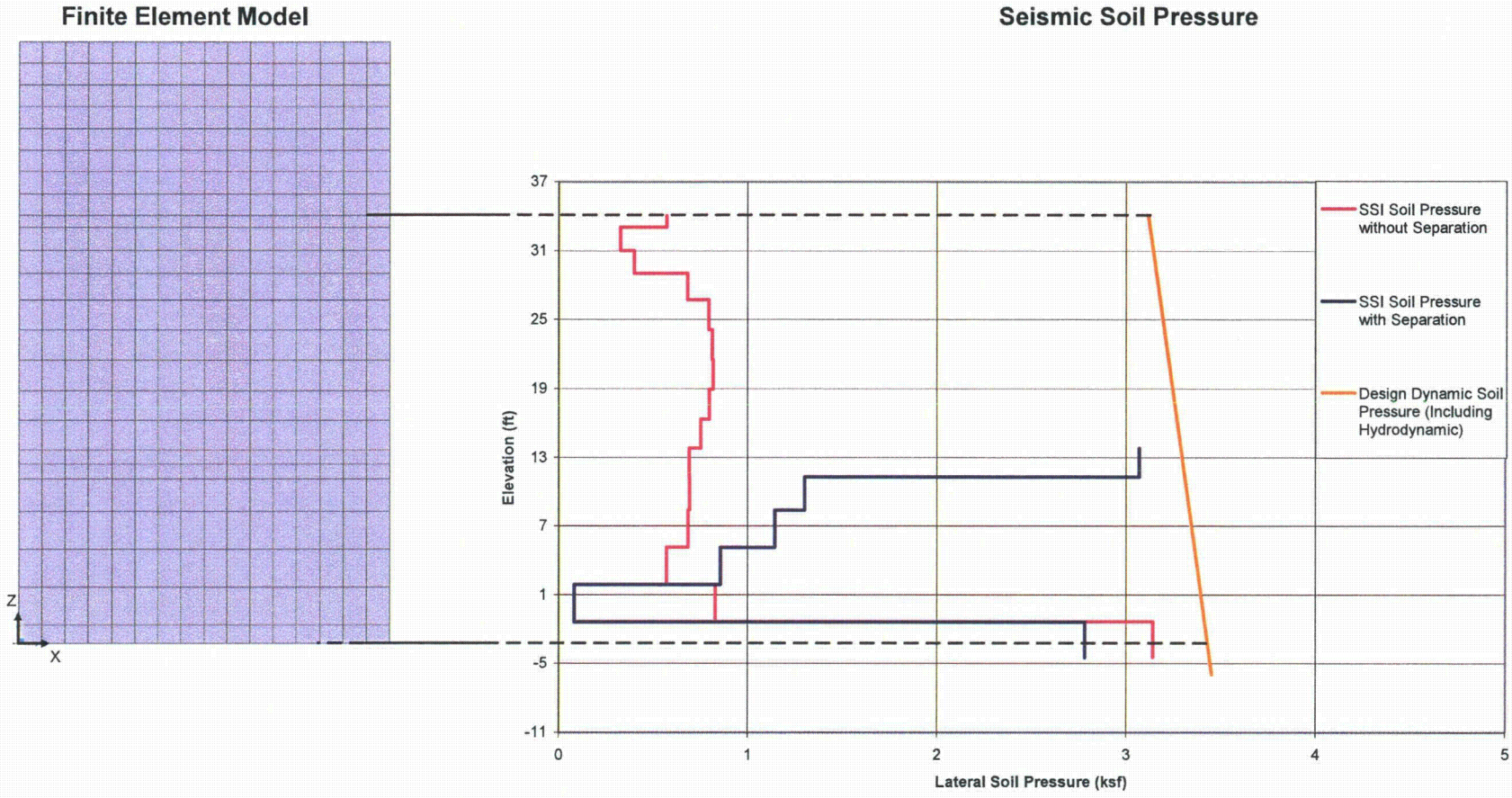


Figure 03.07.01-29 S1.204: Application of Soil Loads on SAP2000 Model of Wall 2 of DGFOSV

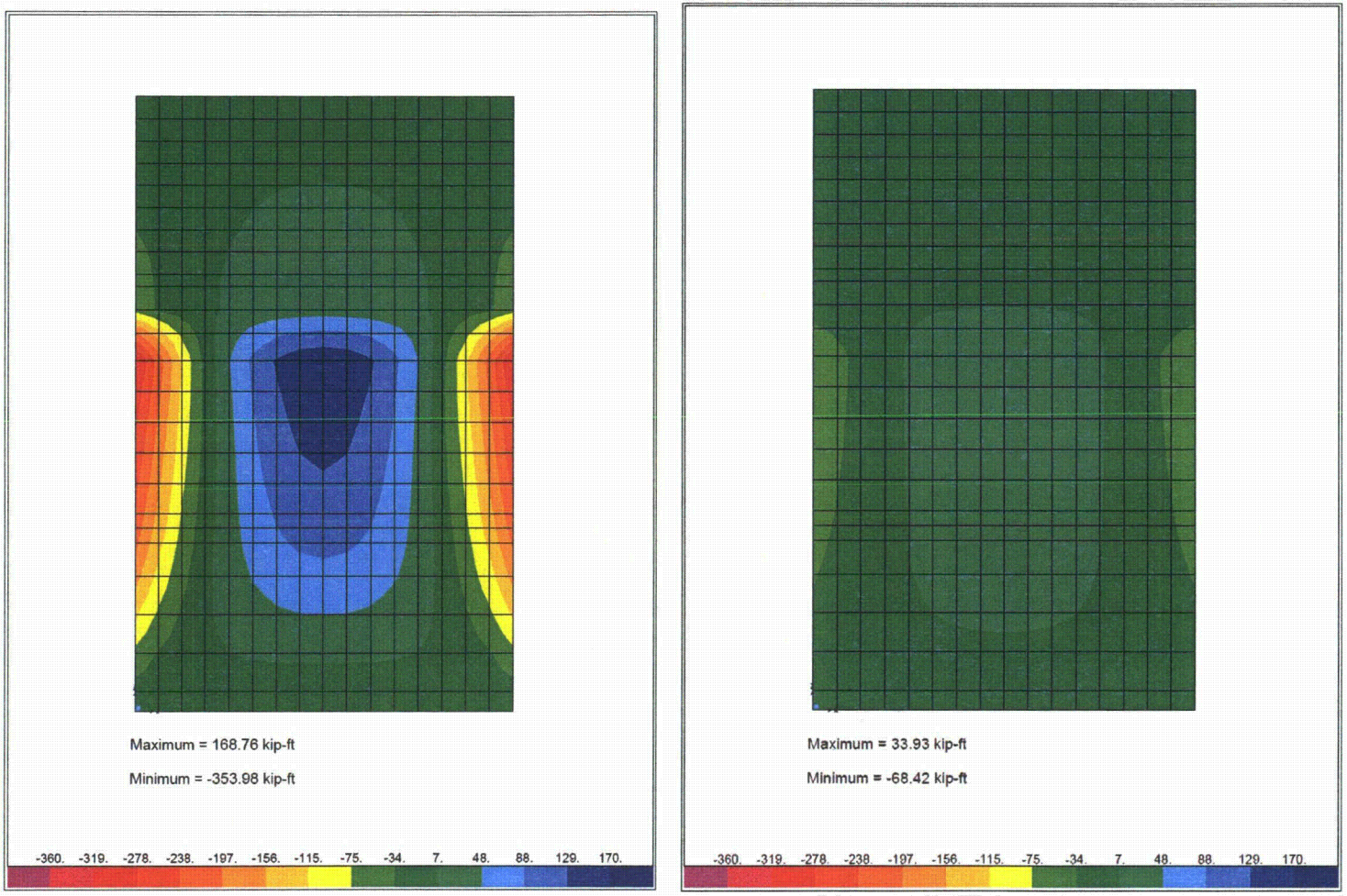


Figure 03.07.01-29 S1.205: Moment about Z-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure Excluding Separated Soil Case (right) for Wall 2 of DGFOSV

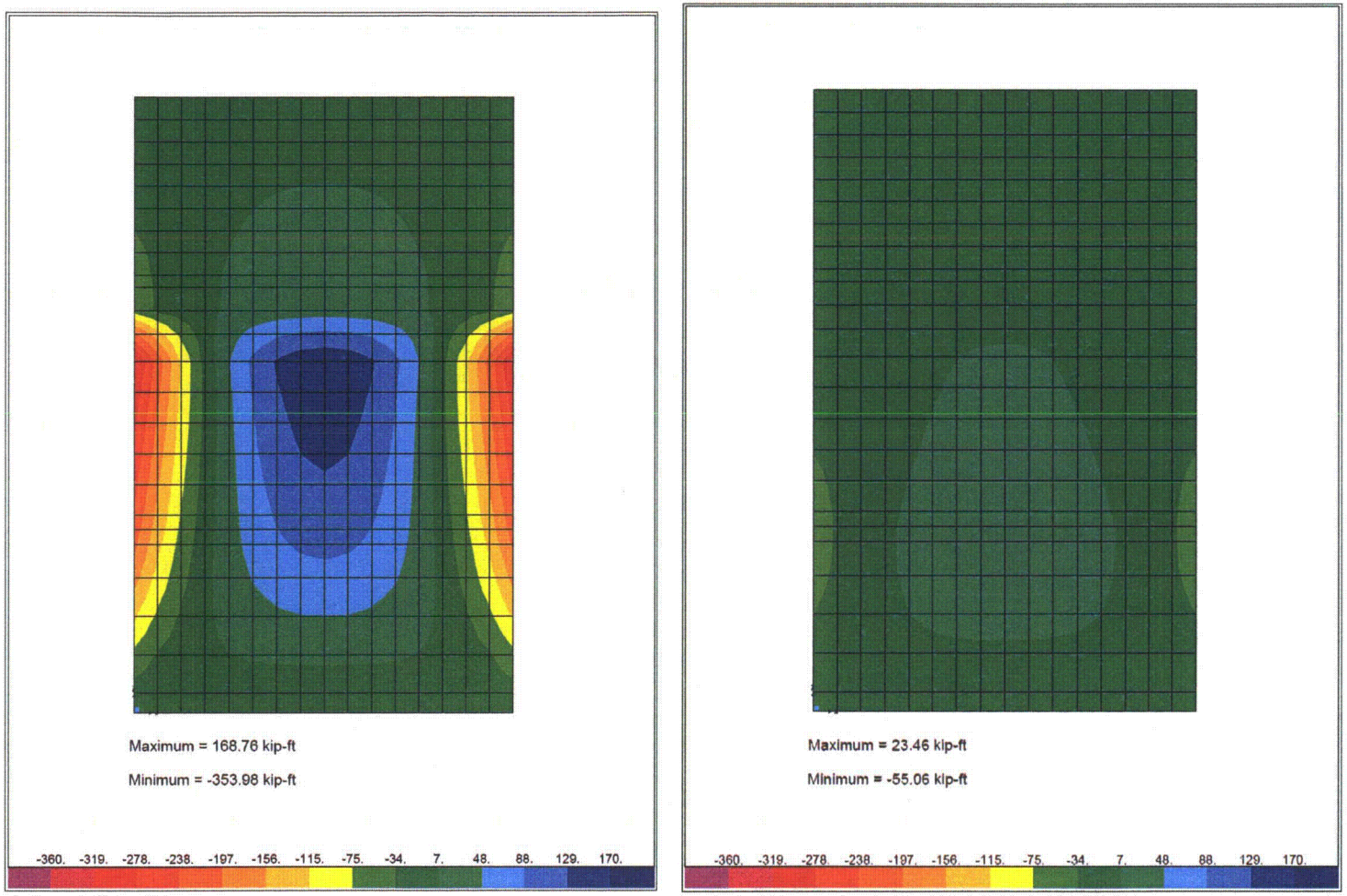


Figure 03.07.01-29 S1.206: Moment about Z-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure for Separated Soil Case (right) for Wall 2 of DGFOSV

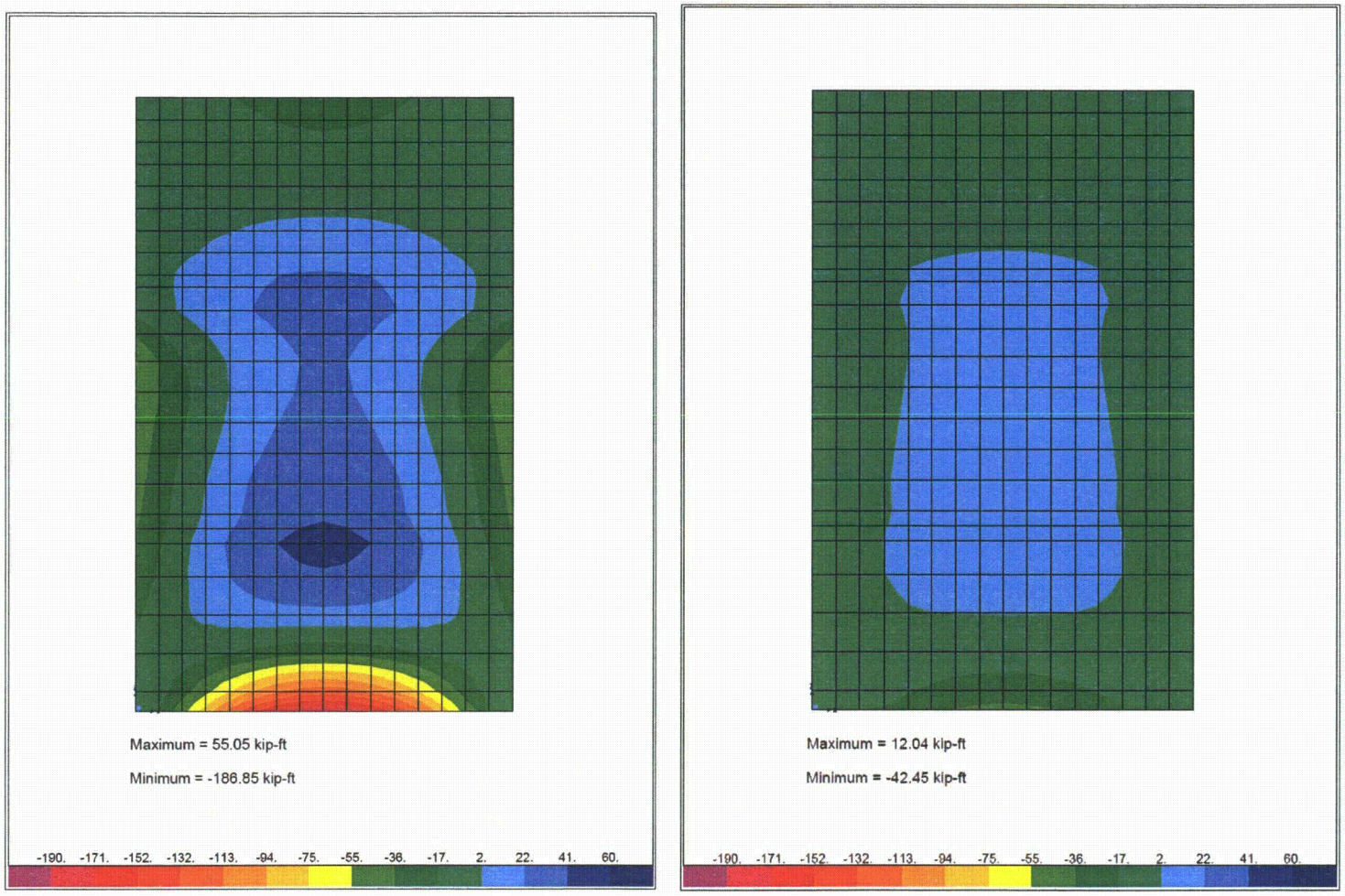


Figure 03.07.01-29 S1.207: Moment about X-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure Excluding Separated Soil Case (right) for Wall 2 of DGFOSV

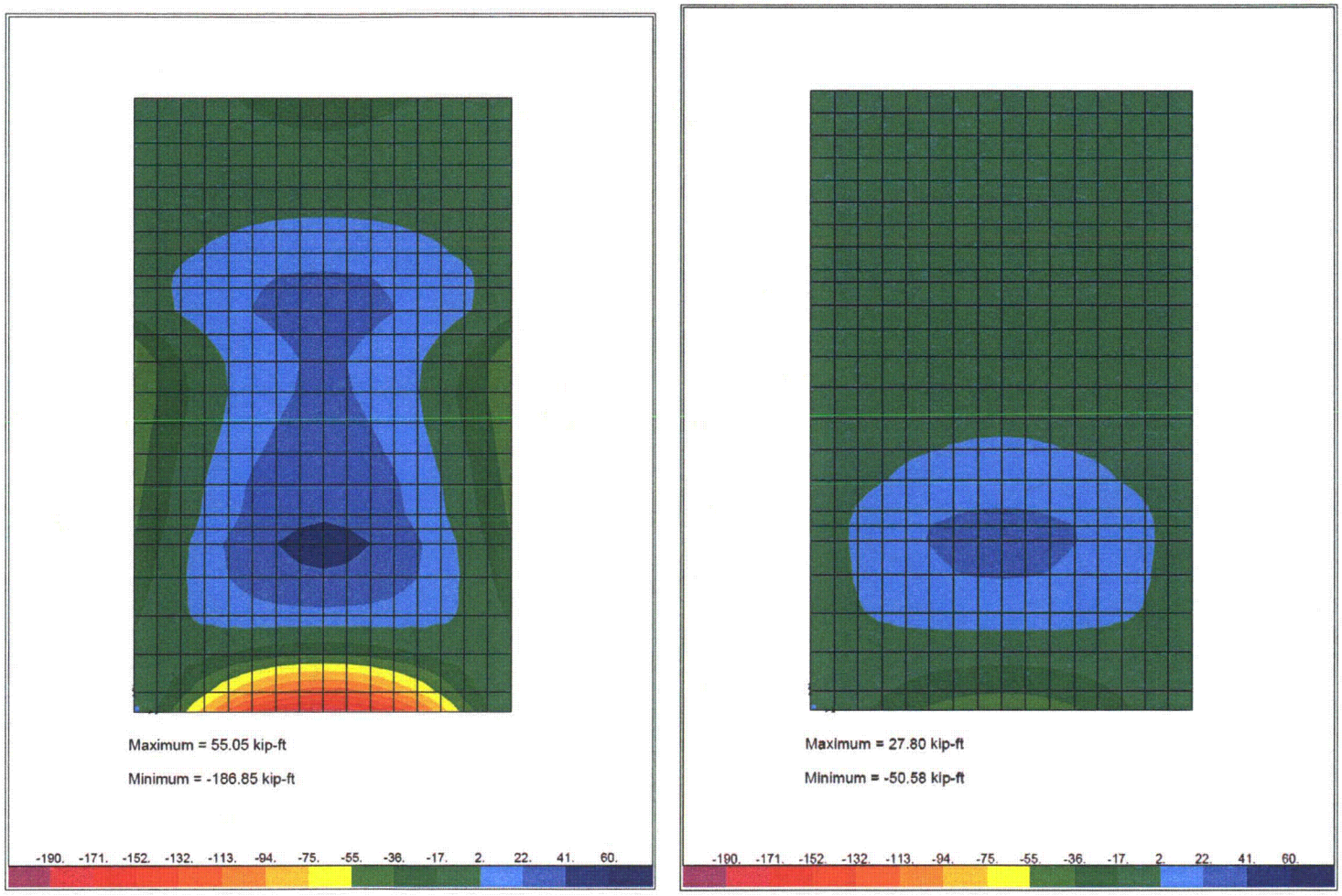


Figure 03.07.01-29 S1.208: Moment about X-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure for Separated Soil Case (right) for Wall 2 of DGFOSV

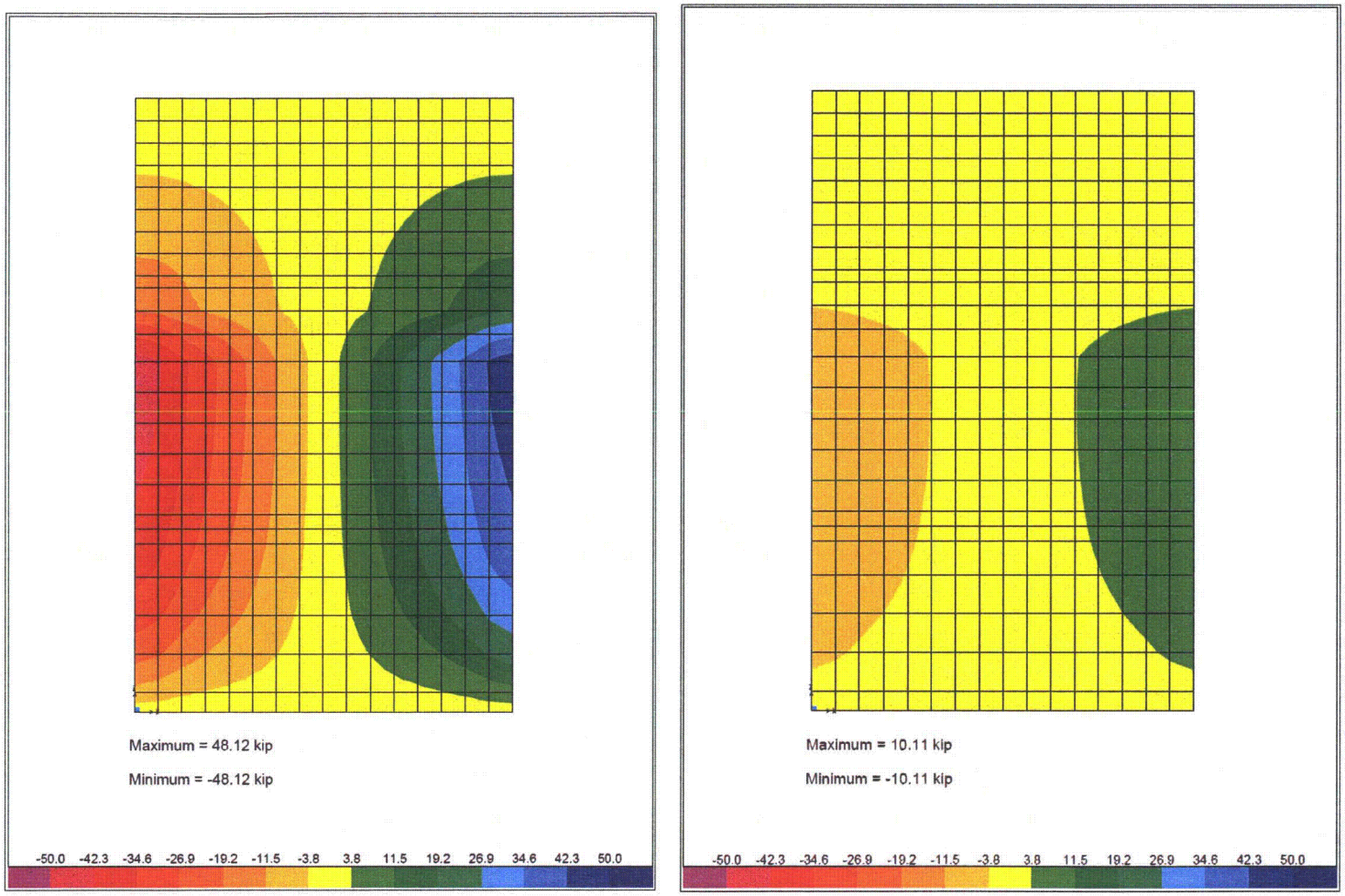


Figure 03.07.01-29 S1.209: Out-of-Plane Shear along Z-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure Excluding Separated Soil Case (right) for Wall 2 of DGFOSV

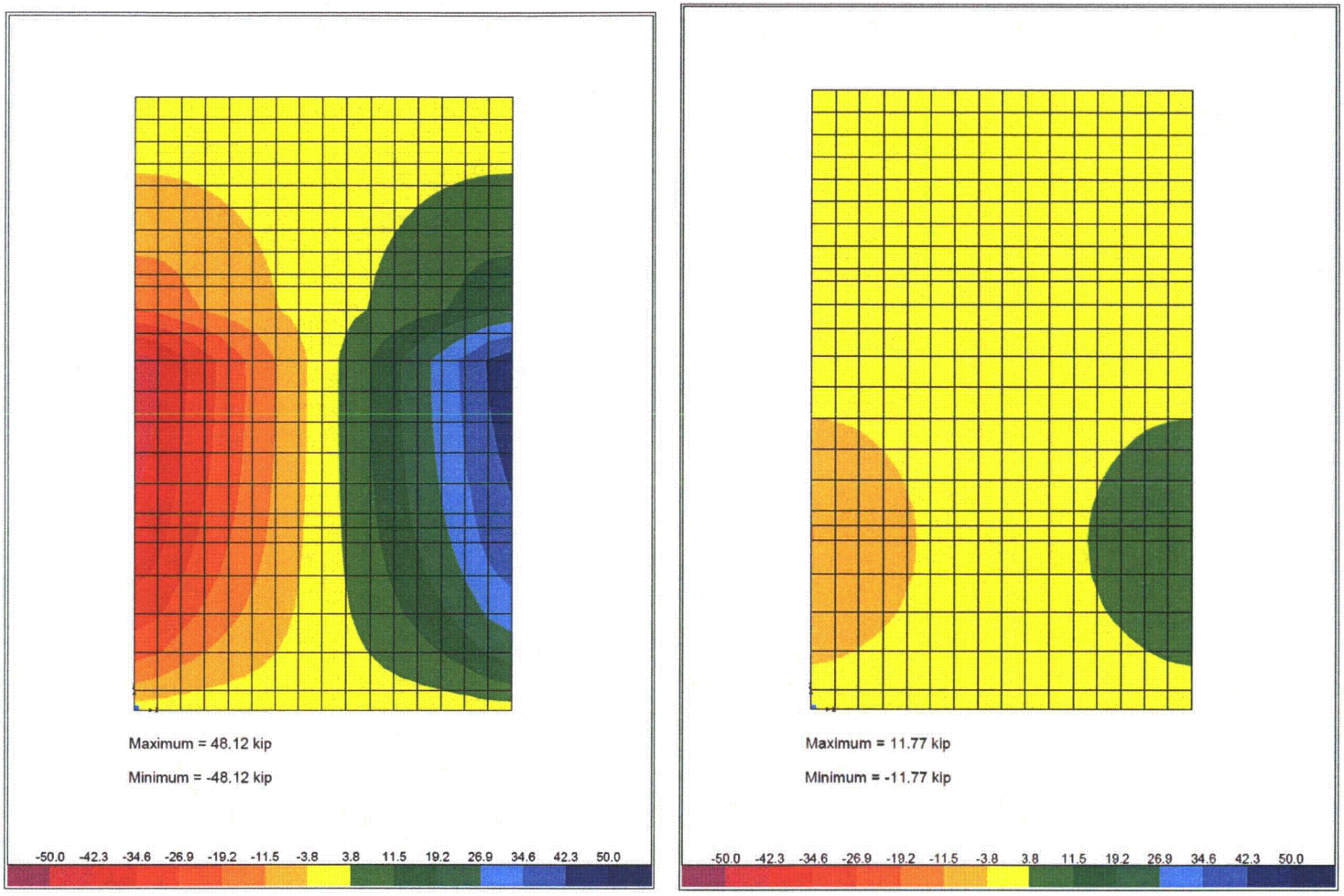


Figure 03.07.01-29 S1.210: Out-of-Plane Shear along Z-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure for Separated Soil Case (right) for Wall 2 of DGFOSV

