

# LOS ALAMOS

Public Works

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# **Table of Contents**

l.	Purpose4
II.	Mission Statement
III.	Storm Response Goal
IV.	Personnel
	Public Works Department
	Traffic & Streets Division6
	Parks, Recreation, & Open Space Division6
	Airport Division
	Transit Division 8
	Custodial Division 8
	Facilities Division9
	Fleet Division9
	Procurement Division9
	Environmental Services
	Department of Public Utilities
	County Equipment & Resources
	Private Contractors
٧.	Staff Training
VI.	Citizen's Concerns, Requests, & Emergencies
VII.	Snow Notification Procedures
	Normal Working Hours
	After Hours, Weekends, & Holidays12
	Early Release & Delayed Openings
	Procedures: Early Release
	Procedures: Snow Delay
	County Employee Work Notification
VIII	Snow & Ice Control Operations 15

	Operational Safety	16
	General Operations	16
	Sand & Salt Use	17
	Plowing Techniques	18
	Roadway Construction and Private Roads	19
	Street & Sidewalk Prioritization	19
	Priority 1:	20
	Priority 2:	22
	Priority 3:	<b>2</b> 3
	Safe Routes to School	<b>2</b> 3
	Public Transit Routes (Atomic City Transit)	<b>2</b> 3
	County Facility Prioritization	24
	Category A	24
	Category B	<b>2</b> 5
	Category C	<b>2</b> 5
	Category D	25
	Resident's Responsibilities	<b>2</b> 5
	Motorist's Responsibilities	26
	Mop Up Operations	27
	Property Damage	27
	Mailboxes	28
	Sod & Landscaping	28
	Private vehicles	28
Арре	endix 1	29
	Priority Maps	29
Арре	endix 2	37
	Safe Routes to School Maps	37
Арре	endix 3	43
	Transit Route Map	43

Appendix 4	52
Transit Service Modifications	
Appendix 5	55
Sand and Salt Barrel Locations	
Appendix 6	56
Snow Dump Locations	
Appendix 7	57
Equipment Resources	57
Appendix 8	60
Human Resources	60

# Los Alamos County Snow & Ice Control Plan

# FY19 Season

# I. Purpose

The purpose of this plan is provide a comprehensive strategy and approach to the snow and ice control operations of Los Alamos County to provide emergency response to winter storms in a safe, efficient, and cost-effective manner.

This plan serves as a guiding document for Los Alamos County and is a *living document* that is subject to change without notice due to the unpredictability of each and every storm that impacts the County. *Due to the variable nature and severity of these winter storms, managers and supervisors will have the ability to make real time decisions and changes to this plan based on actual emergency conditions while considering the safety of the community and County staff. Therefore, this plan reflects the primary expectations of the County management while still maintaining the flexibility needed to effectively address each storm.* 

Another purpose of this plan is to communicate to the governing officials and citizens of Los Alamos County the responsibilities, priorities, and available resources that will be used when responding to the winter storms.

### II. Mission Statement

Winter storms in Los Alamos County can impede vehicular, bicycling, and pedestrian traffic causing significant delays and negatively impacting emergency response throughout the community. Therefore, it is the mission of the Snow and Ice Control Program to:

- Address each storm such that public safety is maintained to the best of the County's ability with the resources that are available;
- Control the impact of each storm in a cost effective and environmentally responsible manner through plowing and by use of sand, salt, anti-icing, and other types of de-icing materials:
- Reduce the hazards of winter conditions to motorists, transit riders, bicyclists, and pedestrians while enhancing the operations of emergency services; and
- Minimize the economic loss to local businesses and the community.

# III. Storm Response Goal

The goal, in responding to winter storms in Los Alamos County, is to provide reliable and cost-effective snow and ice control for the County's roads, streets, public transit routes, Safe Routes to School, emergency services, airport, parking lots, and selected walkways that is timely and aggressive to ensure the safety of the traveling public while minimizing community disruptions. The goal includes safe completion of an initial storm response within 24 hours of the end of a typical snow event; defined as snowfall of 6 inches or less.

### IV. Personnel

The snow and ice control storm response program requires the use of up to twenty (20) County employees *per shift* to effectively and safely address the County's road and transportation system during severe weather conditions. While the Traffic & Streets Division is responsible for overseeing and orchestrating the emergency storm response, the Division does not have the amount of resources necessary to directly accomplish this task on their own. Therefore, the County Manager has authorized the Traffic & Streets Division to utilize administrative and field operations staff, materials, and equipment from multiple County departments and divisions as conditions require. All employees that are utilized for snow and ice control will be under the authority of, and accountable to, the Traffic & Streets Division during the event. Depending on the nature and severity of the storm, the support for snow and ice control operations will include personnel and equipment from the following divisions:

- Airport Division
- Custodial Division
- Facilities Division
- Fleet Division
- Parks, Recreation, & Open Space
   Division
- Traffic & Streets Division

- Transit Division
- Environmental Services
- Procurement Division materials and supply support
- Department of Public Utilities if additional support is needed
- Private Contractors For large events

The following is a list of the County's departments and divisions that will be the primary or secondary responders during snow storm events in an effort to support the overall operation. These responders will be under the direct authority of the Traffic & Streets Division.

# **Public Works Department**

The primary responsibility and authority for implementing the Snow and Ice Control Plan belongs to the Public Works Department. During a winter storm, the Public Works Department

FY19 Snow & Ice Control Plan Page 5

has the authority to call on *any County resource* to assist in the implementation of the Snow and Ice Control Plan. Under the direction of the Public Works Director, the Public Works Department Traffic & Streets Division is responsible for the day-to-day snow and ice control operations and implementation of the plan.

#### **Traffic & Streets Division**

The Traffic & Streets Division employees are the first initial responders to all snow and ice control events. Superintendents within this division provide oversight of the operations, while the Lead Operators provide on-site directions, and the employees operate the sand, salt, and plow trucks along with motor graders, front-end loaders, bombardiers, and other heavy equipment needed to effectively respond to a winter storm.

The Streets Maintenance Superintendent or designee with direction from the Traffic & Streets Manger will determine when to prepare for and begin the snow and ice control operations for each event. Also, the Superintendent or the Traffic & Streets Manger designee is directly responsible for the real-time snow and ice control operations and for initiating the emergency call-out for various crews, support divisions, and private contractors as needed. The Superintendent or the Traffic & Streets Manger Designee will also be responsible for coordinating after-hours, weekend, and holiday call-out procedures with various County staff and the Police Department. The Traffic & Streets Manger or designee will be the primary point of contact for Police to notify when they become aware of hazardous areas that are impassable. It should be noted that from the time the Police contacts the Traffic & Streets Manager or designee, it takes approximately 60-90 minutes before staff and equipment are available for an initial winter storm response.

Due to the 24-hour nature of snow removal operations, the Assistant Streets Superintendent will rotate the operational oversight with the Superintendent or the Traffic & Streets Manger designee every 12-hours. In addition to the Superintendents, Lead Equipment Operators (Leads) will be responsible for snow teams consisting of employees from the Traffic & Streets Division and from other County divisions assisting with the snow operations. The Leads will provide their team members with real-time directions and guidance while in the field.

# Parks, Recreation, & Open Space Division

The Parks, Recreation, & Open Space Division employees will be activated as needed by the Traffic & Streets Division. Their primary duties will be to assist in the clearing of selected public sidewalks, walkways, and stairways, including approved Safe Routes to School walkways and County maintained parking lots. Their secondary duties will be to clear Priority Three roads including residential streets. Their tertiary duties will be specified and assigned by the Traffic & Streets Manager, Street Superintendent, Assistant Superintendent, or their team Lead in the

field. Employees with CDL-B licenses (or greater) may be utilized on the large snow removal equipment, and will be under the direction of the Street Superintendent or designee during storm response operations.

The Parks employees will be responsible for clearing the two overpasses (including the stairways) on Diamond Drive at the High School and clearing the tunnel (including the stairs at the tunnel) located under Diamond at the roundabout. During normal winter storms, the Golf Course employees will clear the ramps and stairs to the Golf Course tunnel. However, if the Golf Course employees are unable to clear the access to the Golf Course tunnel, then the Parks employees will assist with the snow and ice control maintenance at the same time they are cleaning the roundabout tunnel.

During snow and ice control operations when Parks staff has been activated to assist with the event, they will report directly to and be responsible to their assigned snow team Lead in the Traffic & Streets Division. When Parks staff completes their snow and ice assignments, they will contact their snow operations team Lead for new assignments, other instructions, and their work schedule.

# **Airport Division**

The Airport Manager and Acting Airport Manager(s) are responsible for plowing snow at the Los Alamos Airport including the airport runway, plane tie-down areas to within 10-feet of any aircraft, areas surrounding the terminal building, airport parking lots, and Airport Road. If there is an unforeseen situation that occurs, and the Airport Manager or Acting Manager are unable to respond, the Airport Manager will contact the Traffic & Streets Division and coordinate an alternate plan with the Traffic & Streets Manager or designee. The Traffic & Streets Manager or designee may assign staff from the Traffic & Streets Division to plow the runway, road, and parking lots in accordance with this Plan's priority list (page 19). In case of an emergency air flight, the Airport's priority may be adjusted.

There are two dedicated snow plows assigned to the Airport. A ¾ ton 4 x 4 pickup with a nine-foot-wide scoop plow blade and a 4 x 4 single axle dump truck with a 22-foot-wide plow blade. The large plow was purchased with an FAA grant and therefore *can only be used at the Los Alamos Airport*.

The Airport currently has historically had daily scheduled commercial air service and it is anticipated this service will continue in the future. Therefore, the runway, taxiway, and apron will need to be cleared a half-hour before the first flight of the day leaves and the last flight of the day arrives in coordination with the latest published flight schedules. Along with snow plowing on the airside (taxiways, runway, and apron inside the perimeter fence) plowing should occur on Airport Road and within the parking lot in order to accommodate air service

passengers and car rental operations. If needed, Airport staff may request help from the Traffic & Streets Division to assist with plowing, snow blowing to remove wind rows, and snow removal.

