impact to the community. Consequently, regardless of the time of day or week, snow and ice operations will be accomplished as expeditiously as possible in conjunction with the priorities outlined in this plan.

The snow and ice season in Kansas (Leavenworth) can begin as early as October and terminate as late as mid-April. The rate of accumulation of snowfall or icing is affected by atmosphere temperature, pavement temperature, moisture content, wind direction and velocity, to include intervals between storms. Each storm is unique. Therefore, while this plan tries to cover the major operations during a snow or ice storm, it must be recognized that there must be sufficient flexibility within the plan, to provide for differences or contingencies as they occur.

This plan supersedes all other plans and policies previously published by the City of Leavenworth for snow and ice control.

## B. SNOW AND ICE CONTROL POLICY

1. The policy of the City of Leavenworth is to clear snow and ice in the following priority:

- Emergency Snow Routes
- Public Safety Facilities
- School Loading Zones on City Right of Way
- Leavenworth Central Business District
- Residential Streets

Removal and de-icing will be conducted as expeditiously as possible during and after the storm and will be achieved through a combination as necessary, of mechanical (plowing) and chemical means (salt/calcium chloride). The City does not have a bare pavement policy.

2. Snow and ice control operations of all City streets will be prioritized based on what is of immediate need for public safety and economic impact to the community. Priorities and standards of service for snow and ice removal operations are as follows:

**(Priority 1):** All designated snow emergency routes, which are the main arterial and collector roads, will be given the first priority for plowing and de-icing during and after the storm event, these routes will always be open. Emergency snow routes have signs designating them as emergency snow routes. Additionally, the local media will print a listing of all Emergency Snow Routes prior to the winter snow/ice season. Concurrently, with the snow emergency routes and as resources become available, City personnel will plow and de-ice public safety facilities (Police, Fire Stations, Emergency Medical Services and School Loading Zones).

**(Priority 2):** Snow removal and de-icing operations at the conclusion of the storm will shift to the central business district (downtown) and the residential streets within the City limits. Snow will be plowed by contract personnel in residential areas if the accumulation exceeds 3 inches. The determination of this requirement will be made by the Director of Public Works and plowing will also be determined by monitoring temperatures. If an icing storm occurs, City Personnel will treat residential streets with salt as required. Alleys will not be plowed or de-iced during snow and ice removal operations unless verified emergency requirements so dictate that selected alley(s) be plowed or de-iced.

3. Snow will be plowed in a manner which minimizes traffic obstructions. Snow will be plowed from the center line to the right shoulder. Initial plow will be two passes, one each direction. Additional plowing to wing back as weather and time allow.
4. A "Traffic Emergency" can only be declared by the City Manager or in his absence the Chief of Police.<sup>1</sup> In the event of a declaration of a "Traffic Emergency", residents who have vehicles parked on snow emergency routes will have two hours to move their vehicles after the declaration has been declared. The City will ticket or tow vehicles which become immobilized due to not having snow tires or chains and tow all parked vehicles located on all emergency snow routes as necessary. Towed vehicles will be towed to the nearest garage or place of safety and the vehicle may not be recovered until towing and storage charges are paid.<sup>2</sup> A snow "Traffic Emergency" will be announced over local radio, public access television, published media, i.e., The Leavenworth Times<sup>3</sup>, Facebook and Twitter.
5. City personnel will not clear plowed-in driveways; this is the citizen's responsibility. Plowing of streets will result in snow being plowed into driveways and on sidewalks. Shoveling of snow back into street right of way will result in snow being plowed back in driveway and on sidewalks.
6. Citizens are required to clear snow or apply abrasives and/or de-icers after ice storms to the sidewalks adjacent to their property within 24 hours after the snowfall or ice storm has stopped.<sup>4</sup>
7. In the event that the storms' severity and intensity is such as to cause unsafe conditions for City personnel clearing and/or de-icing streets, operations will cease pending acceptable weather conditions that do not pose a severe threat to snow and ice removal personnel.

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<sup>1</sup> Code of Ordinances, City of Leavenworth, Kansas, Article IV. Emergency Snow Routes\*, Sec. 110-186 (Code 1978, § 35-106)

<sup>2</sup> Code of Ordinances, City of Leavenworth, Kansas, Article IV. Emergency Snow Routes\*, Sec. 110-188 (Code 1978, § 35-108)

<sup>3</sup> Code of Ordinances, City of Leavenworth, Kansas, Article IV. Emergency Snow Routes\*, Sec. 108-187 (Code 1978, § 35-107)

<sup>4</sup> Code of Ordinances, City of Leavenworth, Kansas, Chapter 32, Article 8, Section 32-143

8. Street will be closed during inclement weather. The grade of this street is such that it presents a safety issue for snow and ice control as well as safe public travel.
  - Shawnee Street (Hill) from 21st Street to 22nd. Residents will use alternate access via Ottawa Street and 22nd Street.
  - Dickson Street will also be closed between Santa Fe and Sheridan.
9. The City Snow/Ice Command and Control Center (SNICCC) located at the Municipal Service Center will provide snow/ice removal updates as required during storm operations. The telephone number at the Municipal Service Center is 682-0650 for citizen questions, complaints, requests for service and concerns.
10. Snow plowing damage that may occur to private property should be reported to the Municipal Service Center as soon as possible at 682-0650.
11. The Public Works Department will develop and publish a Snow and Ice Control Plan that will implement the above policies.

## C. **STORM CLASSIFICATIONS**

1. Each snow or ice storm will be unique and vary in intensity, duration and total precipitation. This section will attempt to apply a basic classification system to assist in the establishment of priorities of equipment, material and manpower for a generic management system for implementation in all snow and ice removal operations. The storm classification system will utilize the estimated total expected snowfall for snow and total ice glazing for ice storms.
2. Classes of Storms
  - a) SNOWSTORMS
    - 1) Class A is defined as a storm of extremely heavy snowfall of 8 inches or more occurring in a period of 24 hours or less. This type of storm will cause life-threatening conditions to occur. When weather forecasts indicate that a Class A storm is imminent, the SNICCC will be immediately activated by direction of the Director of Public Works. All City assets will be mobilized as required. The City Manager, or in his absence the Chief of Police, based on the best available staff counsel and weather reports will declare a Traffic Emergency. The Public Information Officer will make all media notifications (radio, local newspapers, Facebook and Twitter).
    - 2) Class B is defined as a storm of moderate to heavy snowfall within the estimated range of 3 - 8 inches. This type of storm can pose the same threats to public safety and economic impact (as a Class A), but its intensity will allow the City Public Works Department to keep the snow emergency routes open during the storm. A Class B storm will normally not require the declaration of a snow emergency; however, as the storm progresses it could be upgraded to a Class A, which could necessitate the declaration of a snow emergency. The Snow/Ice Command and Control Center will be activated

in the same fashion as with the Class A storm. The City Manager and the Public Works Director will be notified.

- 3) Class C is defined as a storm with an accumulation of 1 to 2 inches (to include management of hot spots, i.e., glazing of bridges, hills and public safety and schools) which in most cases will only require chemical and or abrasive control. The Snow/Ice Command and Control Center will not be fully activated. All control and reporting operations will be managed by the City Operations Division. The City Manager and Public Works Director will be notified.

b) ICE STORMS\*

All ice storms will be rated as a Class A type storm. Ice storms will cause immediate threats to the public safety and economic impact. If an ice storm is imminent or occurs, the Snow/Ice Command and Control Center will be activated immediately by the Director of Public Works.

c) FREEZING FOG\*

Any freezing fog conditions will be rated as a Class B type storm. Fog storms can cause immediate threats to public safety and cause an economic impact (as Class A), but its intensity will allow the City Public Works Department to keep the emergency snow routes open during the storm. If enough freezing fog exists and conditions worsen, the storm could be upgraded to a Class A type storm and rated as an ice storm.