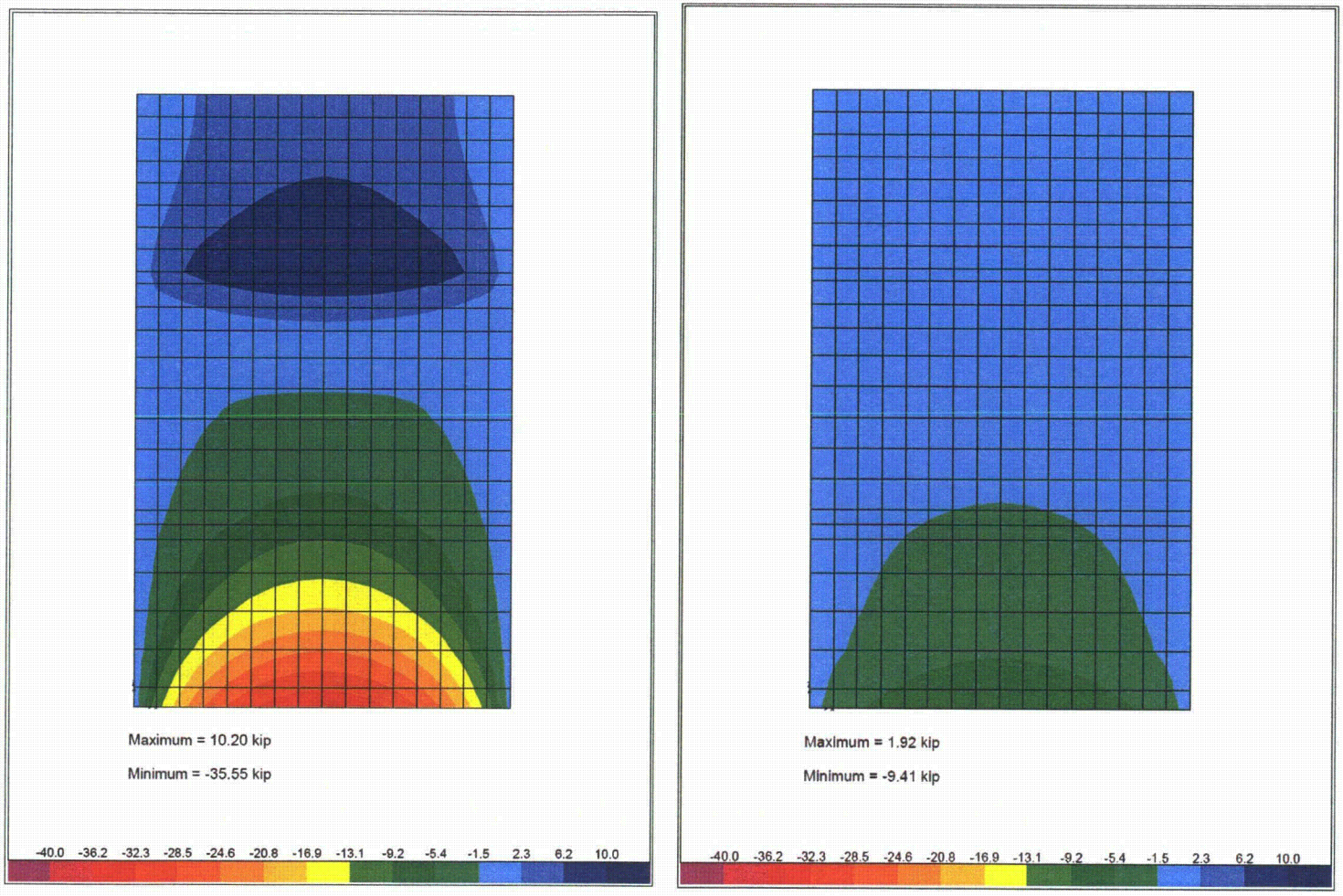


Figure 03.07.01-29 S1.211: Out-of-Plane Shear along X-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure Excluding Separated Soil Case (right) for Wall 2 of DGFOSV

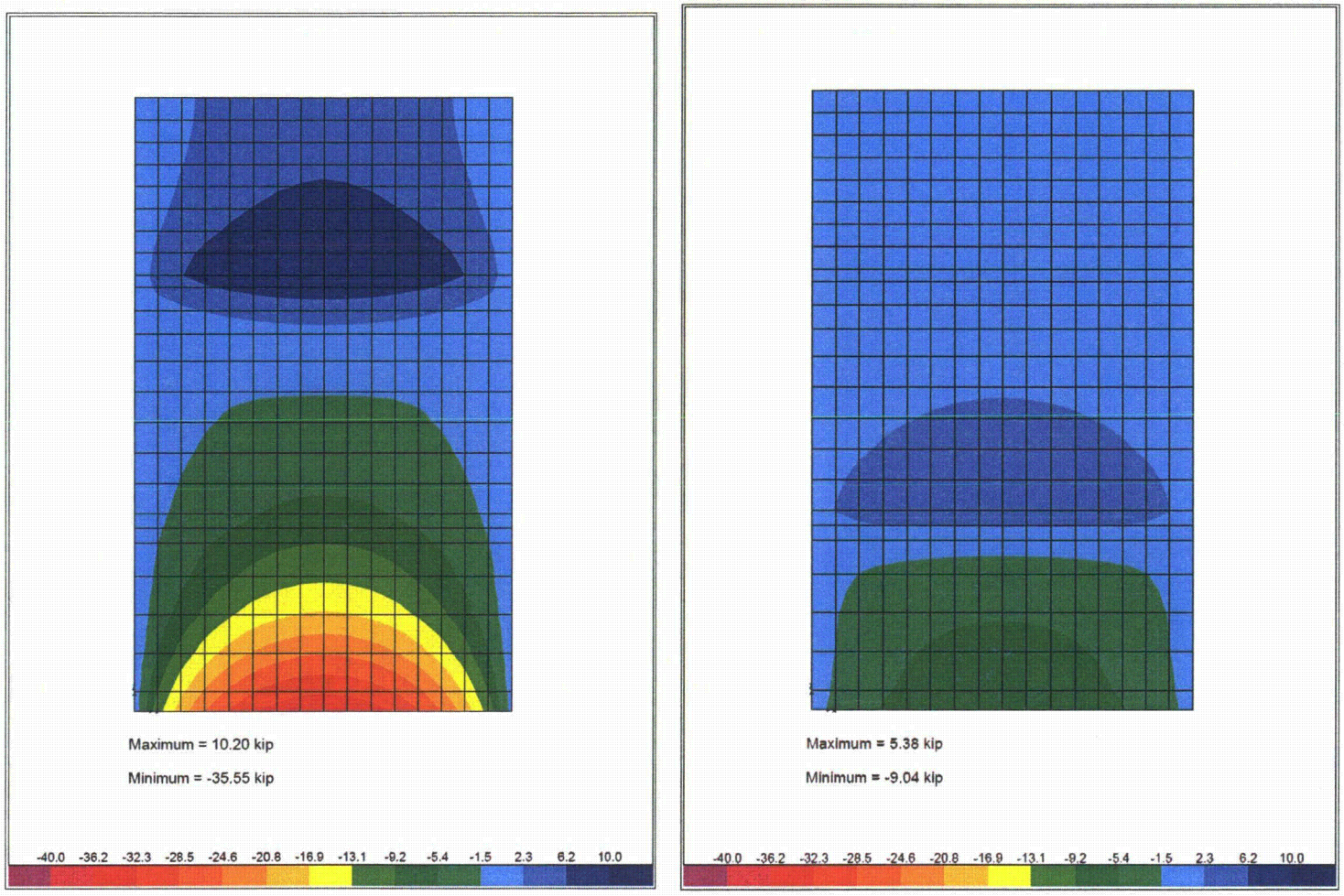


Figure 03.07.01-29 S1.212: Out-of-Plane Shear along X-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure for Separated Soil Case (right) for Wall 2 of DGFOSV

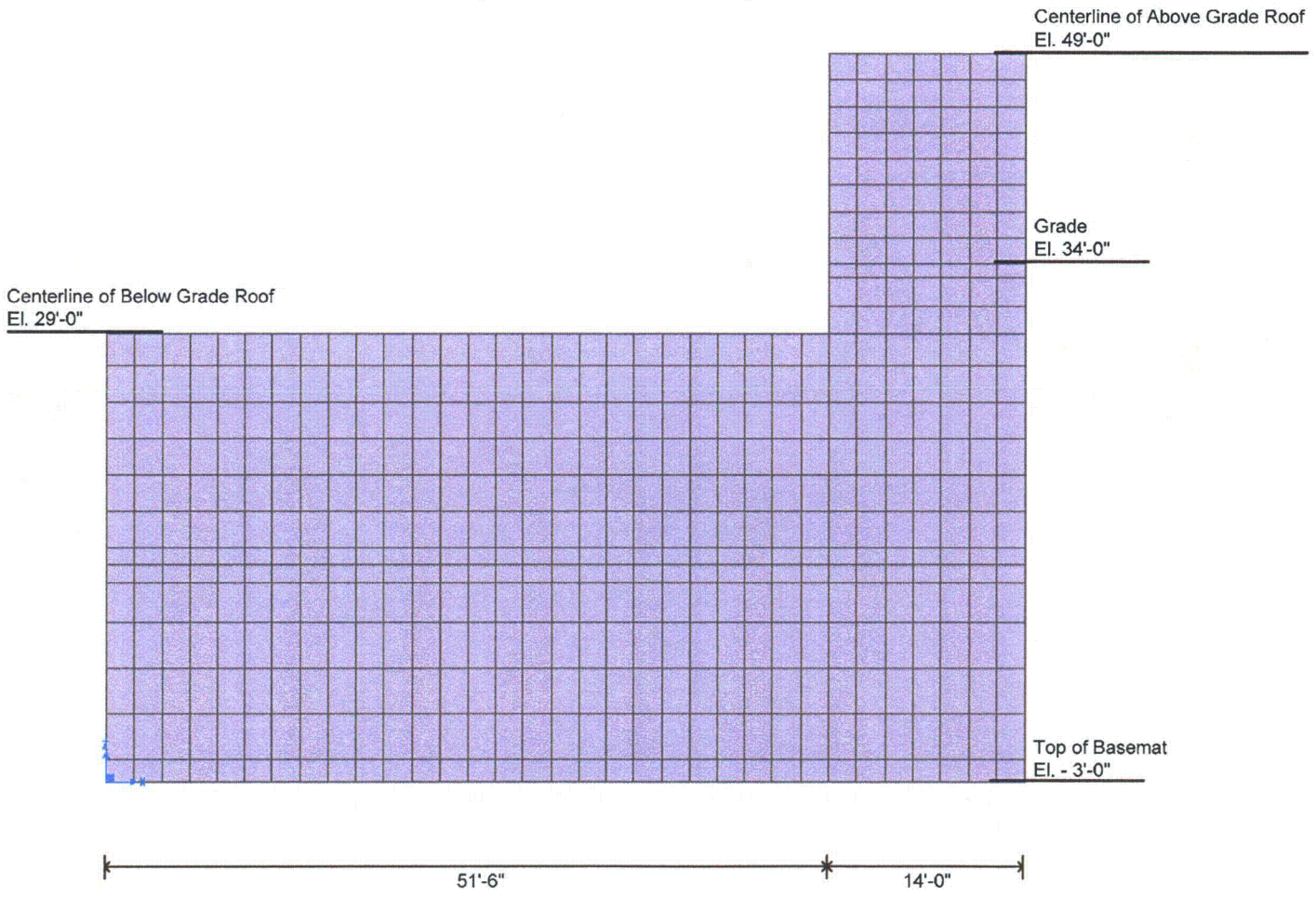


Figure 03.07.01-29 S1.213: SAP2000 Model of Wall 3 of DGFOSV

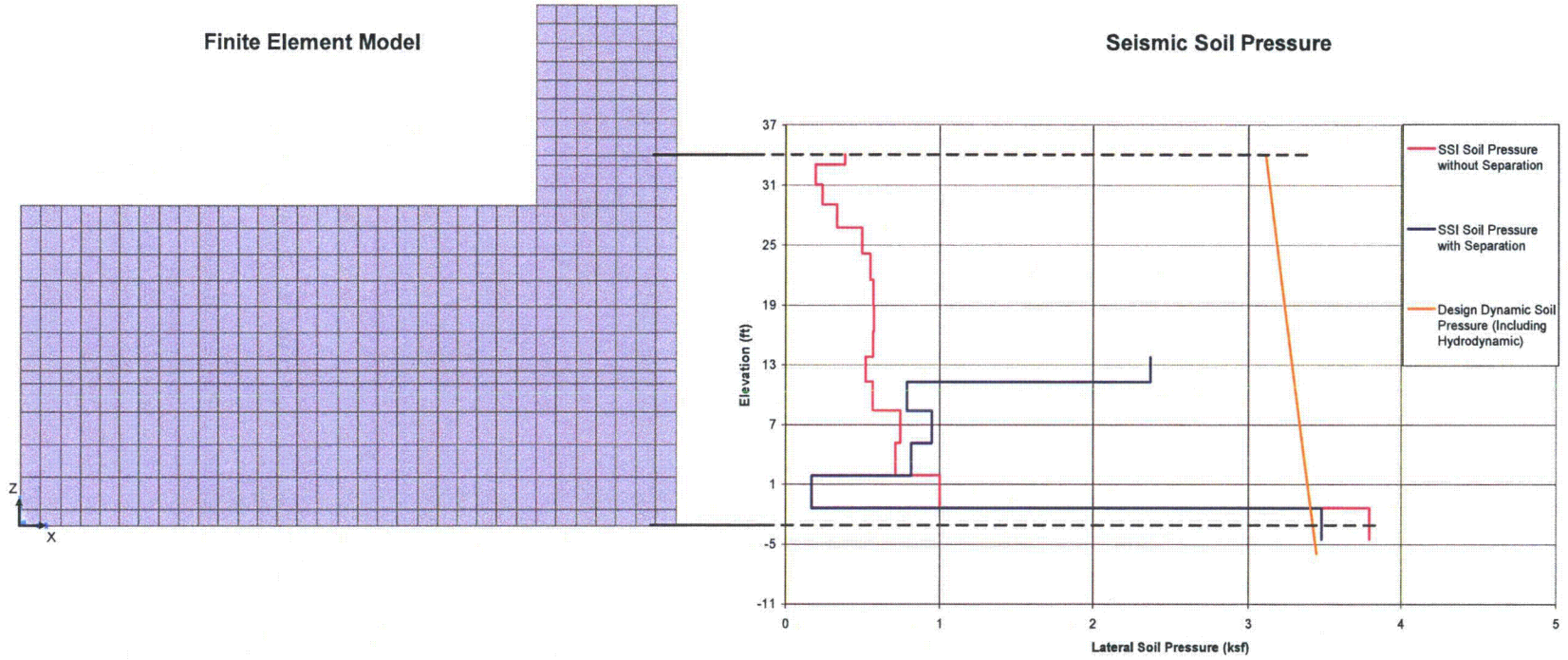


Figure 03.07.01-29 S1.214: Application of Soil Loads on SAP2000 Model of Wall 3 of DGFOSV

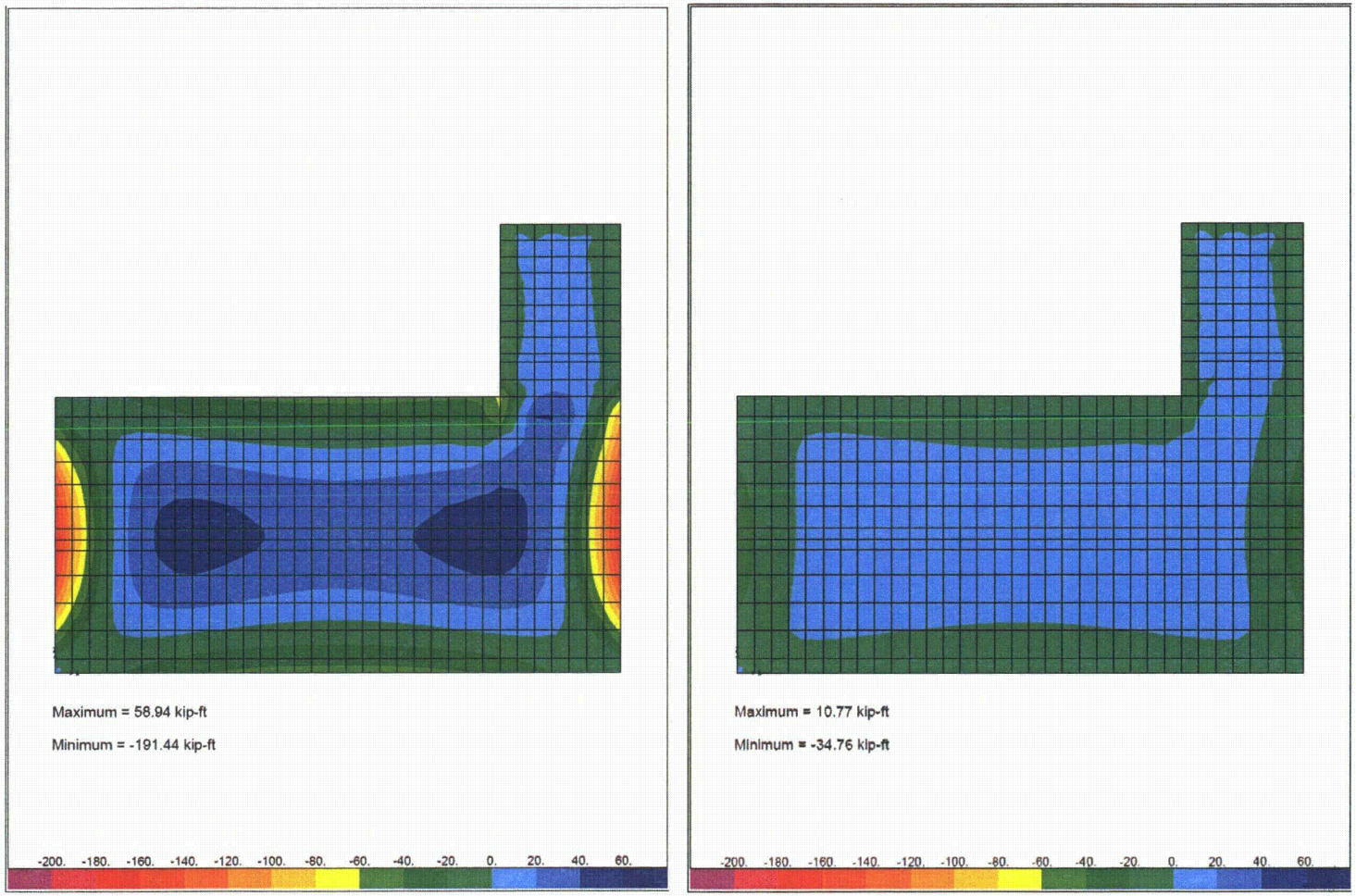


Figure 03.07.01-29 S1.215: Moment about Z-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure Excluding Separated Soil Case (right) for Wall 3 of DGFOSV

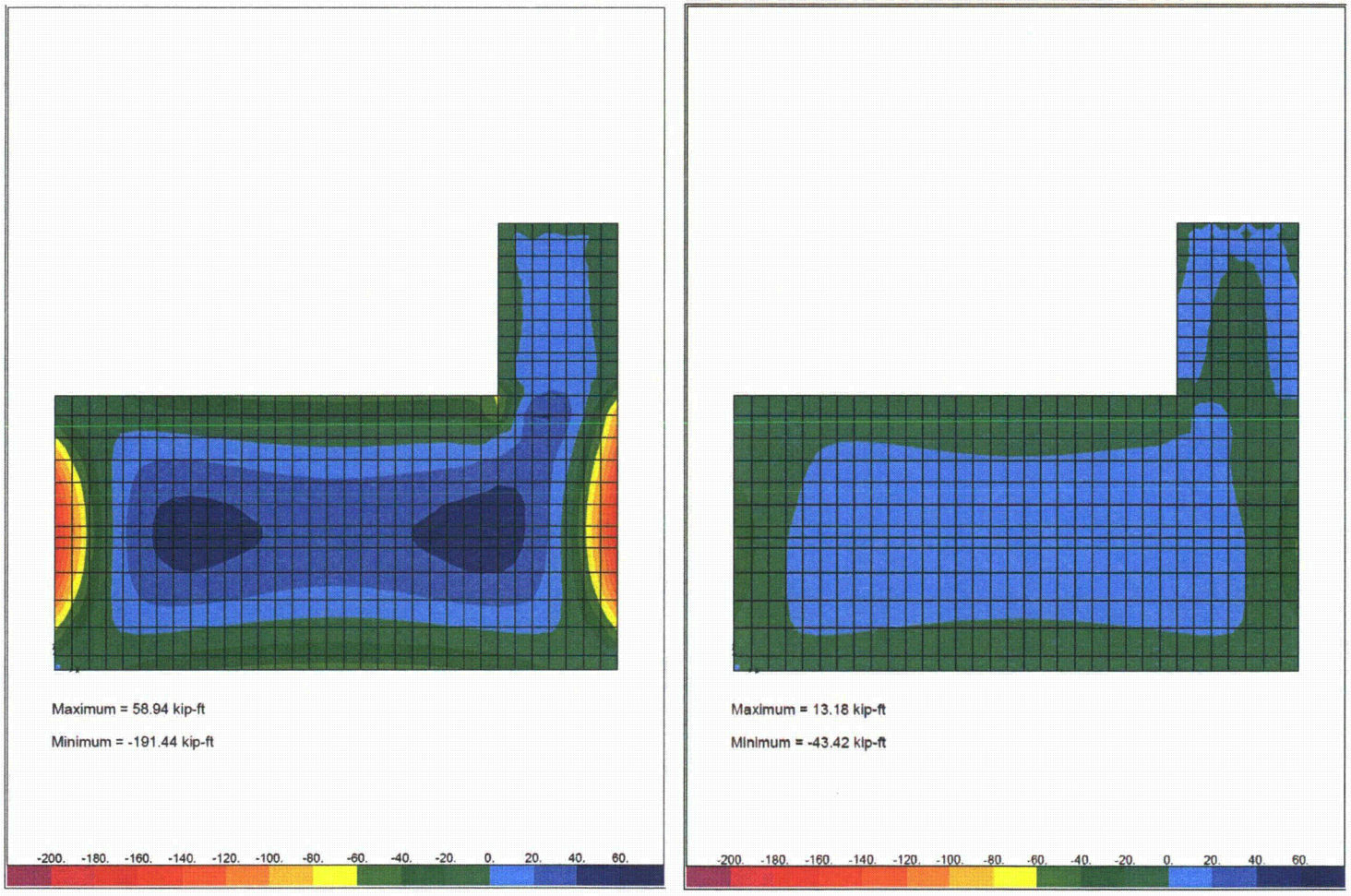


Figure 03.07.01-29 S1.216: Moment about Z-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure for Separated Soil Case (right) for Wall 3 of DGFOSV

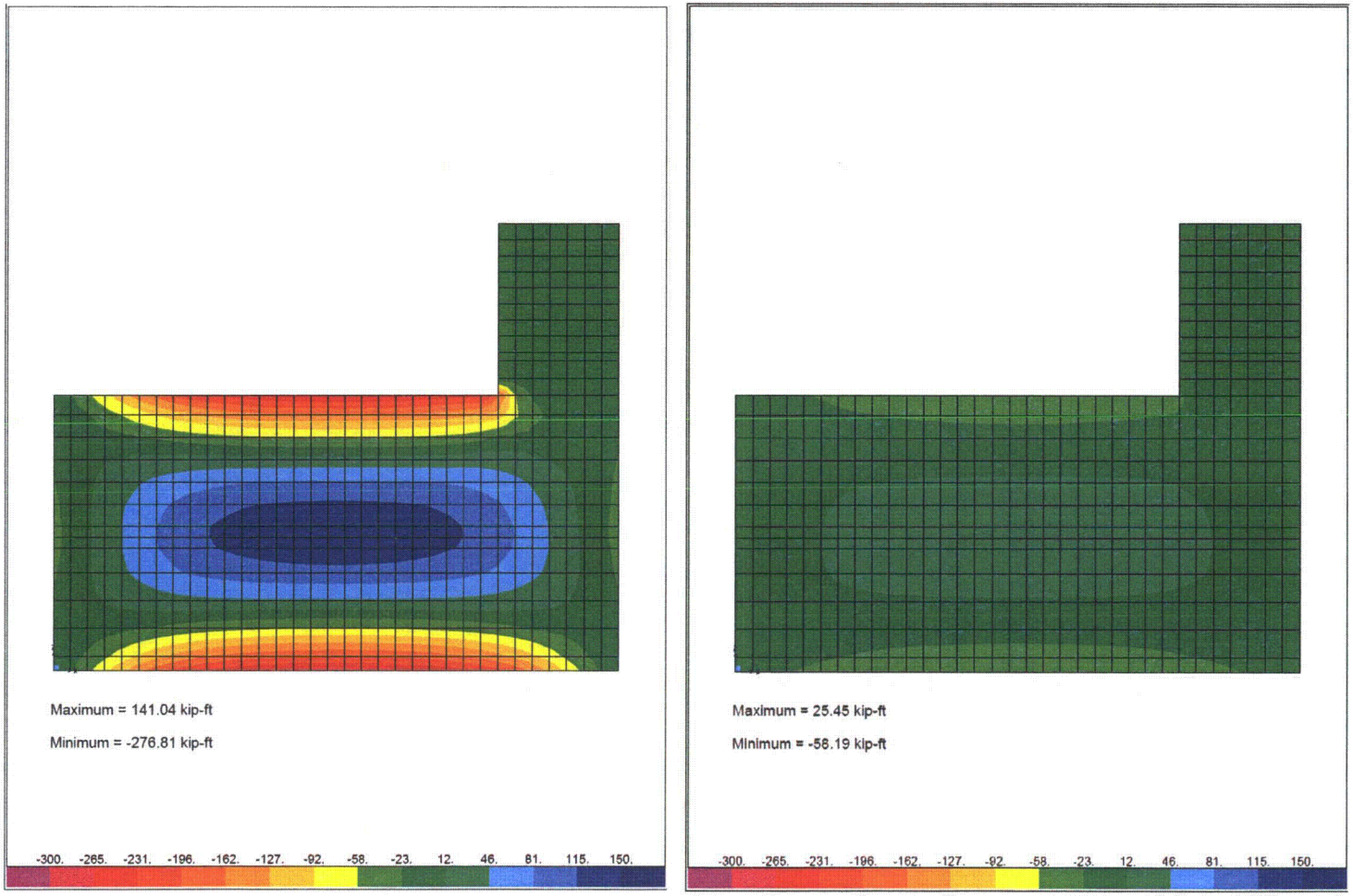


Figure 03.07.01-29 S1.217: Moment about X-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure Excluding Separated Soil Case (right) for Wall 3 of DGFOSV