Examples of snow removal for the Airport would include the use of a front-end loader to lift snow over the guard rails at the north end of apron and taxiways between the T-hangers or the removal of snow piles along the edges of the taxiways. Airport management will be responsible for issuing any required Notice to Airmen or updates to the Automated Weather Observations System, the two primary communication tools for light planning information. Staff assigned to snow control on the airside will monitor the Airport Unicom radio (123.00) to announce activity, intention, and location as well as hear and respond to active flight communications. Both Airport's dedicated snow plows have Unicom radios so the radio monitoring can take place.

### **Transit Division**

The normal snow and ice control operations will provide for the snow removal services along existing public transit routes (roadways and sidewalks) in accordance with the Plan's priority schedule (page 19). These services will include the use of snow plows, sanding, salt, and deicers, as well as other heavy equipment as needed.

Transit employees will be activated as needed to perform the hand clearing of snow and ice from the bus shelters, access directly to the shelters from the longitudinal sidewalks, and areas around bus stops as time allows.

### **Custodial Division**

During snow and ice control operations when Custodial staff has been activated by either the Traffic & Streets Manager or designee or the Custodial Superintendent to assist with the event, they will report directly to the Custodial Superintendent. The Custodial Superintendent will be responsible for County facility access. When Custodial staff completes their snow and ice assignments for facility access, the Custodial Superintendent will contact the Traffic & Streets Division Designee for additional assignments or other instructions as the storm warrants. Their primary duties will be to assist with the clearing of the snow and ice from the public sidewalks, walkways, and parking lots of County maintained facilities such as the Municipal Building, Aquatic Center, Mesa Public Library, White Rock Library, Judicial Center, Fuller Lodge, Pajarito Cliffs Site, and other County facilities. Their focus will be to get County buildings and facilities safely accessible to County employees and the public. Their secondary duties will be specified and assigned by the Traffic & Streets Manger or designee.

### **Facilities Division**

The Facility Division employees will be activated as needed by the Traffic & Streets Division. This Division is the first backup to the snow and ice control on the roadways. Their primary duties will be to assist with the clearing of priority roadways as delegated by the Traffic & Streets Manager or designee. Employees with CDL-B licenses (or greater) may be utilized on the large snow removal equipment, and will be under the direction of the Traffic & Streets Manager or designee during storm response operations. Their secondary duties will be to clear approved Safe Routes to School and County maintained parking lots. The tertiary duties will be specified and assigned by the Traffic & Streets Manager or designee or their team Lead in the field.

During snow and ice control operations when Facilities staff has been activated to assist with the event, they will report directly to and be responsible to their assigned snow team Lead. When Facilities staff completes their snow and ice assignments, they will contact their snow operations team Lead for new assignments, other instructions, and their work schedule.

### **Fleet Division**

The Fleet Division employees will be activated for storm response as needed by the Traffic & Streets Division. The primary duties will be to support equipment, vehicle, and machinery needs such as repairs, plow edge replacements, chain installation, and field operations as needed. Their secondary responsibilities will be to plow the parking lots and site yards at the Pajarito Cliffs Site when directed to do so by the Traffic & Streets Manager or designee. The Fleet Division has a parts truck with a plow attachment and this vehicle could be used for the Pajarito Cliff Site parking lot plowing if time permits.

Once Fleet staff has been activated to assist with the snow event, they will report directly to and be responsible to the Traffic & Streets Manager or designee. When Fleet staff completes their snow and ice assignments, they will contact the Traffic & Streets Manager or designee for new assignments, other instructions, and their work schedule.

#### **Procurement Division**

The Procurement Division is responsible for the procurement, warehousing, and storage of snow and ice control materials and supplies that are needed to effectively respond to winter storm events. During the late summer, the Procurement Division begins the process of purchasing these supplies through initiating communication with the Traffic & Streets Division, Custodial Division, Fleet Division, and the vendors in order to have the correct type and quantity of materials. The Procurement Division is also responsible for the stocked levels of materials and supplies during the storm season, along with tracking the use of these materials by the Schools and the various divisions within the County.

During a winter storm, the Procurement Division employees will be activated by the Traffic & Streets Manager or designee to assist with providing emergency materials, supplies, and equipment such as chains, plow blades, and safety equipment. Their secondary duties will be to clear the parking lot at the Pajarito Cliffs Site or other duties as specified and assigned by the Traffic & Streets Manager or designee.

Employees may also assist with snow removal operations in the field and around the Pajarito Cliffs Site.

## **Environmental Services**

The Environmental Services Division provides essential trash and recycling services to the community and collections continue regardless of delays or closures. For the Eco Station facility to be open safely, the Environmental Services staff will perform the initial snow removal at the site. After the staff's initial removal efforts and depending on the amount of snowfall and storm conditions, the Eco Station may need additional assistance. If so, the Environmental Services Superintendent may request assistance from the Traffic & Streets Division to clear the driveway and primary traffic routes within the facility.

The Eco Station facility is listed as a Category C governmental facility and will be maintained by the Custodial Division's staff after higher priority facilities have been completed. Therefore, the sidewalks and walking paths at the Eco Station may initially be cleared by the Eco Station staff if the storm warrants such action.

The Environmental Services Superintendent will also be in contact with the Streets Superintendent to get real-time recommendations regarding the road conditions and chain installation requirements based on snow depths in different areas of the County.

# **Department of Public Utilities**

The Department of Public Utilities (DPU) employees may be activated for storm response when there are significant snow storms or emergencies requiring additional resources. However, due to the nature of DPU work, the DPU employees will often be addressing power failures and water break issues during winter storms and may not be available. Therefore, calling on DPU to assist with snow and ice control will be enacted only during critical situations.

The DPU employees will be responsible for clearing the snow from around fire hydrants so that the hydrants are visible and accessible for emergency services.

# **County Equipment & Resources**

The County owns approximately 45 various pieces of equipment that can be used for snow and ice control including pickups, trucks, backhoes, graders, front-end loaders, snow blowers, etc.

About half of this equipment is located within the Traffic & Streets Division. It is important to note that during heavy snowfall, the Traffic & Streets Division has the authority to mobilize and put into service <u>ANY</u> tool, equipment, or vehicle from <u>ANY</u> County Department as necessary, in order to assist in performing prompt, safe, and successful snow and ice control operations. (See Equipment Resource list in Appendix 7)

#### **Private Contractors**

While the County will utilize its primary resources for the majority of storms, some storms will be larger than the County's staff or equipment can maintain. Therefore, during the larger winter storm events, the County will need to utilize private contractors in order to provide the community with sufficient storm service. As a contingency, the Procurement Division has established contracts for the on-call services of private contractors having equipment and personnel capabilities to assist as requested and directed by the Traffic & Streets Manager or designee during large snow events.

In addition, a contract may also be in effect for the snow plowing of parking areas, sidewalk clearing and if needed, snow removal from the Pajarito Cliffs Site Complex.

# V. Staff Training

The Traffic & Streets Manager or designee will determine the necessary preseason training for the employees who will regularly be assigned snow and ice control duties. The preseason training will occur between the months of September and November. The training may include, but is not limited to, hands-on application and operation of equipment, familiarization of priorities and routes, inspection of specific areas to determine any impediments to effective snow plowing, new technologies and practices in equipment and materials used in the industry, and special procedures and guidelines required for safe snow removal operations throughout the community and at the airport. Additional training will occur on an as needed basis.

The Traffic & Streets Manager or designee will have operations guidelines for the County staff that will be assisting with the snow and ice control. These guidelines are subject to change based on actual conditions but they will be used in order to increase the consistency of the County's winter storm maintenance.

Each year, selected employees will attend the Snow and Ice Control Conference (generally held in Colorado) to further their knowledge and receive additional snow and ice control training.

# VI. Citizen's Concerns, Requests, & Emergencies

Questions, concerns, and special requests regarding snow and ice control or reports of damage will be taken during normal working hours. The Traffic & Streets Division office (505-662-8113) will be staffed during the hours of 7:30 a.m. to 4:00 p.m. Monday through Friday and will take calls and handle the situations on a priority basis. The staff will address each concern in priority order and in accordance with this Plan such that public funds are effectively managed and residents are treated in an equitable manner.

As always, for *valid emergency* concerns only, the Police Department should be contacted and they in turn will contact the Traffic & Streets Manager or designee for remediation of the situation. Except for valid and verified emergency situations that have been communicated through the Traffic & Streets Manager or designee, the normal routes, priorities, and strategies will not be changed during storm operations.

### VII. Snow Notification Procedures

During the normal winter storm season, the Traffic & Streets Manager or designee will monitor various meteorology services for mobilization and strategic planning based on storm forecasts. Based on actual storm conditions and storm forecasts, crew leads will communicate with the Traffic & Streets Manager regarding the storm operations and road conditions. Winter storm notifications for County operations are as follows.

## **Normal Working Hours**

The Traffic & Streets Division's normal working hours are from 7:30 a.m. to 4:00 p.m., Monday through Friday. The Traffic & Streets Manager or designee may be contacted through the Traffic & Streets Division's administration office during these hours at (505) 662-8113.

# After Hours, Weekends, & Holidays

Residents may contact the Police Department at 662-8222 to report difficult or dangerous snow and ice conditions on the County's roads and streets. The Police Department will contact the Traffic & Streets Manager or designee who will dispatch operators and coordinate efforts as appropriate.

### **Early Release & Delayed Openings**

The County Manager may allow for delayed work hours or early release of employees when County roads have become unsafe and crews are unable to maintain the roads in a passable

condition or when the intensity of snowfall is such that accumulations outpace the ability of crews to clear major routes.

When any of these conditions occur and delayed work hours are authorized, a one-hour delay will generally be authorized if snow conditions are present in Los Alamos, but roads are clear in the Rio Grande Valley; and, a two-hour delay will generally be authorized if snow conditions are present throughout Northern New Mexico.

