

Sand Drift Fencing Installation-Think Zig-Zag!

In designing a sand drift fence consider the following:

1. A sand drift fence is not a straight line fence; sand drift fencing is most effective in a zig-zag configuration. Straight line sand drift fence is best used for pedestrian or vehicular control such as directing beach goers to access points, keeping folks off dunes that you are trying to rebuild or vegetate, or keeping cars from parking on a beach face.

2. Most sand drift fence costs are presented in terms of fence lineal feet not beach lineal feet. Since drift fencing is zig-zag, the number of lineal feet of drift fence will always exceed the number of beach lineal feet. The angle of the zig-zag will usually not be less than 30 degrees and can reach 45 degrees. Of course, the steeper the angle of the fence, the more drift fence that will be required and thus the greater the cost.

3. Sand drift fencing works best where there is a wide beach face and a lot of sand that can be wind swept along the beach and caught by the drift fencing where it will be deposited between the zigs and the zags of the fence or behind the fence. Sand drift fencing installed on beach where the beach face is mostly silts and clays and only a little sand, will result in minimal sand accretion.

4. In the early days of sand drift fencing, cross bracing was used to reinforce the mid panel span. Cross bracing, while a good idea in terms of fence stability, is not such a good idea in terms of safety, particularly on an actively used beach. Children (and adults) will stand/sit on the cross braces of the fence, and occasionally the braces will break. The safety issue is obvious in terms of potential cuts and bruises or falling on to the panel slats which can result in a very nasty injury. Thus, we recommend rather than cross bracing, using mid span posts as the fence panel reinforcement method.

5. Select your materials of construction based on the likelihood of impacts from storm surf and waves. While more expensive, it is better to use heavy duty drift fence construction when nor'easter storms are expected to reach the fence during the winter months.

6. Sand accretion, contrary to popular belief, is a year around possibility. The sand shown in the Charlestown installation largely accumulated from October to February. The key is not whether it is summer (so called sand accretion period) or winter, but whether the wind is blowing and/or whether the beach face freezes up in the winter. This past winter (2013-2014) was very cold in New England and the beach face was frozen in many locations for many weeks, thus the chance of wind-blown sand accretion diminished. However, in



warmer winters, the beach face did not freeze and thus sand accreted. If possible leave the sand drift fence up 12 months a year to get the most mileage from the drift fence.

7. In any case, **metal posts should never be used to anchor sand drift fence**. Use a minimum of 2 inch square and preferably 4 inch square wood posts. The posts should be a minimum of 8 feet in length. Metal posts sold with snow fence are for snow fencing not sand drift fencing. Sand is a much

heavier weight material than snow, and sand accumulating in the zig and the zag of the fence will topple a sand drift fence quite easily that is anchored with short (usually four or five foot posts) metal posts. The fence needs to be adequately supported to stand up to the wind and the sand accumulation, and therefore perform its sand accretion function. Further, metal posts usually begin to corrode in the first few months of salt air exposure, and quickly become a detriment to a drift fence installation, aesthetically, environmentally, and from a safety viewpoint.

8. Once sand begins to accrete, consider planting beach grass to help keep and stabilize the sand in place. Beach grass is perhaps the most effective vegetative sand dune stabilization material available due to its long root structure and its long and wispy above ground leaf. As it grows in, beach grass will also help to accumulate sand, and in winter when it dies it will lie in a mat on the ground and protect the in-place sand from becoming windblown or eroded by surface rain. Beach grass is relatively inexpensive to purchase and plant, and is drought tolerant once established . . . a great beach vegetative material and an attractive plant as it blows in the gentle summer winds.