\*North facing hills with a history of freezing groundwater will be converted to hot spot status.

## **D. IMPLEMENTATION PROCEDURES**

### **1. WEATHER/STORM DECISION**

- a) During normal duty and non-duty hours, the key personnel (Director/Deputy Director of Public Works and Superintendent of City Operations) involved in snow and ice control, will monitor forecasted storms utilizing the City's contract weather service and the NOAA weather service. If a Class A or B storm is predicted, the Director of Public Works or the Superintendent of City Operations will activate the SNICCC. For Class C storms, no formal activation of the SNICCC will be required.

### **2. PERSONNEL NOTIFICATION/RECALL**

- a) It is imperative that each division within the Public Works Department and other City departments maintain a current and validated recall roster during the snow and ice season. Every City employee is eligible to be assigned snow and ice control duties by the City Manager dependent on the storm conditions. Quick and pro-active response is the key to the successful implementation of this plan. Consequently, the Superintendents of City Operations, Water Pollution Control, and the City's Parks Division will prepare, no later than the first working day of November each year, a division recall roster. **(See APPENDIX I)** Rosters will be updated by the Superintendents as required.

- b) Upon activation of the (SNICCC) (Class A and B storms) the recall roster for the City Operations, Parks and Wastewater will be activated as required. The recall/implementation procedure for this recall will be as follows:

Class A/B  
Storm

Director of Public Works  
Deputy Director of Public Works

Notify City Manager,  
Police Chief and Fire Chief

Superintendent of City  
Operations  
\*  
Initiate Recall

Superintendent of Parks  
\*  
Initiate Recall

Superintendent of Waste  
Water  
\*  
Initiate Recall  
(as required)

### 3. DECLARATION OF TRAFFIC EMERGENCY

- a) Only the City Manager can declare a Traffic Emergency. In his absence this decision is delegated to the Chief of Police.
- b) Based on known weather forecasts/observations/classifications of the storm, and staff recommendations, the City Manager, or in his/her absence the Chief of Police, will declare a Traffic Emergency.
- c) Any declaration of a Traffic Emergency will be coordinated with the following agencies; Fort Leavenworth, City of Lansing, and Leavenworth County. A declaration of a Traffic Emergency should ensure all area agencies concur and implement and terminate the emergency at the same time.
- d) When a Traffic Emergency is declared, the Public Information Officer will contact the media and announce that a Traffic Emergency is declared and vehicles not removed from snow emergency routes are subject to ticketing and towing.
- e) Ticketing and towing operations will be conducted by the City of Leavenworth Police Department. Section II. D. of this plan covers specifics for these procedures.



## **E. SNOW ROUTES, AREAS, PRIORITIES AND RESPONSIBILITIES**

### 1. CITY PERSONNEL

- a) The priorities for snow and ice removal by City resources (manpower and equipment) will be in the following priorities: (Note: Priorities may be adjusted due to specific storm conditions.)

**Priority 1:** Major arterial and collector routes designated as snow emergency routes and public safety facilities (Police, Fire Stations, Emergency Medical Services and School Loading Zones).

**Priority 2:** Downtown central business district, City parking lots and residential streets.

- b) **APPENDIX II** of this plan outlines the specific priorities to be plowed and/or de-iced for the snow emergency routes, emergency services and central business district for City Operations Division.
- c) **APPENDIX III** to this plan outlines the specific actions required by the Water Pollution Control Division for snow and ice removal.
- d) **APPENDIX IV** to this plan outlines the specific actions required by the Parks Maintenance Division for snow and ice removal.
- e) **APPENDIX V** to this plan outlines specific actions required by the Solid Waste and Maintenance Operations section for snow and ice removal.

### 2. CONTRACTOR PERSONNEL

- a) The Department of Public Works will contract on an annual basis with local contractor(s) for snow removal augmentation to the City. Contractor personnel will normally be assigned residential zones, City parking lots within the central business district and assist with post storm removal of snow from the central business district.
- b) Contractor personnel will be incorporated into this plan (**APPENDIX VI-1**). This appendix will be updated annually and a copy will be provided to each contractor. The appendix will be specific and detail performance standards for each area of responsibility.

### 3. OTHER AGENCIES - STATE, COUNTY AND CITY OF LANSING (See Appendix IX)

### 4. LEAVENWORTH PUBLIC SCHOOLS INCLEMENT WEATHER PROCEDURE/FORT LEAVENWORTH

(See Appendix X)

## F. SNOW/ICE REMOVAL POLICIES AND PROCEDURES

### 1. SNOW EMERGENCY ROUTE TICKET-TOWING PROCEDURES

Article IV Sec. 25-106, City Code. Declaration of Traffic Emergency

- a) Whenever snow has accumulated or there is a possibility that snow will accumulate to such a depth that snow removal operations will be required, the City Manager or in the absence of the City Manager, the Chief of Police, may declare a Traffic Emergency and until such Traffic Emergency is **terminated** it shall be **unlawful** two (2) hours after the formal declaration:
  - i. To park a vehicle on any street designated as an Emergency Snow Route in Section 35-109.
  - ii. To operate a motor vehicle on any Emergency Snow Route in such a manner or condition that such motor vehicle stalls and is unable to proceed by reason of the fact that the driving wheels are not equipped with tire chains or snow tires.
- b) The Chief of Police, during a Traffic Emergency, is empowered to waive or suspend enforcement of parking regulations not specifically designated within this article (Code 1974, § 17-1002; Ord. No. 6227, § 1, 2-11-75)

### 2. DE-ICER AND ABRASIVE GUIDELINES

- a) The primary chemical de-icers utilized by the City of Leavenworth will be salt (sodium chloride) and calcium chloride (liquid). The purpose of these chemicals is to function as de-icers for roadway surfaces. Salt will be the primary de-icer of choice when temperatures remain above 20 degrees F. When the temperature falls below 20 degrees F the salt will be pre-wetted with liquid calcium chloride solution.
- b) **APPENDIX VII** details in matrix format de-icer applications.

### 3. SNOW/ICE COMMAND AND CONTROL CENTER (SNICCC)

- a) Upon the determination of a class A or B storm the SNICCC will be immediately activated at the Service Center.
- b) The Director of Public Works is the senior City staff member who will direct and coordinate all snow and ice removal operations. In his absence the Deputy Director of Public Works will assume this position. This function will be normally delegated to the Operations Superintendent.
- c) The Superintendent of City Operations will be responsible to either the Director or Deputy Director of Public Works for the initiation and synchronization of all snow and ice removal operations delineated in the snow and ice removal plan. The Superintendent of City Operations will be the major coordinator and synchronizer and is the lead supervisor of the SNICCC, and will develop supporting plans to execute the Snow and Ice Plan and Operation of the SNICCC.

d) The following City departments will provide representatives to the SNICCC who will provide liaison and/or support to the Superintendent of City Operations as required. Conflict resolution will be at the department director's level.

1) Police - one representative to act as liaison between the SNICCC and Police Department. Individual will come with his/her separate communication (radio).

2) Parks and Water Pollution Control - assignment of member for liaison will be dependent on severity of storms and the Director of Public Works decision.

