

# **GLOBE DISTRICT**

## **WINTER STORM MANAGEMENT GUIDELINE**

**2010/2011**

**ARIZONA DEPARTMENT OF TRANSPORTATION**

**INTERMODAL TRANSPORTATION DIVISION**

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## **GENERAL**

**The purpose of winter storm maintenance is to provide as safe and reliable travel surface as possible, utilizing the available resources as needed and where needed.**

**Actual use of personnel, equipment, de-icing agent and abrasives may vary from storm to storm, in order to optimize resources.**



## **Statewide Priority in allocation of snow and ice control resources will be as follows:**

### **I. Interstate highways, freeways, and other highways carrying over 3500 ADT**

- Highways carrying over 3500ADT and/or having great economic importance to the local community.
- Snowplowing and anti icing efforts will be ongoing or until they become ineffective at which time abrasives will be applied to improve traction
- These routes are to be maintained at the highest level practical within the given resources available.
- Anti and De-icing efforts will continue until near normal surface conditions are restored.

### **II. Highways carrying 1000 to 3500 ADT**

- Highways carrying 1000 to 3500 ADT or highways in extreme climate areas that are required to be open year round.
- These roads will receive coverage during storms, or during drifting conditions or when the road conditions require tire chains or four wheel drives.
- Snowplowing and anti icing efforts will be ongoing or until they become ineffective at which time abrasives will be applied to improve traction.
- Anti and De-icing efforts will continue until near normal surface conditions are restored.

### **III. Highways carrying less than 1000 ADT**

- These roads will normally receive coverage during storms or drifting conditions, as resources are available.
- Snowplowing and anti icing efforts will be ongoing or until they become ineffective at which time abrasives will be applied to improve traction These efforts will normally be limited to daytime coverage.
- In the case of extreme weather conditions, where additional coverage is required to keep the route open, this coverage may be extended if resources are available.
- These routes may be closed until storm passes if resources are required to keep priority I and II routes open. If closed the route will be patrolled and inspected per these guidelines.

### **IV. Highways that have very low ADT.**

- Provide no maintenance service during the storm and plow snow only during regular working hours.
- These routes will be patrolled and inspected per these guidelines when closed.

### **V. Highways that are seasonal routes.**

- They are to be closed for the winter and patrolled and inspected per these guidelines when closed.

ORG's, and Districts will include snow and ice control work in their annual work program for those highways subject to winter storms.

Globe District will be responsible for determining when snow and ice control operations are to commence. We will monitor weather forecasts, weather conditions, and road conditions. We will alert crews and commence operations based on storm event and available resources. We will utilize existing processes and policies to ensure response to weather related issues.

**BASED ON AVAILABILTY OF RESOURCES, PRIORITY IN OPERATIONS  
WILL BE GIVEN TO:**

**First priority**

- Pre-treating roadways with anti-icing agents prior to storm event.
- Applying anti-icing agents on priority 1&2 routes.
- Regulating snow and ice control warning signs and devices. This includes permanent VMS in Show Low, Globe and near Florence Jct.
- Keeping the highway open and traffic moving; even if at a greatly reduced speed.
- Keeping priority 1 & 2 roadways open with one lane in each direction.

**Second priority**

- Keeping all traffic lanes open and traffic moving.
- Address snow-pack and icy spots utilizing available resources on priority 1 & 2 roadways including de-icing techniques to eliminate snow pack and icy spots.

**Third priority**

- Clear and re-open any priority 3 & 4 roadways as resources become available.

**Forth priority**

- Plowing snow from breakdown lanes, shoulders, and rest area roadways and parking areas.
- De-ice any remaining snow pack and icy spots and monitor drifting areas until condition is resolved.

**Fifth priority**

- Removing snow windrows from urban areas and sidewalks.

**Resource availability does change throughout the year due to loss of employees and equipment. This guideline will be updated annually.**

# **GLOBE DISTRICT WIDE WINTER MAINTENANCE GUIDELINES 2010-2011**

## **GENERAL**

While snow and ice control operations will usually be continuous from the start of a storm until the travel lanes are largely free from snow, slush or ice and perceived safe. SAFETY concerns such as reduced visibility or operator fatigue may mandate stopping or reducing work.

Specific highways may be designated closed for the winter season, closed during the hours of darkness, closed on week ends by the District Engineer and no snow and ice control operations performed on them during the storm event.

### **1. Bridges**

- Bridges are one of the first spots to develop ice. Best practice is to apply treatment early on in a storm event and keep refreshed as needed.
- Pre-treat prior to storm events. 20 gallons maximum per lane mile is recommended. (If precipitation in the form of rain occurs prior to freezing this application will need to be enhanced with granular de-icer)

### **2. Curb/Gutter and Sidewalk Sections**

- When pushing snow from curb and sidewalk, use extreme caution and slower speeds.
- Things to remember are down drains, driveways and obstruction directly behind sidewalk and manhole covers.
- Care must be taken around parked cars on the curb or in driveways.
- Checking of corner bits must be done regularly and do not run against the curb constantly since this will wear the corner bits out very quickly and damage the concrete. Stay just off the curb or gutter by bumping and then moving just away from it.
- Watch for pedestrians.
- Watch and know where landscape features are and avoid them.
- Learn and know where curb or gutter sections begin, end or change height.

### **3. Travelers' Accidents**

- During a storm event when encountering an incident involving a public vehicle (i.e. wreck, slide off, or rollover), the operator should make a decision as to what action to take, whether to call in the accident and keep going, or stop and assist. This decision should be based on the current conditions of the roadway surface and severity of the storm and the accident at the time.

- Always call Snow Desk/TOC to confirm it has been reported to DPS.
- DO NOT push or pull any private vehicle. This puts both you and the department at risk.
- Keeping the roads passable is your primary function.
- Responding to emergency calls from law enforcement, operators must keep their primary goal in mind.
- When responding to these calls do all you can to reduce the time away from your primary function of keeping the roads passable.
- Clean up the location and apply abrasives and/or de-icers as quickly as possible.
- Assist only as long as absolutely required to get the area secured and then return to your primary function.