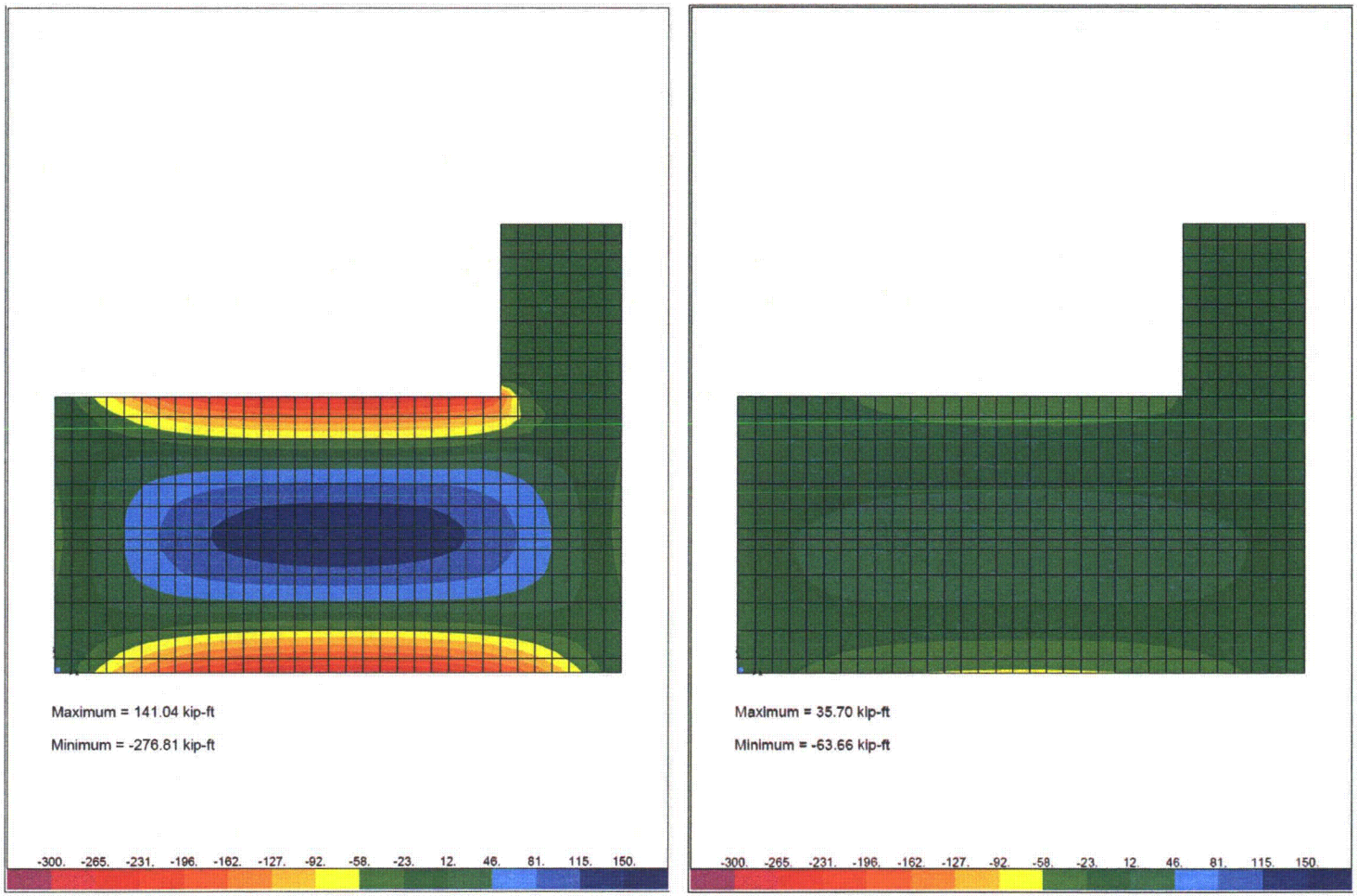


Figure 03.07.01-29 S1.218: Moment about X-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure for Separated Soil Case (right) for Wall 3 of DGFOSV

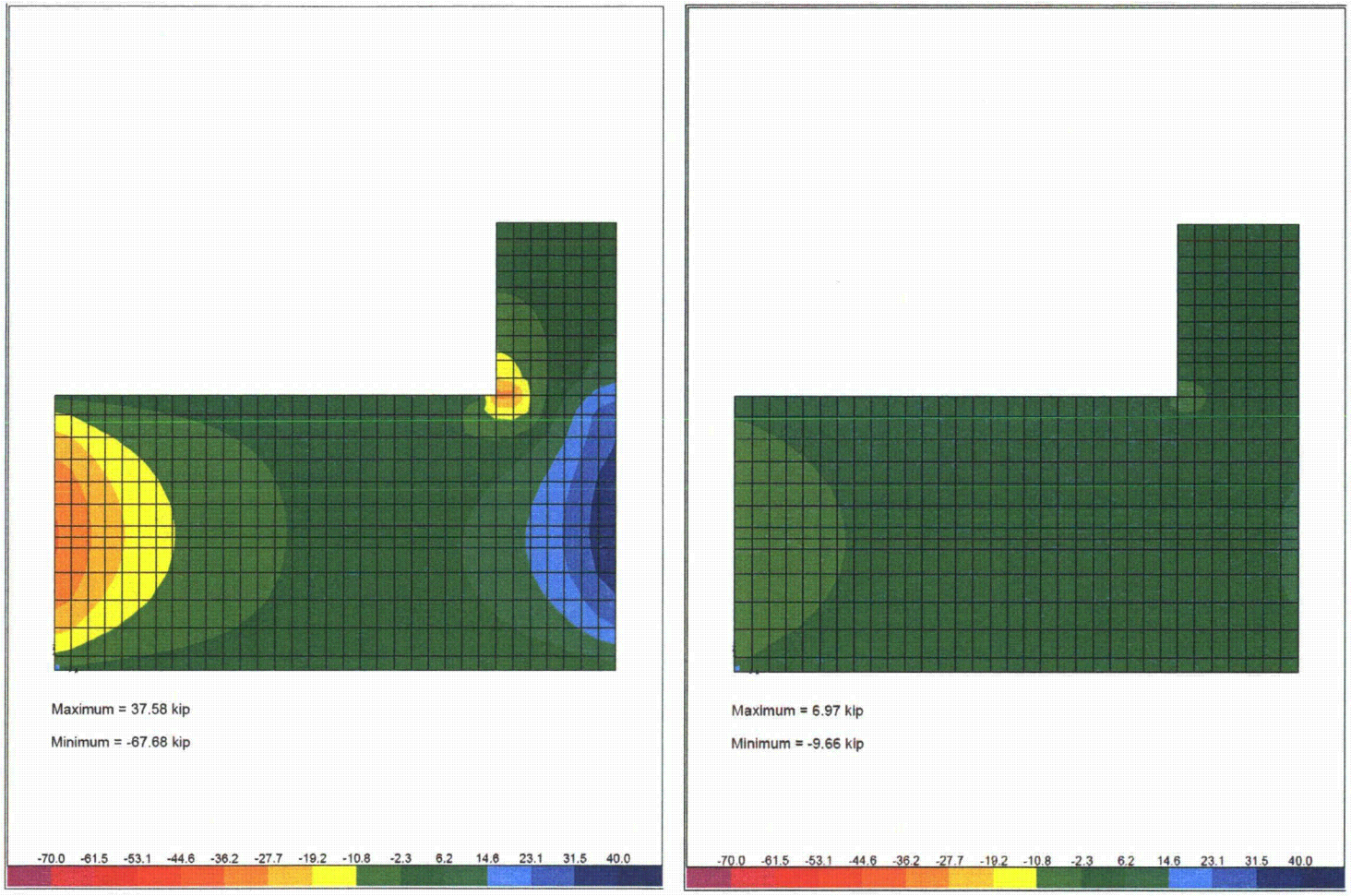


Figure 03.07.01-29 S1.219: Out-of-Plane Shear along Z-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure Excluding Separated Soil Case (right) for Wall 3 of DGFOSV

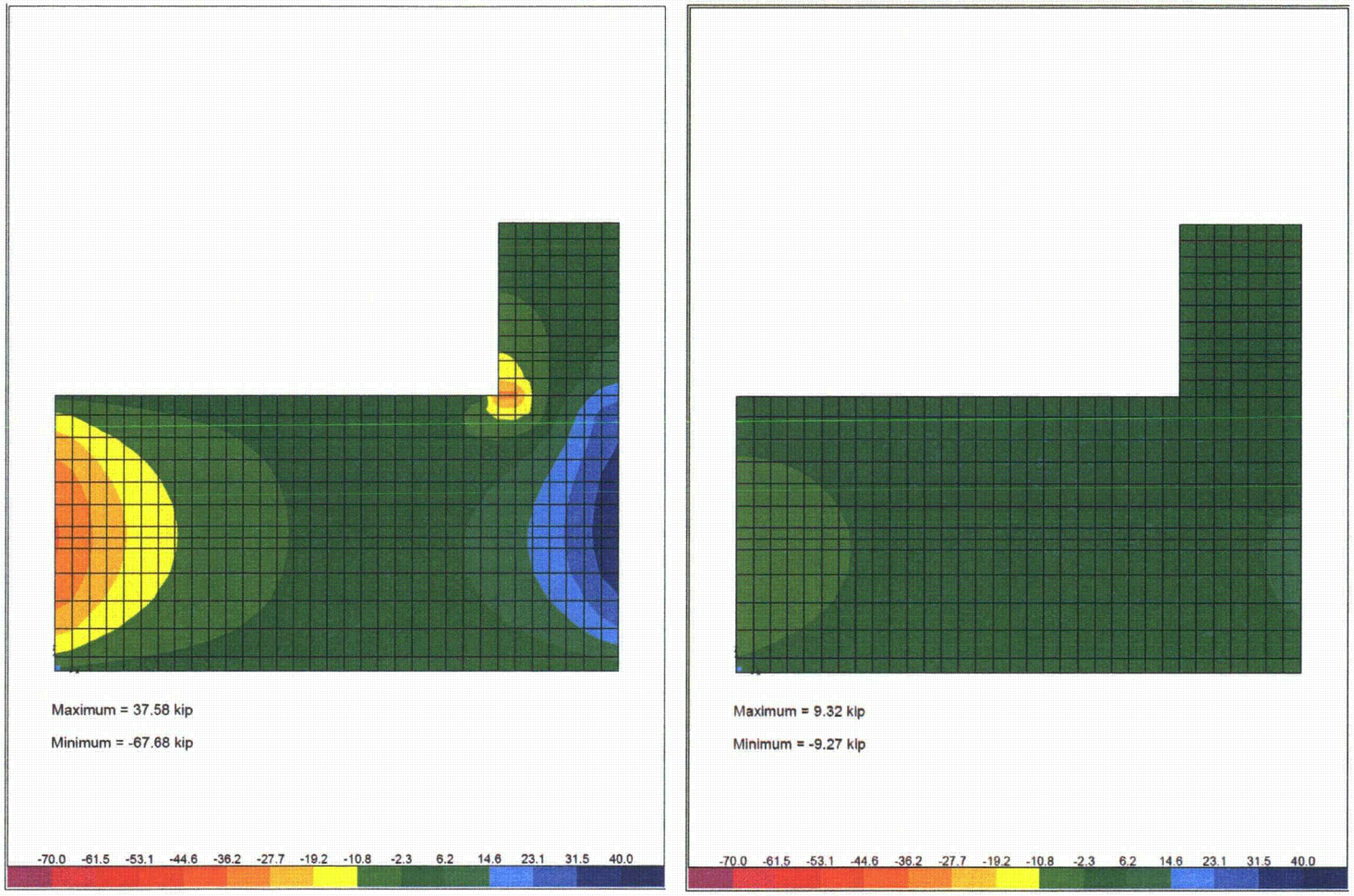


Figure 03.07.01-29 S1.220: Out-of-Plane Shear along Z-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure for Separated Soil Case (right) for Wall 3 of DGFOSV

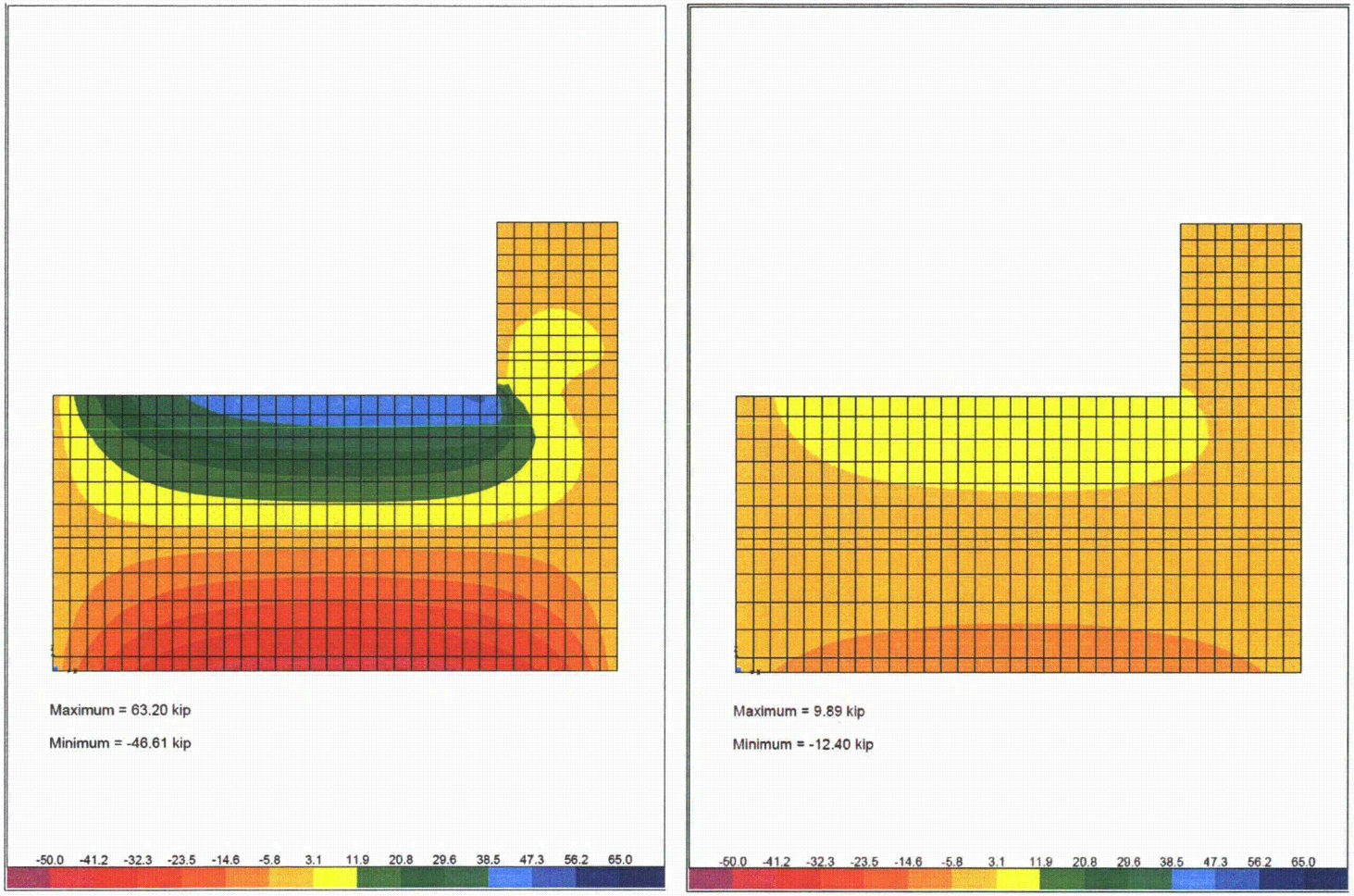


Figure 03.07.01-29 S1.221: Out-of-Plane Shear along X-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure Excluding Separated Soil Case (right) for Wall 3 of DGFOSV

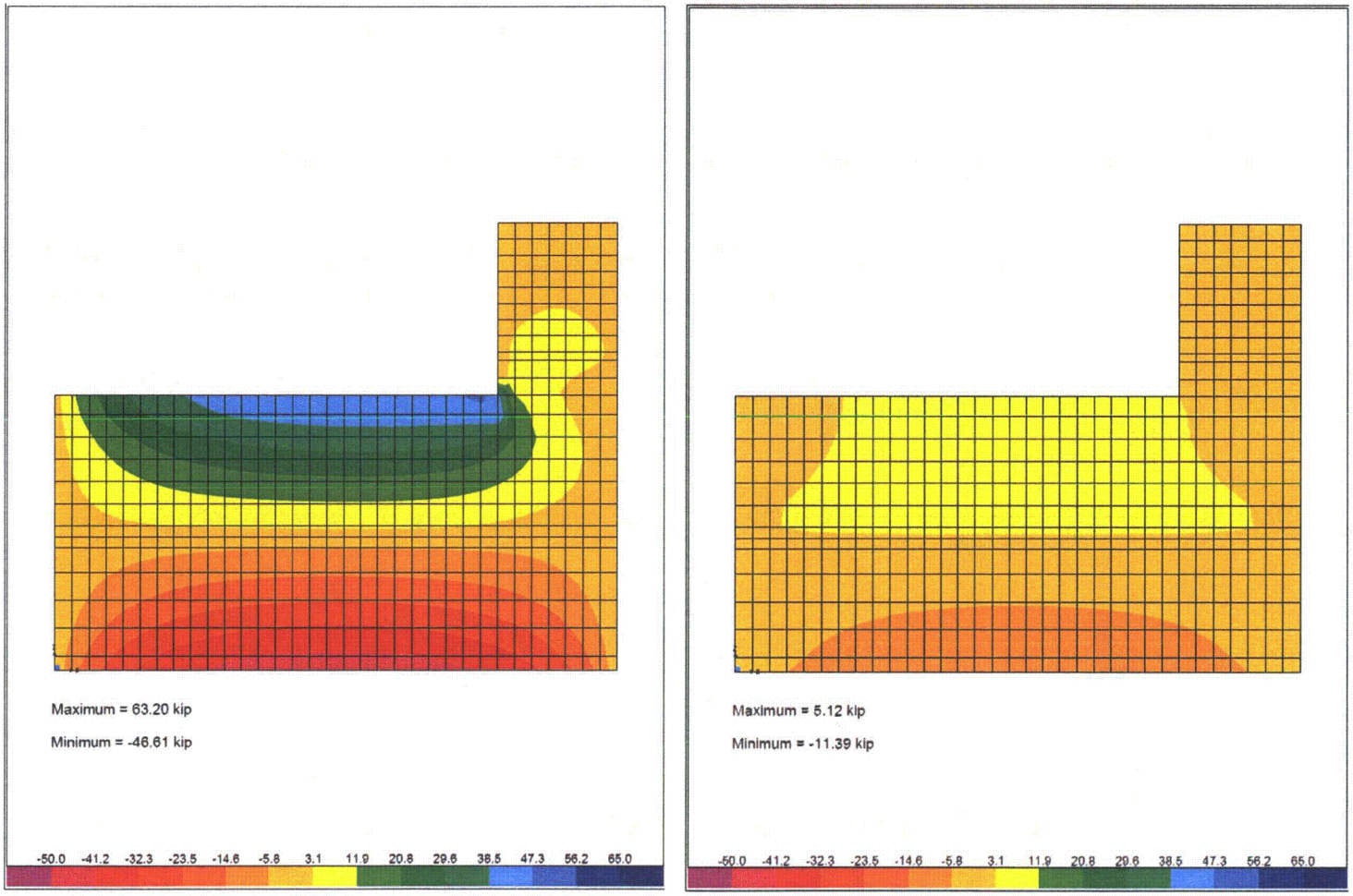


Figure 03.07.01-29 S1.222: Out-of-Plane Shear along X-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure for Separated Soil Case (right) for Wall 3 of DGFOSV

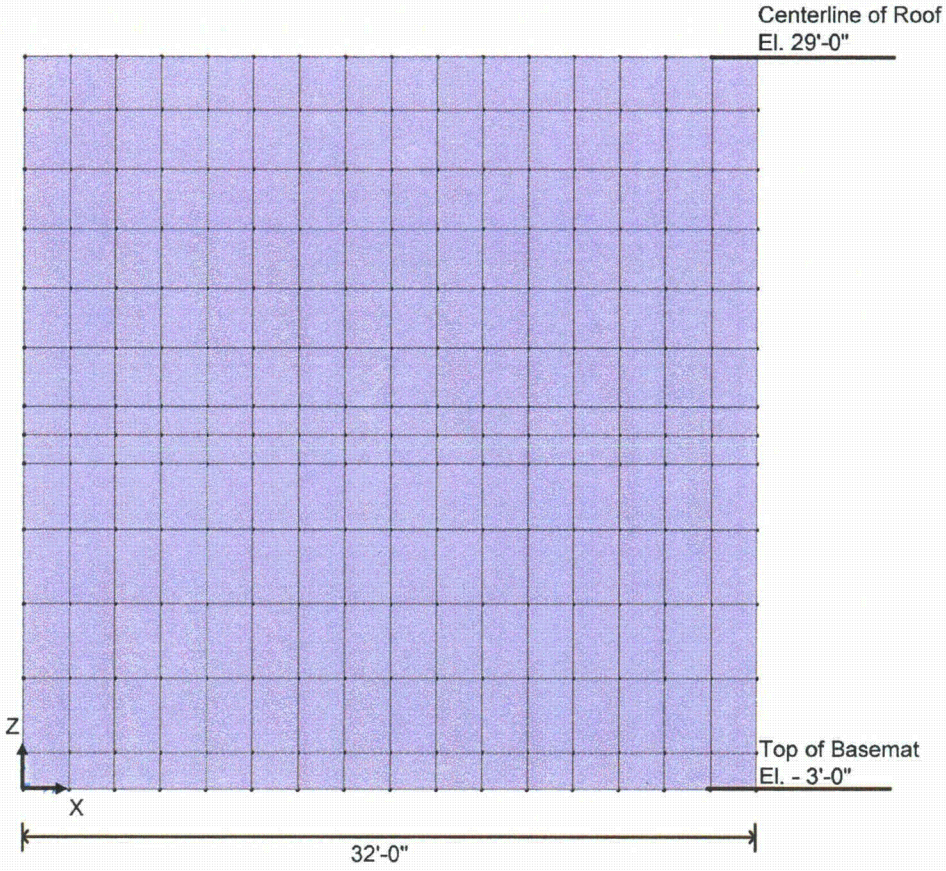


Figure 03.07.01-29 S1.223: SAP2000 Model of Wall 4 of DGFOSV

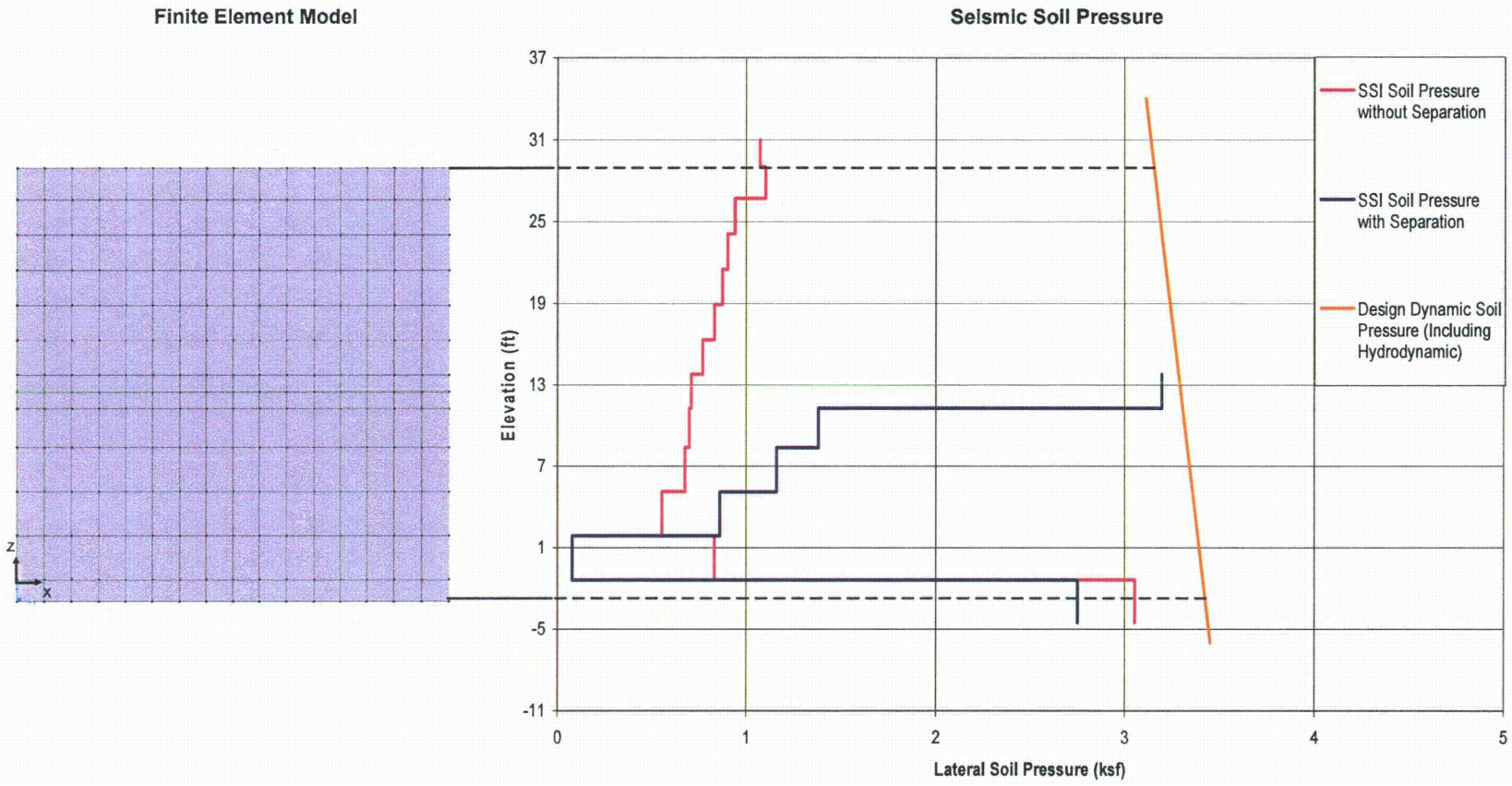


Figure 03.07.01-29 S1.224: Application of Soil Loads on SAP2000 Model of Wall 4 of DGFOSV

