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

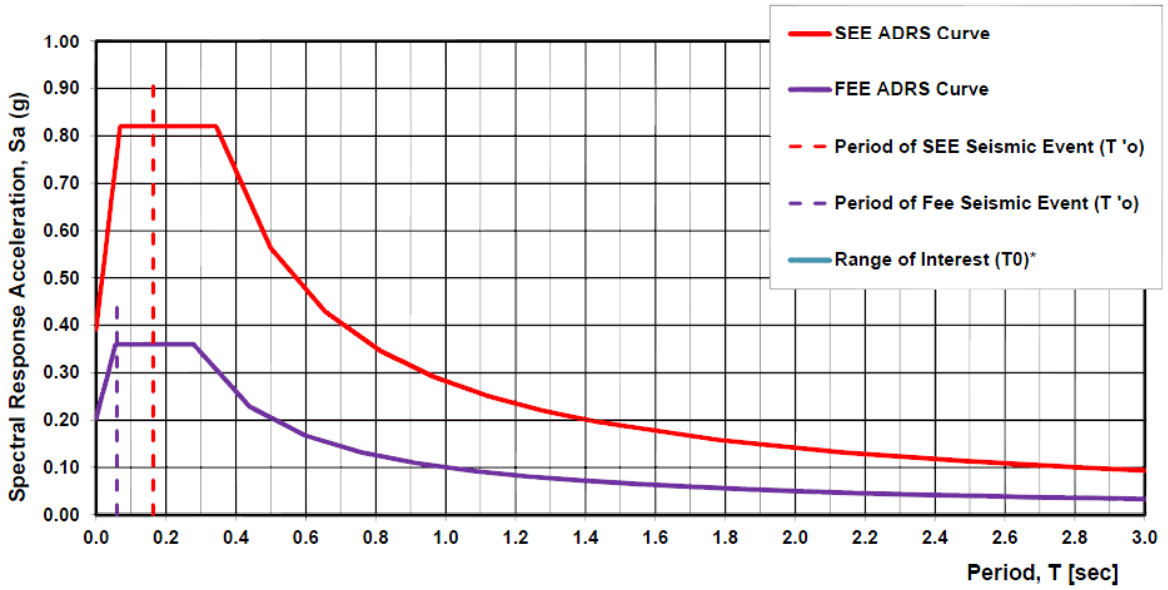
Design EQ	PGA	S_{DS}	S_{D1}	M_W	R	PGV	D_{a5-95}	T'_o
	g	g	g	-	km	inches/sec	sec	sec
FEE	0.20	0.36	0.10	7.30	130.07	3.82	38.60	0.06
SEE	0.39	0.82	0.28	7.28	128.77	10.70	38.15	0.16

Damping:	5%
Geologic Condition:	Geologically Realistic (Q = 100)*
	SCP
ADRS Loction within Soil Column:	At Ground Surface

South Carolina Pedimont

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
To	0.06	0.360	To	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
Ts	0.28	0.360	Ts	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