#### **4. Spreader Box Heaters**

- When using deicing agents, exhaust heaters should be disconnected from v-box spreaders.

#### **5. Spreader Box Care**

- When backing use extreme care and be aware of hazards, the boxes can be bent from hitting stockpiled material, snow banks or other obstructions easily.
- Don't overload; the material is wasted that falls off the sides and can cause damage to passing vehicles or pedestrians.
- Operators need to know the weight of the material being loaded so as not to overload the truck.

#### **6. Winter Storm Patrol**

- Initial response to storm events should be no sooner than two hours prior to the expected start of the storm event. Storm patrol throughout the district should be minimized with the technology we have at our disposal.
  - NWS ([www.weather.gov](http://www.weather.gov)) /RWIS/Radio communication Org to Org and District to District / HCRS / Visual Observations / Current and forecasted temperatures.
- In the case storm patrol is required, just as in plowing operations this needs to be coordinated district wide.

## **7. Lead Person/Shift Leader Role During Winter Maintenance Activities**

To support the Org in every capacity that is needed which would include the following:

- Making sure that there is coverage on both shifts for snow removal.
- Operating a snowplow regularly, and filling in for operators off on leave, loaned to other orgs, or otherwise not available.
- Making sure all org personnel, including him/herself are available for plowing before borrowing from other orgs.
- Giving guidance as requested or needed.

## **8. Snow Removal District Wide**

In case of extreme weather conditions where additional coverage is required to keep priority highways open, this coverage may be extended to the use of additional plow drivers from other orgs.

These drivers can be directed by their supervisor, shift leader or the Snow Desk to report to the given orgs for support.

The orgs responding first should be the orgs that have the least snowfall for their area or their priority routes are clear.

- All plows shall be dressed district wide when weather forecast is widespread with significant accumulation or duration and additional resources may be required.

## **9. On the Job Training for Snow Plow Drivers**

To train the new snowplow driver, the trainees should ride a full snow shift with an experienced plow operator. After this the trainee should demonstrate an adequate knowledge and understanding of the use of the plow, sander, and materials used during an average snow event. After which the trainee should be partnered with another experienced plow operator and allowed, under supervision, to operate in live conditions to learn as many different ways to combat winter conditions as possible.

To achieve this we must:

- Demonstrate the knowledge and skills for Dump Truck/Plow Operation
- Identify the personnel to be trained
- Have the supervisors support
- Trainees must be familiar with trucks
- Trainees must be flexible and self-starters

**NOTE:** Supervisor should also take full advantage of our Snowplow Simulator as another tool and training opportunity for new and novice operators. Seasoned operators can also utilize this training as a refresher and reminder of the risks and decision challenges they face in snow fighting efforts.

## **10. Abrasive Use**

- Abrasives should only be used when conditions deteriorate to the point where the other snow/ice treatments are not effective or where alternative treatments are required per our statewide Environmental Assessment.
- Abrasives should be used as needed to aid traction when deicing agents become ineffective.
- Generally, the use of abrasives should be applied to improve traction on hills, curves, and stopping/starting areas when de-icing agents have become ineffective.
- Do not use abrasives and then plow the abrasives back off the highway.
- Spinner speed and shields shall be adjusted to keep the material where it is needed.
- Consideration shall be given to the effect of application to on-coming traffic when applying abrasives.
- When pavement temperatures lower to 15 degrees Fahrenheit and under most de-icing agents may begin to lose their effectiveness. At this point operators immediately need to notify the supervisor or shift leader in determining abrasive usage and applicable application rates.

## **11. Truck Vibrator Use**

- Truck dump-bed vibrators can be used to help minimize the sticking of material to the inside of the spreader.

## **12. Tree Removal for De-icing**

An often over-looked area is the use of sunlight and heat in nature to help thaw a roadway.

- Every operator should identify areas on routes where shade from trees is keeping ice or snow on the road surface.
- Trees that are identified shall be trimmed and/or removed back far enough to allow sunlight to reach the road surface.
- Working with the land managing agencies and our Natural Resource group to identify and accomplish this will be an ongoing effort.

## **13. Snow Desk**

- Snow Desk can be used when predicted storm would be widespread with significant accumulation or duration and additional resources may be required.
- The "Snow Desk" shall be in Show Low and/or Globe and the AA's shall be used when a "Snow Desk" is needed.
- Snow Desk will require 24 hour coverage or until the event is over. Personnel should be familiar with all routes and resources.

- Operators will be responsible to call in hourly or if conditions change dramatically to Snow Desk/TOC and Snow Desk can reassign resources if needed.
- The Snow Desk will keep TOC informed.
- Other events shall be handled by the individual orgs.
- The Snow Desk will activate additional resources when needed as directed by the supervisor/shift leader.

#### **14. Accountability**

Each individual operator is responsible for ACCURATE reporting of routes and milepost covered, materials used, miles plowed. An individual card will be made for each route covered and times of coverage should be put in comments, (i.e. RT 260 from 07:00-08:30 MP\*\*-MP\*\*.; RT 373 08:30-09:00 MP\*\*-MP\*\*). This will assure documentation of location/time of coverage. Operator will be held accountable for all reporting.

**Example:** Someone is patrolling 60 from Springerville to the 60/61 Y, then that person could overlap and go on into Show Low. If and when this occurs the operator will report the milepost where they turned around even though it is in another orgs area. The PeCoS system allows for overlap on all 170 Activities.

#### **15. Shifts**

- Shifts shall change between 6-8am and 6-8pm to ensure resource support is not disruptive to the District Wide effort. Alternate schedules may be warranted to address localized traffic movement.
- This will ensure that adequate coverage is maintained at times when school buses are running.
- This will also ensure that there is no lapse in coverage due to shift change during high volume traffic times.
- Crew Leaders will be responsible for calling resources needed to ensure 30-45 minute turn around for proper coverage of all Routes.

