**SAMPLE DYNAMIC COMPACTION RECOMMENDATION LANGUAGE FOR A GEOTECHNICAL REPORT**

Dynamic Compaction – The primary purpose of dynamic compaction is to improve the uniformity and density of the fill materials. Prior to the start of the dynamic compaction program, some preliminary site grading may be necessary to make the building pad areas level enough for the dynamic compaction crane to walk on. The dynamic compaction program would consist of dropping a XX-ton weight from a height of XX feet at selected locations over the entire building footprint and within the first 20 feet of the adjacent truck loading docks. The first pass would consist of dropping the weight at least XX times at each location on a XX-foot by XX-foot grid. The second pass would consist of the same, with the grid pattern offset from the first pass by 6 feet in each direction. In both passes, the grid must cover the entire building footprint plus 20 feet beyond the building line in loading docks areas, and 10 feet beyond the building limit elsewhere. A third pass would consist of 5 additional drop points at each footing location, and one additional drop point every 6 feet along strip footings. The third pass would also require at least four drops at each location. Upon completion of the three passes described above, the upper few feet of soil will be loose from grading during the dynamic compaction process. Surface compaction, consisting of at least six passes of a vibratory roller having a minimum static drum weight of at least 10-tons, will be required after dynamic compaction. A series of post-dynamic compaction borings will be performed by the Geotechnical Engineer upon completion of the program. These borings will be used to evaluate the effectiveness of the dynamic compaction program and serve as a basis for acceptance of the work.

Often times, soft soils will cause the weight to repeatedly get stuck, slowing production, and reducing the effectiveness of the program. The stone used to cover the site would be driven into the soft soils, stabilizing them, and would also serve to aid in surface drainage in areas where shallow groundwater is encountered during dynamic compaction. Prior to the start of full ground improvement program, we recommend performing some test drops throughout the site to evaluate the need for gravel pads and/or surface drainage. This matter will need to be further evaluated as part of a final geotechnical study for the site.

Pre- and Post-Construction surveys should be performed on any adjacent structures and utilities to verify that no damage occurs as a result of the program. Coordination with the owners of nearby utilities will be necessary to determine if additional requirements, such as seismic isolation trenches or video surveys, may be required. Vibration monitoring should be performed throughout the dynamic compaction process at property lines near existing structures or utilities.