#### 4. MEDIA INTERFACE

a) It is imperative that the general public be informed on a regular basis during Class A and B storms of the City's efforts both successful and not so successful in all aspects of snow and ice removal operations.

b) All media releases will be made by either the Assistant City Manager or the Director of Public Works on a regular basis. Prior to any release, concurrence and approval of the media up-date will be obtained from the City Manager.

#### 5. ACCIDENTS

a) All accidents involving City vehicles occurring during snow and ice removal operations will be reported immediately by radio from snow equipment to the SNICCC.

b) Accidents are to be reported as follows:

1) Vehicular Damage - An accident report will be filled out at the scene of occurrence, in addition to the radio report. Standard City accident procedures and forms will be utilized. Additionally, a law enforcement official will investigate the accident at the scene prior to the continuing of snow and ice removal operations by the City vehicle involved.

2) Private Property Damage – If the snow plow operator observes the damage of either mail boxes or fences, he will immediately report this type of damage by radio to the SNICCC. The radio report will include the time of the incident and address. The driver is not required to fill out an accident report; a radio report will suffice. All complaints of damage received by residential phone calls will be recorded and investigated to substantiate the subject claim. All damage resulting from the snow removal operations and/or equipment will be treated as normal protocol for accident reporting.

## **G. MANPOWER AND EQUIPMENT ASSIGNMENTS**

1. During a Class A or B storm the City Operations Division will immediately commence a two (2) shift operation. Each shift will be twelve (12) hours in duration.
2. Shift times will vary dependent on time of storm prediction. Every attempt will be made to balance shift over time hours equally among snow/ice removal operators.
3. The City Operations Division will be the primary manpower and equipment resource for all snow and ice removal operations. However, during sustained snow and ice removal operations, the Water Pollution Control and Parks Divisions can be tasked by the Director/Deputy Director of Public Works to provide both manpower and equipment resources to support the City Operations Division in snow and ice removal operations. Consequently, the Superintendents of both Water Pollution Control and Parks will provide, through the Director of Public Works to the City Operations Division, a listing of qualified heavy and light equipment operators and the equipment they are qualified to operate. This listing will be forwarded no later than November 15th of each year. Additionally, equipment available to support snow and ice removal will be included with the required operator listing above.

## **H. SAFETY**

1. All operators will operate snow/ice control equipment in a safe manner. Speeds will be kept to a safe minimum sufficient to plow and windrow snow to the shoulder. Operators will not plow at excessive speed causing snow to "fly" at a high speed and distance from the street shoulder.
2. Operators will not run red lights or stop signs at intersections.
3. Operators will plow from the street center line to the right street shoulder. This includes tandem plowing. At no time will a plow cross the center line in the lane of oncoming traffic.
4. Operators will ensure their assigned vehicle and plow is fully operational to include emergency vehicle lighting. Any deficiencies will be reported immediately to the Street Foreman or the Operations Superintendent.
5. Operators on 12-hour shifts will take appropriate breaks as required during their shift. Breaks will be at the discretion of the individual operator. Breaks will be reported to the SNICCC.
6. Meal times will be scheduled and coordinated by the SNICCC.
7. Authority to exceed 12 hours in a shift will be determined by the Operations Superintendent or Street Foreman.
8. If the intensity of a storm is of such an intensity to cause danger to snow/ice control operators, operations will be terminated pending weather improvement.

9. Operators and snow personnel will wear appropriate winter clothing to ensure cold weather injuries are not received.

## **I. PRE-WINTER SEASON PREPARATION**

1. Commencing in October and continuing through the fall and winter season the Superintendent of City Operations will schedule recurring training that will focus on snow and ice control issues to include cold weather risks to operators. Additionally:
  - a) All operators and mechanics will attend pre-winter workshop as offered and required. Selected personnel will attend and participate in the annual APWA (American Public Works Association) "Snow Plow Rodeo."
  - b) City Operations Division personnel will hold group meetings to discuss known strengths and weaknesses in preparation to the snow and ice season. These meetings will be conducted as required and chaired by the Superintendent of City Operations.
  - c) Route "dry runs" will be conducted by all operators prior to mid-November to ensure all are familiar with the Snow Emergency Routes.
  - d) New operators will be assigned to an experienced operator (mentor) to receive training on all phases of snow and ice control. New operators will receive this training in pre-season and during the actual snow and ice control season. The mentor of the new operator will at the time of new operator proficiency, certify to the Superintendent of City Operations that the new operator is cleared for individual (solo) operation.
  - e) Commencing in October the City Operations Division will prepare and ensure all snow and ice removal equipment is prepared and operational for mounting to its assigned prime mover.
  - f) All salt spreaders will be calibrated by a qualified contractor or City staff. The Superintendent of City Operations and Foreman will ensure maximum efficiency. Goal for calibration will be 200 pounds per lane mile.
  - g) Salt spreaders will be mounted on the prime movers after the end of the annual construction season.
  - h) Inspect the disposal site for snow at 2<sup>nd</sup> and Chestnut. Backing will be permissible at the disposal site, but the driver must get out and check the surroundings before backing.

## **J. POST-OPERATION PROCEDURES**

1. During storm, at each shift change the "oncoming" shift operator will report one half hour prior to shift change. The "outgoing" operator will perform the required maintenance and services of his assigned equipment prior to relief from shift. These services include the following:
  - Fuel top-off
  - Fluid checks
  - Windshield washer fluid replacement
  - Tire pressure
  - Fill Salt spreader with material being used, to include calcium chloride
  - Check snow plow cutting edges and snow deflectors
  - Check emergency lighting
  
2. After storm, all equipment will receive a thorough inspection to include all operator-required services. Salt spreaders will be lubricated and/or de-salted as required. All known maintenance deficiencies will be reported to the Superintendent of City Operations and/or Street Foreman for immediate correction.

**PUBLIC WORKS DIVISION RECALL ROSTERS**

(Published Separately from Plan)

## **CITY OF LEAVENWORTH EMERGENCY SNOW ROUTES**

The following routes have been designated "Emergency Snow Routes" under Chapter 110, Traffic and Vehicles, Article IV. Emergency Snow Routes, Section 110-189 Establishment of Routes; Posting of Signs by the Leavenworth City Commission on November 23, 2004.

Two hours after the declaration of a "Snow Emergency" by the City Manager, all vehicles must be removed from the streets shown below. Failure to move your vehicle subjects it to being towed, and the fee for the towing will be assessed against you. Your cooperation in this important civic matter is appreciated. (Section 110-188 Removal of vehicles.)