### **Procedures: Early Release**

If, during the course of a County workday, the snowfall intensity is such that snow and ice control operators are unable to keep roads in a passable condition, the Streets Superintendent or designee will advise the Traffic & Streets Division Manager of the recommendation for an early release. Upon concurrence, the Manager will contact the Public Works Director with a recommendation that employees be released early due to poor road conditions.

If the Public Works Director determines that an early release of County employees is warranted, the Public Works Director will contact the County Manager to recommend an early release. The Public Works Director will also advise the Los Alamos Public Schools of the severity of the road conditions.

The County Manager will make the final determination with respect to an early release of County employees. The Public Works Director will then advise the Department of Energy Los Alamos Field Office Manager and the Superintendent of the Los Alamos Public Schools of the decision. The County Manager's Office will also notify the County's Department Directors and post a notice on the intranet once a decision has been made to release employees early. Each Department Director will then release non-essential employees.

The Public Works Director will encourage Los Alamos National Laboratory and other agencies to stagger their employee release times for the purpose of staggering the traffic to avoid excessive traffic delays and back—ups, which would further hinder snow and ice control operations.

# **Procedures: Snow Delay**

During normal non-working hours when the roads become unsafe due to being snow covered, slippery, or icy and the snowfall intensity is such that snow and ice control operators are unable to keep roads in a passable condition, the Streets Superintendent or designee will advise the Traffic & Streets Division Manager of the recommendation

for a snow delay prior to 5:00 a.m. Upon concurrence, the Manager will contact the Public Works Director with a recommendation for a delay of County working hours due to poor road conditions.

If the Public Works Director determines that a working hour delay is warranted, he will contact the County Manager to recommend a delay of County working hours. The Public Works Director will also contact the Los Alamos Public Schools and advise them of the road conditions. The County Manger will be notified prior to 5:15 a.m. of any recommended delays or closures.

The County Manager will make the final determination with respect to any delay of working hours. The Public Works Director will then advise the Department of Energy Los Alamos Area Office Manager and the Superintendent of the Los Alamos Public Schools of the decision.

Once directed by the County Manager to initiate a County work delay, the Traffic & Streets Manager will initiate the County Snow Notification Policy through the assistance of the Public Information Officer. The Traffic & Streets Manager or designee will contact selected radio stations, television stations, and Atomic City Transit with the work delay information. The Public Information Officer or designee will update the County's phone hotline, Facebook, and County web page; both the internet and intranet.

# **County Employee Work Notification**

In the event a snowfall is of a magnitude that it will delay or prevent County employees from getting to work, employees should seek information about County work delays and adjusted hours by checking any or all of these resources:

#### Radio Stations:

KZRR	94.1 FM	Albuquerque	KPEK	100.3 FM	Albuquerque
KANW	89.1 FM	Albuquerque	KDCE	950 AM	Espanola
KBQI	107.9 FM	Albuquerque	KRSN	1490 AM	Los Alamos
KKOB	770 AM	Albuquerque	KRSN	107.1 FM	Los Alamos
KKOB	93.3 FM	Albuquerque	KLBU	102.9 FM	Pecos
KIOT	102.5 FM	Albuquerque	KVSF	101.5 FM	Santa Fe
KRST	92.3 FM	Albuquerque	Radio	1610 AM	LA County

County's web page and Facebook (Information will be posted on the home page News section by the County Public Information Officer):

## www.losalamosnm.us

Facebook - search for "Los Alamos County"

County's Employee Hotline: (505) 661-4550.

Local Television Stations or Their Websites:

KOAT Channel 7 (ABC)	www.koat.com	Albuquerque
KOB Channel 4 (NBC)	www.kob.com	Albuquerque
KRQE Channel 13 (CBS)	www.krge.com	Albuquerque
KASA Channel 2 (FOX)	www.kasa.com	Albuquerque

Since many County employees travel from Santa Fe, Jemez, Espanola, and other areas to work in Los Alamos, every effort will be made to have an announcement placed on the above listed stations, phone line, Facebook page, and web page no later than 6:30 a.m., Monday through Friday. If there are no announcements made on a closure or delay on these stations, normal Los Alamos County working hours are in place.

The County has been advised that calls into the stations are strongly discouraged on snowfall days as the telephone lines are tied up. Therefore, the telephone numbers for the radio and TV stations are not listed. Employees are first encouraged to listen to a radio or television station for an update on County closures or delays, as this is the primary contact that the County will make. It is the fastest way to reach most employees before 6:30 a.m., and therefore the radio and television updates take priority over updating the County's phone hotline, Facebook, or web page.

# **VIII. Snow & Ice Control Operations**

The commencement of the snow and ice control operations for any storm is dependent on the forecast or actual conditions. Because of the variables encountered with each storm, the operations requirements will differ for each winter storm event. However, snow storm operational guidelines have been established for the following anticipated events.

Freezing rain, sleet, black ice, hail, and freeze-thaw conditions:

These types of events are based on changing weather conditions. The Traffic & Streets Manager or designee will determine the required level of ice control response based on real-time conditions.

Snowfall less than 1":

With this type of small storm, general snowplowing may not be necessary and normal ice control may be adequate to produce safe winter driving conditions. The Traffic & Streets

Manager or designee may deem plowing necessary if a series of snowfalls are anticipated and may cause a buildup of snow on the roadways.

#### Snowfall of 1" to 6":

Typically, snow removal begins as soon as practical depending on the timing of the snowfall event. Every effort will be made to provide motorists with safe winter driving conditions. Normally, Priority 1 and 2 streets will be plowed first. Once these streets are plowed, the remaining streets, sidewalks, and parking areas will be addressed and ice control applied.

#### Snowfall greater than 6":

Under these conditions, it will be the priority to keep major arterials and collectors streets plowed. This will help to ensure that facilities such as the Medical Center, fire stations, police station, schools, and transit routes are accessible. Depending on the snowfall and the duration of the event, it may be necessary to continually focus on priority one streets only in an attempt to maintain public safety. Once the significant portion of the event has subsided, snow and ice control operations will move on to Priority 2 and 3 roadways.

# **Operational Safety**

The County is dedicated to safely maintaining the priority roadways during a winter storm event. The operational intent is to create acceptable winter driving conditions for people who have vehicles that are properly equipped for winter driving and for people who operate their vehicles in a manner that is consistent with good winter driving habits. During a winter storm event, every effort will be made to maintain the County's streets and sidewalks in as safe a condition as possible under the circumstances.

However, snow and ice control operations will be conducted only when weather conditions do not endanger the safety of County employees or the public. Many factors such as limited visibility, may affect the snow and ice control operations if they pose a safety hazard to Operators who are operating the equipment or to the public.

Safety will be the deciding factor in the continuation of the operations. Operations will be delayed or suspended if existing or anticipated conditions indicated the operations will not be effective and pose a risk to the County's staff. If the Traffic & Streets Manager or designee believes that there is a safety issue, they have the responsibility to stop the operations until a safer solution can be initiated.

## **General Operations**

Each public street within Los Alamos County has a prioritization (

Appendix 1) for snow and ice control based on the street classification, function, slope, emergency service locations, designated safe route to school (

Appendix 2), and public transit routes (

Appendix 3). In an effort to maximize public safety during winter storms and to have equitability, consistency and uniformity of the services specified, the streets have been separated into three basic priority levels and will be addressed as such.

The Traffic & Streets Manager or designee will mobilize available snow and ice control resources in accordance with the prioritization. However, the Traffic & Streets Manager or designee has the authority to make real-time priority changes as weather and conditions dictate. Whenever possible and provided the resources are available, the Traffic & Streets Manager or designee will initiate concurrent operations involving the street prioritizations and Safe Routes to School, along with other selected sidewalk efforts.

#### Sand & Salt Use

The sand and salt storage area is located at the Pajarito Cliffs Site on the east end of town near the County line. Due to the location, there may be times that it is difficult to get to because of traffic delays along NM502. At times, snow plows may be going back to the Site for sand and be delayed along with the other traffic. The County is currently looking for additional areas for sand and salt storage in White Rock and near North Mesa.

The County uses a mixture of sand and salt along with other de-icing materials. This application initially provides an abrasive surface for improved traction and the deicer material aids in the melting process. Salt and moisture react to form a brine solution that helps to break the bond between the road surface and ice accumulation.

Traffic & Streets staff will research and monitor the development of new anti-icing and de-icing chemicals and practices which may enhance the County's snow and ice control program. At present, salt is still considered to be the lowest cost alternative. Other chemicals are becoming more environmentally "friendly" while retaining similar properties of salt and may be introduced during the season as deemed appropriate. Many additives are on the market that provides enhanced melting capabilities, either on their own or in combination with salt. Snow removal crews will primarily use combinations of materials that improve the County's effectiveness and efficiency of snow and ice control with a secondary goal of finding materials that are environmentally sound.

The conditions experienced during the duration of the storm will dictate the relative proportions of the various snow and ice control chemicals and practices. The Federal Highway Administration has determined varying concentrations of salt, which are temperature and precipitation type dependent. Varying combinations of sand and salt will be used to best combat the situations encountered. Normally, the minimum amount of salt needed to perform the melting process will be used. Typically, a 7:1 mixture of sand to salt has been used in Los Alamos County. Based on actual conditions, such as lower than normal temperatures, the Traffic & Streets Manager or designee will make the onsite determination.

Some of the conditions that will dictate the various storm strategies include:

- Current and predicted storm temperatures
- Expected precipitation types
- Total predicted precipitation levels
- Predicted temperatures within 24 hours after the storm cessation
- Predicted storm duration
- Timing of the accumulations (day, night, weekend or holidays)
- Future storm predictions

While some may argue that increasing the ratio of salt used is environmentally problematic, using insufficient salt in the mixture can result in the reduction of roadway safety. If insufficient salt is used, the snowpack may melt but the salt will dilute and quickly re-freeze creating a dangerous black ice situation. Using too much salt, on the other hand, will provide a quick melt but will cause intact salt particles to remain on the streets. It is therefore important to have the proper concentration of sand to salt mixture that will provide faster and more complete melting while reducing the environmental impacts.

