

3-Point Acceleration Design Response Spectrum

SCDOT v3.0 - 02/22/2019

Project ID: P027662	Latitude: 34.0384	
Route: I-20/I-26/I-126	County: 40 - Richland	Longitude: 81.1116
Project: Carolina Crossroads		

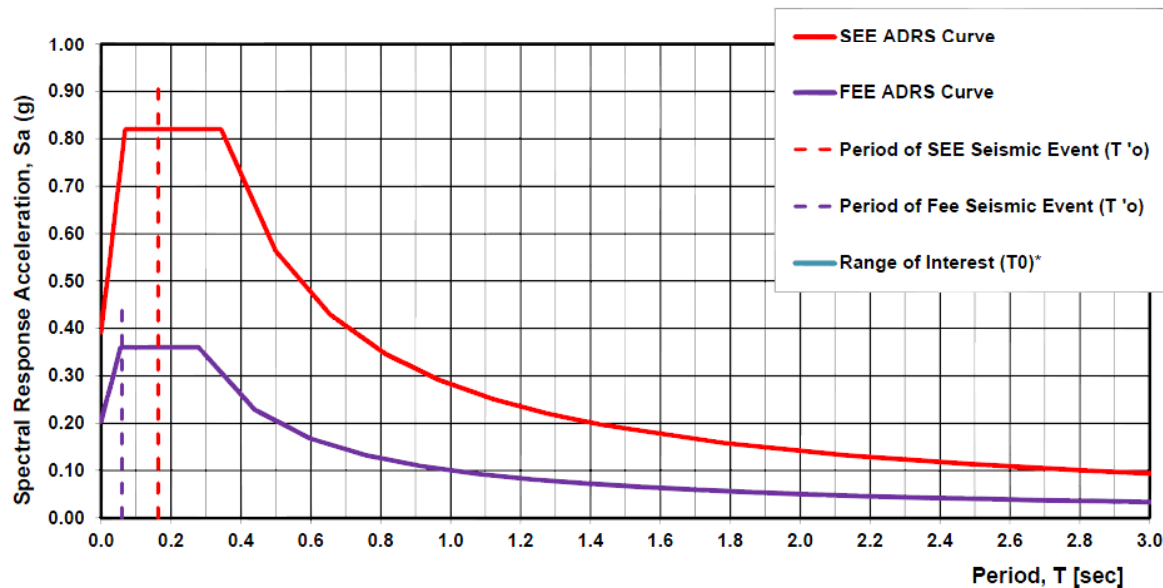
Designer: N. Harman - Support
Date: 2/22/2019

Design EQ	PGA	S _{Ds}	S _{D1}	M _w	R	PGV	D _{a5-95}	T' _o
	g	g	g	-	km	inches/sec	sec	sec
FEE	0.20	0.36	0.10	7.30	130.07	3.82	38.60	0.06
SEE	0.39	0.82	0.28	7.28	128.77	10.70	38.15	0.16

Damping: 5%	Geologically Realistic (Q = 100)*
Geologic Condition:	SCP
ADRS Location within Soil Column:	At Ground Surface
<small>South Carolina Piedmont</small>	

Fundamental Period of Structure, T ₀	Range of Interest		V _{s,H}	H	T _{NH}	
	sec				sec	
sec	0.5 * T ₀	2.0 * T ₀	ft/sec	ft	(4*H)/V _{s,H}	(6*H)/V _{s,H}
0.00	0.00	0.00	-	-	-	-
0.00	0.00	0.00	-	-	-	-

SC Seismic ADRS Curve



FEE Data		SEE Data	
T	S _a	T	S _a
0.00	0.204	0.00	0.393
0.01	0.230	0.01	0.464
0.02	0.256	0.02	0.535
0.03	0.282	0.03	0.607
0.04	0.308	0.05	0.678
0.05	0.334	0.06	0.749
0.06	0.360	0.07	0.820
0.07	0.360	0.09	0.820
0.09	0.360	0.11	0.820
0.11	0.360	0.14	0.820
0.13	0.360	0.16	0.820
0.15	0.360	0.18	0.820
0.17	0.360	0.21	0.820
0.19	0.360	0.23	0.820
0.20	0.360	0.25	0.820
0.22	0.360	0.27	0.820
0.24	0.360	0.30	0.820
0.26	0.360	0.32	0.820
0.28	0.360	0.34	0.820
0.44	0.229	0.50	0.564
0.60	0.168	0.66	0.429
0.76	0.132	0.81	0.347
0.92	0.109	0.97	0.291
1.08	0.093	1.12	0.250
1.24	0.081	1.28	0.220
1.40	0.072	1.44	0.196
1.56	0.064	1.59	0.177
1.72	0.058	1.75	0.161
1.88	0.053	1.91	0.148
2.04	0.049	2.06	0.137
2.20	0.046	2.22	0.127
2.36	0.043	2.37	0.119
2.52	0.040	2.53	0.111
2.68	0.037	2.69	0.105
2.84	0.035	2.84	0.099
3.00	0.033	3.00	0.094