### East-West Streets:

- |                           |   |
|---------------------------|---|
| • Cherokee Street         | 3 <sup>rd</sup> Street to 20 <sup>th</sup> Street             |
| • County Road 5           | 15 <sup>th</sup> Street to Michals Road                       |
| • Eisenhower Road         | 4 <sup>th</sup> Street to 20 <sup>th</sup> Street Trafficway  |
| • Kiowa Street            | 3 <sup>rd</sup> Street to 4 <sup>th</sup> Street              |
| • Limit Street            | Homeplace to 20 <sup>th</sup> Street Trafficway               |
| • Marshall Street         | 5 <sup>th</sup> Avenue to Broadway (Hospital)                 |
| • McDonald Road           | Hughes Road to Shrine Park Road                               |
| • Metropolitan Avenue     | Centennial Bridge to 20 <sup>th</sup> Street                  |
| • Muncie Road             | 4 <sup>th</sup> Street to 10 <sup>th</sup> Avenue             |
| • Ohio and LeCompton Road | 10 <sup>th</sup> Avenue to City Limits                        |
| • Ottawa Street           | 3 <sup>rd</sup> Street to 20 <sup>th</sup> Street             |
| • Pennsylvania Avenue     | 4 <sup>th</sup> Street to 10 <sup>th</sup> Avenue             |
| • Shawnee Street          | 3 <sup>rd</sup> Street to 20 <sup>th</sup> Street             |
| • Spruce Street           | 3 <sup>rd</sup> Street to 15 <sup>th</sup> Street             |
| • Thornton Street         | 4 <sup>th</sup> Street to 10 <sup>th</sup> Avenue             |
| • Thornton Street         | 17 <sup>th</sup> Street to 19 <sup>th</sup> Street Terrace    |
| • Vilas Street            | 10 <sup>th</sup> Avenue to 25 <sup>rd</sup> Street Trafficway |

### North-South Streets:

- |                                      |  |
|--------------------------------------|--|
| • 2 <sup>nd</sup> Avenue             | Congress Street to Limit Street                |
| • 3 <sup>rd</sup> Street             | Kiowa Street to Spruce Street                  |
| • 4 <sup>th</sup> Street             | Metropolitan Avenue to Eisenhower Road         |
| • 5 <sup>th</sup> Avenue             | Olive Street to Thornton Street                |
| • 5 <sup>th</sup> Street             | Metropolitan Avenue to Congress Street         |
| • 7 <sup>th</sup> Street             | Metropolitan Avenue to Olive Street            |
| • 10 <sup>th</sup> Avenue            | Eisenhower Road to Spruce Street               |
| • 10 <sup>th</sup> Street            | Spruce Street to Metropolitan Avenue           |
| • 13 <sup>th</sup> Street            | Metropolitan Avenue to Cherokee Street         |
| • 15 <sup>th</sup> Street            | Vilas Street to Limit Street                   |
| • 17 <sup>th</sup> Street            | Vilas Street to Thornton Street                |
| • 18 <sup>th</sup> Street            | Dakota Street to Spruce Street                 |
| • 18 <sup>th</sup> Street            | LeCompton Road to Thornton Street              |
| • 19 <sup>th</sup> Street Terrace    | Thornton to 20 <sup>th</sup> Street Trafficway |
| • 20 <sup>th</sup> Street            | Metropolitan Avenue to Spruce Street           |
| • Santa Fe Trail                     | Metropolitan Avenue to Hancock Avenue          |
| • 20 <sup>th</sup> Street Trafficway | Eisenhower Road to Spruce Street               |
| • Broadway                           | Metropolitan Avenue to Thornton Street         |
| • Hughes Road                        | Eisenhower Road to Limit Street                |
| • Lawrence Avenue                    | Spruce Street to Cherokee Street               |
| • Maple Avenue                       | Thornton Street to Limit Street                |
| • Shrine Park Road                   | Eisenhower Road to Limit Street                |
| • Washington Street                  | Spruce Street to Ohio Street                   |
| • Wilson Avenue                      | Marion to Home Place                           |