### **Plowing Techniques**

Snow plowing techniques will be determined in the field by the Streets Superintendent or designee and, generally, is as follows:

Operators will focus on Priority 1 and 2 streets first before moving to Priority 3 streets. However, operators will leave the plows down as they are plowing through a specific area in the community. Therefore, some Priority 3 streets may be plowed early as operators navigate through the Priority 1 and 2 routes.

First, snow will be plowed from the crowned portion of the roadway, including marked and unmarked bicycle lanes, to the curb or edge of the roadway. The snow will then be

pushed to the sunny side of most impacted areas whenever it is practical. In the event of heavy snowfalls, snow may be plowed to both sides of the roadway and will later be addressed during the mop up operations. If at all possible, where parking is limited to only one side of the street, snow will be plowed to the opposite side of the street. Efforts will focus on intersections to ensure that they are completely plowed without any wind rows.

On trash and recycling collection days, coordination will be made between the Traffic & Streets Manager or designee and the Environmental Services Superintendent for changes to the collection service routes. Once trash and recycling have been collected from the streets and roll carts have been removed from the curbside, the snow removal team will plow the streets.

When possible, cul-de-sacs will be cleared during the mop up operations so that essential services, such as refuse collection or mail delivery, will have enough turning radius to navigate the street.

### **Roadway Construction and Private Roads**

Any roadway that is under construction or re-construction by a contractor shall be maintained by the contractor during a winter storm. The contractor will have the responsibility to plow the snow or otherwise remove the snow and ice from the roadway and sidewalk within an active work zone.

After the contractor has plowed or removed the snow, the Traffic & Streets Division may apply deicer to the area when called and requested by the contractor. However, the contractor is responsible for the construction area and snow removal throughout the duration of the winter storm event and during the contracted period.

Also, it is important to note that the County will not perform snow or ice control on any private street or sidewalk, e.g. Main Street, or in any private parking lot or driveway.

#### **Street & Sidewalk Prioritization**

Snow and ice control operations will be based on specific criteria that establish roadway priority levels. The priorities and their criteria for Los Alamos County streets and sidewalks are listed below and shown on color coded Priority Maps in

Appendix 1. There are five priority maps that break the County up into reasonably sized areas where they may be assigned to a specific Operator for better consistency throughout the area.

Along with the streets, the longitudinal sidewalks located within each priority group are considered to be of equal priority as the street itself. After the streets at that priority level have

been plowed and are under full control, the public sidewalks will be plowed when resources are available and if the sidewalks are wide enough for snow equipment.

**Priority 1:** These roadways include major and minor arterials, major collector streets, designated Safe Routes to School, public transit routes (

Appendix 3) and access to the medical center, fire stations, and police station. Priority 1 streets and sidewalks will be maintained for all snow events. Priority 1 roadways are listed as follows and can been viewed in

Appendix 1.

## Los Alamos Roadways: (Listed in alphabetical order)

15th St.

33rd St.

34th St.

35th St.

37th St.

38th St.

48th St.-Yucca (Loop)

Arizona Ave.

Arkansas Ave.

Barranca Rd.

Brisa del Bosque-Corona (Loop)

Canyon Rd.

Central Ave.\*

Club Rd.

Diamond Dr.

East Road

Entrada Road

Knecht St.

Loma del Escolar

Los Pueblos-Navajo Rd. (Loop)

NM502/Trinity Dr./East Rd.

North Mesa Rd.

North Rd.

Quemazon Rd.

Range Rd.

San Ildefonso Rd. (N)

San Ildefonso Rd. (S) (to Alamo)

Sandia Drive - Trinity (Loop)

Sioux-Iroquois-Seminole

**Urban Street** 

Villa Street

### White Rock Roadways: (Listed in alphabetical order)

Aragon Avenue Grand Canyon Drive Sherwood Boulevard

Aztec Avenue Meadow Lane State Road 4

Bryce Avenue Rover Boulevard

Priority 2: These roadways include streets with an average grade of 7.5 percent or greater, neighborhood areas with only one ingress or egress, minor collector streets, and areas with municipal government facilities (if they are open). Priority 2 streets and sidewalks will be maintained after Priority 1 streets have been successfully addressed. However, depending on the conditions and the amount of available resources, Priority 2 roadways may be maintained concurrently with Priority 1 streets. Priority 2 roadways are listed as follows and can been seen on the Priority Maps in

### Appendix 1.

### <u>Los Alamos Roadways:</u> (Listed in alphabetical order)

33rd-34th Street (Loop)Camino DursanillaOrange Street - Nickel (Loop)36th StreetCamino Redondo (Loop)Quemazon North (Loop)Airport Rd.Camino UvaRose - Peach - Nectar

Airport Runway\* El Rayo Venado (N)

Alamo Rd.- Capulin-Tsankawi (Lp) El Viento (N) West Road (to Camp May Road\*\*)

Arroyo Lane Hawk Drive (on School Days)

Aspen - Sumac - Maple (Loop) Oppenheimer (N)

### White Rock Roadways: (Listed in alphabetical order)

La Senda Rd. Monte Rey Dr. (N) to Rio Bravo Potrillo Drive
La Vista Dr. Monte Rey Dr. (S) to Potrillo Rio Bravo Drive
Long View Dr. Piedra Loop Sierra Vista Drive

<sup>\*</sup> Note: Due to the significant numbers of curb extensions on Central Avenue from Oppenheimer to East Road, the initial Priority 1 response on Central will be the plowing of the driving lanes only. The parking area and driveways along this piece of Central will be addressed only after initial storm response is completed and mop-up operations have been initiated.

<sup>\*</sup> Note: Airport Runway

\*\*Note: Camp May Road will only be a Priority 2 road if the ski hill is open and it is a ski day. Otherwise, this becomes a Priority 3 road.

**Priority 3:** These roadways include local, residential, and other public streets not specifically identified above, along with various sidewalks and public parking areas. These streets and areas will be maintained only after Priority 1 and 2 streets have been effectively maintained. Priority 3 roadways are not listed but can be seen on the Priority Maps in

Appendix 1.

### Safe Routes to School

Safe Routes to School are the walking and bicycling routes that have been established around each elementary school. These routes are the recommended routes for children within a one mile walking radius to each school where the routes are established along the primary collector streets to the local elementary school. Each of these routes include regulatory school zones with flashing beacons and 15 mph speed limits and marked crosswalks near the approach to each school.

Established Safe Routes to School are addressed as Priority 1 streets and sidewalks for snow and ice control operations when school is in session. See

Appendix 2 maps for actual routes at each school.

# **Public Transit Routes (Atomic City Transit)**

Atomic City Transit is Los Alamos County's public transit system and during storms they continue to operate in order to move people throughout the community. Often times, the winter storm will hit the community during the day and an early release will be required. Therefore, the transit system will continue to operate during snowy conditions in order to ensure that riders have an avenue to return home and are not stranded. For this reason, transit routes fall within the Priority 1 grouping of roadways. NMDOT Park & Ride and NCRTD (Blue Bus) routes coincide with ACT routes. (See

Appendix 3 for Transit Route Maps and

Appendix 4 for the Guidelines of Transit Service Modifications during severe weather conditions.)

# **County Facility Prioritization**

During a winter storm, it is important to clear parking lots and walkways at municipal government sites so that government business can continue to take place in as safe a manner as possible. On non-work days, County owned facilities are considered to be Priority 3 within this plan. However, if the storm occurs during a weekday, the municipal government sites will move up to Priority 2 to ensure that staff and citizens can access the facility in a timely manner. The County facilities are grouped into four categories (A, B, C, and D) based on the level of importance of restoring the associated governmental operations. The parking lot categories are as follows:

## **Category A**

Airport (with commercial air)
Fire Station 2 (DP Road)
Fire Station 3 (White Rock)
Fire Station 4 (Diamond Dr.)
Fire Station 6 (East Road)
Los Alamos Municipal Building
Police Dept—Judicial Complex
Pajarito Cliffs Site

Category B

**Aquatic Center** 

**Betty Ehart Senior Center** 

Fuller Lodge

Mesa Public Library

White Rock Visitors Center

White Rock Branch Library

White Rock Municipal-Bldg

**Resident's Responsibilities** 

### Category C

Sullivan Field (Category B if

football, basketball, or

soccer games are

scheduled) Eco Station

White Rock Eco Station

Ice Rink

# **Category D**

**Golf Course** 

Civil Defense Building

Little Theater

Nature Center

Teen Center

During winter storms, the residents will have certain responsibilities that will assist with the effectiveness of the snow and ice control operations. These resident responsibilities include the clearing of their own driveways and sidewalks, and clearing their areas for trash pickup and for mail or newspaper deliveries. Residents are encouraged to clear their sidewalks of snow and ice within 24 hours of the culmination of the storm. Also, residents are responsible for ensuring that they do not obstruct the ordinary use of the County's public streets and sidewalks. Therefore, residents must not deposit snow or ice from their property onto County streets and sidewalks but instead should pile their snow onto locations within their own private property.

One common misperception is that the County's snow and ice control operators intentionally deposit snow into driveways and walkways. However, this is the result of normal plowing operations when plows are angled to the right for plowing from the centerline of the street towards the curb. For this reason, windrows will form and a certain amount of snow will be deposited in front of driveways and on sidewalks. Operators attempt to minimize these instances the best they can. However, it is not practical to fully eliminate this situation while being able to effectively address the storm. Residents should be aware that they may have to re-clear their driveways or sidewalks after their street is plowed.

One thing that will greatly assist with the winter storm operations is for residents to park their vehicles at off-street locations when a winter storm warning is in effect. This will help the snow removal crews perform their duties in a timely manner and with greater success. Once the storm has passed and the mop-up operations have been completed, residents could resume on-street parking.

