

E3 Geotechnical Technical Memorandum



Project No.
10220.001.000

May 11, 2018

Ms. Deborah Castles
McGrath Properties American Canyon, LLC
1001 42nd Street, Suite 200
Oakland, CA 94608

Subject: Watson Ranch
American Canyon, California

GEOTECHNICAL UPDATE LETTER

Reference: ENGEO; Preliminary Geologic and Geotechnical Report, Watson Ranch, American Canyon, California, Revised October 29, 2015, Project No. 10220.001.000.

Dear Ms. Castles:

At your request, we are providing this geotechnical update letter for the 304-acre Watson Ranch Property located east of Highway 29 and Soputhern Pacific Railroad line in American Canyon, California.

Based on our review of current plans and our previous report, it is our opinion that the conclusions and recommendations in the referenced report remain valid and are suitable at this time. ENGEO should prepare a design level geotechnical report following our subsurface exploration to supplement the preliminary conclusions and recommendations in the above reference prior to the start of construction. Additionally, we are providing updated seismic desing parameters (below) based on the 2016 CBC.

2016 CBC Seismic Design Parameters

We preliminarly characterized the site as Site Class C in accordance with the 2016 CBC. We provide the 2016 California Building Code (CBC) seismic parameters in the table below, which include design spectral response acceleration parameters based on the mapped Risk-Targeted Maximum Considered Earthquake (MCER) spectral response acceleration parameters.

TABLE 1: 2016 CBC Seismic Design Parameters

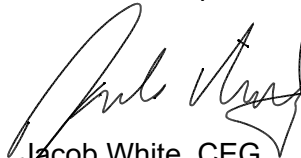
PARAMETER	VALUE
Site Class	D
Mapped MCE_R Spectral Response Acceleration at Short Periods, S_S (g)	2.061
Mapped MCE_R Spectral Response Acceleration at 1-second Period, S_1 (g)	0.736
Site Coefficient, F_A	1.00
Site Coefficient, F_V	1.30
MCE_R Spectral Response Acceleration at Short Periods, S_{MS} (g)	2.061

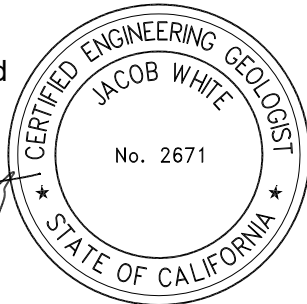
PARAMETER	VALUE
MCE _R Spectral Response Acceleration at 1-second Period, S _{M1} (g)	0.957
Design Spectral Response Acceleration at Short Periods, S _{DS} (g)	1.374
Design Spectral Response Acceleration at 1-second Period, S _{D1} (g)	0.638
MCE _G Peak Ground Acceleration adjusted for Site Class effects, PGA _M (g)	0.715
Long period transition-period, T _L	8 sec


If you have any questions or comments regarding this letter, please call and we will be glad to discuss them with you.

Sincerely,

ENGEO Incorporated


Jacob White, CEG
Jw/tpb/bvv




Theodore P. Bayham, GE