**APPROVED NOVEMBER 13, 2007 – ORDINANCE NO. 7752**



# City of Leavenworth Snow Plan 2019-2020 Emergency Snow Routes

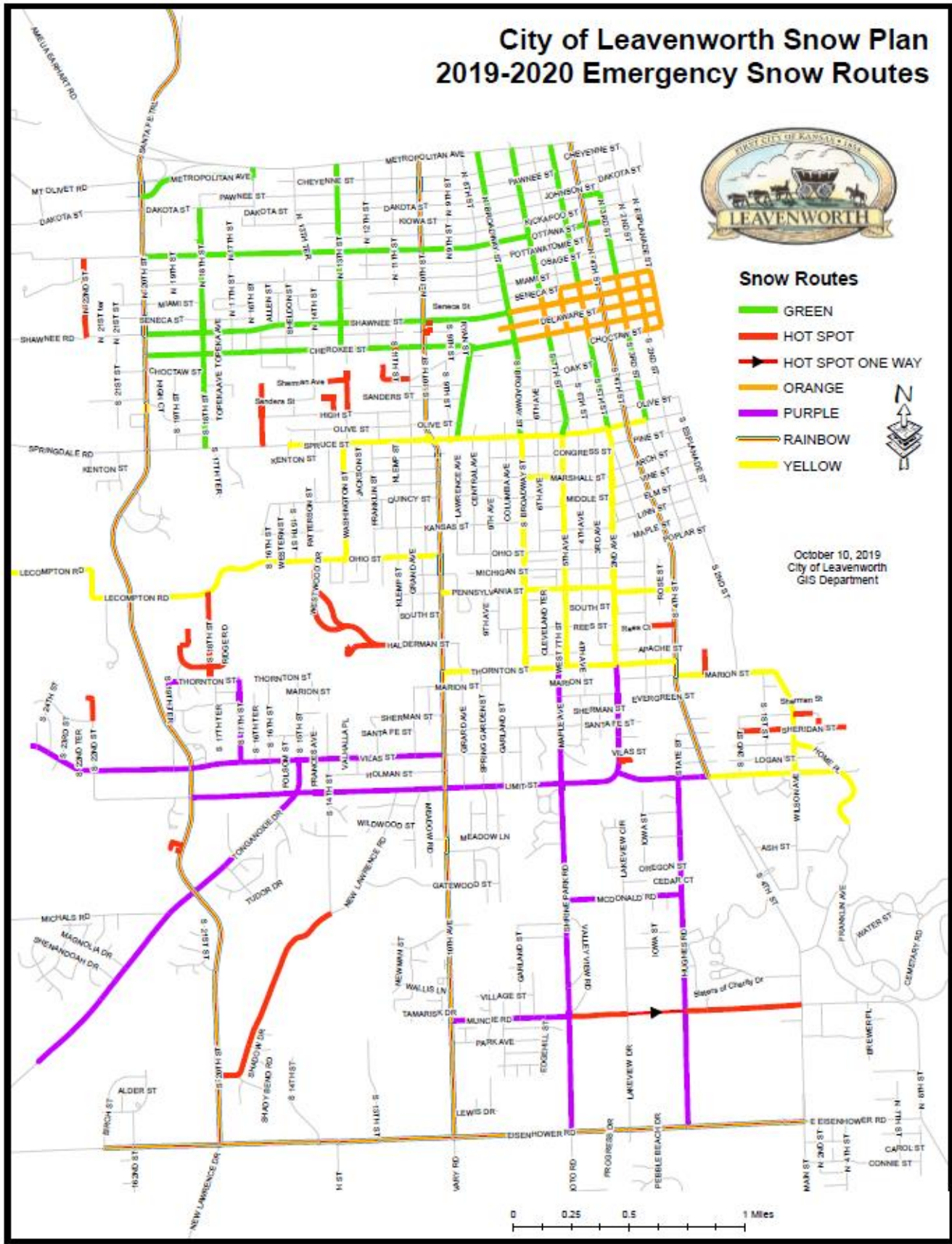


## Snow Routes

- █ GREEN
- █ HOT SPOT
- ▶ HOT SPOT ONE WAY
- █ ORANGE
- █ PURPLE
- █ RAINBOW
- █ YELLOW



October 10, 2019  
City of Leavenworth  
GIS Department



Snow & Ice Routes



II-3

September 30, 2009

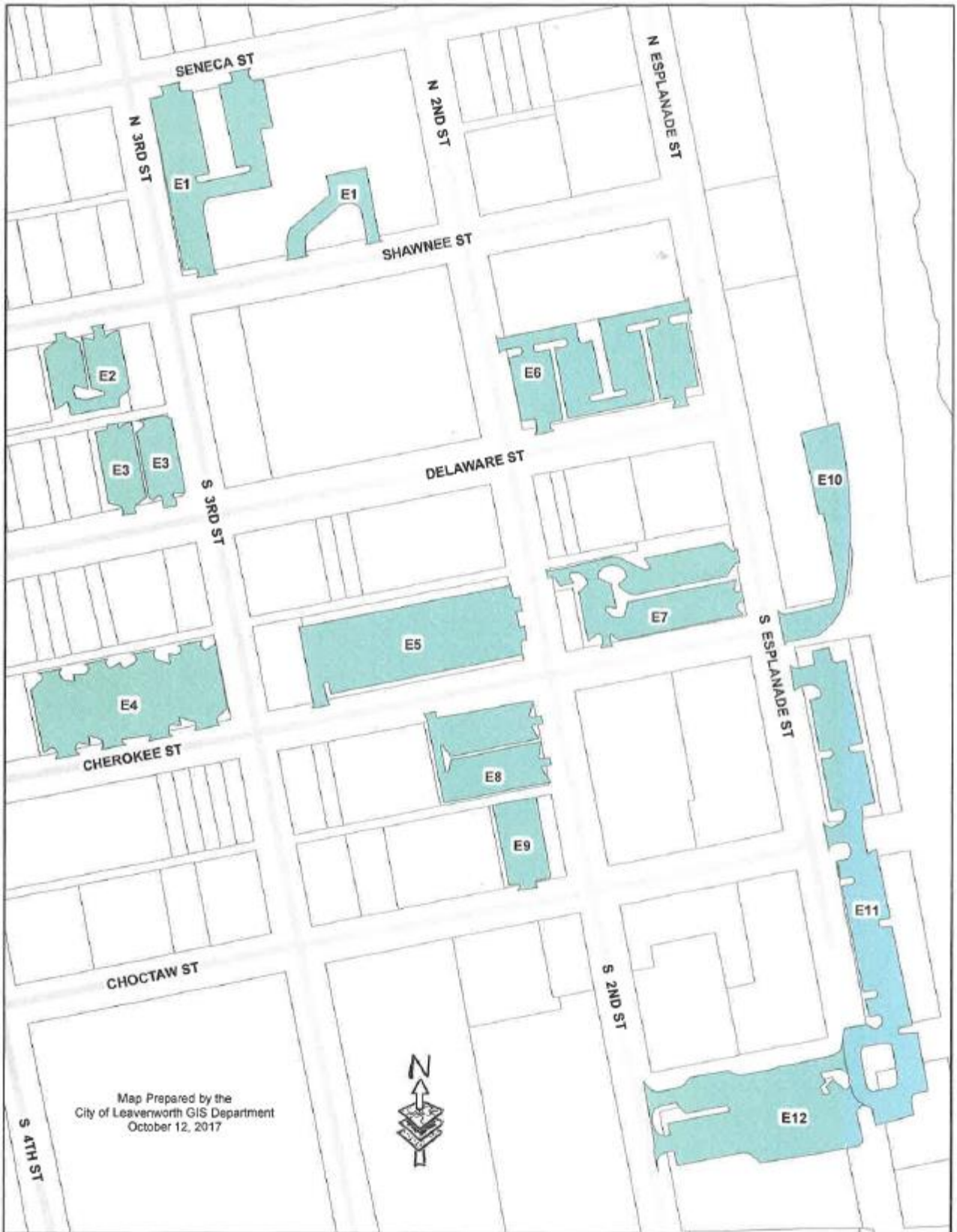
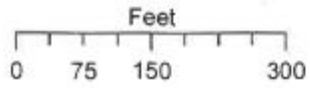
# Downtown Municipal Parking Lots WEST of 4th Street



Map Prepared by the  
City of Leavenworth GIS Department  
October 12, 2017



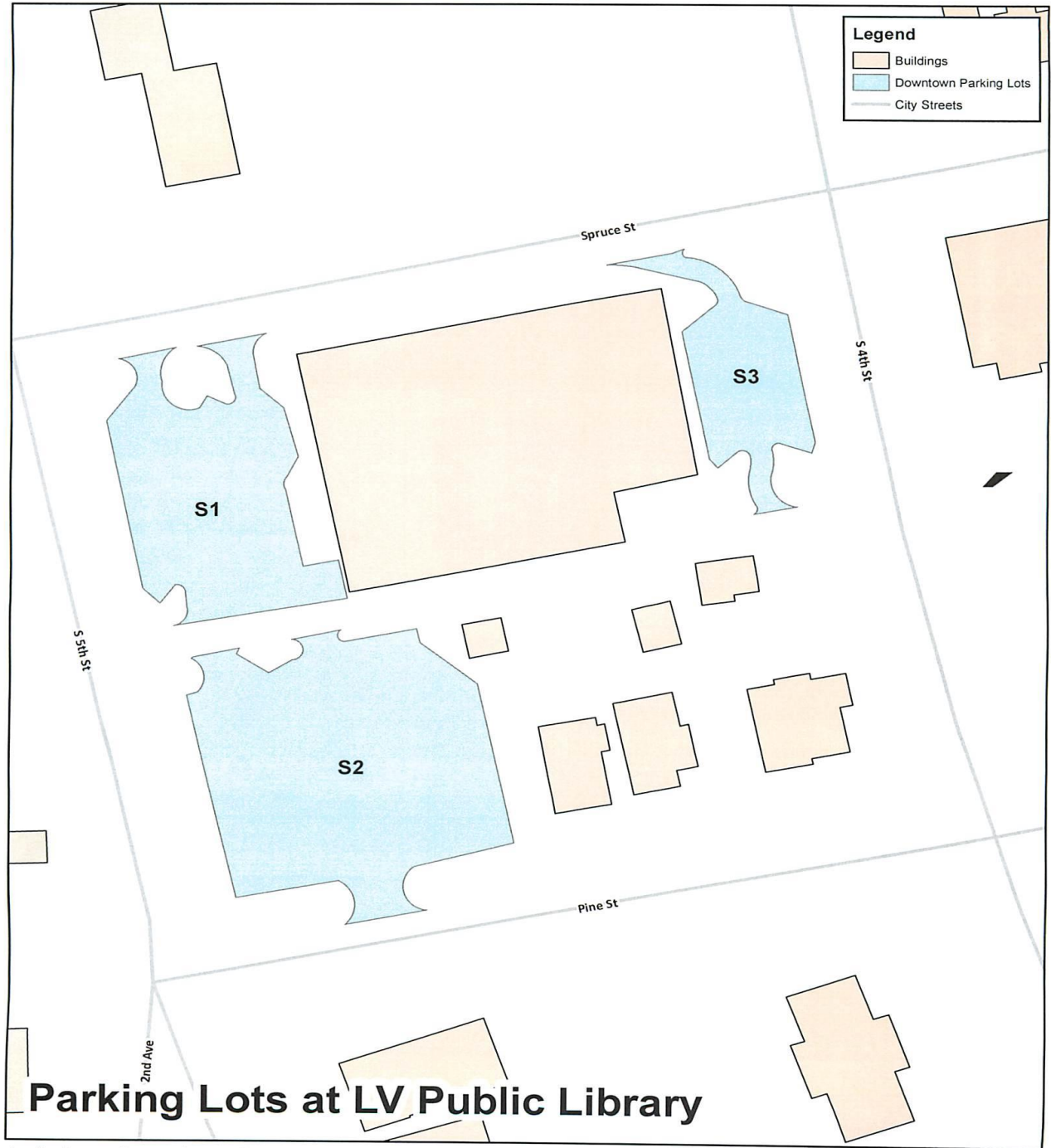
# Downtown Municipal Parking Lots EAST of 4th Street