#### **16. Temp Sensors**

Each plow truck is equipped with a temperature sensor capable of reading ambient and roadway surface temperature. These temperatures are critical in the application of de-icing agents and shall be monitored before and during a storm event to assist the plow operator in knowing when and what de-icing agents shall be applied to the roadway surface. De-icing agents applied at the correct time and temperature during the storm event will assist in preventing the freezing bond between the roadway and snow or ice.

(Also see **De-icer Application**)

## **17. After Storm Clean-Up**

All equipment shall be cleaned after each storm event using either the org wash station, your local contracted washer or approved car wash. This is to include all trucks, plows, loaders, etc. used in the handling of de-icing materials. Special care should be given to making sure the inside of all sander-spreader equipment is thoroughly cleaned. Drain and flush pump and spray nozzle assemblies. Inspect all equipment for correct operation, any signs of metal fatigue, broken parts, and burned out lights. Lubricate parts and machinery as needed or required. All clean-up activities will commence during normal shifts the next day or during the regular 40 hour work shift.

## **18. Equipment Care**

Each snowplow operator shall complete the daily CDL Checklist for the equipment they are assigned during a storm event. Special care should be given to inspecting the plow and plow frame along with the sander and sander box plus the operation of the pre-wetting system. All plow bits shall be inspected thoroughly and measured with a tape measure to make sure the appropriate amount of carbon remains on the plow bit before the operator begins the shift and at intervals during the shift as appropriate. Change plow blades when necessary.

Note:

New plow bits measure 5 inches in height and have approximately  $\frac{3}{4}$ " of carbon. Suggest changing at minimum 4  $\frac{1}{2}$  inches.

## **19./Dry De-Icer Application**

Dry De-icer application for Ice Slicer-50 to 300 pounds per lane mile.

- Applications of dry de-icer should begin when the roadway surface temperature approaches 32 degrees Fahrenheit and falling, as or after precipitation begins,
- Suggested initial rate of 200 pounds per lane mile with 300 pounds on known trouble areas. (Shady or known cold spots, bridges).
- Apply granular when precipitation begins. Allow time for material to start working. (Activate).
- Pre-wetting material helps hold the material on the road surface and also reduces blow off of material by traffic movement.
- If re-plowing is needed, re-apply material between 50-200 pounds per lane mile or as solution dilution dictates.
- Cease de-icer applications as roadway temperature approaches 32 degrees and rising.
- Do not apply de-icing chemical in drifting areas.

## **20. Liquid De-icer application for Magnesium Chloride.**

### Pre-treating

- Maximum of 20 gallons per lane mile on problem areas as material is available.

### Pre-wetting

- Suggested 7 gallons per ton to help ensure material stays on the roadway when applied.

## **21. Clothing**

Operators shall dress appropriately for winter conditions.

- Keep your clothing in good repair (zippers, buttons, tears, faded color or reflective stripes). Loose and baggy clothing can catch on equipment causing falls.
- All protective PPE should be kept with you during snow fighting operations including (hard hat, safety vest, gloves, ear protection, safety glasses, steel toed shoes, high visibility reflective jacket or coat).

## **22. Climbing on or off Equipment and Mounting and Dismounting Procedures**

As with all construction or maintenance equipment the three points of contact shall be maintained at all times when mounting, dismounting, climbing on or off equipment. The added hazard of snow and ice on the metal increases the need for proper safety precautions to be adhered to and practiced by all operators at all times. **There is NO EXCEPTION!** Safety is the way we work.

## **23. Calibration of dry and liquid spreaders**

Each piece of snow fighting equipment shall be calibrated each year before the snow season starts. Each operator is accountable and responsible to know where to access the calibration sheet and monitor the equipment to ensure it stays calibrated through visual observations. Each operator will also know the process and steps involved to check the calibration to help ensure material is not wasted nor applied outside the acceptable practices and work quantities set.

## **24. Anti and De-Icer Applications**

Every operator is accountable and responsible for applying and monitoring the use and effectiveness of the anti and de-icing agents. They shall apply these agents at the optimal times and in amounts as outlined within the plan and by the vendors to get effective and efficient results. They can utilize their shift leader, lead person and supervisor as a resource if any questions arise they need

addressed during the course of applying these agents to keep the roadways open and safe to the prudent driver.

- Liquid anti icing agents can be used prior to the storm event to address know trouble spots when storm predictions dictate needed severity levels.
- Dry granules can be pre-wet to help optimize the results of application by helping the material stay on the paved surface.
- Agents should be applied near the crown or high side of the lane to optimize the treatment and reduce dilution effects as much as possible.
- Each operator will know the optimal temperatures each type of agent is effective in.

## **25. Turning around**

Do to the diverse geographical makeup of the Globe District; it is sometimes necessary to turn around where there are not designated pullouts. When an operator is faced with this it is paramount not to get stuck.

- Keep your truck as level as possible and stay out of areas with un-level grades.
- Widen areas of snow accumulation prior to attempting to turn around.

## **26. Private driveways**

Do not plow private drives, driveways or business parking lots. These are the responsibility of the owners. **NOTE: The only exception to this is if the need arises due to emergency or rescue operations.**

## **27. Org boundaries**

During snow fighting efforts Org boundaries become none existent.

- When an operator approaches a know boundary they shall contact the neighboring section to see if assistance is needed or required and proceed so service levels are equal throughout the district.
- Reporting shall be accurate according to where the operator turned around on any given route. See **14. Accountability**
- Operators should have clear direction from shift supervisor on how to handle boundary issues with neighboring Districts.

## **28. Loader Operation**

All handling of anti or de-icing agents will be done on the slabs of the new sheds or within the sheds. Exceptions are those sheds that do not have slabs constructed or in place.