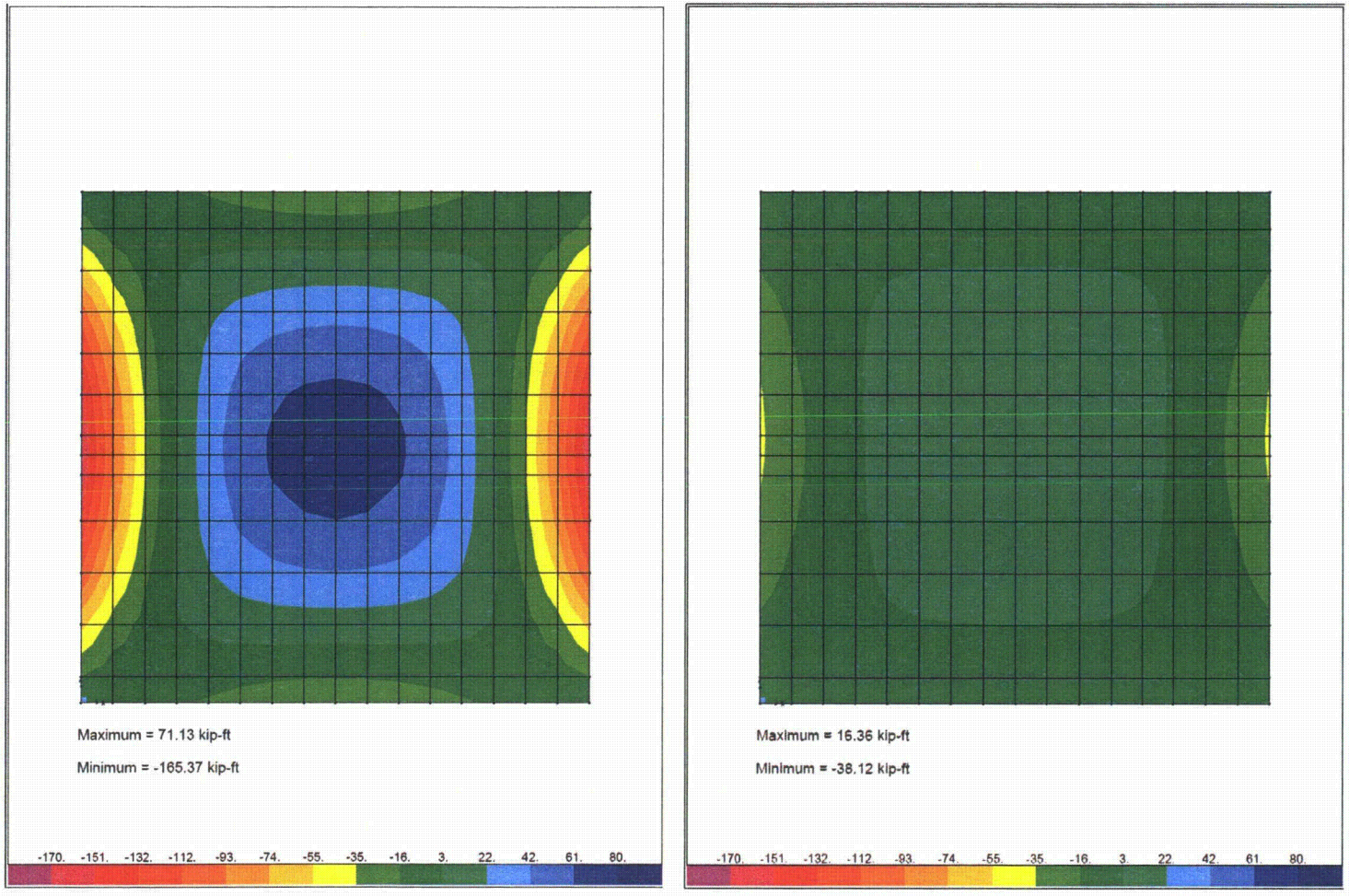


Figure 03.07.01-29 S1.225: Moment about Z-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure Excluding Separated Soil Case (right) for Wall 4 of DGFOSV

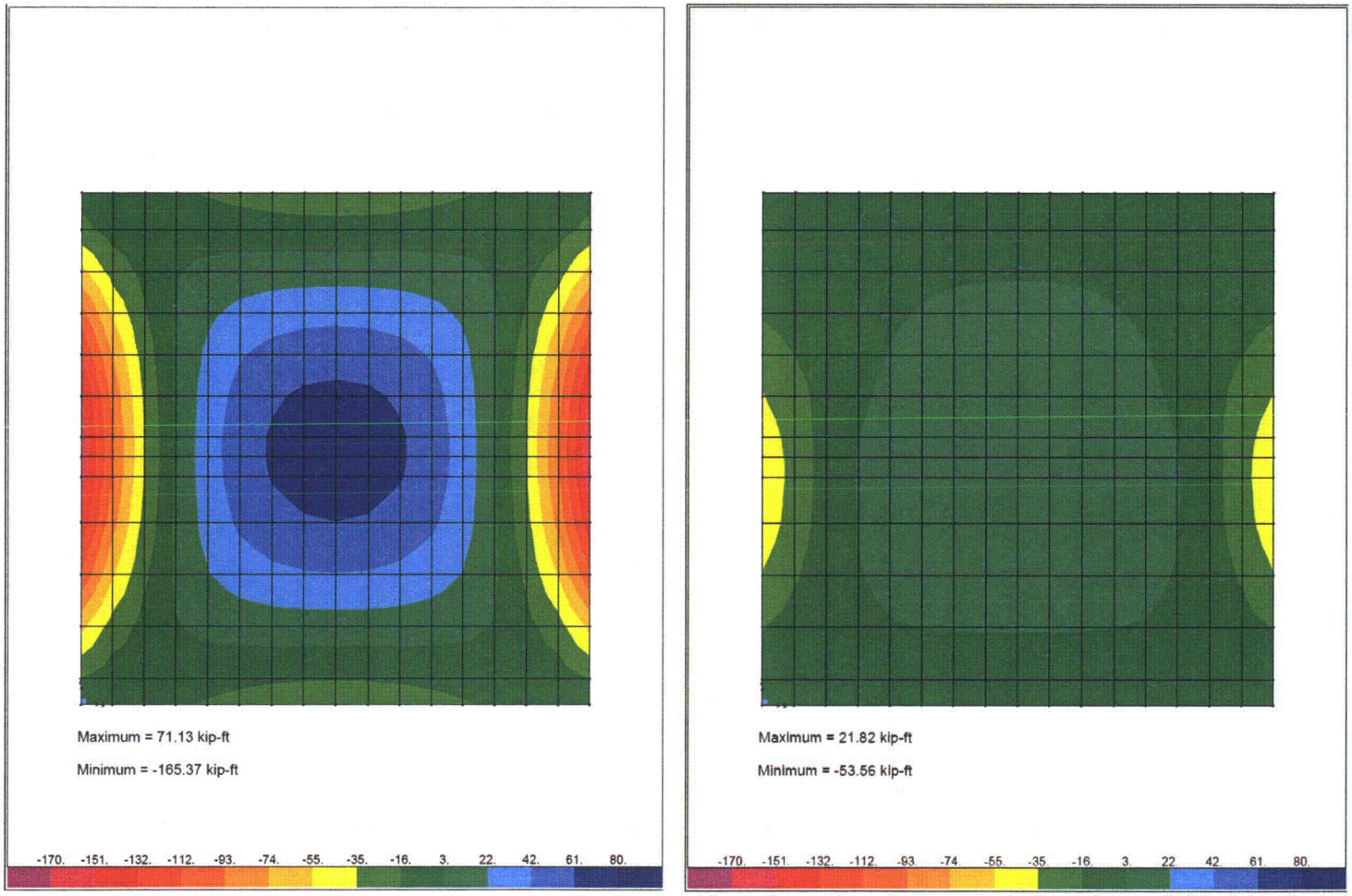


Figure 03.07.01-29 S1.226: Moment about Z-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure for Separated Soil Case (right) for Wall 4 of DGFOSV

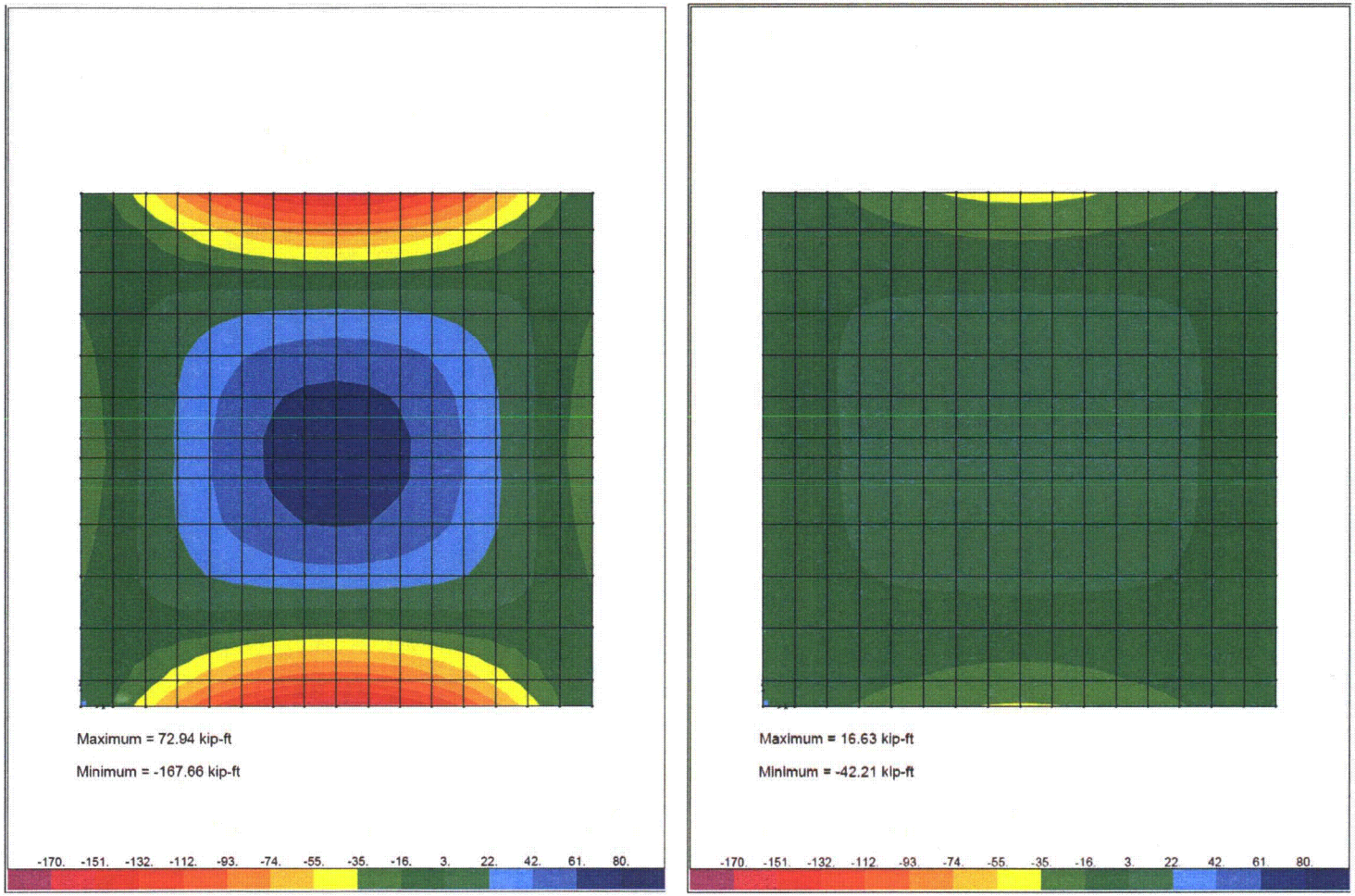


Figure 03.07.01-29 S1.227: Moment about X-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure Excluding Separated Soil Case (right) for Wall 4 of DGFOSV

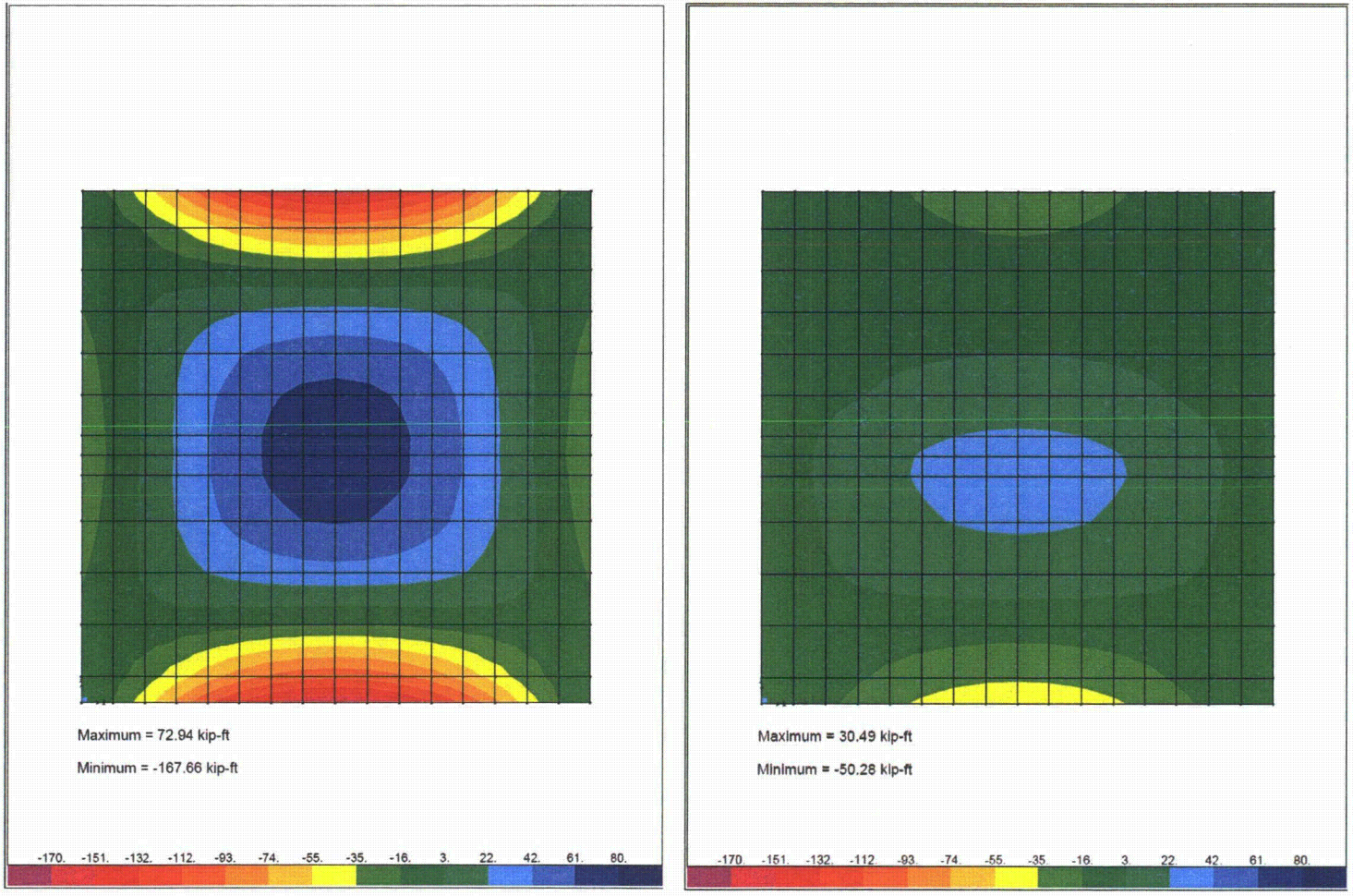


Figure 03.07.01-29 S1.228: Moment about X-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure for Separated Soil Case (right) for Wall 4 of DGFOSV

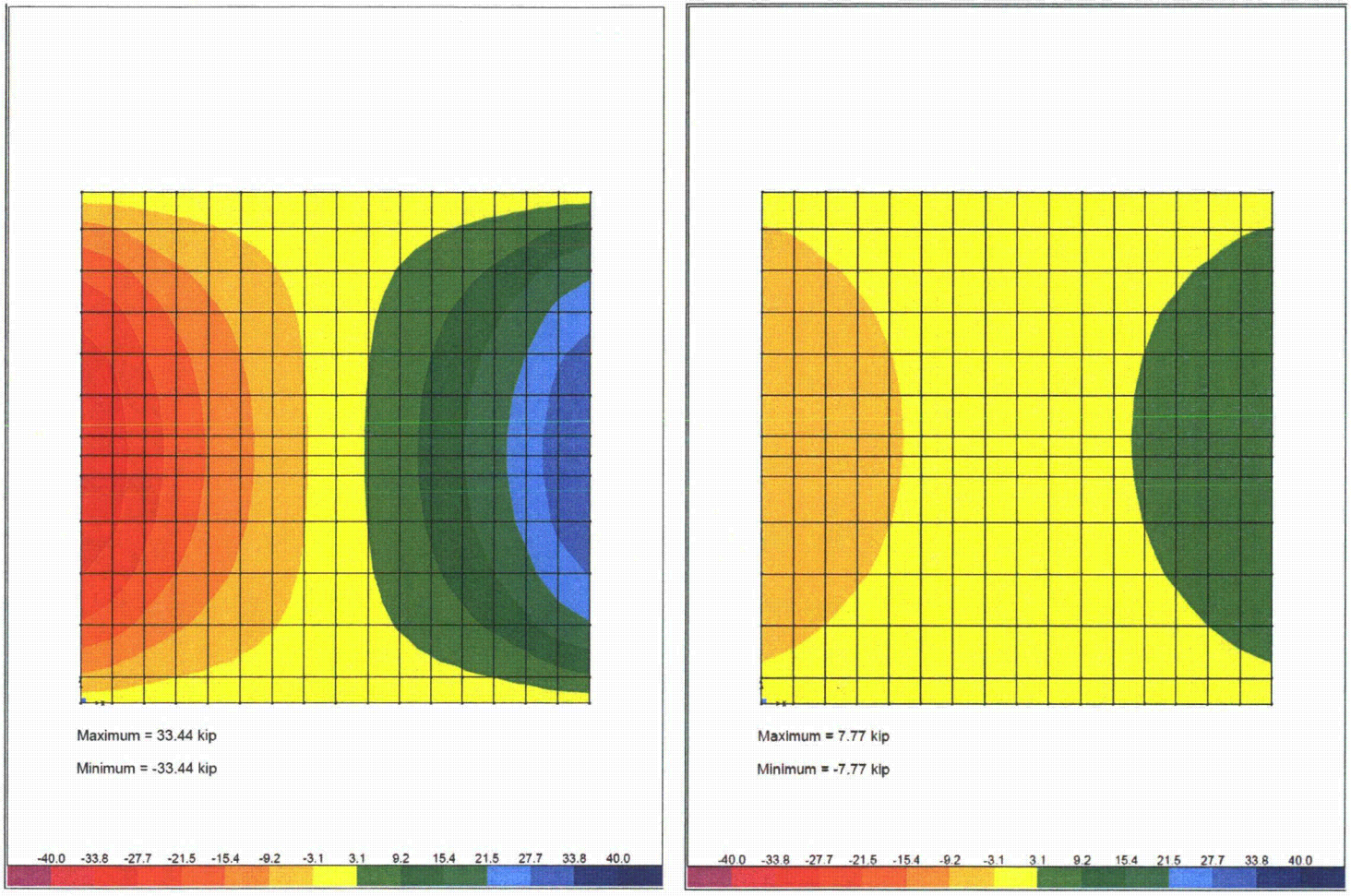


Figure 03.07.01-29 S1.229: Out-of-Plane Shear along Z-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure Excluding Separated Soil Case (right) for Wall 4 of DGFOSV

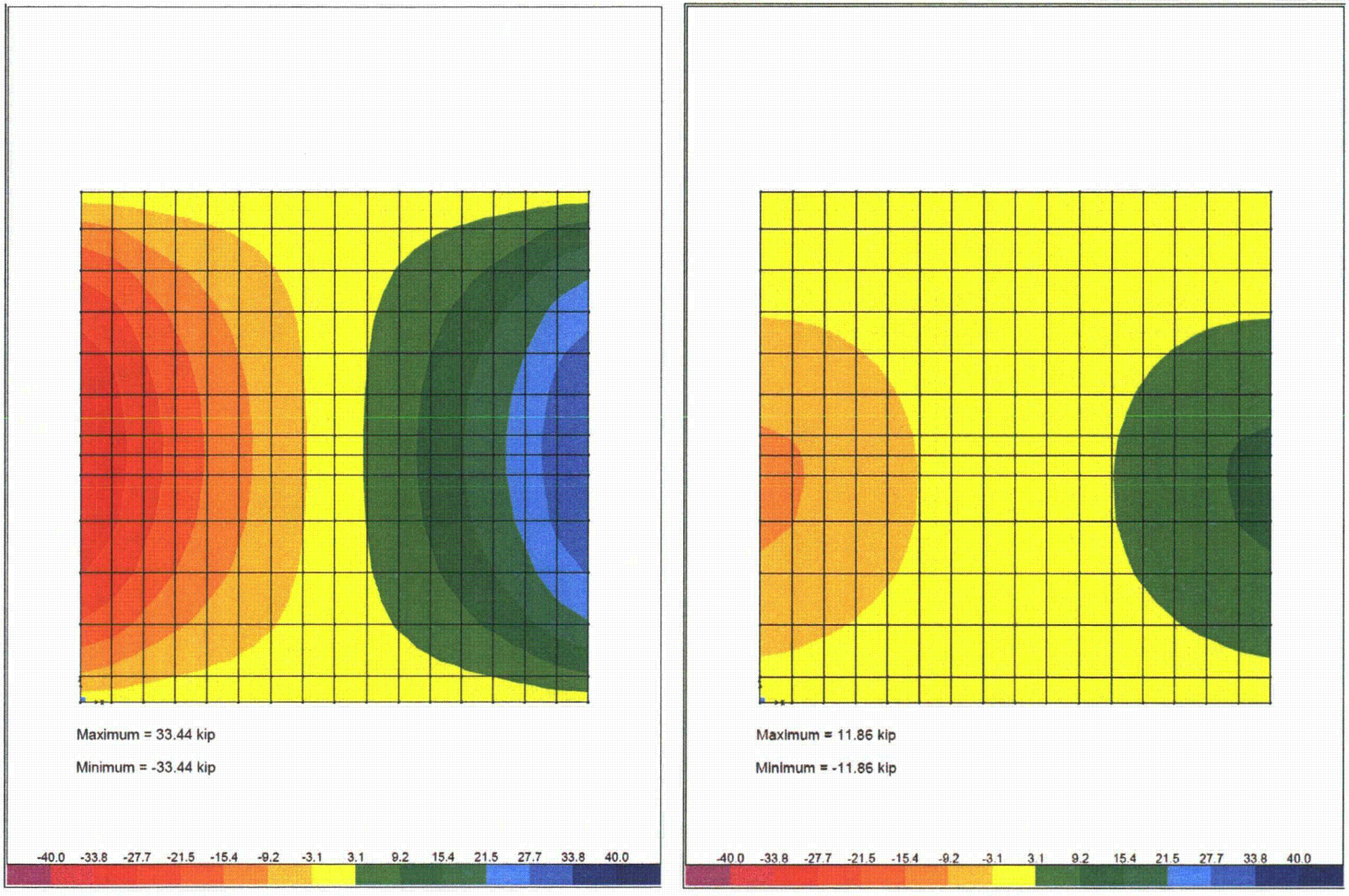


Figure 03.07.01-29 S1.230: Out-of-Plane Shear along Z-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure for Separated Soil Case (right) for Wall 4 of DGFOSV