Map Prepared by the  
City of Leavenworth GIS Department  
October 12, 2017



City of Leavenworth Snow Plan  
Downtown Parking Lots



**Parking Lots at LV Public Library**

II-6

September 30, 2009

**PARKING LOT TABLE**

<b>PARKING LOT NUMBER</b>	<b>LOCATION</b>
<b>E1</b>	Planters II - East Parking Lot & Entrance Drive
<b>E10</b>	Riverfront Community Center - East Parking Lot
<b>E11</b>	Riverfront Community Center - South Parking Lot
<b>E12</b>	Abernathy Lot
<b>E2</b>	300 Block of Shawnee Street - South Side
<b>E3</b>	3rd Street & Delaware Street - Northwest Corner
<b>E4</b>	300 Block of Cherokee Street - North Side
<b>E5</b>	200 Block of Cherokee Street - North Side
<b>E6</b>	100 Block of Delaware Street - North Side
<b>E7</b>	100 Block of Cherokee Street - North Side
<b>E8</b>	2nd Street & Cherokee Street - Southwest Corner
<b>E9</b>	High Noon Saloon - East Parking Lot
<b>N1</b>	Sportsfield - Parking Lots
<b>N2</b>	Wollman Park - Parking Lots
<b>N3</b>	N Esplanade St & Kickapoo St - Northwest Corner
<b>N4</b>	Riverfront Park - North Parking Lots
<b>N5</b>	Welcome Center - East Parking Lot
<b>S1</b>	Public Library - South Parking Lot
<b>S2</b>	Public Library - South Parking Lot
<b>S3</b>	Public Library - East Parking Lot
<b>W1</b>	City Hall - East Parking Lot
<b>W2</b>	5th Street & Seneca Street - Southwest Corner
<b>W3</b>	Immaculata High School - North Side
<b>W4</b>	500 Block Shawnee Street - South Side
<b>W5</b>	400 Block Cherokee Street - North Side
<b>W6</b>	6th Street & Cherokee Street - Northeast Corner
<b>W7</b>	400 Block Cherokee Street - South Side
<b>W8</b>	5th Street & Choctaw Street - Northeast Corner
<b>W9</b>	Haymarket Square

## SCHOOL ZONES

Listed below are the locations of all school zones, which will be plowed and treated in conjunction with the school district's maintenance and supervisory personnel:

### GRID 1

David Brewer School

401 N. 17<sup>th</sup> Street

- N 18<sup>th</sup>, Osage to Ottawa
- Ottawa, N 18<sup>th</sup> to N 17<sup>th</sup>
- N 17<sup>th</sup>, Ottawa to Osage

### GRID 2

Lawson School

820 N. 5<sup>th</sup> Street

- N 4<sup>th</sup>, Johnson to Pawnee
- Pawnee, N 4<sup>th</sup> to N 5<sup>th</sup>
- N 5<sup>th</sup>, Johnson to Pawnee
- Johnson, N 5<sup>th</sup> to N 4<sup>th</sup>

St. Paul Lutheran School

320 N. 7<sup>th</sup> Street

- N 7<sup>th</sup>, Miami to Osage
- Osage, N 7<sup>th</sup> to N 6<sup>th</sup>

### GRID 6

Xavier Catholic Pre-School

1409 2<sup>nd</sup> Avenue

- 2<sup>nd</sup> Ave, Ohio to Prospect

### GRID 7

Leavenworth High School

2012 10<sup>th</sup> Avenue

- 10<sup>th</sup>, Marion to Halderman
- Halderman, 10<sup>th</sup> to Grand
- Grand, Halderman to Marion
- Marion, Grand to 10<sup>th</sup>

Henry Leavenworth School

1925 Vilas

- 20<sup>th</sup>, Vilas to Limit
- Vilas, 20<sup>th</sup> to 22<sup>nd</sup>
- 22<sup>nd</sup>, Vilas to Limit
- Limit, 22<sup>nd</sup> to 20<sup>th</sup>

### GRID 8

Anthony School

570 Evergreen

- 2<sup>nd</sup>, Evergreen to Thornton
- Thornton, 2<sup>nd</sup> Ave to 4<sup>th</sup> Ave
- 4<sup>th</sup> Ave, Thornton to Evergreen
- Evergreen, 4<sup>th</sup> Ave to 2<sup>nd</sup> Ave

**GRID 9**

Warren Middle School

3501 New Lawrence Road

- 10<sup>th</sup>, Gatewood to Limit
- Limit, 10<sup>th</sup> to New Lawrence
- New Lawrence, Limit to Gatewood
- Gatewood, New Lawrence to 10<sup>th</sup>

**GRID 10**

Xavier Muncie Campus

541 Muncie Road

- Muncie, Lakeview Dr to Hughes
- Hughes, Muncie to Eisenhower
- Eisenhower, Hughes to Lakeview Dr
- Lakeview Dr, Eisenhower to Muncie



## **WATER POLLUTION CONTROL DIVISION**

- A. The Water Pollution Control Division will provide manpower and equipment as required in the support for snow and ice removal. Manpower will be qualified and trained to operate the equipment for which it is detailed. The Superintendent of City Operations will coordinate required training with the Superintendent of Water Pollution Control.
  
- B. To the maximum extent possible there will be no change in operation of the Water Pollution Control facility during storms.
  
- C. Plowing and de-icing of the interior Water Pollution Control facility (WPC) will be conducted by the City Operations personnel.

## **PARKS MAINTENANCE DIVISION**

- A. The Parks Maintenance Division will provide manpower and equipment as required in support of the City Operations Division for snow and ice removal. Detailed manpower will be qualified and trained to operate the equipment for which it is detailed. The Superintendent of the City Operations will coordinate with the Superintendent of Parks Maintenance.
- B. The primary focus for snow and ice operations for the Parks Maintenance Division will be:
- ❖ Clear and de-ice City Hall sidewalks.
  - ❖ Clear and de-ice Riverfront Community Center Sidewalks.
  - ❖ Clear and de-ice Leavenworth Public Library Sidewalks.
  - ❖ Clear and de-ice all sidewalks adjacent to all City parking lots.
  - ❖ Clear and de-ice Municipal Service Center Sidewalks.
  - ❖ Clean and de-ice selected Parks and Facilities as required.

## **SOLID WASTE/REFUSE AND MAINTENANCE OPERATIONS**

### A. Solid Waste/Refuse Pick-Up

- 1) To the maximum extent possible refuse pick-up will be conducted at its normal schedule. Four-wheel drive vehicle augmentation will be provided to the Solid Waste Foreman to assist in the areas of poor trafficability.
- 2) In the event that the severity of the storm delays the normal schedule the Solid Waste/Refuse Section will work overtime and be augmented with personnel in order to get back into the normal schedule as quickly as possible.

B. Maintenance Section: Maintenance personnel will be assigned to shift operations as directed by this plan.

C. Brush Disposal Site and Recycling: Will open only after the storm has ceased, clearing areas for brush will be accomplished as required by City personnel.

