1. Using a web browser such as Google Chrome or Mozilla Firefox, go to https://earthquake.usgs.gov/ws/designmaps

2. Click on design document of interest, such as AASHTO-2009
Step-by-step instructions: Steps 3-4 of 9

3. Scroll down to Example

4. Click on example request

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5a. In address bar, change latitude and longitude to those of interest; for example, change 34 to 34.05 and -118 to -118.25
5b. Still in address bar, change site class to that of interest (A, B, C, D, or E); for example, change C to D
Step-by-step instructions: Steps 5c-6 of 9

5c. Still in address bar, change title to that of interest; for example, change Example to Los Angeles, CA

6. Press enter button on your keyboard
7. Check that requested parameter values are those you entered
Step-by-step instructions: Steps 8-9 of 9

8. Scroll down to response data
9. Read $S_S$, $F_a$, $S_{DS}$, etc (see documentation for parameter definitions, or next slide)
Parameter Definitions

response
data

\text{pga} \quad \text{PGA, the mapped horizontal Peak Ground Acceleration, in units of g}

\text{fpga} \quad F_{PGA}, \text{the site coefficient for PGA, from Table 3.4.2.3-1 of the seismic design reference document}

\text{as} \quad A_s = F_{PGA} \times PGA (Equation 3.4.1-1), \text{the design peak ground acceleration, in units of g}

\text{ss} \quad S_s, \text{the mapped short-period (0.2-second) spectral acceleration, in units of g}

\text{fa} \quad F_a, \text{the site coefficient for } S_s, \text{from Table 3.4.2.3-1}

\text{sds} \quad S_{DS} = F_a \times S_s (Equation 3.4.1-2), \text{the design short-period (0.2-second) spectral acceleration, in units of g}

\text{s1} \quad S_1, \text{the mapped 1-second spectral acceleration, in units of g}

\text{fv} \quad F_v, \text{the site coefficient for } S_1, \text{from Table 3.4.2.3-2}

\text{sd1} \quad S_{D1} = F_v \times S_1 (Equation 3.4.1-3), \text{the design 1-second spectral acceleration, in units of g}

\text{sd} \quad S_{DC}, \text{the Seismic Design Category from Table 3.5-1}

\text{ts} \quad T_s = T_{D1} / S_{DS} (Equation 3.4.1-6), \text{in seconds, for construction of design response spectrum}

\text{t0} \quad T_0 = 0.2T_s (Equation 3.4.1-5), \text{in seconds, for construction of design response spectrum}

\text{sdSpectrum} \quad S_a, \text{the design response spectrum from Figure 3.4.1-1 and Equation 3.4.1-4}

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