- In every instance the loader operator will shake the load to elevate spillage before leaving the stockpile.
- Any spills shall be cleaned up by the operator and placed back into the storage shed or pile.
- Any spills noticed after the storm event that have not been cleaned up will be taken care of immediately when noticed. Supervisor and Leads shall check storage locations regularly to ensure this is done.

## **29. Wing Plow Operations**

Extreme care must be used when operating the benching or clearing wing plows.

- Do not try to change elevations of the wing while clearing off sidewalks! Set wing approx. 2-4 inches above the concrete and clear of the majority of the snow and ice. Do not run the wing edge on the concrete.
- Toe and heel of wing must be lowered simultaneously to prevent the toe or heel of the plow edge from gouging the pavement surface.
- Do not turn around, pull off nor move on and off the pavement edge while the wing plow is down. This will cause damage to the pavement edge and shoulder as well as possibly cause severe damage to the wing and plow truck.

## **DOCUMENTATION GUIDE FOR INSPECTION OF CLOSED HIGHWAY**

**The inspection will be documented electronically on a completed Crew Work Report in the comments.**

**The documentation should include:**

- Date of inspection**
- Route inspected**
- Beginning and ending mileposts**
- Name of person(s) who made the inspection**
- Results of inspection**

**A typical entry might read:**

**“Route 191 was inspected between MP 225 and 247.6 on 12/15/98 for stranded motorists. Two people were found at MP 230.1 and taken to Alpine. Snow depth averaged two feet with ten-foot drifts MP 228 to 246. Expect highway to re-open 12/16/98 in P.M. John Doe made the inspection.”**

## CLOSURE AND INSPECTION PROCEDURES DUE TO SNOW STORM

When it becomes necessary to close and barricade a highway because of snowstorm conditions, the following steps must be taken:

1. The Department of Public Safety shall be notified IMMEDIATELY. Provide the affected route and milepost where the barricades are to be placed. Also notify the Superintendent, Maintenance Engineer, District Engineer, CCP PIO, appropriate County Sheriff's Office, Central Maintenance and Traffic Operations Center in Phoenix (1-800-379-3701).
2. Coordinate closure with adjacent Highway Maintenance Supervisor's, if the affected length of highway involves more than one maintenance section or district so that both ends of the highway is closed as near simultaneously as possible.
3. Utilize Type III Barricades with flashing lights for closure points with appropriate advance warning signs.
4. After the closure has been completed, the entire length of closed highway must be inspected for stranded motorists as soon as possible. Any feasible means of transportation (snowplow, four- wheel drive vehicles, snowmobile, snow shoes, airplane, helicopter, etc.) should be used. Department of Public Safety and local law enforcement agencies may be contacted for assistance.
5. On lengths of highways where yearlong permanent residences exist or where other roadways access the closed portion of the highway additional inspections for stranded motorists may be conducted. Coordinated with the Department of Public Safety and/or local law enforcement agencies will be done to address any party that has ignored the posted closures on these routes.
6. All new or updated information on all road miles should be phoned or radioed to the District during normal working hours approximately every hour (every two hours at the minimum) during snowstorms. All information shall be updated on HCRS (Highway Closure Restriction System).
7. The inspection will be documented in writing on a completed Crew Work Report.

The documentation should include:

- Date of inspection
- Route inspected
- Beginning and ending mileposts
- Name of person(s) who made the inspection
- Results of inspection

A typical entry might read:

“Route 191 was inspected between MP 225 and 247.6 on 12/15/98 for stranded motorists. Two people were found at MP 230.1 and taken to Alpine. Snow depth averaged two feet with ten-foot drifts MP 228 to 246. Expect highway to re-open 12/16/98 in P.M. John Doe made the inspection.”

## SR261/SR273 Winter Closure

1. This route will be inspected as described above when initially closed.
2. Closure shall take place after coordination with the USFS Springerville and Alpine Ranger Districts, Apache County Sheriff's Office, DPS, CCP PIO, and other stakeholders.
3. These routes will not be mechanically re-opened prior to April 15<sup>th</sup> nor later than May 1<sup>st</sup>.
4. Signs notifying motorists that the routes are closed shall be opened at the following locations, the date and time of closure with initial/signature of tech who opened the sign shall be recorded and kept on file in the ORG for a period of time in accordance with current record retention policy.
5. Gates on SR 273 @ MP 383.05 and SR 261 @ MP 407.8 shall be closed and locked. In the event of severe, dangerous, or other conditions, SR 261 may be closed and locked at MP 409.9, but shall be re-opened to the upper closure as resources, snow levels, and weather conditions permit.
6. Once closed and locked, SR 261 and SR 273 will be operated up to the closure in accordance with this snow plan and normal operations for open routes.
7. Any person found stranded after the initial closure would be transported to safety and documentation done.
8. Any stranded vehicles found after the initial closure will not be removed using ADOT forces, with responsibility for vehicle removal falling to the owner or operator of the vehicle. If it is necessary to remove the vehicle, a report will be submitted to Risk Management for cost recovery.
9. Upon re-opening, gates shall remain locked in an open position until the next seasonal closure.

