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DATE: December 16, 2016

TO: Michelle Nielsen, Planner
 Humboldt County Planning Division
 3015 H Street
 Eureka, CA 95501

SUBJECT: Preliminary Soils Report

At the request of Emerald Family, LLC, tenant of the subject parcel with rights granted for improvement, Manhard Consulting has sampled soils for textural analysis, examined soil profiles, and identified suitable locations for the proposed construction.

The parcel is identified as Assessor Parcel Number 522-201-001 in Willow Creek, California and is approximately 41 acres in size. The parcel is in an area classified as “Low Instability”, according to Humboldt County web GIS Hazard Mapping. The building site is not adjacent to slopes greater than 15% therefore slope failure is not likely to occur. The parcel is also located outside of any potential liquefaction zones.

In September of this year, samples taken by this office at depths of 24 inches and 72 inches from mini excavator excavations revealed 10 YR 4/3 grey brown zone 1 sand soil in test hole (TH)#1. In test hole (TH)#2, the same investigation at 42 inches and 72 inches revealed 2.5 YR 4/3 grey orange zone 1 sand soil. There are many coarse fragments within the first 2 feet of soil below which the soils can be classified as poorly graded sand (SP).

In our opinion, the proposed construction is suitable for this site, provided that the development conforms to all City, state, and local requirements and to the following recommendations.

All foundations and footings should extend downwards through disturbed soils, coarse fill, imported fills, and topsoil to bear upon native, undisturbed soils. All foundations and footings should extend a minimum of 24 inches into the native greyish poorly graded sand (SP) target bearing soils. Any localized occurrences of unsuitable soils at this depth shall be further excavated until competent bearing soils are revealed.

All spread footings and foundation walls shall be designed, reinforced, and constructed to meet the requirements of the 2013 CBC, or of the current version of the CBC at the time of construction. The native, light greyish poorly graded sand (SP) target bearing soils are assigned an allowable soil bearing pressure of 2,000 psf. This value may be increased by 1/3 for load combinations that include wind and seismic loads.

Praj O. White, P.E., #C65025
 Area Manager