**CONTRACTORS SUPPORT**  
**TO SNOW AND ICE CONTROL**

- A. The Superintendent of City Operations will solicit price quotes and availability of equipment from local contractors before each snow and ice season not later than the beginning of November of each year. A City and Contractor meeting will occur before each snow season. At this meeting areas will be assigned and plowing coordination standards established.
- B. Contractor Support Areas:
1. Downtown Central Business District
  2. Residential streets, by grid
  3. City parking lots to include the library
  4. Other, as defined by the Director of Public Works
- C. Contractor Quality Control: The Director of Public Works will appoint staff personnel to serve as contractor quality control inspectors. The duties of these individuals will be to function as SNICCC contractor coordinator and ensure the quality control of snow removal operations by the contractor. Staff assigned to these duties will report directly to the Superintendent of City Operations.
- D. Communications with Contractors: In the event the contractor cannot furnish a viable communication link with the SNICCC and contractor representative, the SNICCC will provide receipted handheld radios for the contractors use from City-wide radio resources if available.

## **CONTRACTOR'S AREAS OF RESPONSIBILITY**

### **CONTRACTOR AREAS**

- ❖ Grids 1, 3, 5, 7 and 9
- ❖ Grids 2, 4, 6, 8 and 10

Plowing operations will start at end of storm. The Director of Public Works will make decision for plowing, based on snow accumulation and follow the weather.

### **CONTRACTOR STANDARDS**

- ❖ Report when work commences by grid
- ❖ Report when finished with grid(s), plus periodic status
- ❖ Snow will be winged back as close to curb as parked cars allow – 2 passes (up/down).
- ❖ Intersections will be kept clear
- ❖ Be responsive to assigned City Inspector
- ❖ After operations report and invoice will include:
  - Date
  - Start time
  - Completion time
  - Equipment utilized and hours
  - Problems encountered and recommendations for improvement

### **CITY “QUALITY CONTROL” INSPECTORS**

- ❖ Justin Stewart
- ❖ Barry Smith

### **CITY PARKING LOTS**

City Operations

- ❖ Lots West of 4<sup>th</sup> Street
- ❖ Lots East of 4<sup>th</sup> Street
- ❖ Other areas to be assigned

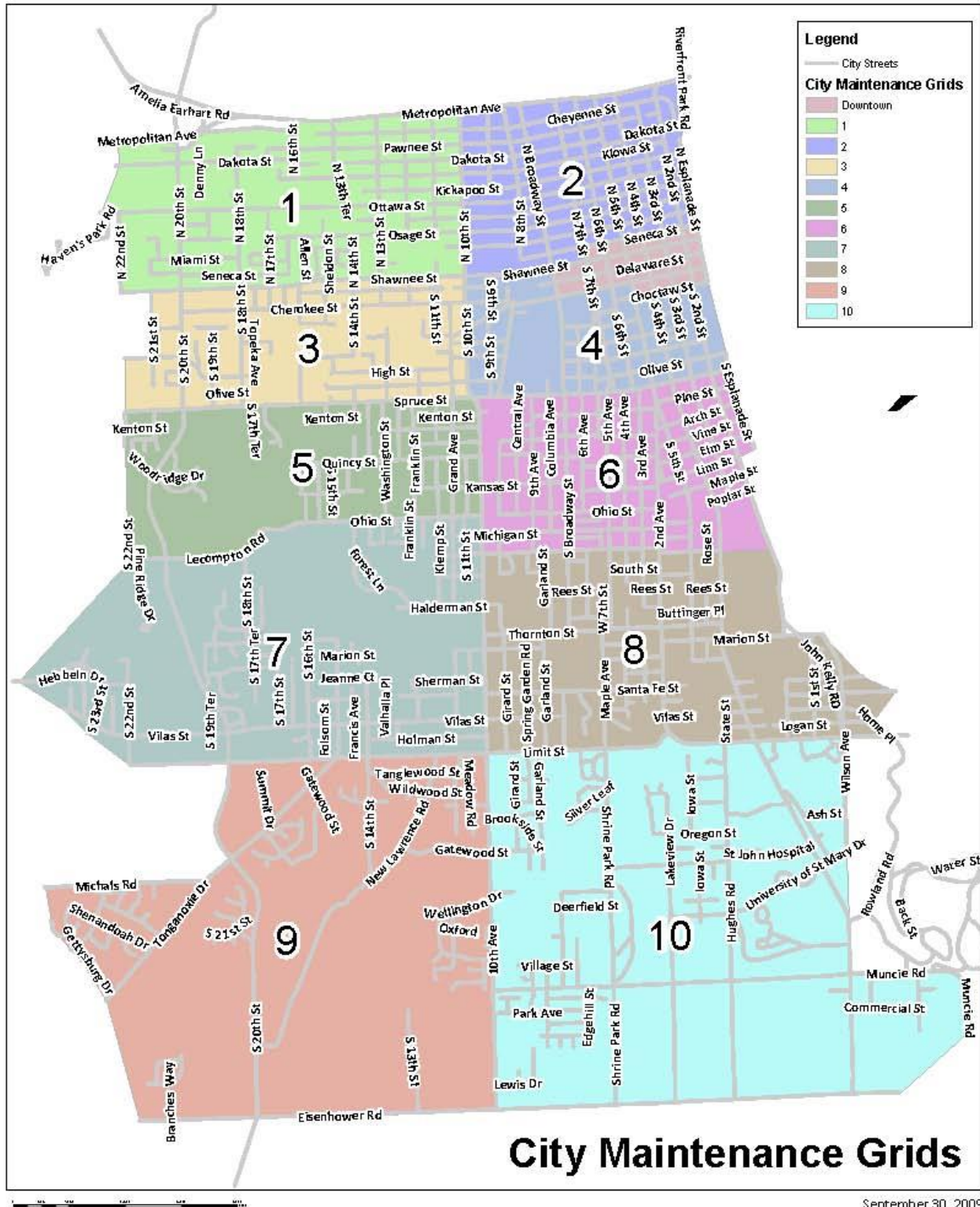
### **DOWNTOWN CLEAN-UP**

Operation will commence the evening after storm at 9:00 p.m.

### **REQUIRED DOCUMENTATION:**

- ❖ Current certificate of insurance (listing City of Leavenworth as additional insured)
- ❖ Points of contact
- ❖ Equipment availability with and without operator including costs

## City of Leavenworth Snow Plan Maintenance Grids



**MATRIX OF SNOW/DE-ICING  
TREATMENT PROCEDURES**

		RECOMMENDED TREATMENT (STORM)			
°F	PREC.	ACTIVITY	BEGINNING	DURING	AFTER
0-20	SNOW (DRY)	PLOW	AFTER FIRST 2"	CONTINUOUSLY	WING BACK TO SHOULDERS CLEAN-UP
		SALT/CALCIUM	AFTER PLOWING KEY AREAS	AS NECESSARY PLOWING	ICY SPOTS ONLY
		SALT/CALCIUM	AFTER PLOWING EMERGENCY ROUTES	AS NECESSARY AFTER PLOWING	ICY SPOTS ONLY
20-30	SNOW DRY/ WET	PLOW	AFTER FIRST 2"	CONTINUOUSLY	WING BACK TO SHOULDERS CLEAN-UP
		SALT	AFTER PLOWING KEY AREAS	AS NECESSARY AFTER PLOWING	ICY SPOTS ONLY
		SALT	AFTER PLOWING EMERGENCY ROUTES	AS NECESSARY AFTER PLOWING	ICY SPOTS ONLY
0-30	ICE	PLOW	NO	NO	NO
		SALT *	KEY AREAS EMERGENCY ROUTES	CONTINUOUSLY	ICY SPOTS ONLY
		SALT	NO	NO	NO

**NOTE:** \*DURING ICE STORMS WHEN TEMPERATURE IS 20° F AND LOWER, ALL SALT WILL BE MIXED WITH CALCIUM CHLORIDE.

## **WORK MANAGEMENT FORMS AND LOGS**

1. This annex prescribes the Work Management forms and logs, which will ensure the accurate record and utilization of resources (man hours, equipment and material) as well as call in and out problems.
2. The Work Management Technician whose shift times will overlap both shifts one and two will be responsible for the accurate and timely posting of work and resources expended to the automated database.