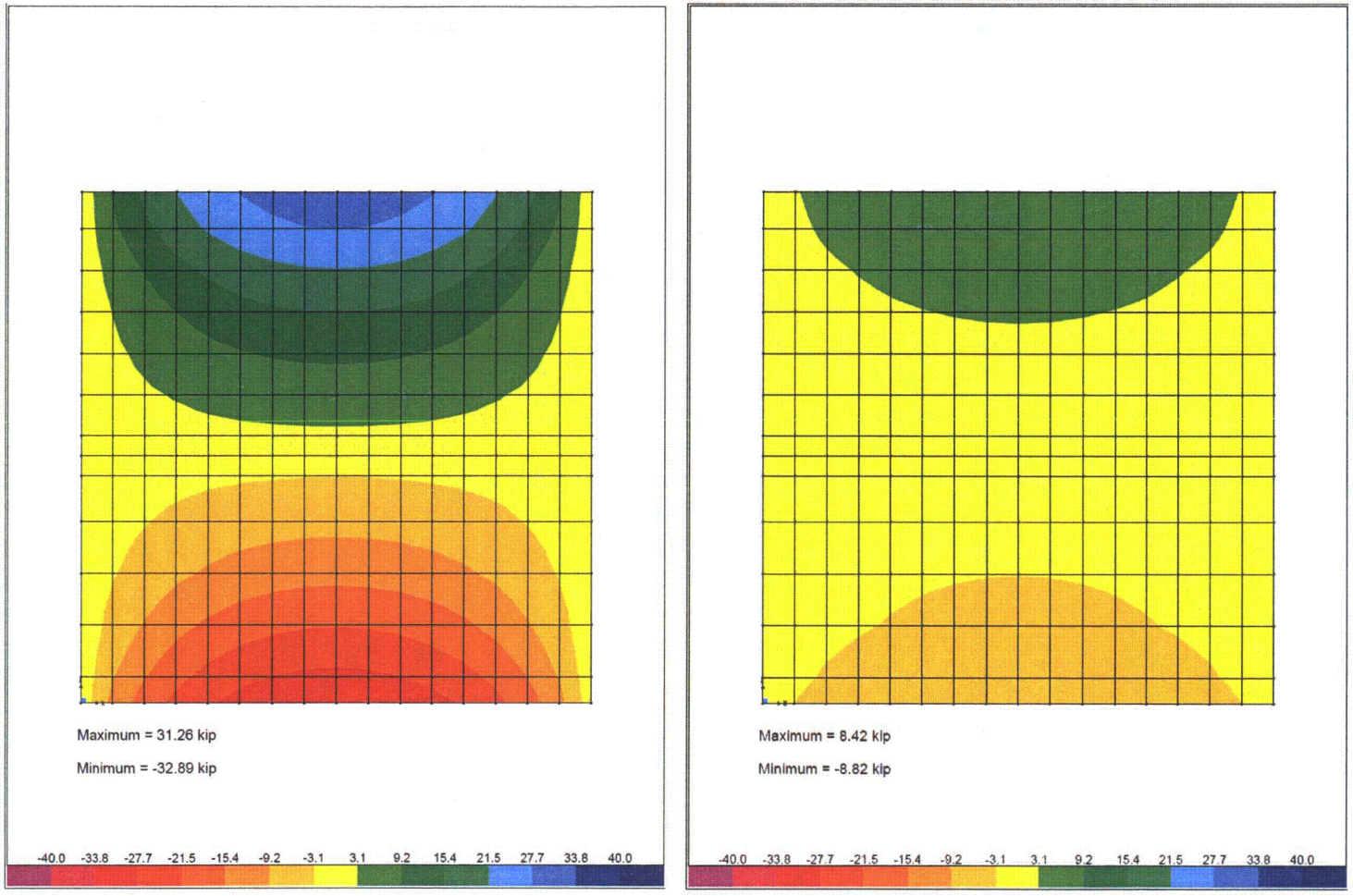


Figure 03.07.01-29 S1.231: Out-of-Plane Shear along X-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure Excluding Separated Soil Case (right) for Wall 4 of DGFOSV

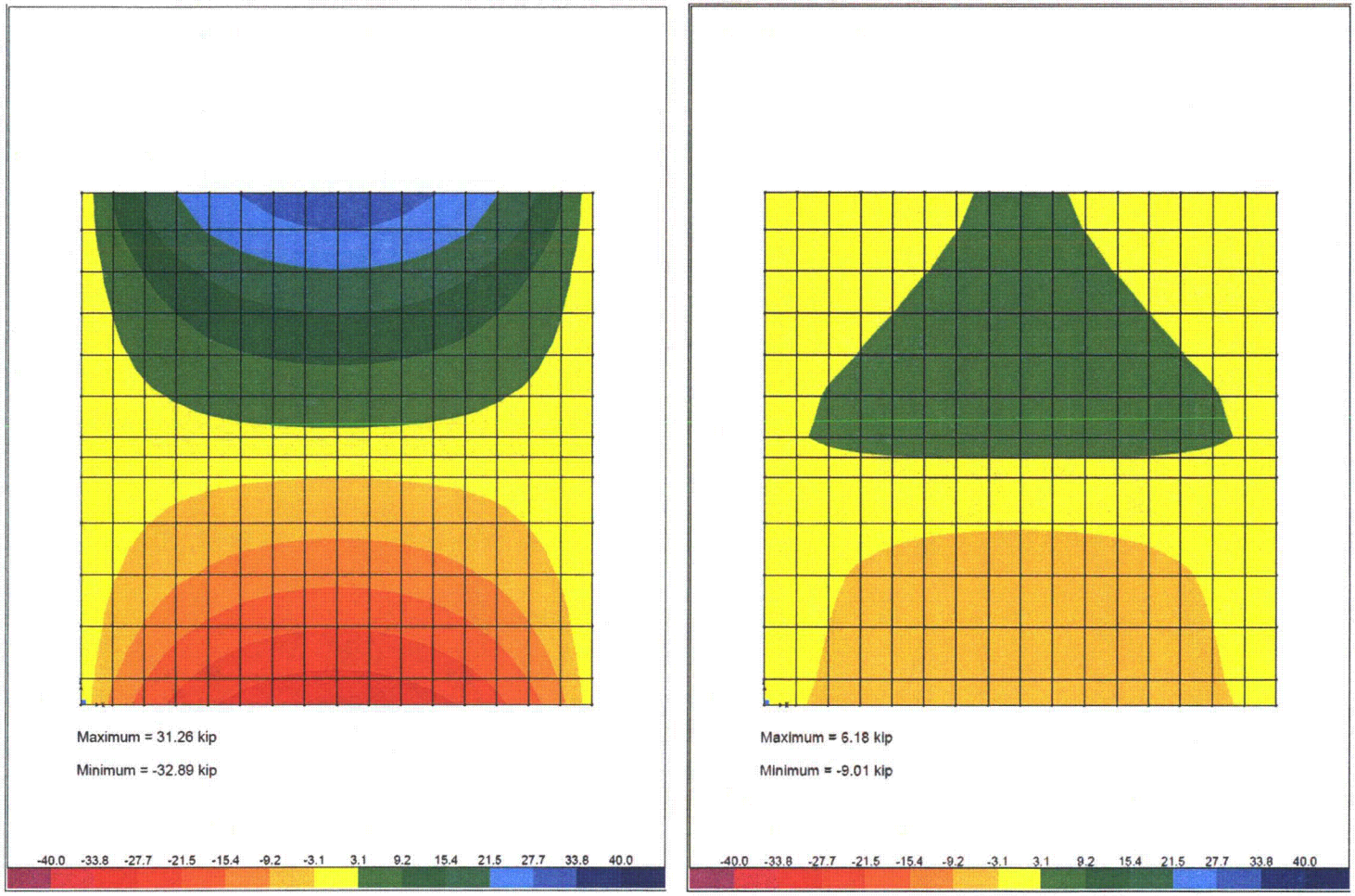


Figure 03.07.01-29 S1.232: Out-of-Plane Shear along X-axis for Design Dynamic Soil Pressure (left) and SSI Soil Pressure for Separated Soil Case (right) for Wall 4 of DGFOSV

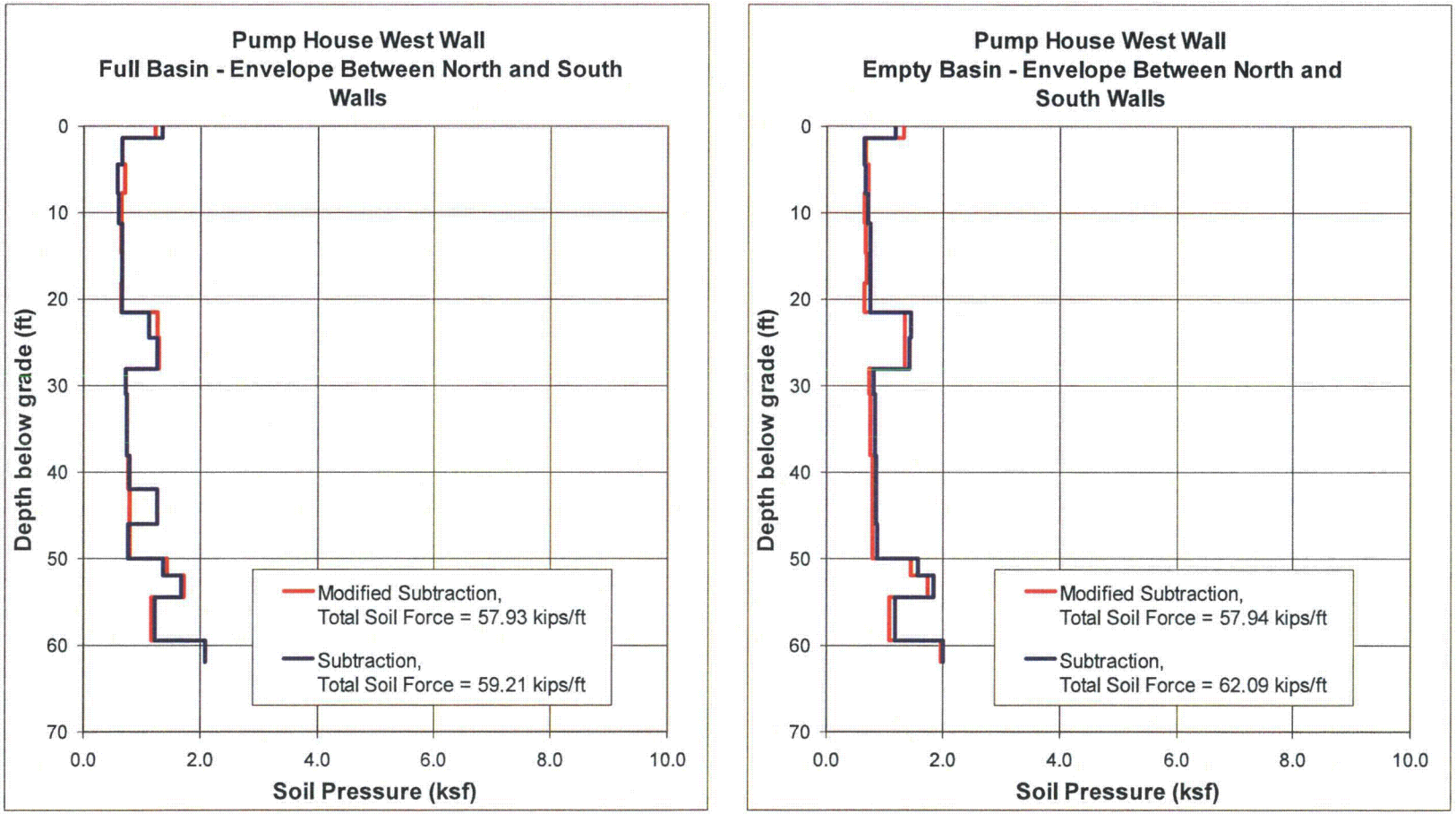


Figure 03.07.01-29 S1.233: Maximum Absolute SSI Seismic Soil Pressures from SM and MSM for Upper Bound In-situ Soil Case, RSW Pump House West Wall

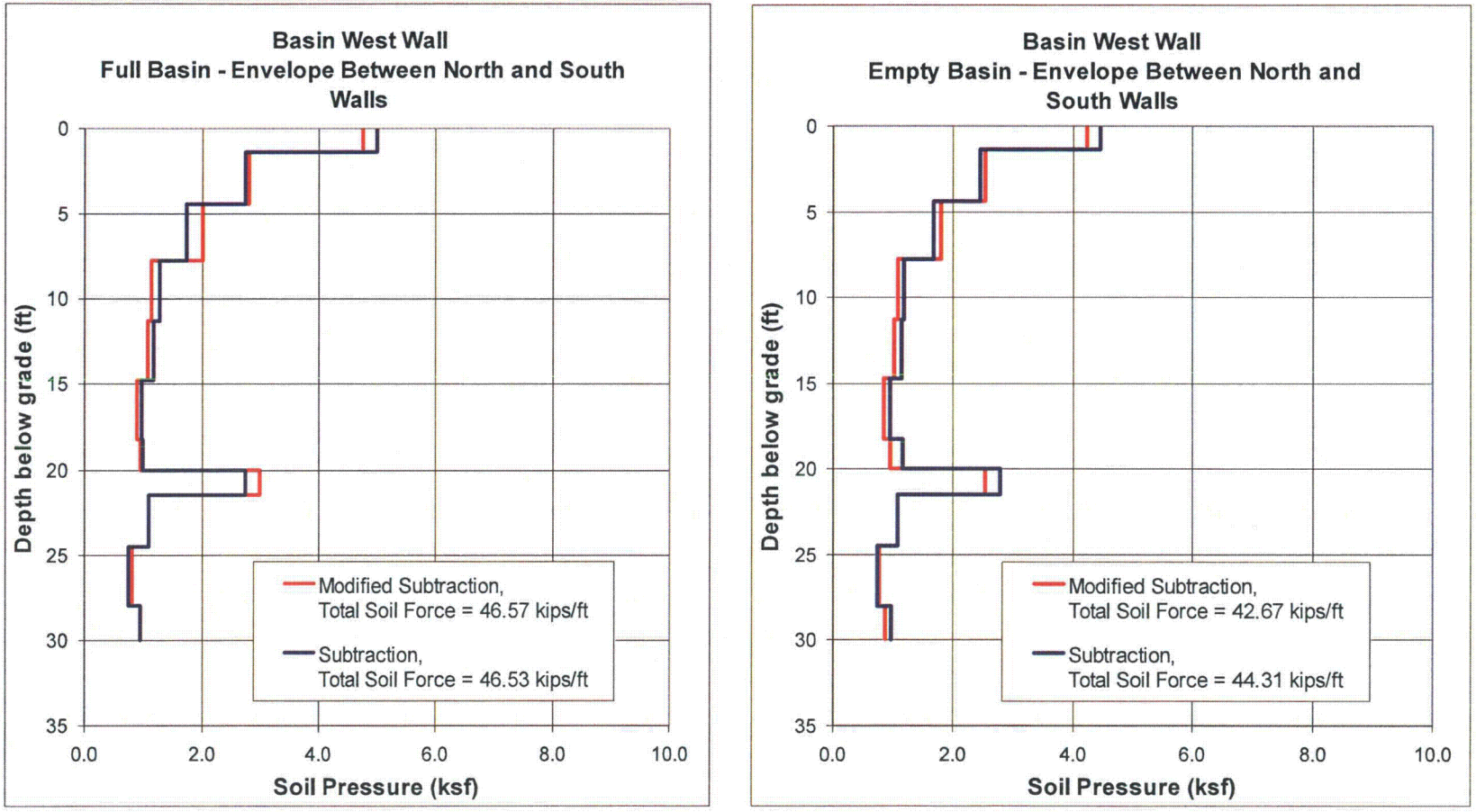


Figure 03.07.01-29 S1.234: Maximum Absolute SSI Seismic Soil Pressures from SM and MSM for Upper Bound In-situ Soil Case, UHS Basin West Wall

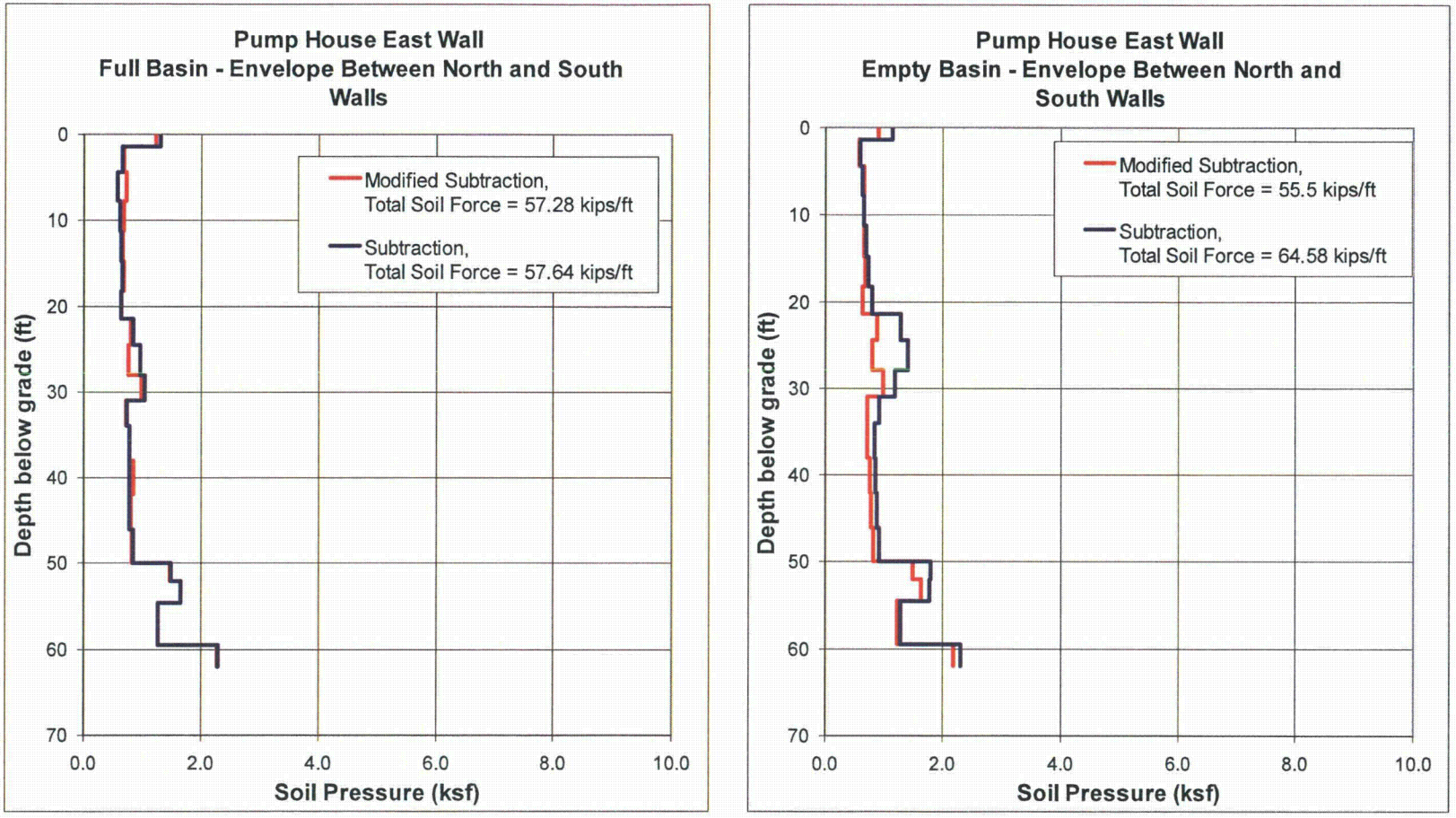


Figure 03.07.01-29 S1.235: Maximum Absolute SSI Seismic Soil Pressures from SM and MSM for Upper Bound In-situ Soil Case, RSW Pump House East Wall

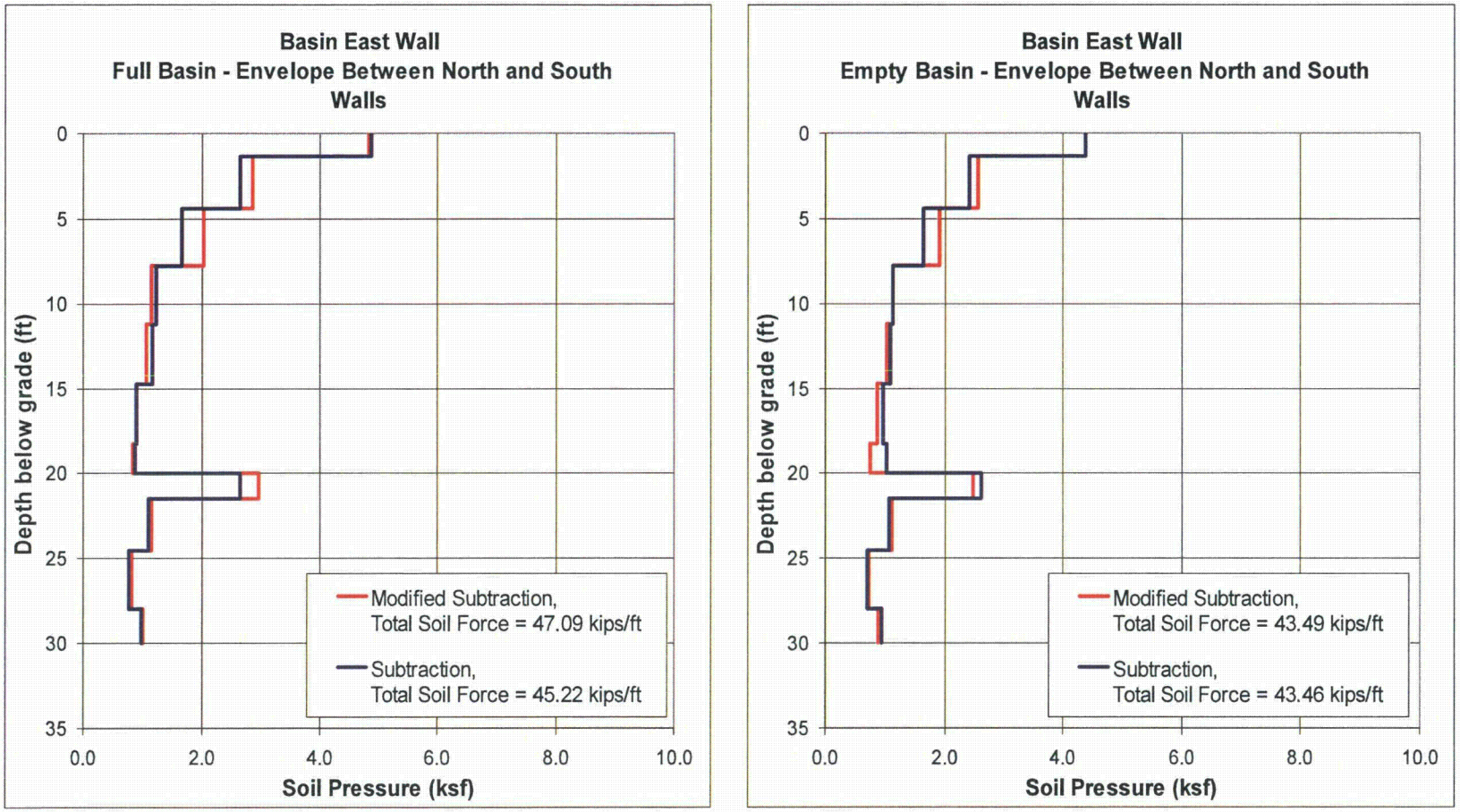
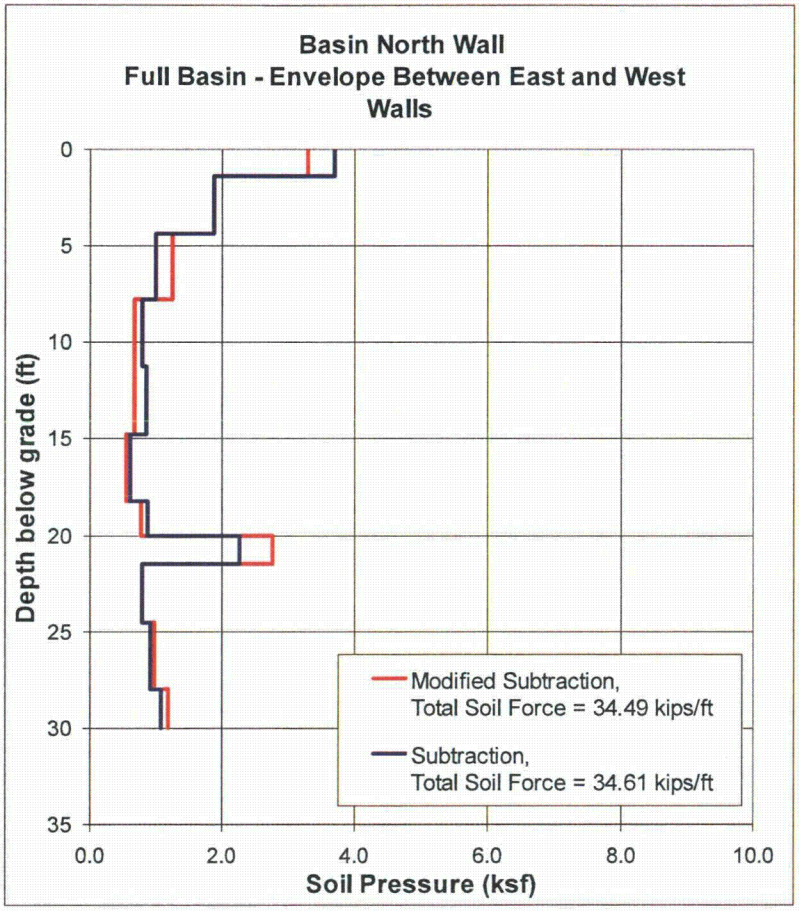


Figure 03.07.01-29 S1.236: Maximum Absolute SSI Seismic Soil Pressures from SM and MSM for Upper Bound In-situ Soil Case, UHS Basin East Wall