_ SR 260 @ FS Route 112	_____Date	_____Time	_____Tech
_ US 180 @ MP 417.08	_____Date	_____Time	_____Tech
_ US 180 @ MP 424.58	_____Date	_____Time	_____Tech
_ US 191 @ MP 250.77	_____Date	_____Time	_____Tech
_ US 191 @ MP 240.37	_____Date	_____Time	_____Tech
_ US 191 @ MP 239.75	_____Date	_____Time	_____Tech
_ US 191 @ MP 231.54	_____Date	_____Time	_____Tech
_ US 191 @ MP 226.33	_____Date	_____Time	_____Tech
_ GATE SR 273 @ MP 382.9	_____Date	_____Time	_____Tech
_ GATE SR 261 @ MP 407.8	_____Date	_____Time	_____Tech
_ GATE SR 261 @ MP 409.9	_____Date	_____Time	_____Tech

## SR473 Winter Closure

1. This route will be inspected as described above when initially closed.
2. Closure shall take place after coordination with the White Mountain Apache Tribe, Apache County Sheriff's Office, DPS, CCP PIO, and other stakeholders.
3. This routes will not be mechanically re-opened prior to Aril 15<sup>th</sup> nor later than May 1<sup>st</sup>.
4. Signs notifying motorists that the route is closed shall be opened at the following locations, the date and time of closure with initial/signature of tech who opened the sign shall be recorded and kept on file in the ORG for a period of time in accordance with current record retention policy.
5. Gates on SR 473 @ MP .3 shall be closed and locked.
6. Once closed and locked, SR 473 will be operated up to the closure in accordance with this snow plan and normal operations for open routes.
7. Any person found stranded after the initial closure would be transported to safety and documentation done.
8. Any stranded vehicles found after the initial closure will not be removed using ADOT forces, with responsibility for vehicle removal falling to the owner or operator of the vehicle. If it is necessary to remove the vehicle, a report will be submitted to Risk Management for cost recovery.
9. Upon re-opening, gates shall remain locked in an open position until the next seasonal closure

_ SR 473 @ IR Route 26	_____Date	_____Time	_____Tech
_ SR 73 @ MP 335.1	_____Date	_____Time	_____Tech
_ SR 73 @ MP 337.5	_____Date	_____Time	_____Tech
_ SR 73 @ MP 338.8	_____Date	_____Time	_____Tech
_ SR 73 @ MP 342.8	_____Date	_____Time	_____Tech
_ SR 73 @ MP 351.1	_____Date	_____Time	_____Tech
_ SR 73 @ MP 353.5	_____Date	_____Time	_____Tech
_ Gate @ MP .3	_____Date	_____Time	_____Tech

## **MISCELLANEOUS ROAD CLOSURES**

**At ORG locations where a road closure is required, at least two type three barricades with lights and flags shall be placed.**

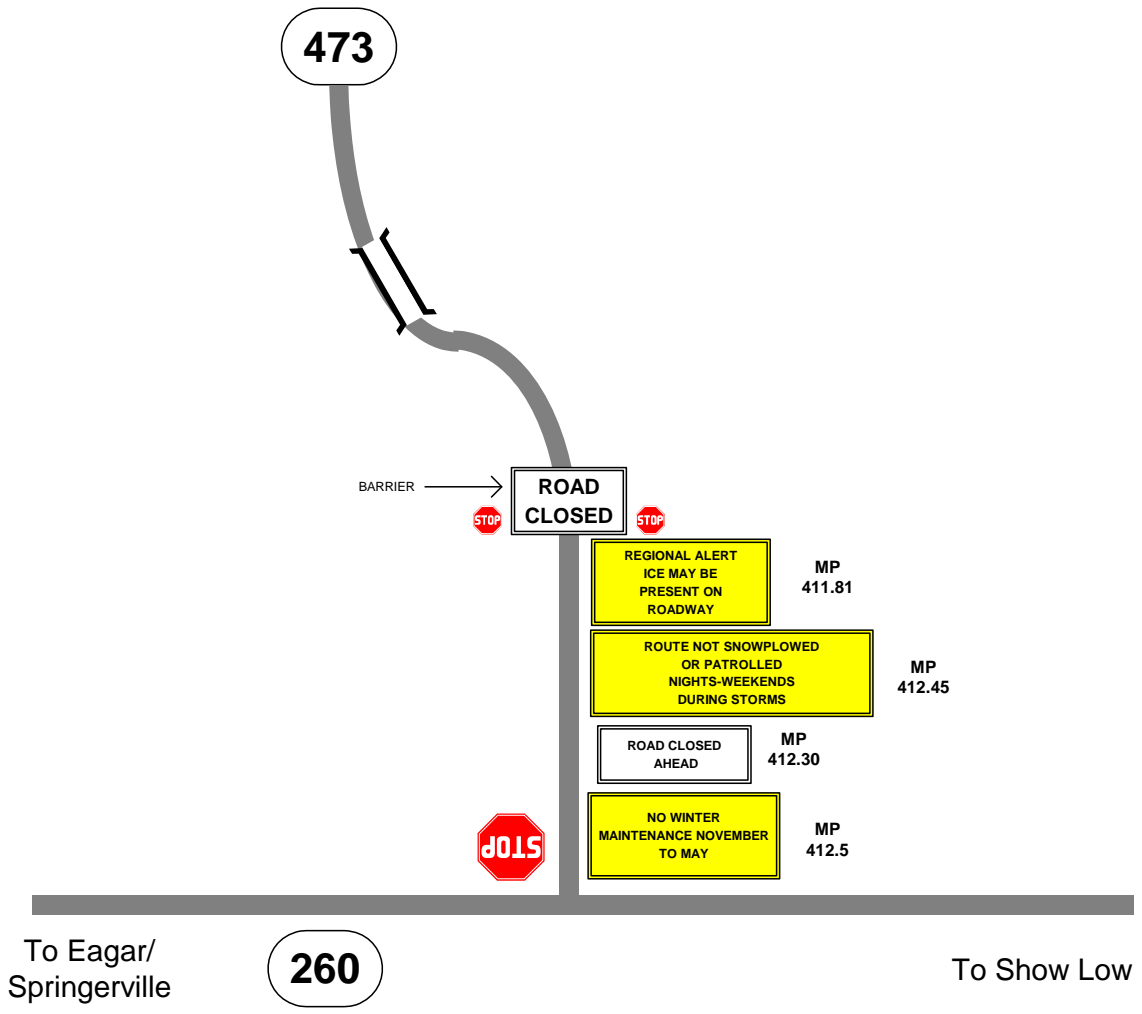
**A road closure sign will be installed on the barricades. A “ROAD CLOSED AHEAD” will be installed prior to this area.**