3. Specific forms and their function are as follows:

a. Snow/Ice Control Worksheet

This form is the shift operator's primary log of manpower equipment hours and de-icing resources used during a shift. Each operator per shift is responsible for the accurate completion of this form. It will be turned into the Work Management Technician after each shift.

b. Dispatch Log

This form will be maintained for each shift (continuation pages will be used as required). The purpose of this form is to accurately log and document all call in requests for assistance from citizens and/or City officials. The shift supervisor will review his/her log sheets and provide a copy to his/her shift relief with unresolved actions and/or requirements. The Dispatcher will be responsible by shift for this log.

c. Snow/Ice After Action Report

This form will be used to record and document the total resources expended for each storm. Storms will be numbered by year consecutively. The Superintendent of City Operations is responsible for the execution of this form in conjunction with Work Management.



# SNOW/ICE CONTROL OPERATOR WORKSHEET



## Snow/Ice Control Operator Worksheet

Date: \_\_\_\_\_

<b>Starting Mileage</b> <small>(from truck odometer)</small>
---

<b>Ending Mileage</b> <small>(from truck odometer)</small>
---

<b>Total Mileage</b> <small>(Ending - Starting)</small>
--

Operator: \_\_\_\_\_

Truck #: \_\_\_\_\_

Shift:  
(Circle One)

Day

Night

<b>Start Time</b>
-------------------

<b>End Time</b>
-----------------

<b>Hours Worked</b>
---------------------

<u>Spreader Controller</u>	
Dry Distance Material - A _____ miles	
Pre-Wet Distance Material - A _____ miles	
Total Material - A _____ miles <sup>2</sup>	
Dry Material-A _____ lbs	
Pre-Wetted Material - A _____ lbs	
Total Material - A _____ lbs <sup>2</sup>	
Prewet Liq Materail - A _____ gallons	
**ALWAYS clear "Current Data" at the end of your shift.**	

<u>To Be Calculated by Street Clerk</u>
Lbs/Lane Mile _____ <small>(2/1)</small>
Total Tons Salt/Sand _____ <small>(2 /2,000)</small>
<small>Round to 2 decimal points.</small>

<u>Plowing Miles</u>
Total Plowed Miles _____ miles <small>(Note odometer when plow is dropped)</small>

**REMEMBER!**

Always complete a pre- and post-inspection sheet for your vehicle for each shift.

Always call in to dispatch when starting and ending a route.

If treating Hot Spots, call dispatch as each spot is treated.

Operator  
Signature: \_\_\_\_\_

Date: \_\_\_\_\_

DISPATCH LOG						
DATE: _____			DISPATCHER: _____			
SHIFT: _____						
ITEM #	TRUCK #	OPERATOR	TIME	BEGINNING MILEAGE	ENDING MILEAGE	NOTES

DISPATCH SHEET

	DATE:			TIME:		TO		
TITLE	TRUCK #	EQUIPMENT HOURS	REGULAR HOURS	OVERTIME HOURS	TONS OF SALT/SAND	POUNDS PER LANE MILE	TREATING MILEAGE	PLOWING MILEAGE
	<b>SUBTOTAL</b>	0	0	0	0	#DIV/0!	0	0
	<b>DATE:</b>				<b>TIME:</b>	<b>TO</b>		
	<b>SUBTOTAL</b>	0	0	0	0	#DIV/0!	0	0
	<b>DATE:</b>				<b>TIME:</b>	<b>TO</b>		
	<b>SUBTOTAL</b>	0	0	0	0	#DIV/0!	0	0
	<b>TOTAL</b>	0	0	0	0	#DIV/0!	0	0

**STATE, COUNTY, LEAVENWORTH AND LANSING'S**  
**AREAS OF RESPONSIBILITY**

**STATE:**

- Metropolitan from Bridge to 73 West
- Spruce Street from 15<sup>th</sup> Street to West
- 4<sup>th</sup> Street from Limit South

**COUNTY:**

- 18<sup>th</sup> Street/Santa Fe Trail North of Metropolitan
- Eisenhower Road from 20<sup>th</sup> Street Trafficway West

**CITY OF LEAVENWORTH:**

- All streets within City limits

In addition, the following streets are included:

- Metropolitan from 16<sup>th</sup> St. to 20<sup>th</sup> St./16<sup>th</sup> St. from Metropolitan to Highway 7/73
- 20<sup>th</sup> Street from Eisenhower Road to Fort Leavenworth rear entrance
- Ottawa Street from 22<sup>nd</sup> Street to Dead End
- Shawnee from 22<sup>nd</sup> Street to Dead End
- County Road 12 from 22<sup>nd</sup> Street to Highway 92
- New Lawrence Road from Limit to 20<sup>th</sup> Street Trafficway
- County Road 5 from Limit to Michals Road
- Eisenhower from 4<sup>th</sup> Street to 20<sup>th</sup> Street Trafficway

**CITY OF LANSING:**

- Eisenhower Road from 4<sup>th</sup> Street East

**MUTUAL ASSISTANCE IN EMERGENCY**

- Product/Material
- Parts
- Weather Up-Dates Leavenworth/Post

# LEAVENWORTH PUBLIC SCHOOLS

## Inclement Weather Procedure

**ALL INCLEMENT WEATHER DECISIONS ARE BASED ON CONCERNS FOR STUDENT, PARENT, AND STAFF SAFETY.**

IN THE EVENT SCHOOLS ARE CLOSED FOR THE DAY, USD #453 WILL:

- Make the decision to close no later than 6:00 am
- Provide notice to the major television stations in the Kansas City area (KSHB 41, KCTV 5, KMBC 9)
- Post the closing on the district website ([www.usd.453.org](http://www.usd.453.org)), and on the local cable channel 2

PARENTS NEED TO:

- Listen to news broadcasts on stormy mornings, or check the district website
- Decide whether or not to send their child(ren) to school. When the decision is made that schools will be open, some parents may choose to keep their child(ren) home because weather conditions may be considered marginal. Such absences will be excused, and work missed may be made up without penalty.

IN THE EVENT A STORM DEVELOPS OR THE WEATHER CHANGES UNEXPECTEDLY DURING THE DAY, USD #453 WILL:

- Remain open; schools will not dismiss early
- If parents feel their child(ren) should come home, they may pick them up from school; such absences will be excused and work missed may be made up without penalty.

## **FORT LEAVENWORTH**

- Will coordinate with Fort Leavenworth to modify our schedule to plow to allow for early release.

**PLEASE SAVE THIS INFORMATION FOR FUTURE WEATHER SITUATIONS**

**CITY OF LEAVENWORTH**  
**SNOW AND ICE REMOVAL OPERATION PLAN**

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