In regards to trash and recycling collection, it is recommended that residents clear a spot on the roadway and place the roll carts in a safe manner. As soon as the roll carts have been serviced, the resident should remove the roll carts from the street. This will allow the snow removal team to effectively plow the street without the added obstruction of the carts.

On an annual basis, the Public Information Officer will remind the public of their responsibilities for snow clearing and safe operations of motor vehicles during storms through public service announcements in local media, on the County's webpage, Facebook page, and other venues where appropriate.

# **Motorist's Responsibilities**

Snow and ice that accumulates on road and sidewalk surfaces create hazardous conditions for motorists, bicyclists, and pedestrians and achieving bare pavement is unlikely during the storms. Motorists are reminded that during winter weather events, the County's primary goal is to keep public roads passable. Therefore, motorists, bicyclists, and pedestrians must use additional caution while traveling on these roads and should remember that they must adjust to the change in driving conditions during snow and ice storms.

Arterials and major collector streets will be the primary focus for the snow and ice control operations. During heavier storms, motorists may encounter deeper snow accumulations on less-traveled routes and they should adjust their driving for those conditions. They are reminded to slow down during snow storms and give snow plows a wide berth to do their jobs in an effective manner. Based on the severity of the storm, drivers may need to delay their travel plans during the storm or plan for longer travel times.

Drivers are also encouraged to equip their vehicle with an emergency kit that includes items such as non-perishable high calorie food, water, first-aid supplies, warm clothes, flashlight, blanket and possibly a small shovel. Motorists should tailor their kit to any specific need they may have. Items such as baby supplies, extra medication, pet supplies, a spare cell phone or even children's games could be included.

There are several known areas throughout the County that tend to have higher snow accumulations or ice buildup than other areas. Even though the snow and ice control operations maintain these locations, often the motorist may need a little extra help to make it up a steep roadway. Therefore, prior to the winter storm season, the County will place 55 gallon barrels of sand and salt mixture at several designated locations (see

Appendix 5). Placing the sand and salt mixture under tires should provide for added traction.

On occasion, motorists may find themselves stuck or stranded during a snow storm. If a snow and ice control Operator observes someone in this predicament, the operator will contact the Police Department to request motorist's assistance. The County's Operator will not be able to pull vehicles from ditches or snow banks nor push them out of the roadway.

The Public Information Officer will remind the public annually of their responsibilities through public service annual annual media, on the County's webpage, Facebook page, and other venues where appropriate.

# **Mop Up Operations**

Mop up operations occur after the storm has subsided. Determining the extent of the operation will take into consideration the available resources including staff, materials, equipment, and associated time.

Upon storm cessation, the Traffic & Streets Manager or designee will review and evaluate the actual conditions along with concerns from residents involving problem areas throughout the County. These conditions and concerns will be investigated and, if warranted, will be included on a priority ranked schedule for completion during the mop up operations.

Mop up operations include the clearing of snow and ice from the following areas:

- Crosswalk access
- Selected County-owned sidewalks
- Bike lanes
- Bus stops and shelters
- Pedestrian push button areas at traffic signals
- Cul-de-sacs

Mop up operations also include the:

- Hauling and dumping of snow (see snow dump areas in
- Appendix 6)
- Melting of snow and ice
- Removal of excessive snow plowed onto private property
- Removal of stockpiled snow from the right-of-way
- Removing sand accumulations from sidewalks, roadways, bike lanes, and intersections
- Maintenance of drop inlets at storm drains to ensure that melting snow has an unrestricted flow
- Roadway sweeping and removal of sand and salt from the roadway

## **Property Damage**

Snow and ice control operations may cause property damage even under the best of circumstances and care on the part of the operators. The majority of snow removal damage occurs within the County right-of-way which often extends ten or more feet beyond the curb location. The intent of the County right-of-way is to provide room for utilities, sidewalks, snow

storage, and other County and public uses. It is important to note that the County cannot assume liability for snow and ice control damage to underground lawn sprinkling systems, exterior lighting systems, fencing, or other landscaping that has been installed in the County's right-of-way.

To the best of their abilities, the County crews will strive to minimize damage in the County's right-of-way. They will also attempt to minimize the snow being pushed onto private property, within intersections adjacent to pedestrian crosswalks, over storm drains, and onto previously plowed sidewalks. In the event the storm severity is such that piling of snow occurs in these locations, the Traffic & Streets Manager or designee will schedule cleanup efforts as soon as possible after storm cessation.

#### **Mailboxes**

The County will plow snow as close as practicable to the curb to allow for the passage of traffic, on-street parking, and mail delivery but it will be the responsibility of the property owner or resident to keep piled snow away from the mailboxes that are adjacent to the street.

Where damage occurs to a mailbox that is placed adjacent to the street, the Traffic & Streets Manager or designee will investigate the damage once it is reported. If it is determined that physical contact occurred between the plow and the mailbox, the County will repair or replace the mailbox providing it is a standard design that conforms to the U.S. Postal specifications.

### **Sod & Landscaping**

The County will not repair or replace sod in the County's right-of-way that has been damaged by snow plows or by the use of sand, salt, or deicers. Also as stated above, the County will not repair or replace lawn sprinkling systems, exterior lighting systems, fencing, or other landscaping that has been installed in the County's right-of-way.

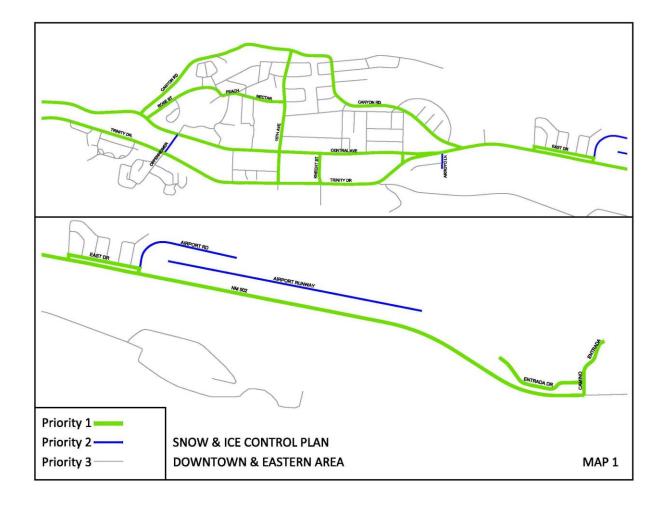
#### **Private vehicles**

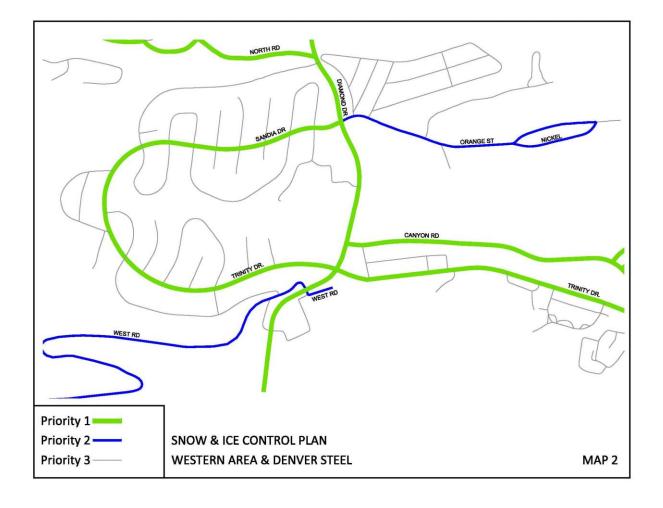
Every effort will be made to avoid damage to private vehicles. If a snow and ice control operator damages a vehicle, the operator will immediately notify the Traffic & Streets Manager or designee and the Police Department. However, on occasion unknown damage may occur to private vehicles in which case the Police Department (911 or 662-8222) and Risk Management Division (662-8192) should be contacted by the vehicle owner. The Risk Manager, Traffic & Streets Manager, or designee may investigate the damage once it is reported. If it is determined that physical contact occurred with County equipment, the County will consider vehicle repair.