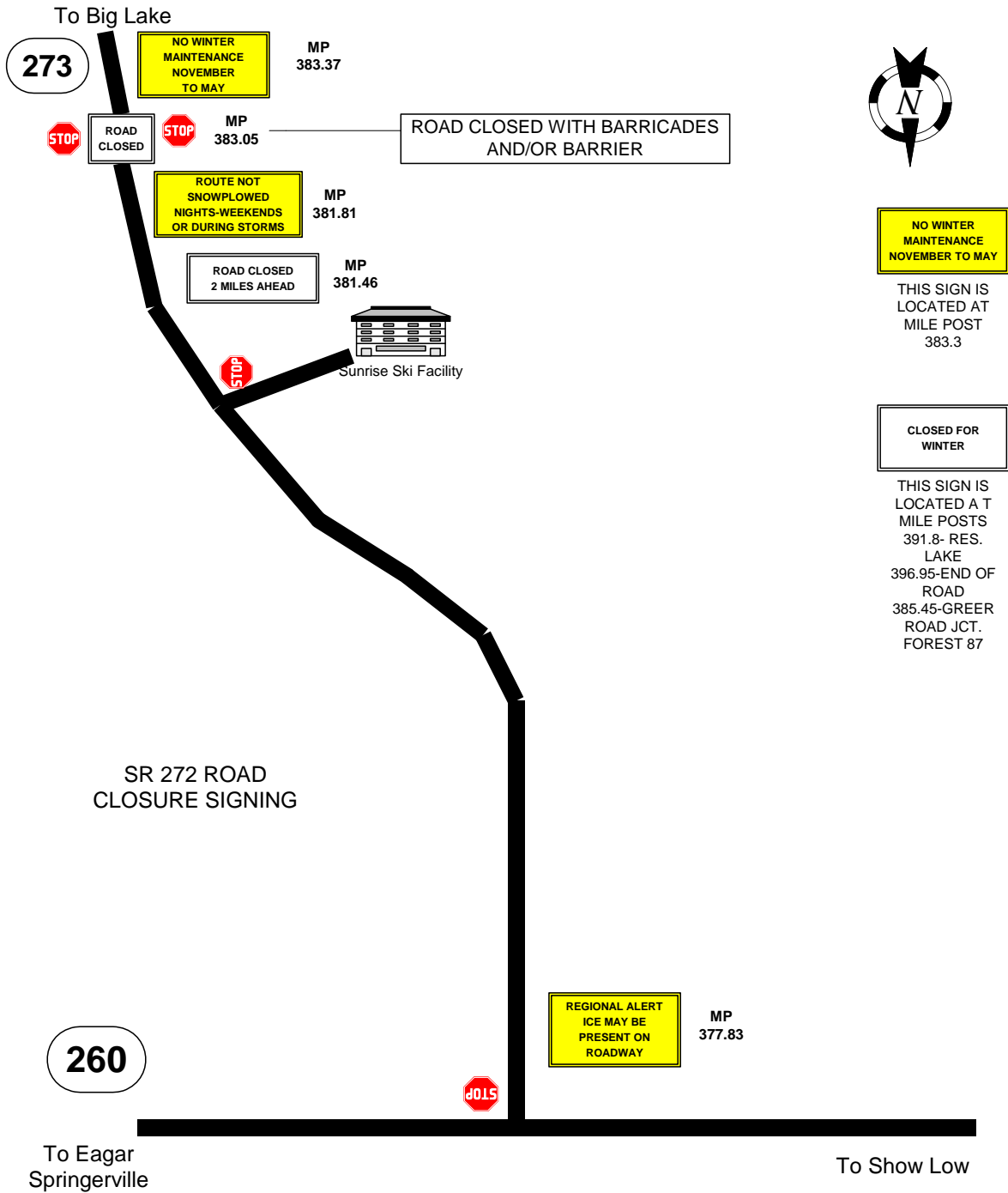
**The ROAD CLOSURE AREA should be in an area where vehicles can turn around.**

**Check the closed section for stranded motorists.**

**\*It should be noted that there are times when it will be impossible to follow the above procedures, due to weather conditions and a high number of required closures. However, every effort shall be made to follow this procedure as soon as possible after roads have been closed.**