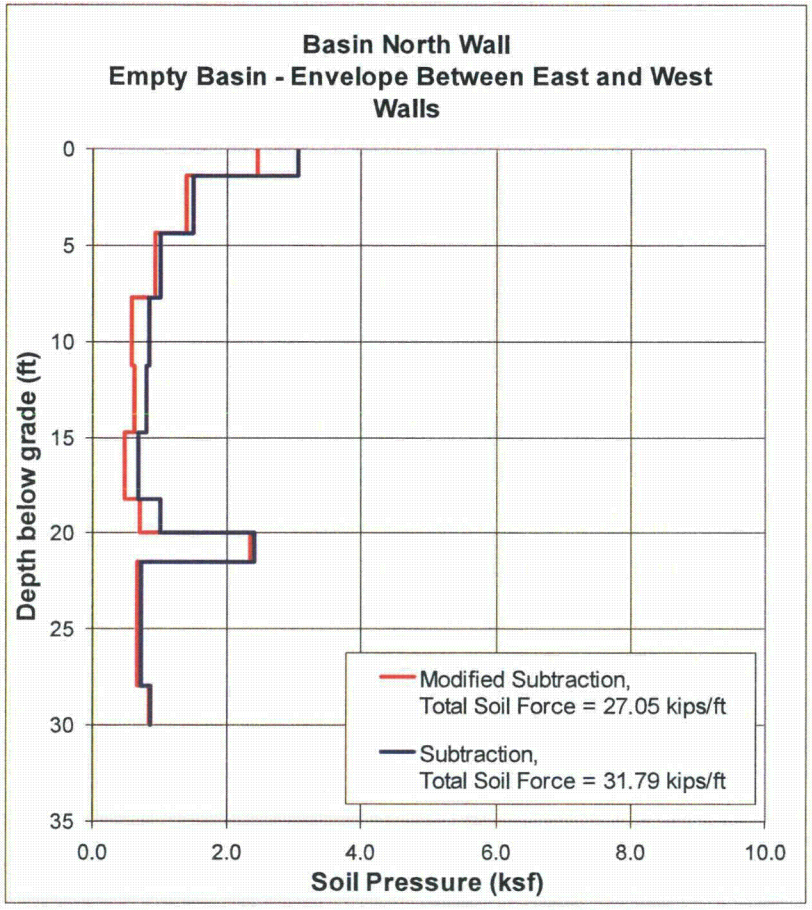


Figure 03.07.01-29 S1.237: Maximum Absolute SSI Seismic Soil Pressures from SM and MSM for Upper Bound In-situ Soil Case, UHS Basin North Wall

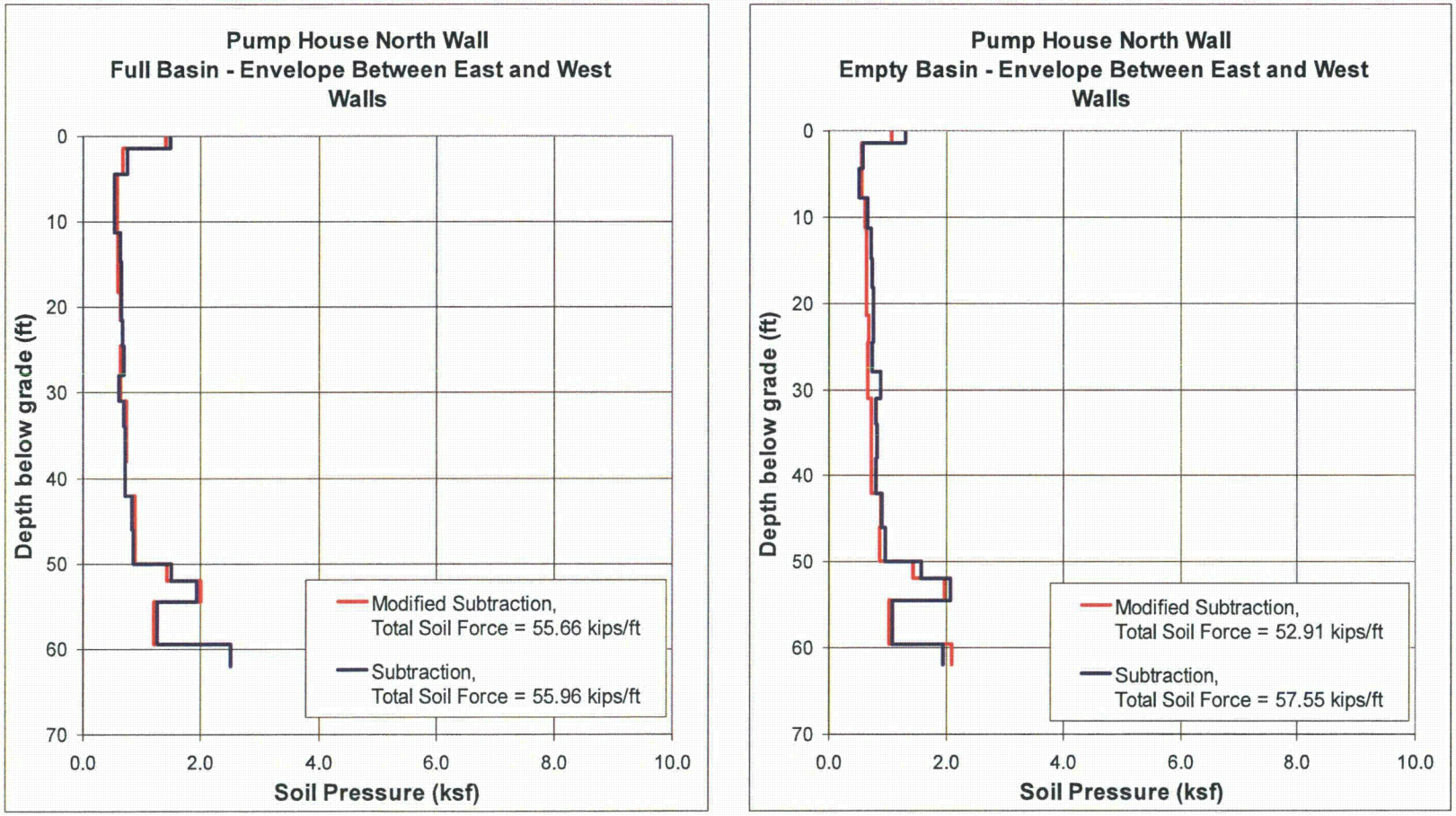


Figure 03.07.01-29 S1.238: Maximum Absolute SSI Seismic Soil Pressures from SM and MSM for Upper Bound In-situ Soil Case, RSW Pump House North Wall

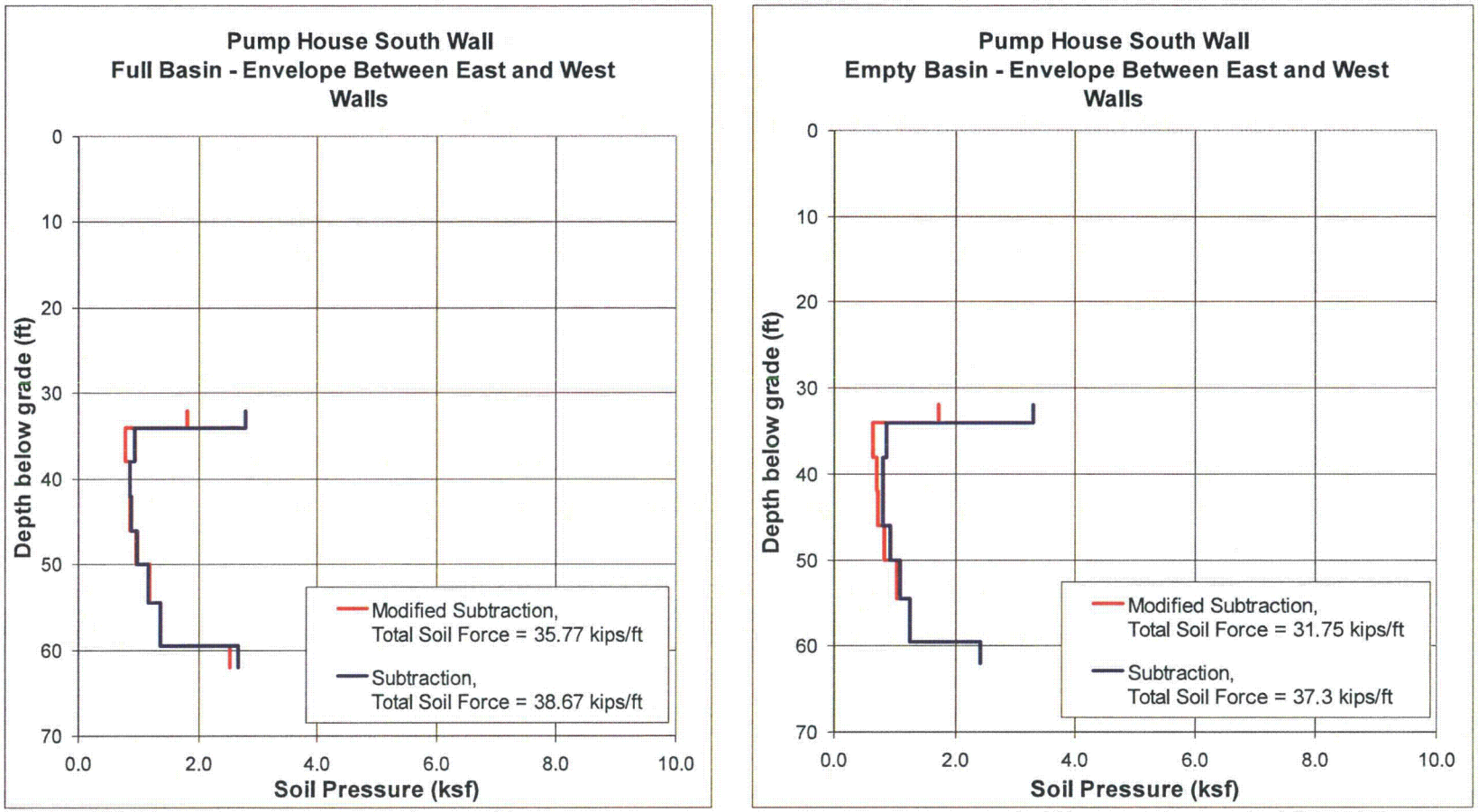


Figure 03.07.01-29 S1.239: Maximum Absolute SSI Seismic Soil Pressures from SM and MSM for Upper Bound In-situ Soil Case, RSW Pump House South Wall

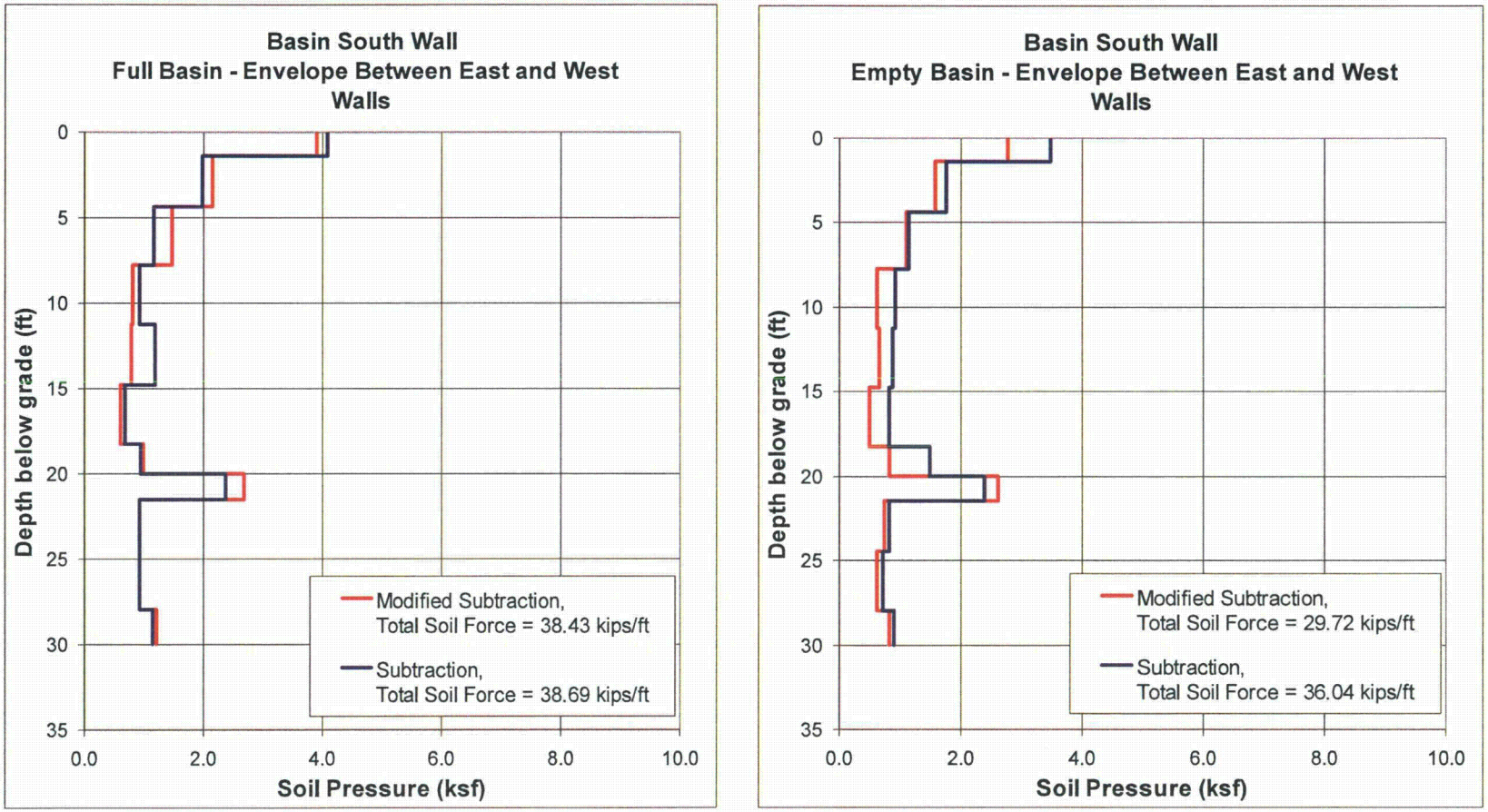


Figure 03.07.01-29 S1.240: Maximum Absolute SSI Seismic Soil Pressures from SM and MSM for Upper Bound In-situ Soil Case, UHS Basin South Wall

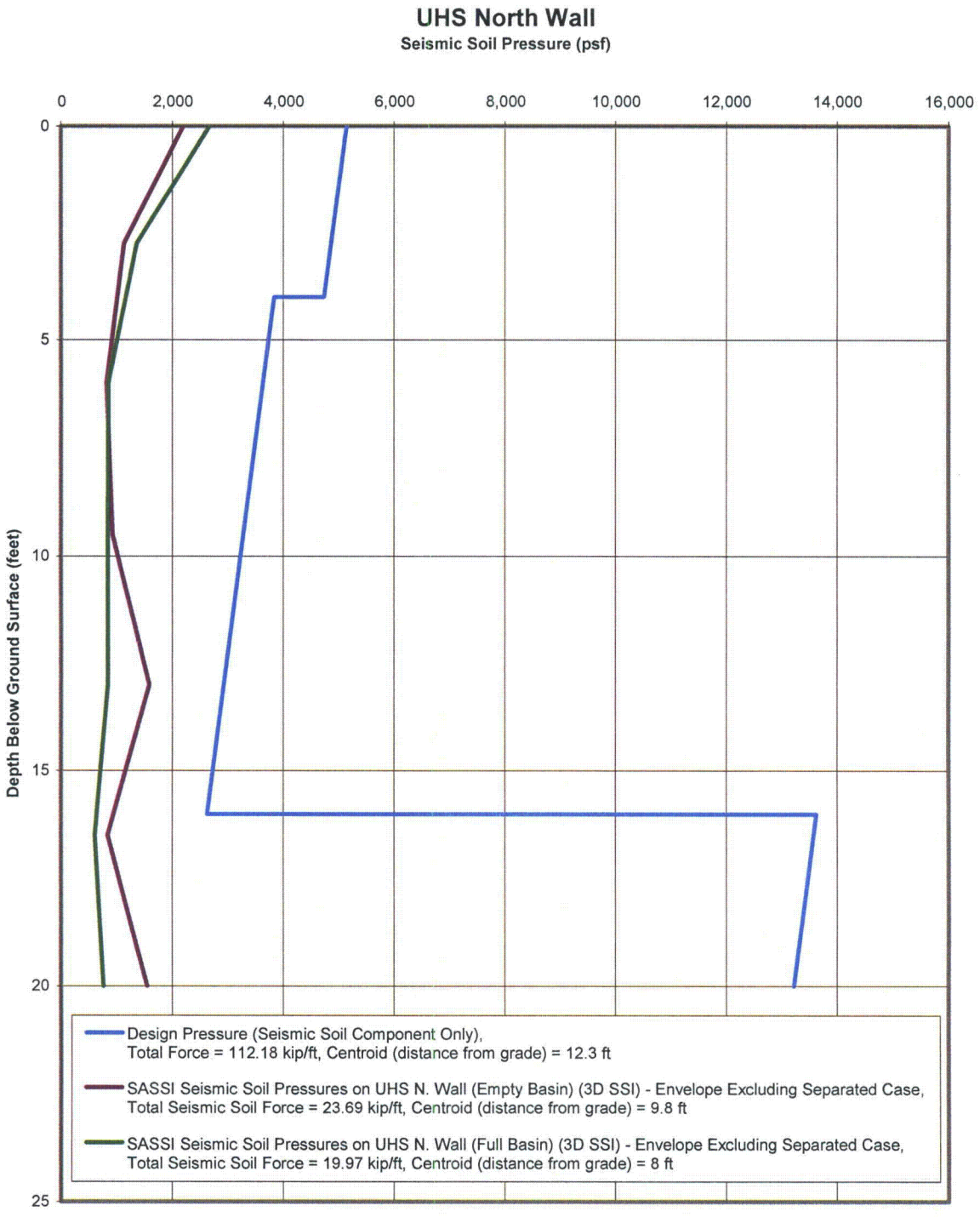


Figure 03.07.01-29 S1.241: Maximum Absolute SSI Seismic Soil Pressures from SM and Design Seismic Soil Pressures, UHS Basin North Wall

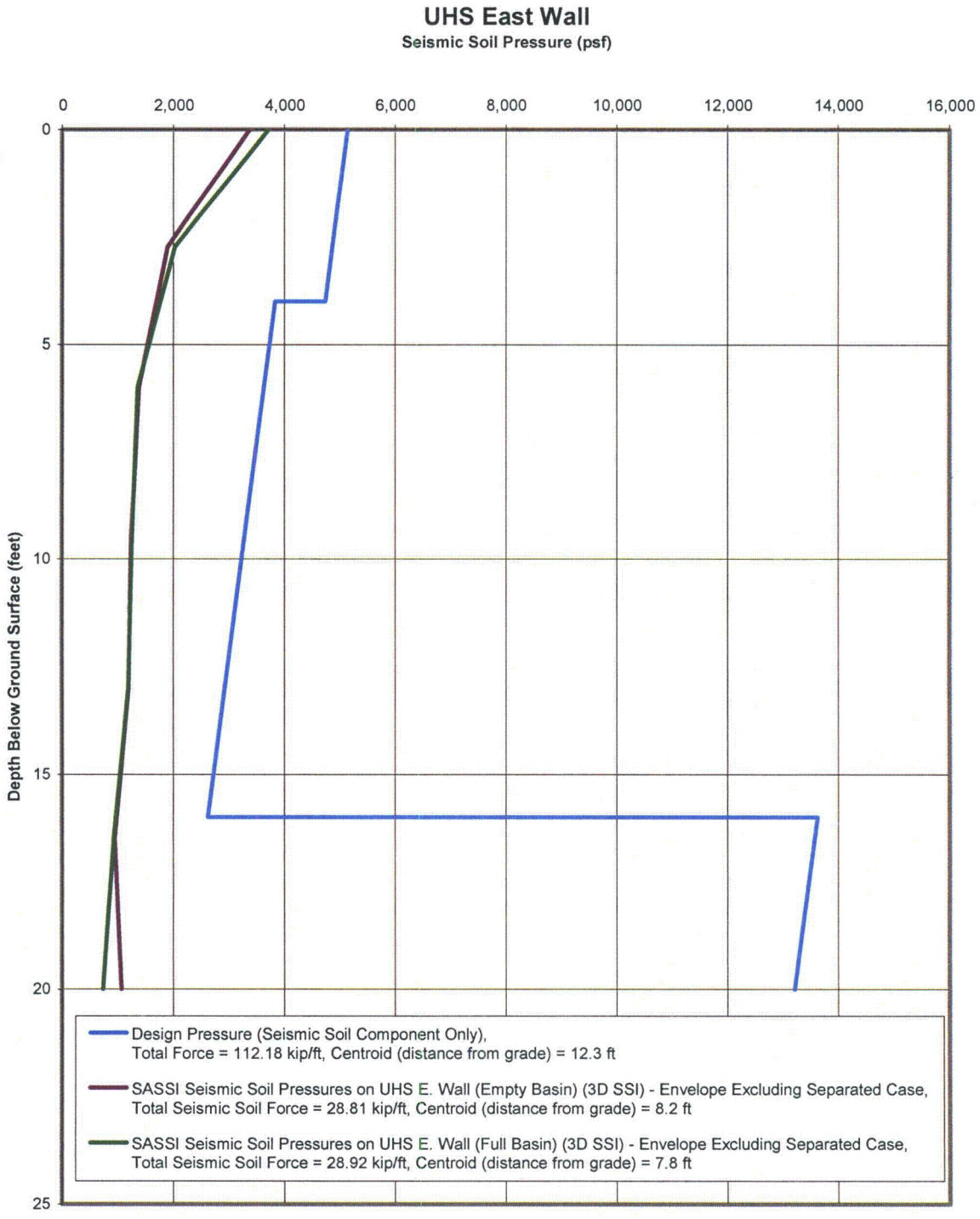


Figure 03.07.01-29 S1.242: Maximum Absolute SSI Seismic Soil Pressures from SM and Design Seismic Soil Pressures, UHS Basin East Wall

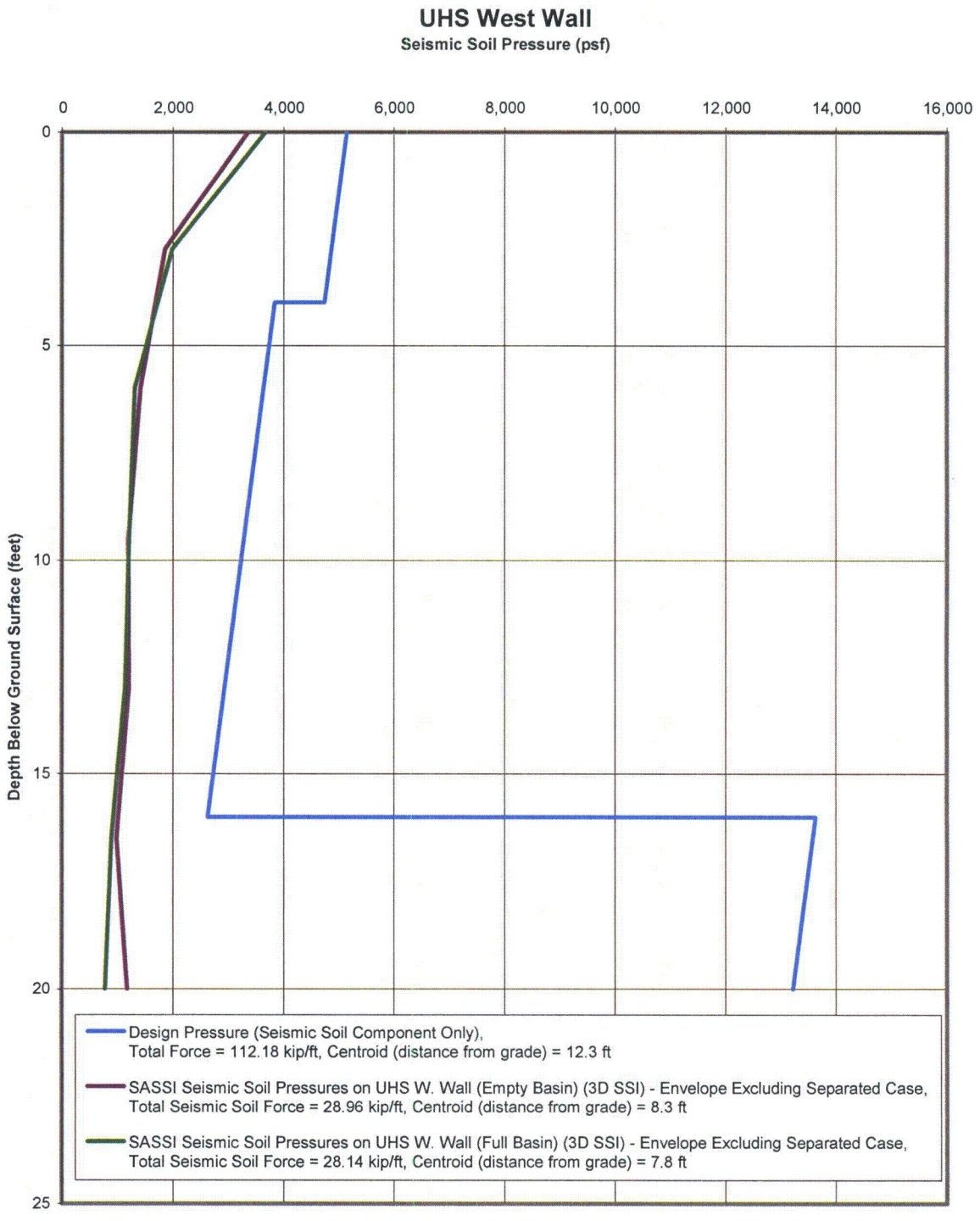


Figure 03.07.01-29 S1.243: Maximum Absolute SSI Seismic Soil Pressures from SM and Design Seismic Soil Pressures, UHS Basin West Wall