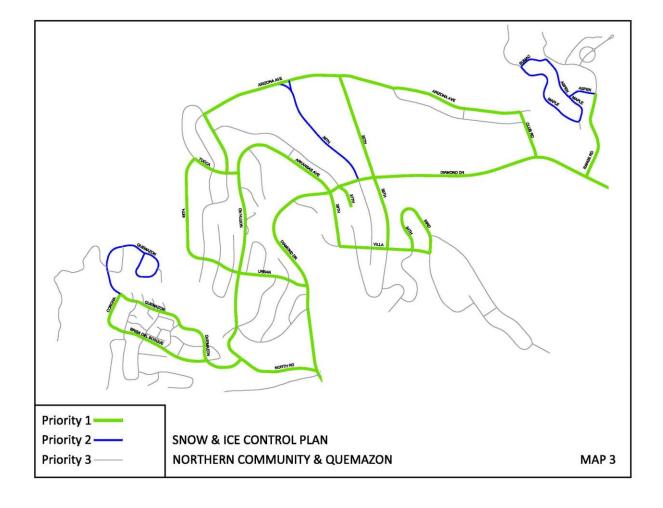
# **Appendix 1**

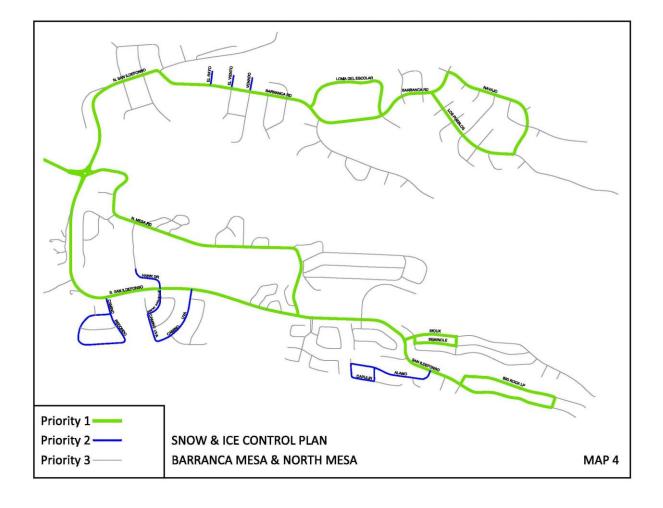
# **Priority Maps**

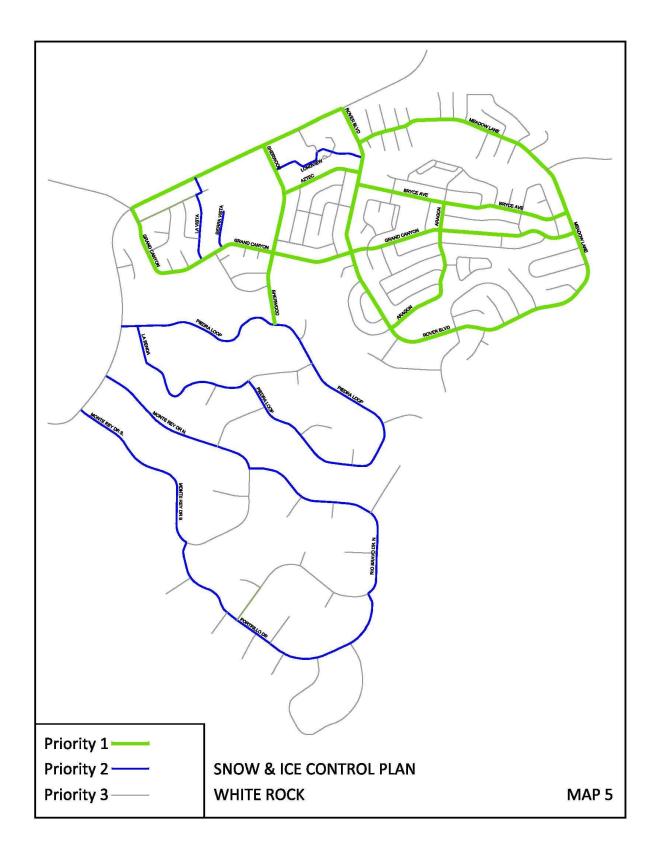
Downtown and Eastern Area	Map 1
Western Area and Denver Steel	Map 2
Northern Community and Quemazon	Map 3
Barranca Mesa and North Mesa	Map 4
White Rock	Map 5
Los Alamos Sidewalks	Map 6
White Rock Sidewalks	Map 7