S.R. 473 WINTER ROAD CLOSURE SIGNING





To Big Lake

261

MP 401.6

ROAD CLOSED

ROAD CLOSED

BARRIER

409

Forest Service Parking/Staging Area

MP 401.87

MP 403.70

Road Closed 1500 FT.  
Road Closed 2 MILES AHEAD

### S.R. 261 WINTER ROAD CLOSURE SIGNING



NO WINTER MAINTENANCE NOVEMBER TO MAY MP 411.61

REGIONAL ALERT ICE MAY BE PRESENT ON ROADWAY MP 411.81



Mexican Hay Lake

261

MP 412.30

ROAD CLOSED 11 MILES AHEAD

ROUTE NOT SNOWPLOWED OR PATROLLED NIGHTS-WEEKENDS DURING STORMS MP 412.45

THIS IS NOT A ROUTE TO SUNRISE SKI AREA MP 412.5

260



To Eagar/  
Springerville

To Show Low

**TIRE CHAIN/FOUR WHEEL DRIVE CONTROL POLICY AND RESPONSIBILITIES**

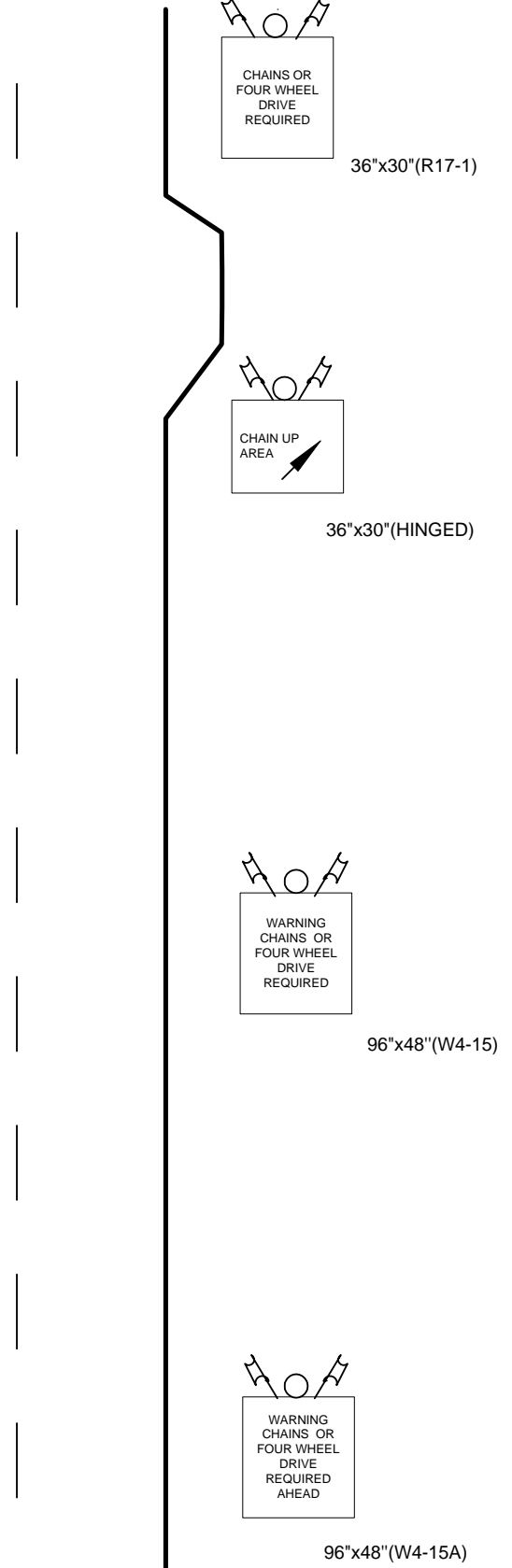
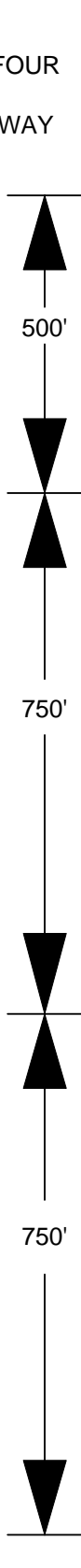
1. The determination for restriction controls will be made by ADOT with input from DPS. However, if DPS feels chains or four-wheel drive is necessary due to safety considerations, they (DPS) can turn the signs down. DPS informs the ADOT Highway Maintenance Supervisor of the date, time, route, milepost and direction of the turned down sign.
2. The location of chain/four-wheel drive control stations will be based on need and determination by ADOT and DPS.
3. ADOT will provide all signs and traffic control devices as needed (see page 20).
4. DPS will provide the necessary traffic enforcement personnel.
5. ADOT will maintain the traffic control devices as needed.
6. Lifting of chain/four wheel requirements or moving of the station, refer to items 1&2.
7. All questions between ADOT and DPS will be resolved at the local level. The intent is for all problems to be resolved at the lowest possible level.

Current established locations are located at:

	US60		MP 363.0	East Bound		Signed
U	S60	M	P 378.1	West Bound	Sig	ned
U	S180	M	P 417.0	East Bound	U	n-signed
SR2	60	M	P 386.7	West Bound	Sig	ned
SR2	60	M	P 384.9	West Bound	Sig	ned
	SR 260		MP 302.71	West Bound		Signed
	SR 260		MP 335.63	West Bound		Signed
	SR 260		MP 356.98	West Bound		Signed
	SR 260		MP 356.98	East Bound		Signed
	SR 260		MP 360.95	East Bound		Signed
	SR 260		MP 377.10	East Bound		Signed
	SR 260		MP 377.30	East Bound		Signed
	SR 260		MP 377.50	West Bound		Signed
	US 60		MP 339.53	West Bound		Signed
	SR 73		MP 350.90	North Bound		Signed



UNMANNED TIRE CHAIN/FOUR  
WHEEL SIGNING  
TWO LANE RURAL ROADWAY



# **GLOBE DISTRICT**

## **RESOURCE AVAILABILITY**

**ORG'S 8350, 8352, 8354, 8355, 8356**

**DISTRICT ENGINEER: TOM GOODMAN**

**SENIOR CONSTRUCTION ENGINEER: ELAINE LEAVENS-COOKE**

**RESIDENT ENGINEER: TIM POE**

**MAINTENANCE / DEVELOPMENTAL ENGINEER: MATT MOUL**

**MAINTENANCE SUPERINTENDENT: VACANT**

**MAINTENANCE ANALYST: SANDRA HENSON**

**The following are the available resources by Org for the Globe District. The listings show the Supervisors and Lead Persons name, route, milepost, equipment and personnel that are available from each ORG. Personnel and equipment will be shifted as needed depending on storm conditions.**



**AVAILABLE SNOW REMOVAL RESOURCES**

**GLOBE  
ORG 8350**

**SUPERVISOR: DENNIS DODD**  
**OFFICE PHONE: 1-928-402-5651**

**LEADMAN: DEAN GATEWOOD**  
**OFFICE PHONE: 1-928-402-5652**

**LEADMAN: MICHAEL SOSH**  
**OFFICE PHONE: 1-520-689-2366**

**Equipment Operators 19**

**Equipment**

- 8-10 wheel trucks with plow and sander
- 1-6 wheel dump with plow and sander
- 4-2.5 yard front end loaders
- 1-1Ton with plow
- 2-Grader