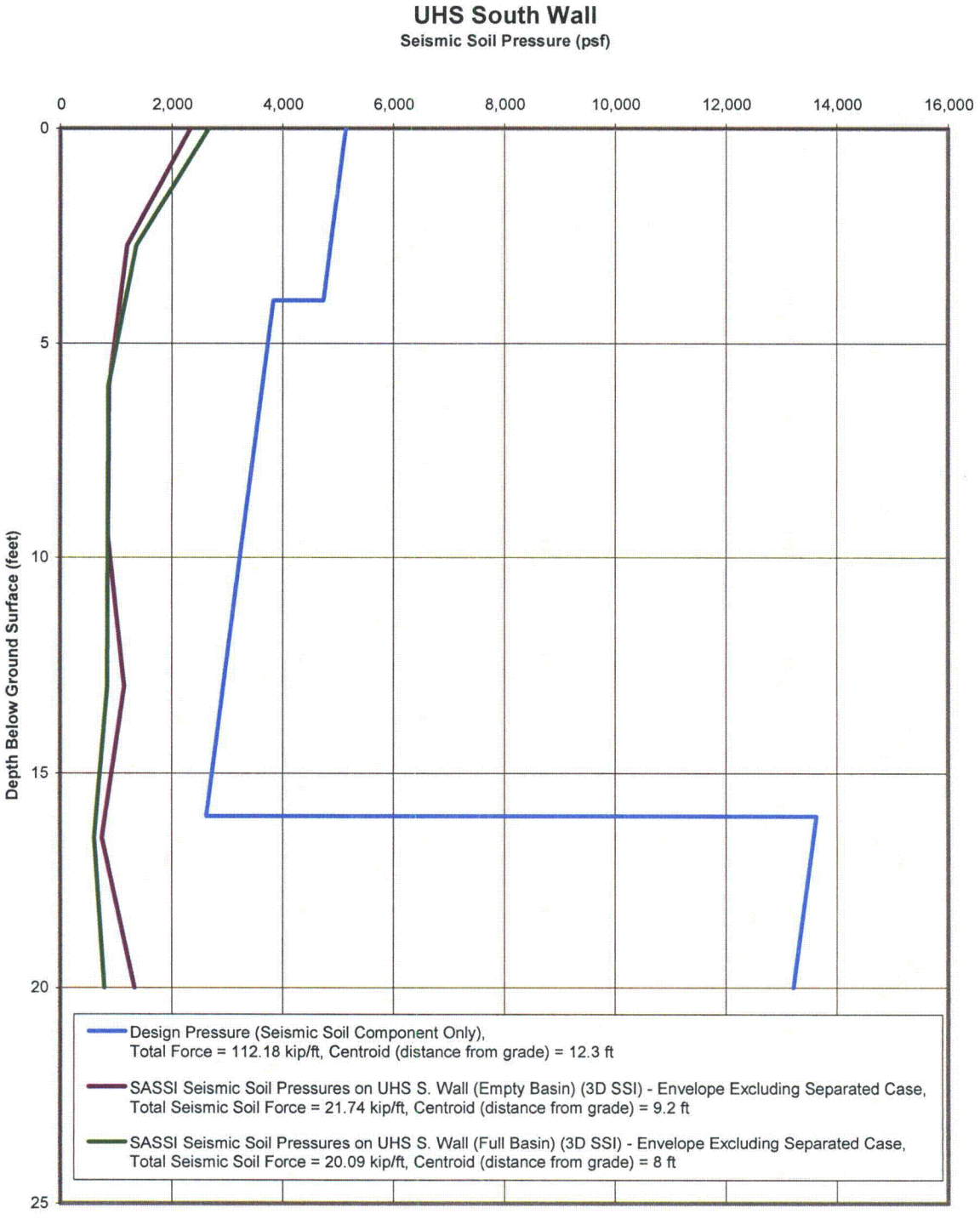


Figure 03.07.01-29 S1.244: Maximum Absolute SSI Seismic Soil Pressures from SM and Design Seismic Soil Pressures, UHS Basin South Wall

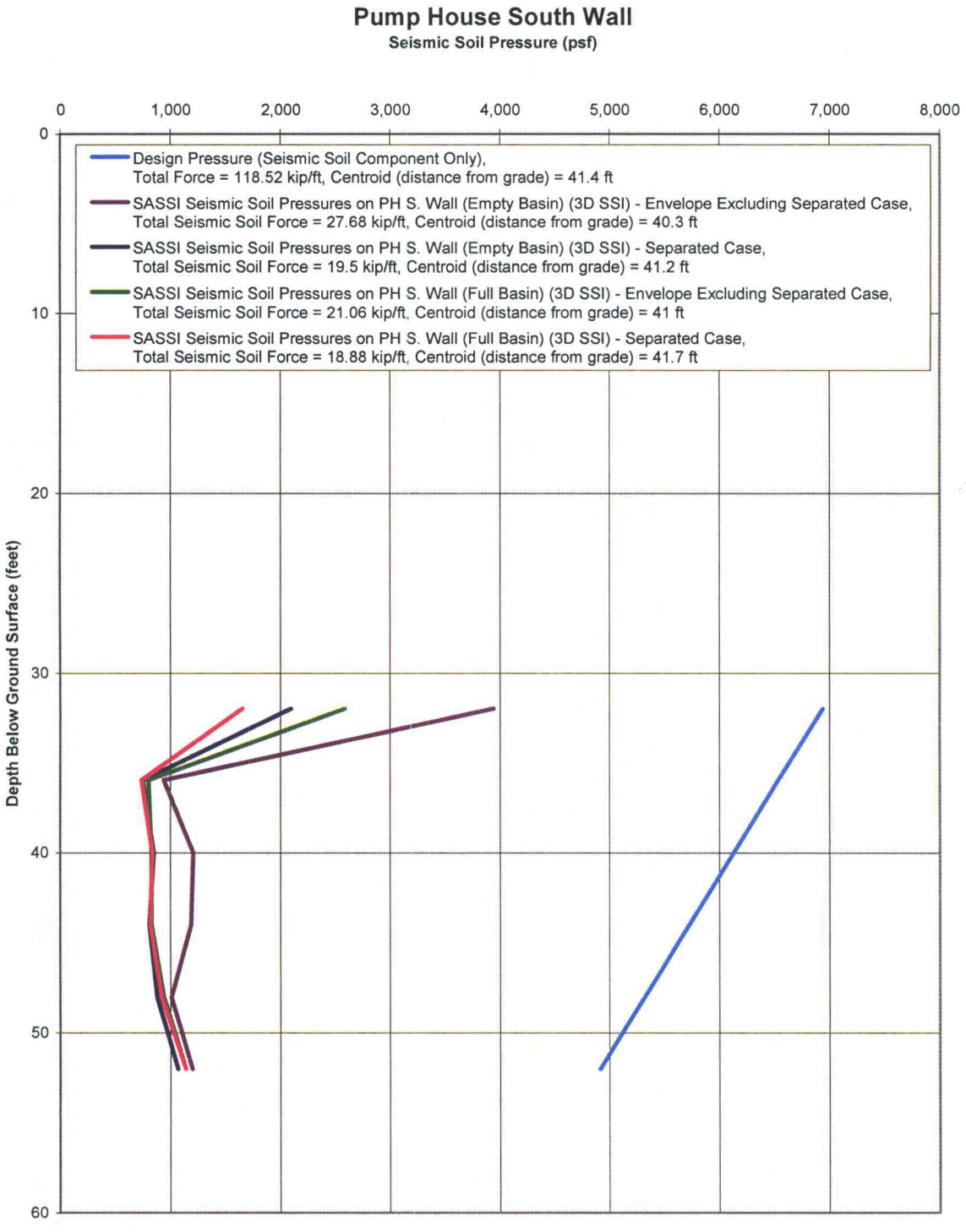


Figure 03.07.01-29 S1.245: Maximum Absolute SSI Seismic Soil Pressures from SM and Design Seismic Soil Pressures, RSW Pump House South Wall

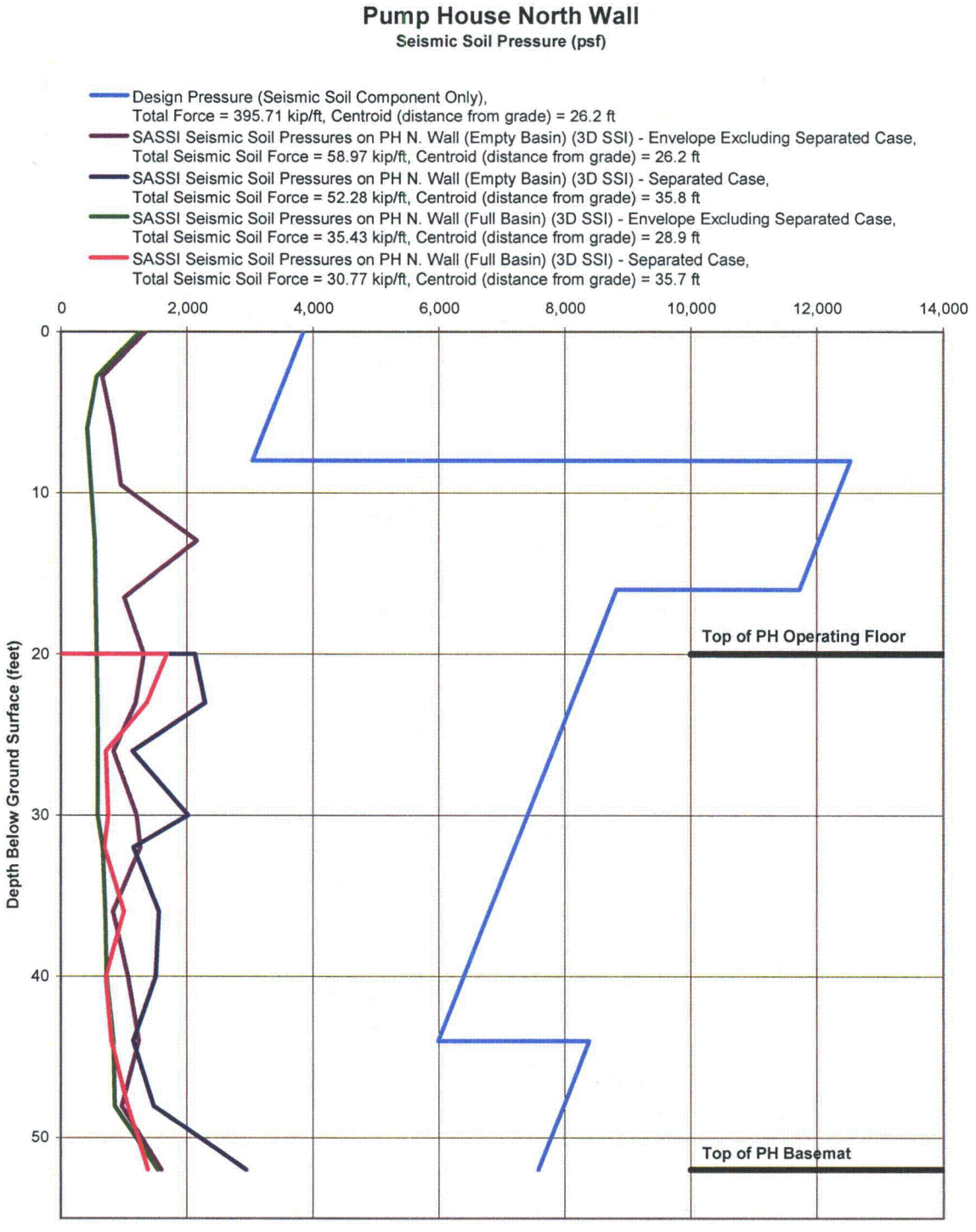


Figure 03.07.01-29 S1.246: Maximum Absolute SSI Seismic Soil Pressures from SM and Design Seismic Soil Pressures, RSW Pump House North Wall

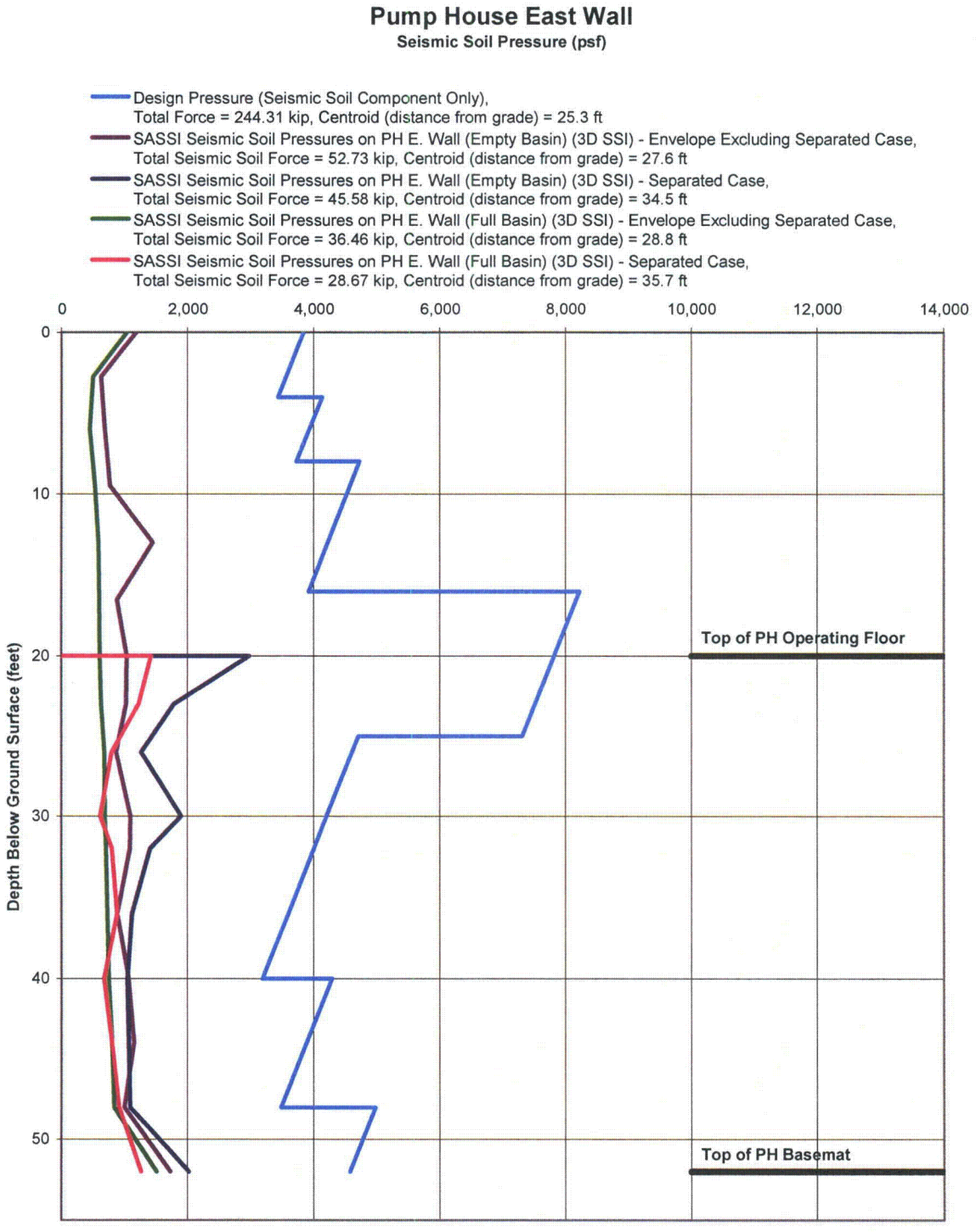


Figure 03.07.01-29 S1.247: Maximum Absolute SSI Seismic Soil Pressures from SM and Design Seismic Soil Pressures, RSW Pump House East Wall

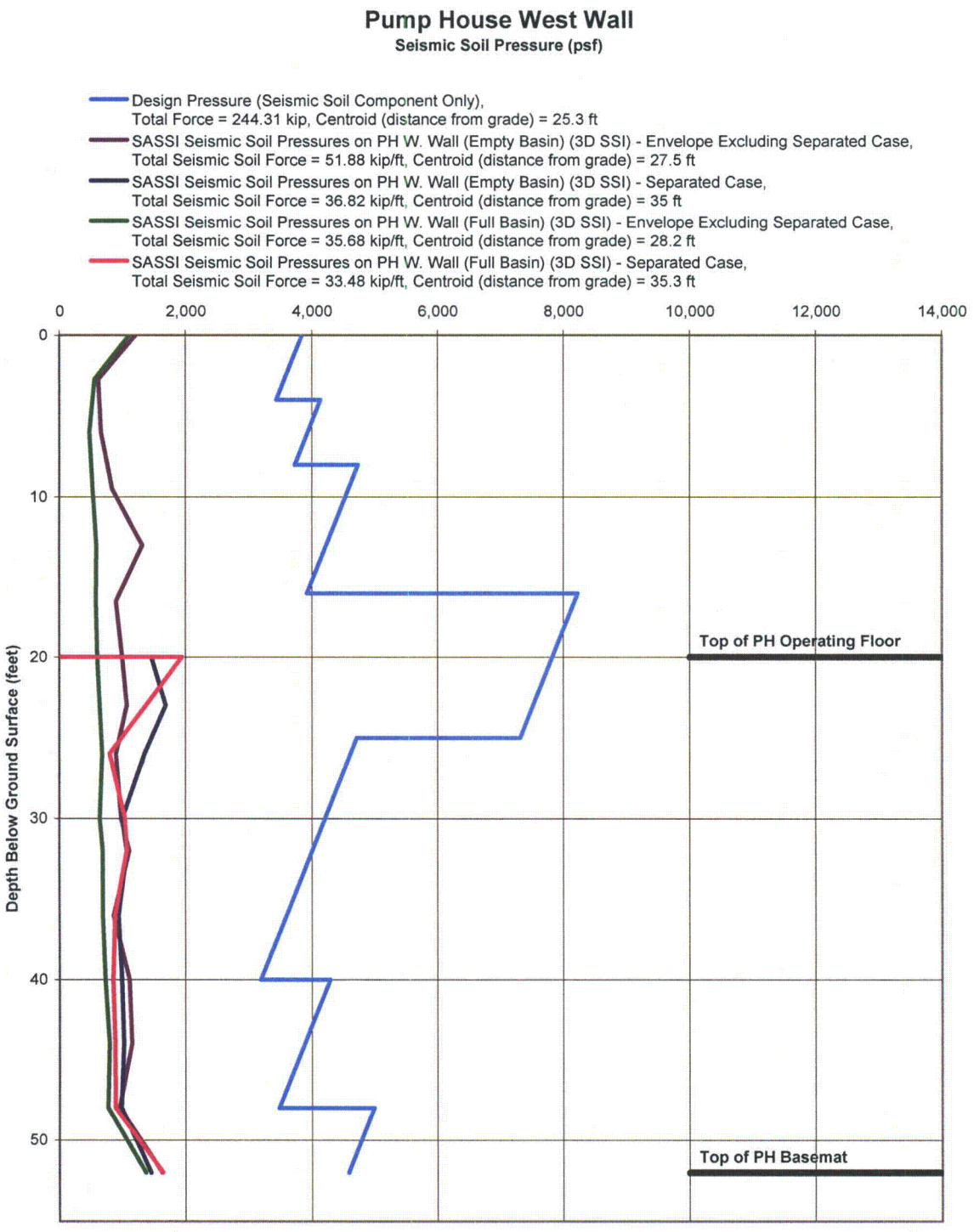


Figure 03.07.01-29 S1.248: Maximum Absolute SSI Seismic Soil Pressures from SM and Design Seismic Soil Pressures, RSW Pump House West Wall

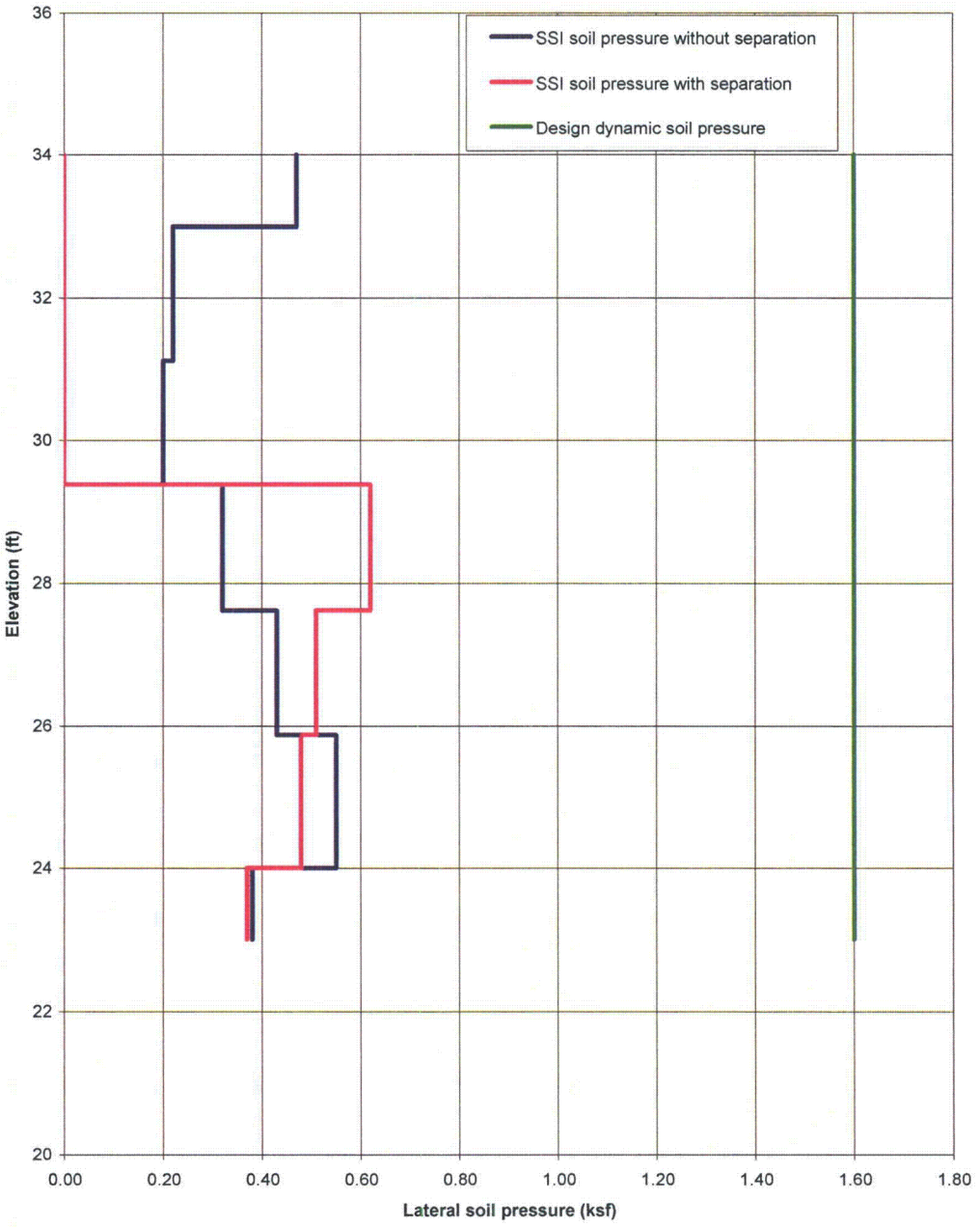


Figure 03.07.01-29 S1.249: SSI and Design Seismic Soil Pressures DGFOT Wall (2.5 ft thick)

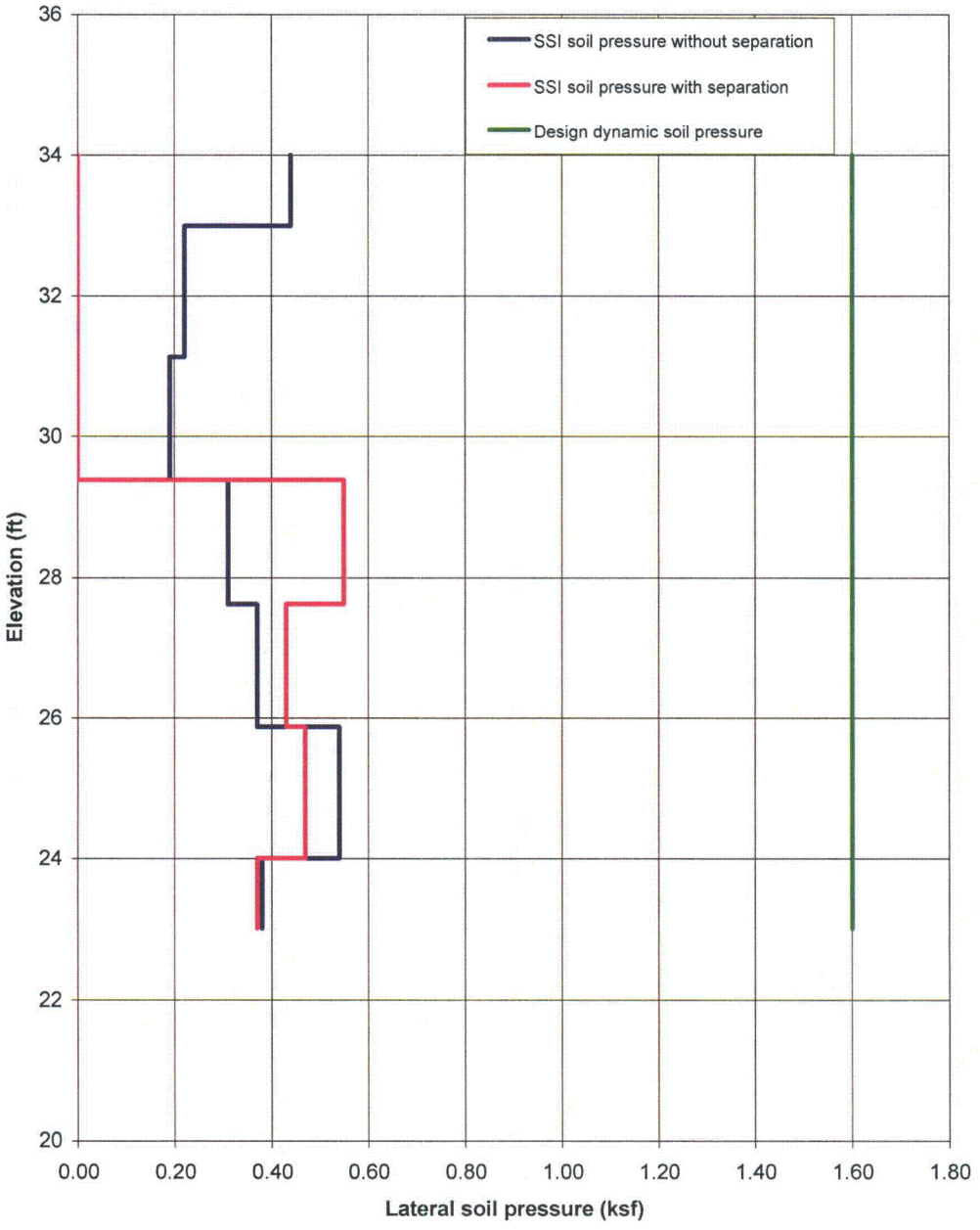


Figure 03.07.01-29 S1.250: SSI and Design Seismic Soil Pressures DGFOT Wall (2 ft thick)