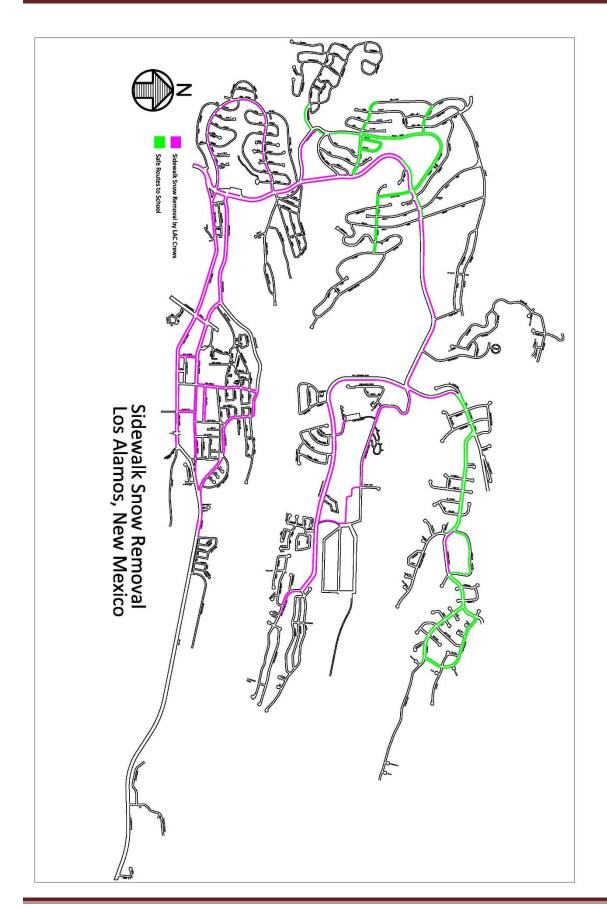


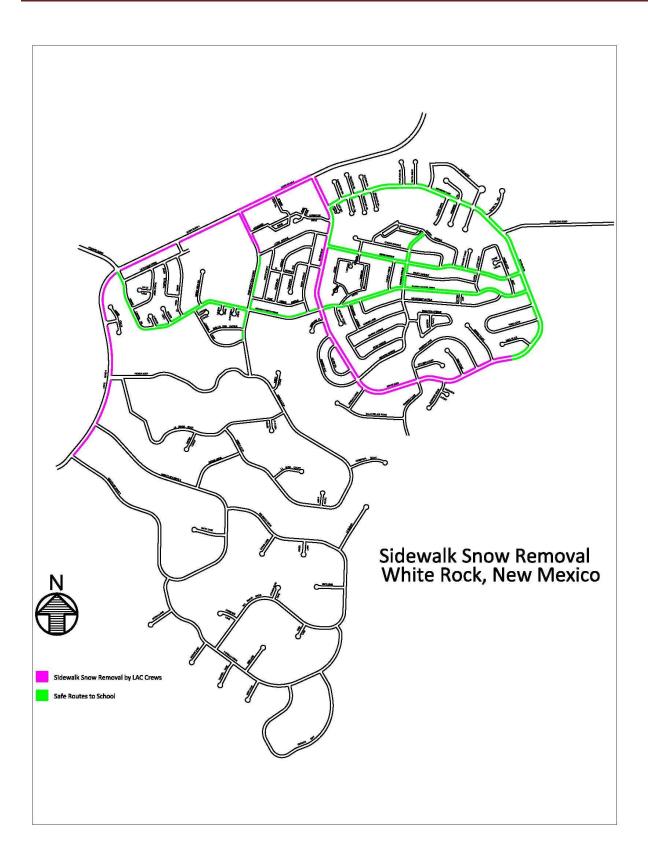












## **Safe Routes to School Maps**

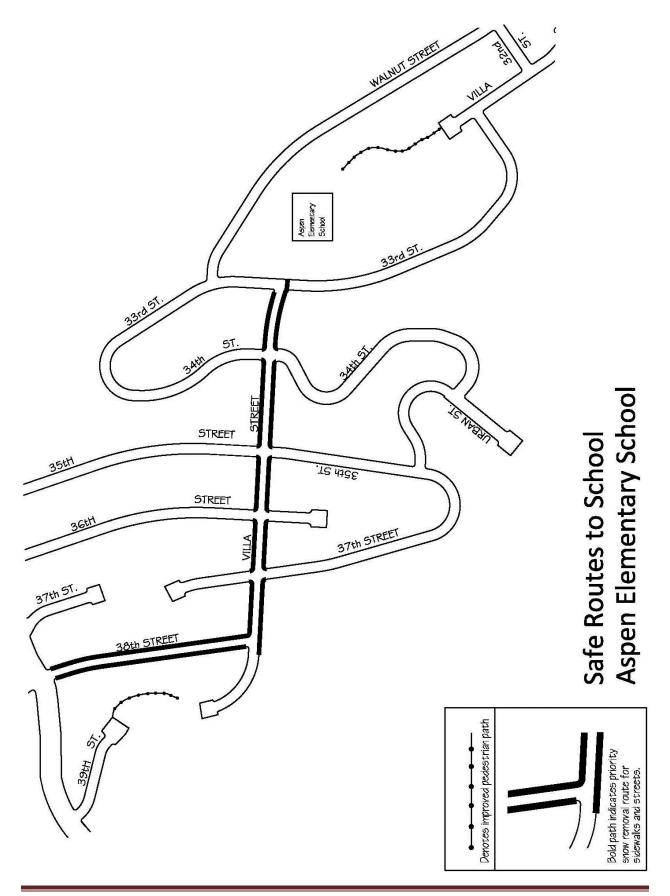
**Aspen Elementary School** 

Barranca Elementary School

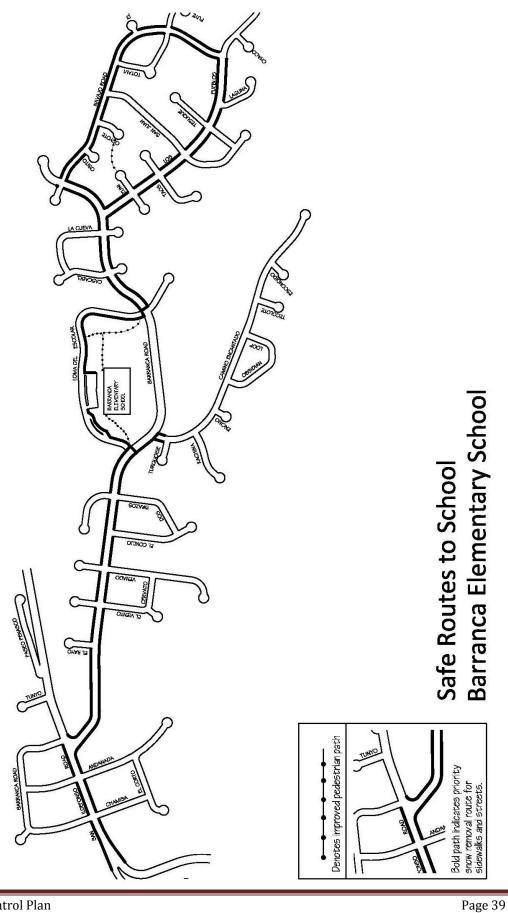
Chamisa Elementary School

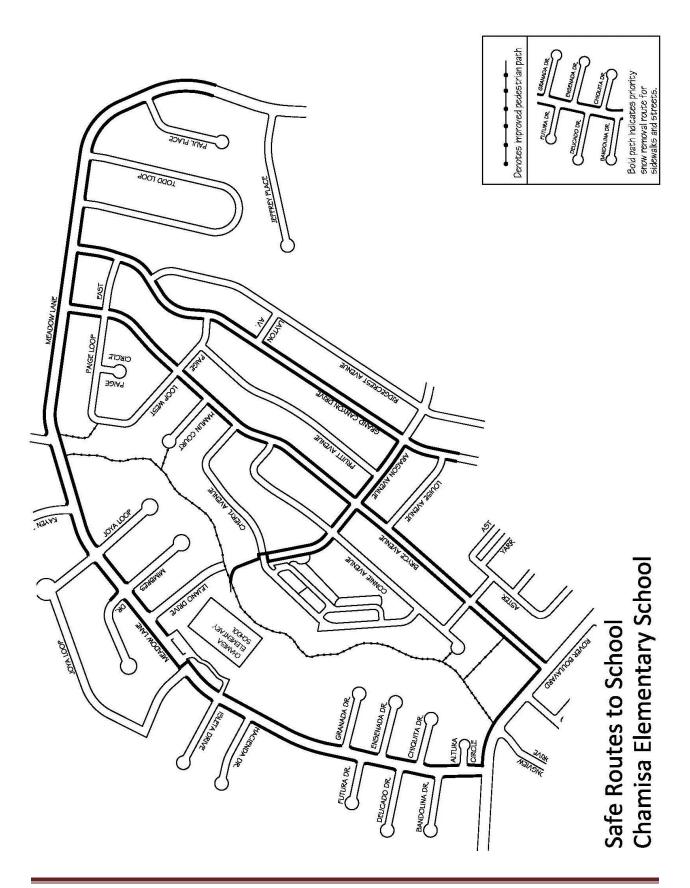
Mountain Elementary School

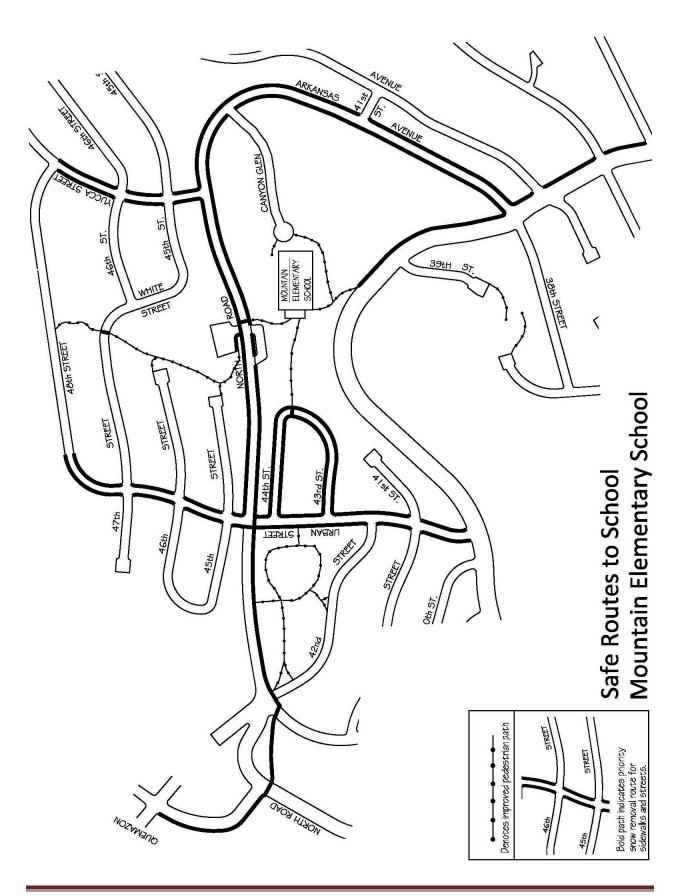
Piñon Elementary School

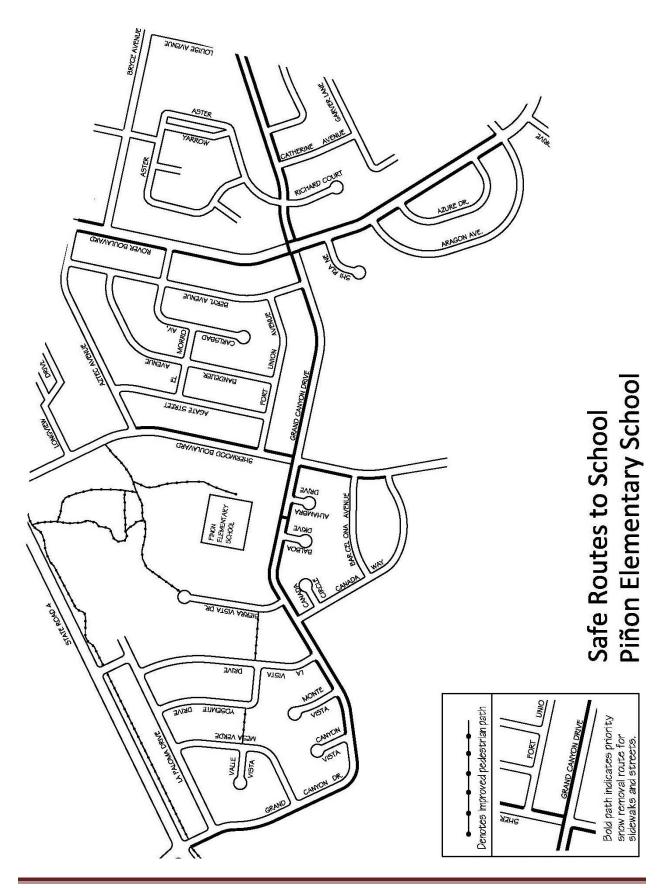


FY19 Snow & Ice Control Plan









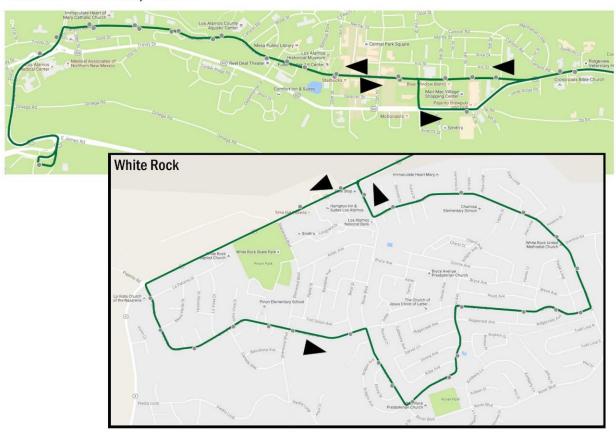
FY19 Snow & Ice Control Plan

**Transit Route Map** 

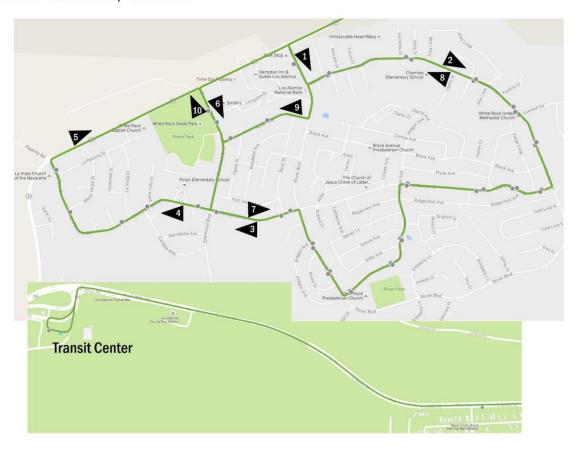
#### Route 1 - Downtown



Route 2M - White Rock / Main Hill



Route 2T - White Rock / Truck Route



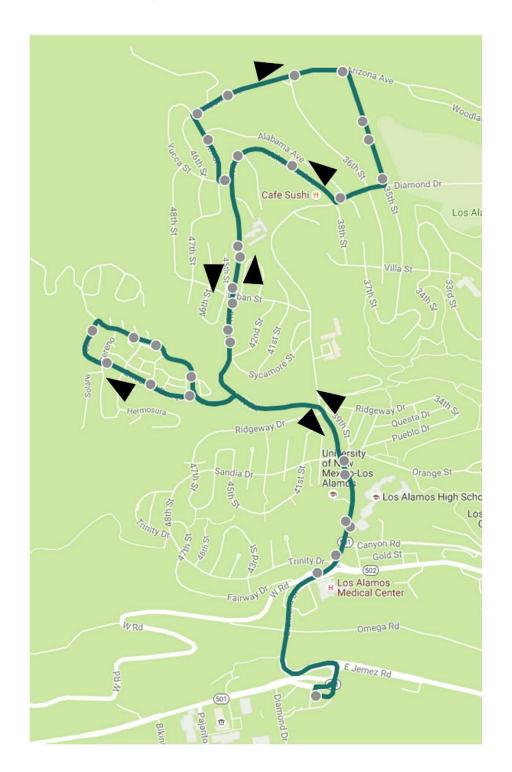
Route 2T - White Rock / Truck Route



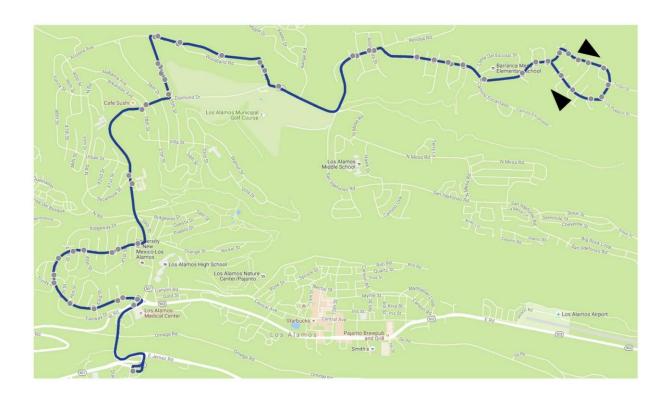
Route 3 - Canyon & Central



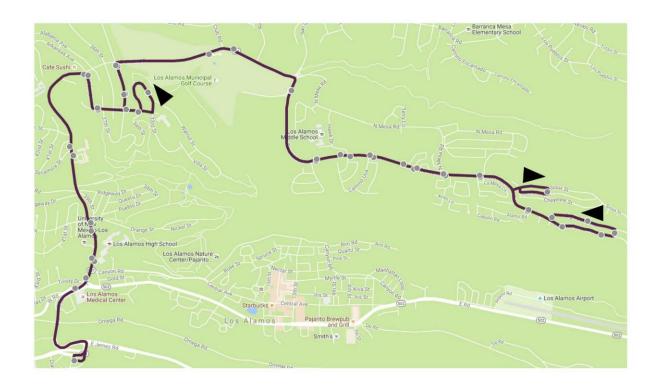
**Route 4 - North Community** 



Route 5 - Barranca Mesa



Route 6 - North Mesa



**Transit Service Modifications** 



Index No. 4111 Effective October 2013

### Service Modifications or Closures due to Severe Weather Conditions or other Unforeseen Emergencies

During severe weather conditions or other unforeseen emergencies, bus operations may need to be modified or closed to keep passengers safe in accordance with the following guidelines:

#### Full Service Closure:

If County, LANL, and School offices close for the entire day on or before 6:30 a.m. due to severe weather, or other circumstances dictate the need for a full closure, all transit routes, including Dial-a-Ride will not run. An attempt will be made to notify employees who have not come to work with information of when they should report to work. Any buses that have left the Pajarito Cliffs Site (PCS) will return to PCS. Any passengers that have been picked up will be notified of the change and returned home or taken to their destination. Previously booked Dial-a-Ride clients will be notified of the closure. Transit employees already at work will be asked to remain on site until dismissed by the Transit Division Manager or Department Director.

#### Partial Service Closure:

If County offices are delayed in opening until a certain time, or the transit system is delayed in opening due to unforeseen circumstances, and notification is given on or before 6:30 a.m., any buses that have left the Pajarito Cliffs Site (PCS) will return to PCS. Any passengers that have been picked up for fixed route or Dial-a-Ride service will be notified of the change and returned home or taken to their destination. Previously booked Dial-a-Ride clients will be notified of the closure. Transit employees already at work will be asked to remain on site until dismissed by the Transit Division Manager or Department Director. For employees that have not come to work, an attempt will be made to notify them and let them know when they should report to work. Transit services will start up again when county offices are reopened or the unforeseen circumstance is over.

Transit personnel will begin pre-trip inspections and deadheads one and a half hours prior to the time that County offices are re-opened or the unforeseen circumstance is over. Trips will begin leaving the Transit Center one hour prior to the time that County offices are re-opened.

If County, LANL, and School offices close after 6:30 a.m. and remain closed for the rest of the day, or an unforeseen circumstance closes down the transit system after 6:30 a.m. for the day, Atomic City Transit services will begin to shut down one hour following the County closure, or unforeseen circumstance closure, with the exception of Dial-a-Ride services which will continue to operate for emergency purposes. For employees that have not come to work, an attempt will be made to notify them and let them know when they should report to work.

The last trip leaving the Transit Center on all routes will be at least one hour after the County offices close. Routes will be completed and return to the Pajarito Cliffs Site within two and a half hours after the County offices close.

During any closure after 6:30 a.m., Dial-a-Ride and Dispatch service will continue to be available for emergency trips. Previously booked Dial-a-Ride clients will be notified of the closure. Dial-a-Ride and Dispatch may be run out of a remote location.

Employees will be asked to remain on site until dismissed by the Transit Division Manager or Department Director.

#### Temporary Route Modifications:

If snow begins to accumulate, routes may be modified to avoid potential hazards and help keep routes running on time. (*Typically, Quemazon may be closed*).

If a small evacuation needs to occur, routes may be modified or closed to utilize bus resources for the evacuation or to avoid the evacuated area.

Routes may be modified or closed in order to accommodate construction projects or traffic accidents. Staff will work with project staff to minimize the impacts to transit riders.

#### Additional Notes:

If LANL or the schools go on a two hour delay or close for the day and the County stays open, buses will continue to operate regular service.

Services may be shut down due to safety concerns at any time at the direction of the Transit Division Manager or Department Director.

Employees will be required to report to work during emergencies as needed under the direction of the Transit Division Manager or Department Director.

### Sand and Salt Barrel Locations

Fifty-five gallon barrels of sand and salt mixture will be set at the beginning winter and removed at the beginning of spring at the following locations for motorists to use during winter driving conditions:

- 1. Esperanza (near mailboxes)
- 2. North Mesa Road (hill)
- 3. Quemazon Road (at intersection of North Road)
- 4. Quemazon Road (near mailboxes)
- 5. Cheryl Court (between 337 and 375 in shady area)
- 6. Other locations as requested by staff or citizens

### **Snow Dump Locations**

The following is a listing of designated areas for County crews to place snow that has been hauled from roadways and neighborhoods:

- 1. 37<sup>th</sup> Street off Villa (by the play lot)
- 2. Airport parking lot (west end)
- 3. Barranca Road (located at the end of the road near Navajo Road)
- 4. Canyon Road (north side) at 15th Street
- 5. North Mesa Park Road (open areas along the road)
- 6. North Mesa Ball Fields parking lot (at Bun Ryan Field)
- 7. North Mesa Horse Stables (open area by arena)
- 8. North Road at lower Pueblo Canyon crossing
- 9. Overlook Park
- 10. Pueblo Sewer Treatment Plant
- 11. Sullivan Field parking area
- 12. Sycamore at Diamond
- 13. Sycamore at North Road
- 14. Trinity Drive at Quemazon trailhead (twin tanks)

# **Equipment Resources**

## **FY19 Equipment Resources**

Equipment # Type

	71			
Traffic & Streets Division's Equipment				
1162	½ ton 4x4 Pickup			
1249	4x4 1 ton Pickup w/ plow			
1206	4x4 1 ton Pickup w/ plow			
1212	4x4 1 ton Pickup w/ plow			
1124	4x4 1 ton Pickup w/ plow			
1182	4x4 1 ton Pickup w/ plow			
1149	Single Axle Truck w/Plow and Sander (5yd)			
1150	Single Axle Truck w/Plow and Sander (5yd)			
1053	Single Axle Truck w/Plow and Sander (5yd) – Swap Loader			
1222	Tandem Axle Truck w/Plow and Sander (10yd) – Swap Loader			
1142	Single Axle Truck w/Plow and Sander (1yd)			
1201	Tandem Axle Truck w/ Plow and Sander (10yd)			
969	Tandem Axle Truck w/ Plow and Sander (10yd)			
1268	Tandem Axle Truck w/ Plow and Sander (10yd) – Swap Loader			
1040	Single Ayle Flat Red Dump Truck			
1040 967	Single Axle Flat Bed Dump Truck			
907	Single Axle Flat Bed Dump Truck w/ Plow			
3219	Motor Grader with Wing Plow			
3215	Front End Loader-3yd Bucket			
3020	John Deere 310 Backhoe			
3202	John Deere 310 Backhoe			
3165	Bombardier w/Plow			
3166	Bombardier w/Plow			
2015	Bombardier w/Plow			
2013	DOMINGIAICI W/TIOW			
3100	Trackless w/ Blower/Plow			
3101	Trackless w/ Blower			

Case Skid Steer

3162

#### Other County Equipment From Various Divisions

1041	4x4 ¾ ton Pickup w/ plow (Airport)	
XXXX	Single Axle Dump Truck 4x4 w/ 22' Wide Plow (Airport)	
983	4x4 1 ton Pickup w/ plow (Facilities)	
1177	4x4 1 ton Pickup w/ plow (Facilities)	
1175	4x4 1 ton Pickup w/ plow (Facilities)	
1092	4x4 1 ton Pickup w/ plow (Facilities)	
1101	4x4 1 ton Pickup w/ plow (Facilities)	
1057	4x4 1 ton Pickup w/ plow (Facilities)	
2086	John Deere Walk Behind Snow Blower (Facilities)	
2087	John Deere Walk Behind Snow Blower (Facilities)	
XXXX	John Deere Walk Behind Snow Blower (Facilities)	
XXXX	John Deere Walk Behind Snow Blower (Facilities)	
985	4x4 1 ton Pickup w/ plow (Fleet)	
989	Single Axle Dump Truck (Parks)	
2113	Single Axle Dump Truck (Parks)	
2091	John Deere 310 Backhoe (Parks)	
3181	Case 580 Backhoe (Parks)	
3026	Bobcat Skid Steer w/ Plow (Parks)	
3009	John Deere Walk Behind Snow Blower (Parks)	
3010	John Deere Walk Behind Snow Blower (Parks)	
3011	John Deere Walk Behind Snow Blower (Parks)	
1110	4x4 1 ton Pickup w/ plow (Water Production)	

Various other pickups, trucks, backhoes, snow blowers, etc.

NOTE: During heavy snowfall if necessary, the Traffic & Streets Division has the authority to mobilize and put into service <u>ANY</u> tool, equipment, or vehicle from <u>ANY</u> County Department to assist in performing prompt, safe, and successful snow and ice control operations.

### **Human Resources**

Position	Quantity
Public Works Director / Deputy Director	2
Division Managers & Superintendents	11
Traffic & Streets (4) Fleet (2)	
Facilities (1) Custodial (1) Parks (1) Airport (1) Transit (1)	
Traffic & Streets Lead Equipment Operators	2
Public Works Equipment Operators & Drivers	18
Traffic & Streets (12) Fleet (6)	
Other County Personnel	39
Facilities & Custodial (25) Parks (14)	
Total:	72

FY19 Snow & Ice Control Plan