<u>ROUTE</u>	<u>BEGIN</u>			<u>END</u>	<u>COUNTY</u>	
SR 77	133.	00	170.	93	PINAL/GILA	134.72
SR 177	136.	31	167.	61	GILA/PINAL	138.41
SR 188	214.	87	229.	28	GILA	
US 60	217.	61	292.	99	PINAL/GILA	236.10
US 70	252.	14	287.	40	GILA/GRAHAM	271.60

**ROOSEVELT  
ORG 8352**

**SUPERVISOR: LANE HULBERT**  
**OFFICE PHONE: 1-928-467-2282**

**LEADMAN: LARRY COPELAND**  
**OFFICE PHONE: 1-928-467-2282**

**Equipment Operators 8**

**Equipment**

- 1-6 wheel dump with plow and sander
- 3-Grader
- 2-2.5 yard front end loader
- 1-Backhoe

<u>ROUTE</u>	<u>BEGIN</u>			<u>END</u>	<u>COUNTY</u>	
SR 88	213.	33	241.	70	MARICOPA/GILA	241.70
SR 188	229.	28	271.	00	GILA	
SR 288	2	58.10	3	11.90	GILA	

**SHOW LOW  
ORG 8354**

**SUPERVISOR: SCOTT HOOLEY**  
**OFFICE PHONE: 1-928-532-2315**

**LEADMAN: SCOTT HOOLEY**  
**OFFICE PHONE: 1-928-532-2315**

**Equipment Operators 21**

**Equipment**

- 12-3 Axle Dump Trucks with snowplow and V box spreader attachments**
- 4-2.5 Cu. Yd. Loaders**
- 1-4 Cu. Yd. Loader**
- 1-Grader**
  - 1-3500 Gallon Liquid De-icing Truck with snowplow attachment**
  - 1-Graders w/wing**
  - 1-Liquid De-icing truck**

<u>ROUTE</u>	<u>BEGIN</u>	<u>END</u>	<u>COUNTY</u>	
SR 77 342.	20 361.	07	NAVAJO	
SR 260 340.	11 377.	45	NAVAJO	
SR 277 305.	67 336.	45	NAVAJO	
SR277(SPUR) 321.	18 322.	38	NAVAJO	
US 60 293.	0 353.	00	GILA/NAVAJO	316.41
SR 73 310.	38 311.	20	NAVAJO/GILA	311.20
SR 73 311.	21 357.	72	GILA/NAVAJO	335.56
SR 473 0.00	10.0	0	APACHE	

**ST. JOHNS  
ORG 8355**

**SUPERVISOR: CLAYTON BOND**  
**OFFICE PHONE: 1 -928-337-4913**

**LEADMAN: GARRY HITCHCOCK**  
**OFFICE PHONE: 1-928-337-4913**

Equipment Operators 8

**Equipment**  
**5-10 wheel dump with plow and sander**  
**2-2.5 yard loader**  
**1-Grader**

<u>ROUTE</u>	<u>BEGIN</u>			<u>END</u>	<u>COUNTY</u>	
SR 61	352.	88	430.	26	APACHE	
SR 81	380.	16	381.	81	APACHE	
SR 180A		343.10	354.	27	APACHE	
US 180	324.	86	394.	36	NAVAJO/APACHE	327.26
US 191	315.	55	344.	62	APACHE	

**SPRINGERVILLE  
ORG 8356**

**SUPERVISOR: TONY CASTILLO**  
**OFFICE PHONE: 1-928-333-4495**

**LEADMAN: JOHN FLANAGAN**  
**OFFICE PHONE: 1-928-333-4495**

Equipment Operators 11

**Equipment**  
**6-10 wheel dump with plow and sander**  
**4-2.5 yard loader**  
**1-Grader w/wing**  
**1-Snow Blow**

<u>ROUTE</u>	<u>BEGIN</u>			<u>END</u>	<u>COUNTY</u>	
SR 260	377.	46	398.	67	APACHE	
SR 261	394.	38	412.	50	APACHE	
SR 373	385.	65	390.	21	APACHE	
US 60	353.	01	401.	97	APACHE	
US 180	400.	61	433.	26	APACHE	
US 191	225.	01	253.	74	GREENLEE/APACHE	247.56
SR 273	377.	46	396.	90	APACHE	

**DISTRICT WIDE  
ORG 8369**

**SUPERINTENDENT: VACA NT  
OFFICE PHONE: 1-928-402-5605**

**Equipment Operators 1**

**SHOW LOW EQUIPMENT SHOP**

**OFFICE PHONE 928-532-2381**

**GLOBE EQUIPMENT SHOP**

**OFFICE PHONE 928-402-5640**

**SNOW REMOVAL NOTIFICATION PROCEDURE**

**The following Snow Removal Notification procedure is to be used whenever a supervisor initiates snow removal work.**

- A. See that the HCRS System is updated as road conditions change.**
- B. Keep the Globe District Office updated either by phone at 928-402-5600 or by e-mail. Normal working hours are 8:00 AM to 5:00 PM, 5 days a week.**
- C. If any emergency or special situation arises after normal work hours that would require special attention or support you can contact the following in order of listing.**

- 1. Tom Goodman ..... 928-402-5612**
- 2. Elaine Leavens-Cooke (northern region) ..... 928-241-2693**
- 3. Matt Moul (northern region)..... 928-200-0342**
- 4. Tim Poe (southern region)..... 928-200-0203**
- 4. Vacant ..... 928-812-2488**



**ORG 8356 (SPRINGERVILLE)**

**928-333-4495**

**TONY CASTILLO**

**ROUTE BEGIN**

**END**

**COUNTY**

**SR 260 377. 46 398.  
SR 261 394. 38 412.  
SR 373 385. 65 390.  
US 60 353. 01 401.  
US 180 400. 61 433.  
US 191 225. 01 253.  
SR 273 377. 46 396.**

**67 APACHE  
50 APACHE  
21 APACHE  
97 APACHE  
26 APACHE  
74 GREENLEE/APACHE 247.56  
90 APACHE**

GLOBE DISTRICT ORG ROUTE DESIGNATIONS

