SANDING

According to the steps outlined in Appendix B, the Street Maintenance Division is limited to sanding in areas specified in the Air Pollution Control Board regulations for controlling ice and snow conditions as a means of reducing sanding material. The area in which sanding is limited includes all streets within the city limits lying outside the deicing zone which is between and including I-90 on the north and SW Higgins and 39th Street on the south.

Sand application will begin as the streets start to get slippery and vehicles are having difficulty getting traction.

Sanding will begin with the Priority 1 streets, unless an emergency request from the Police Desk is received. When such a request is made, the employees assigned to that area shall proceed to sand/de-ice the location requested according this section of the Plan and then return to the priority system they were working on.

Curved Streets

Sanding of curved streets will be limited to curves with advanced warning signs of the curve.

Intersections

Sanding will be limited to intersections and approaches to intersections, approaches to school crosswalks, in front of schools, and middle turning lanes unless specifically requested to do otherwise by a supervisor or the Police Department.

Intersections at traffic signals, major traveled intersections and school crosswalks will be done on the approach for a minimum of 200 feet.

Sanding at intersections of residential and non-major traveled intersections will be 50 to 100 feet of that approach depending on traffic volumes.

Hills

1. Streets with steeper grades such as Winter Assignment Areas A, B, H, I and J will be effectively sanded and given greater attention.

2. Set sanders (adjustable sand baffle meter) at the Number 5 setting. A supervisor must approve any changes to this setting.

Chips in Deicer Zones

The Street Superintendent or Supervisor on-call may authorize chip application in the City deicing zone when liquid deicer is no longer effective and when Ice Slicer Elite® is not available if one or more of the following conditions are met:

1. When a Police Officer requests sanding of a roadway to eliminate unsafe traffic situations when dicer would be inadequate or cannot be applied within a reasonable period of time.

2. Surface road temperature is 10° Fahrenheit or colder as determined by field measurement (use of a laser temperature instrument).

When chip use has been authorized, Street Maintenance Division personnel will apply chips according to the following procedures:

1. Chips will only be applied on Priority 1 streets and intersections or in response to a Police Officer request.

2. Sanding units will work in pairs with deicer trucks. Liquid deicer will be applied immediately behind and directly over the chips.

3. If a deicer unit is not available to follow the sander, the deicer saddle tanks and spray bar system will be utilized on the chip spreader unit.

4. Personnel will adjust the sander gate opening to two (2) inches prior to chip application.

"Chip" means and aggregate material with a durability of greater than 80 (AASHTO T-210) and a silt content of less than 2.5% (AASHTO T-27 and T-11).

Chips or seal coat aggregate shall conform to Section 409.02 and 701.02.9 table 701-12 grade 3A of the Standard Specifications for "Road and Bridge Construction adopted by the Montana State Highway Commission. The aggregate shall be graded as follows:

Percentage by weight passing square mesh sieves Montana test method MT-202:

Sieve Size	Grade 3A
1/2 inch	100%
3/8 inch	95% - 100%
No. 4	0% - 30%
No. 8	0% - 15%
No. 200	0% - 2%

Sanding in Deicing Zone

If the Street Superintendent authorizes sanding of the designated City deicing zone per the requirements specified under Chapter 8, Rule 8.301(1) and 8.101(7) of the Fugitive Particulate regulation, the following procedures will be adhered to:

1. In all cases, the Street Superintendent or Supervisor on-call must be contacted prior to sanding the designated City deicing zone. If the Superintendent or Supervisors are not available, the Public Works Director must be contacted first.

2. Sand and/or chips will be used only when the temperature is below 10°Fahrenheit.

3. When using sand in the deicer zone (all streets within city limits between and including I-90 on the north and SW Higgins and 39th Street on the south), sanding units will carry full loads of deicer. Sand will be used only with deicer.

4. Sanding will only be done on Priority 1 streets and intersections or in response to Police Officer requests.

5. Sanding units will work in pairs with deicer trucks. Liquid deicer will be applied immediately behind and directly over the sand.

6. If a deicer unit is not available to follow the sander, deicer saddle tanks and spray bar system will be utilized on the sanding unit.

7. East Broadway may be sanded from Riverside Health Care Center to Easy Street. This portion of East Broadway may be sanded without

authorization from the Superintendent. The operator assigned to Area D may request sanding from the nearest sander unit when conditions are such that liquid deicer is ineffective. Conditions when sand us is merited may include one or combinations of the following:

a. Excessive wind-chill
b. Heavy snow accumulation
c. Excessive moisture on roadway and/or
d. Ice accumulation