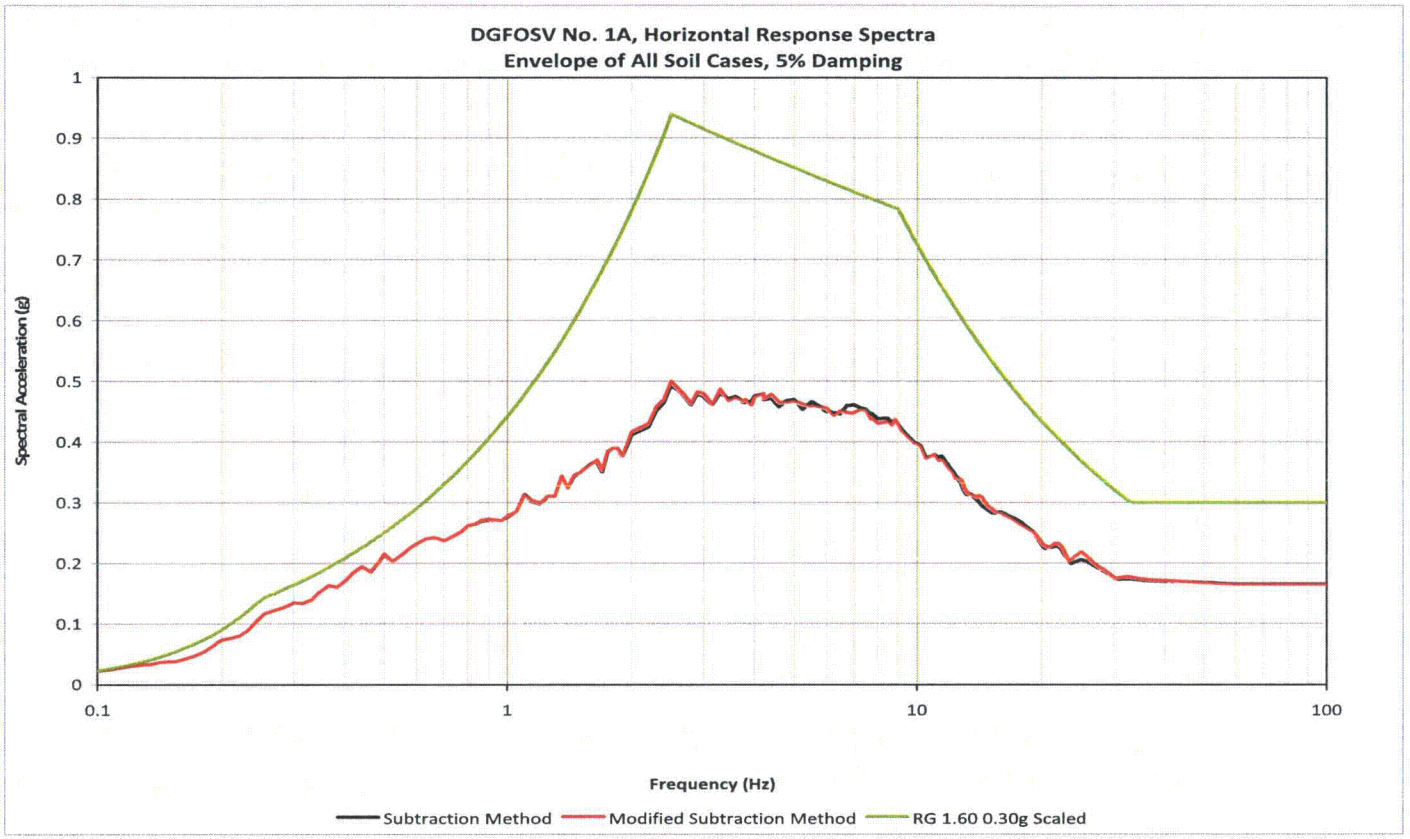


Figure 03.07.01-29 S1.251: Amplified Motion, MSM vs. SM

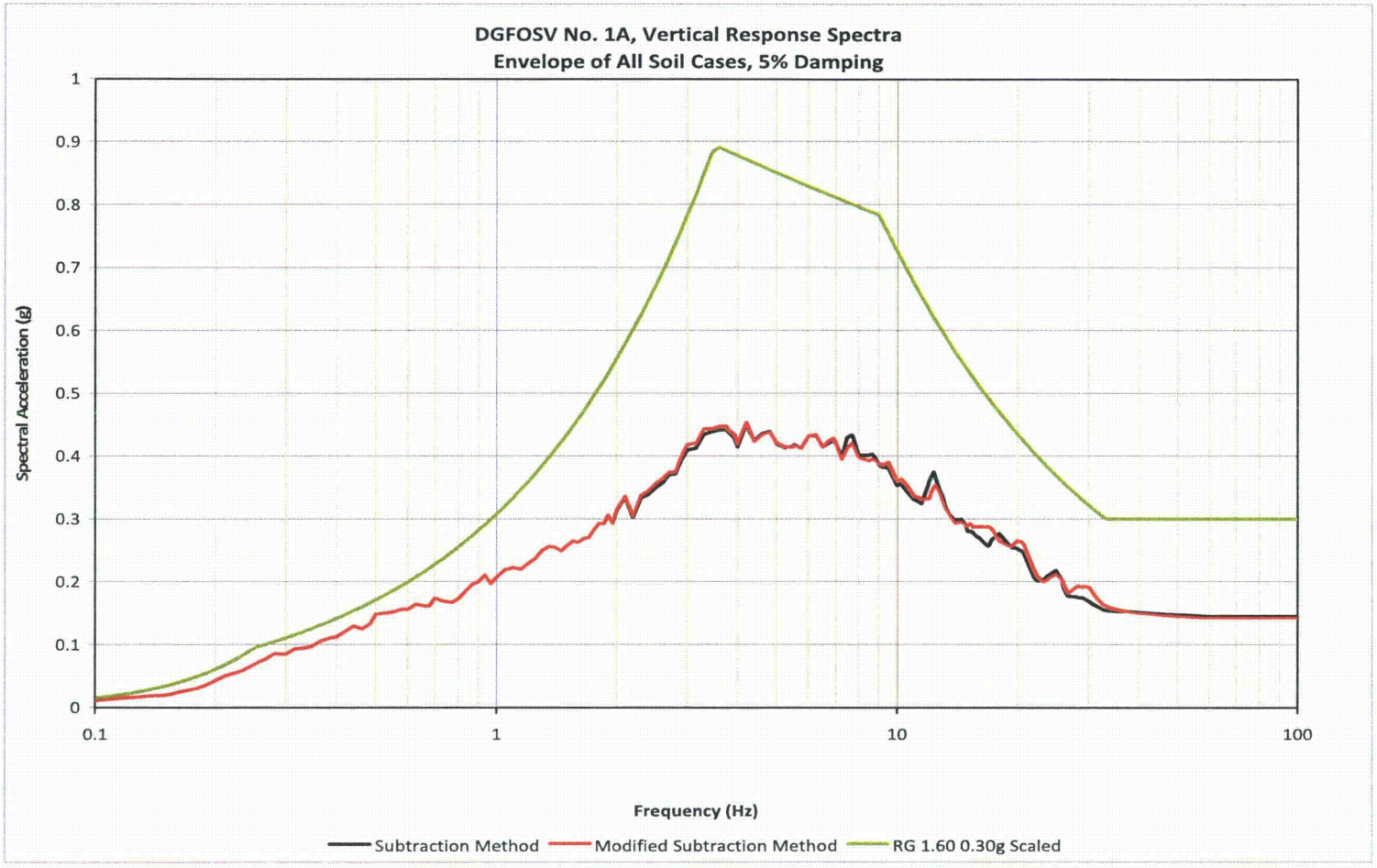


Figure 03.07.01-29 S1.252: Amplified Motion, MSM vs. SM

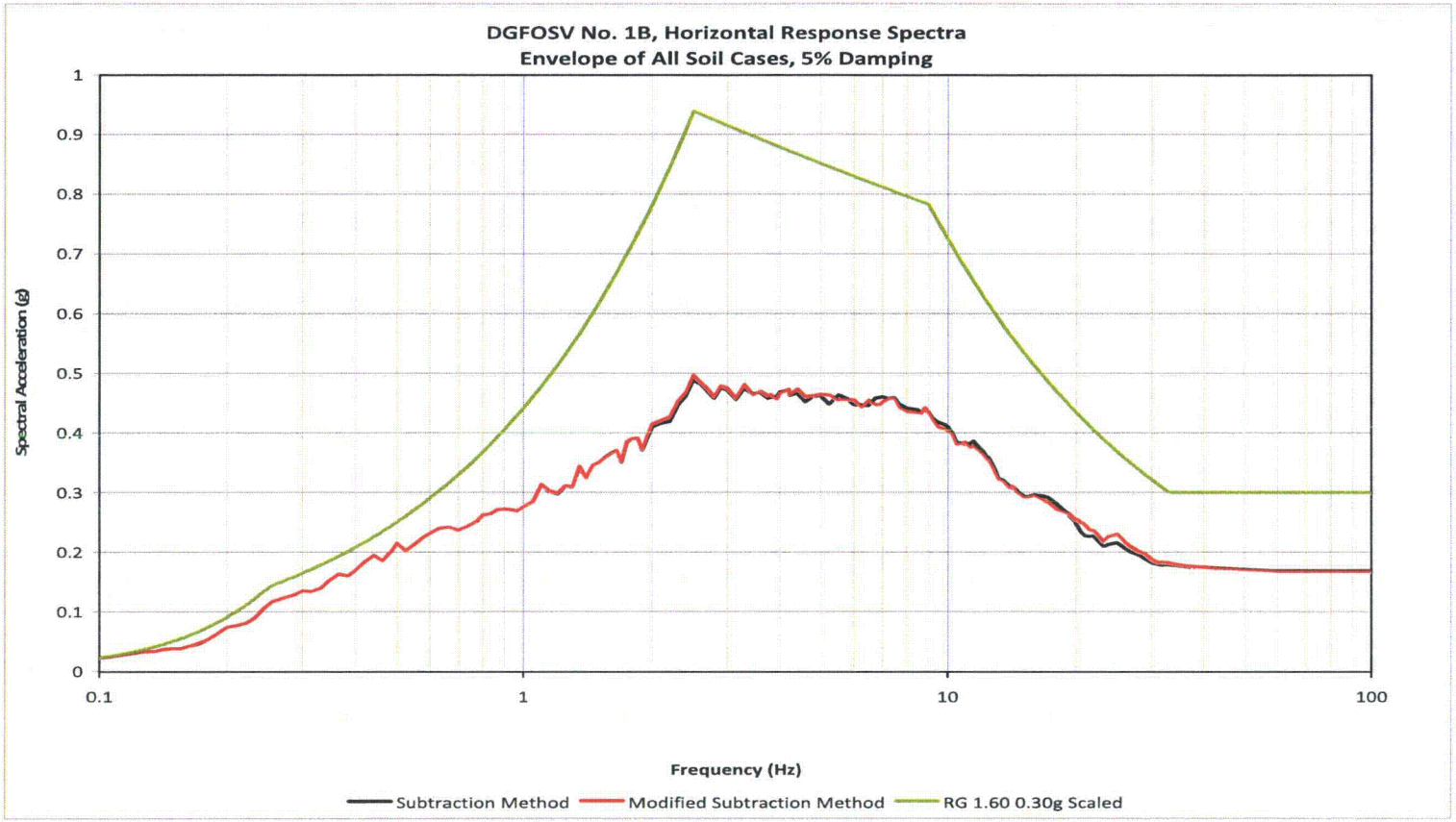


Figure 03.07.01-29 S1.253: Amplified Motion, MSM vs. SM

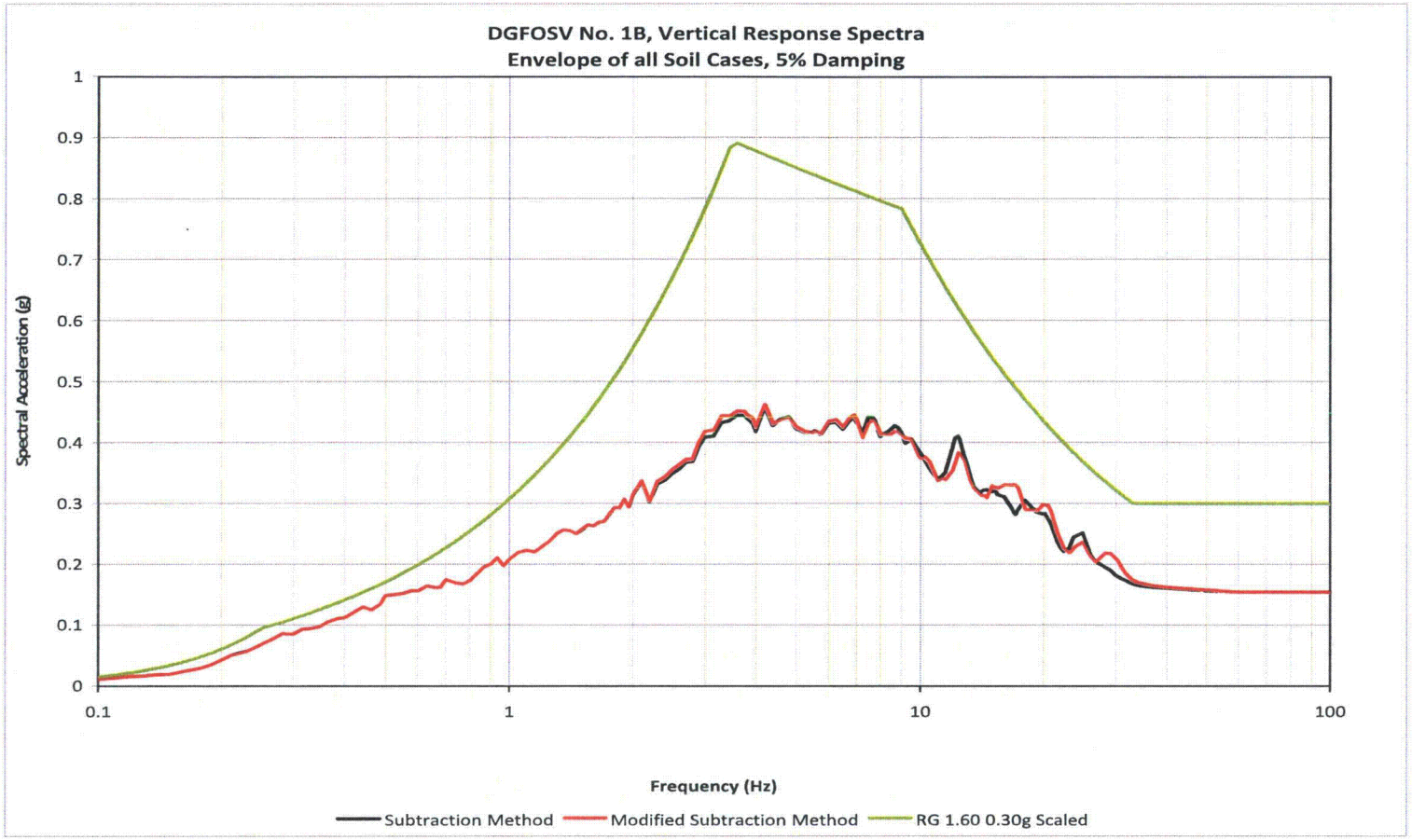


Figure 03.07.01-29 S1.254: Amplified Motion, MSM vs. SM

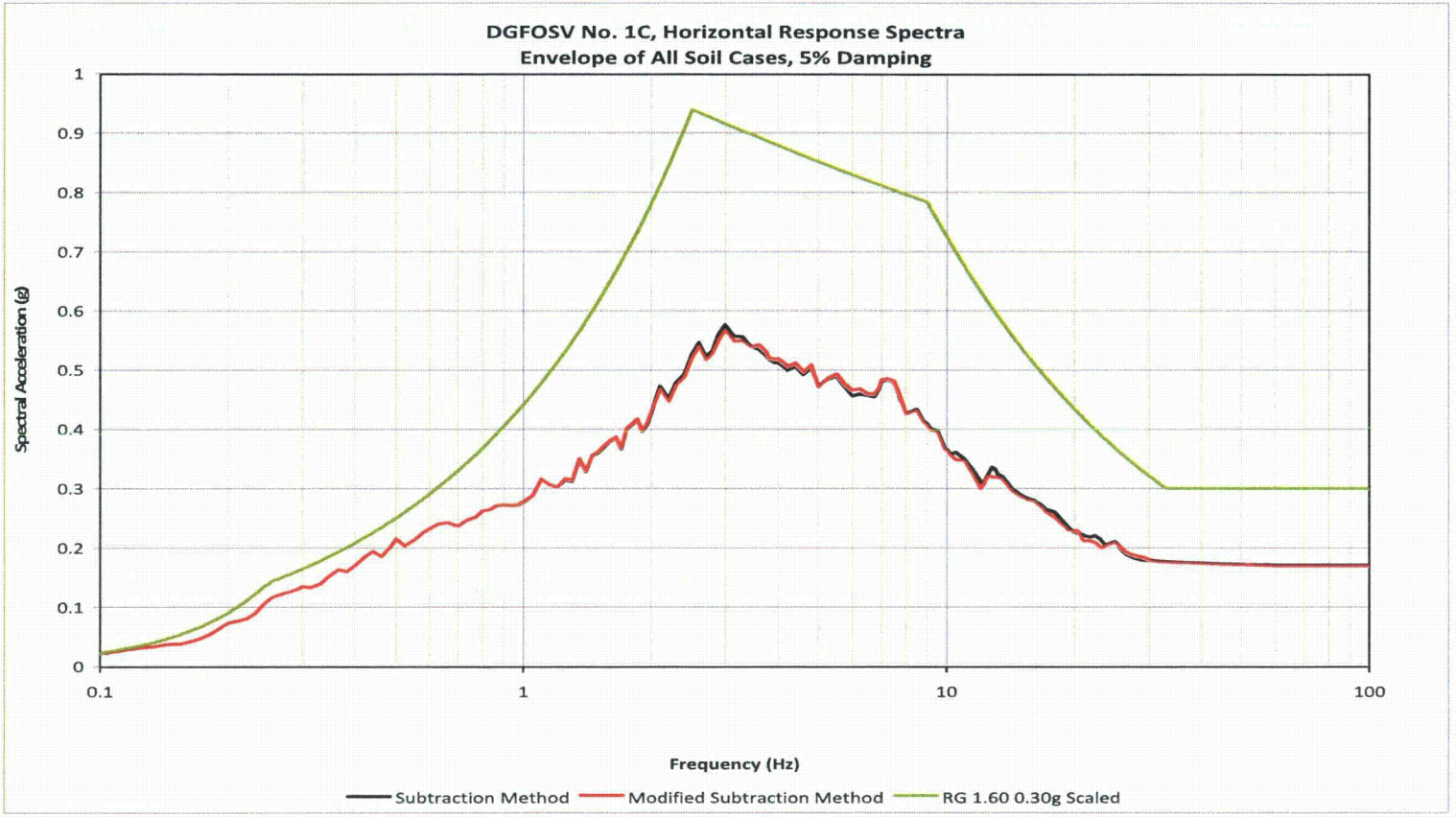


Figure 03.07.01-29 S1.255: Amplified Motion, MSM vs. SM

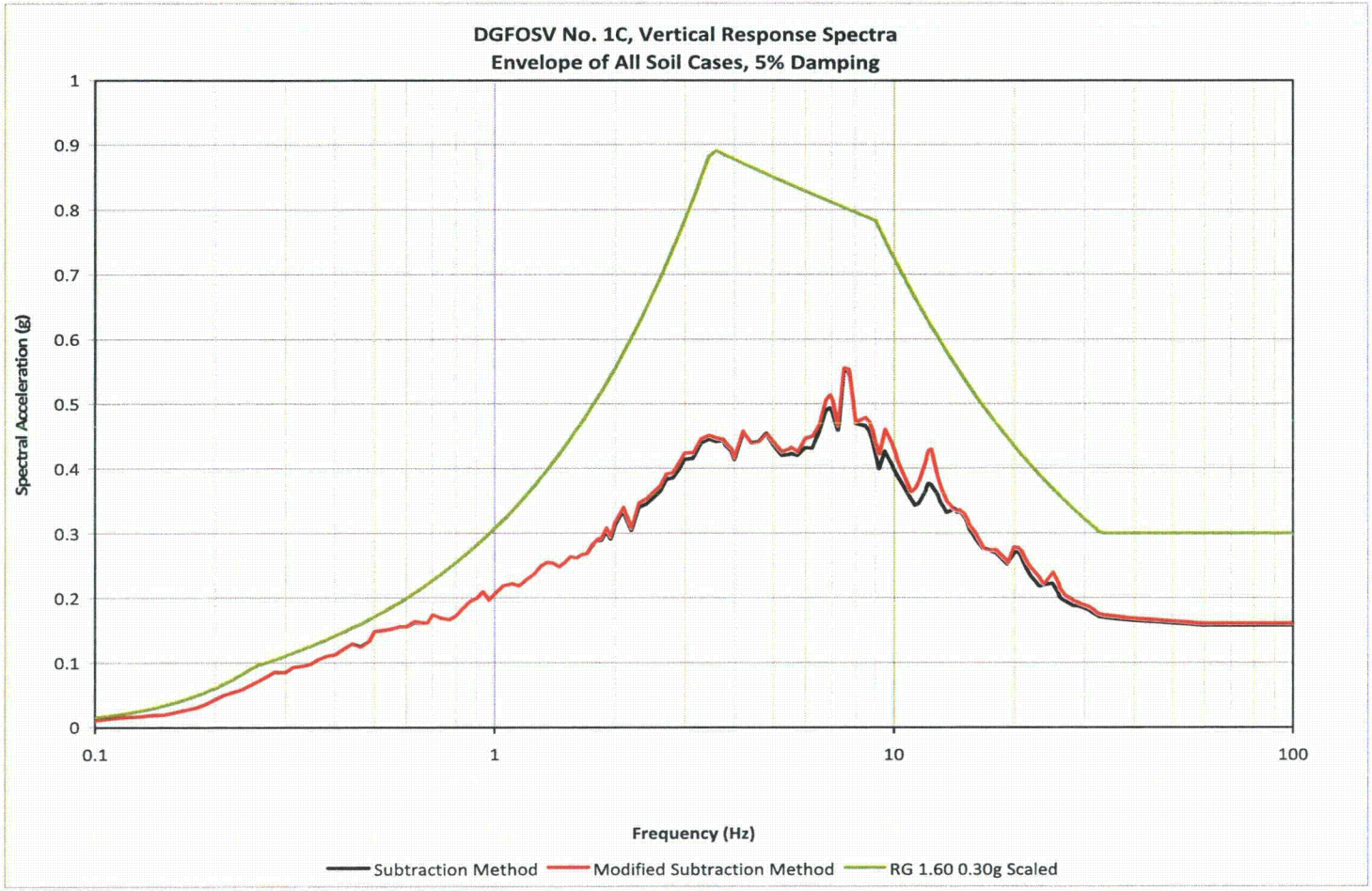


Figure 03.07.01-29 S1.256: Amplified Motion, MSM vs. SM

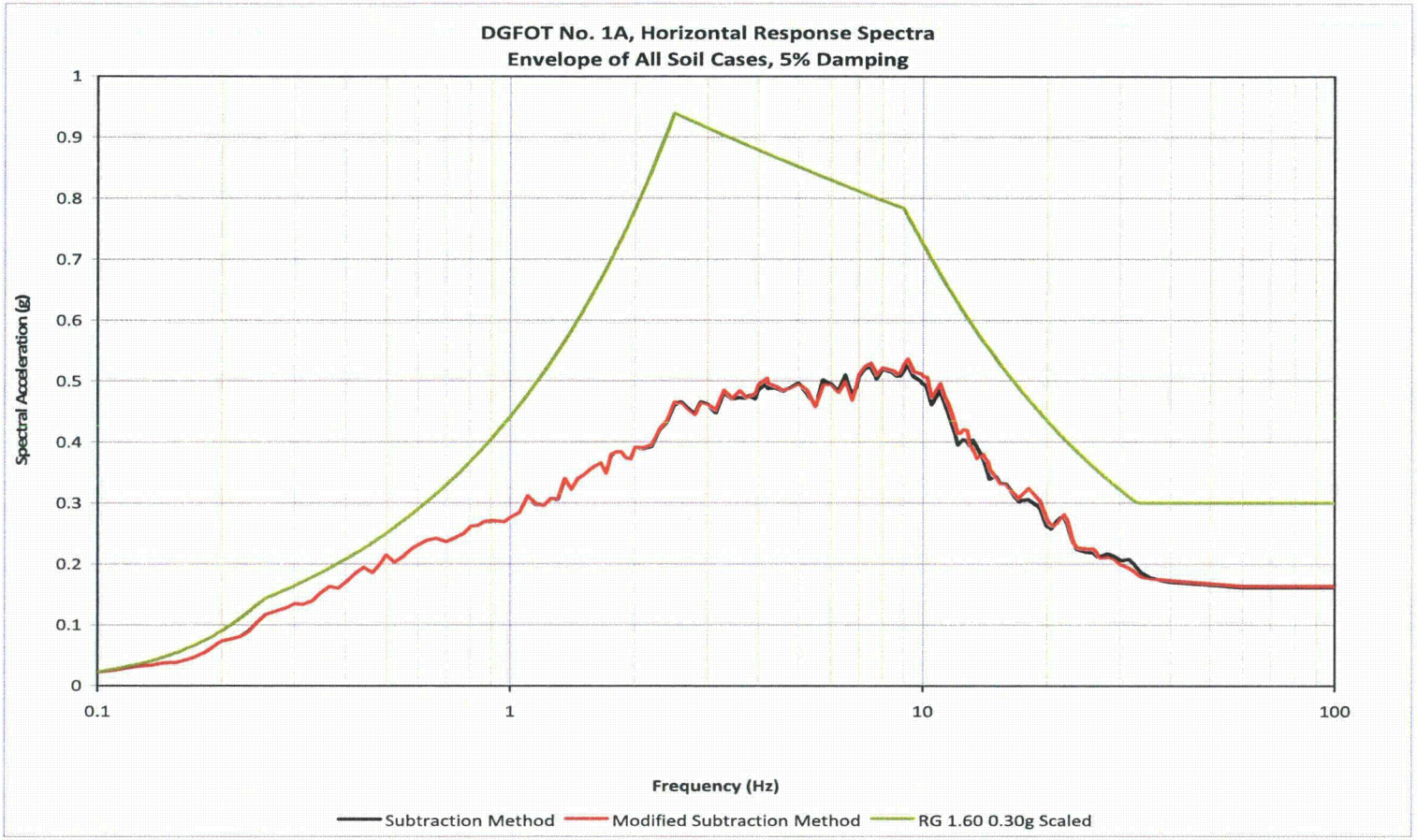


Figure 03.07.01-29 S1.257: Amplified Motion, MSM vs. SM

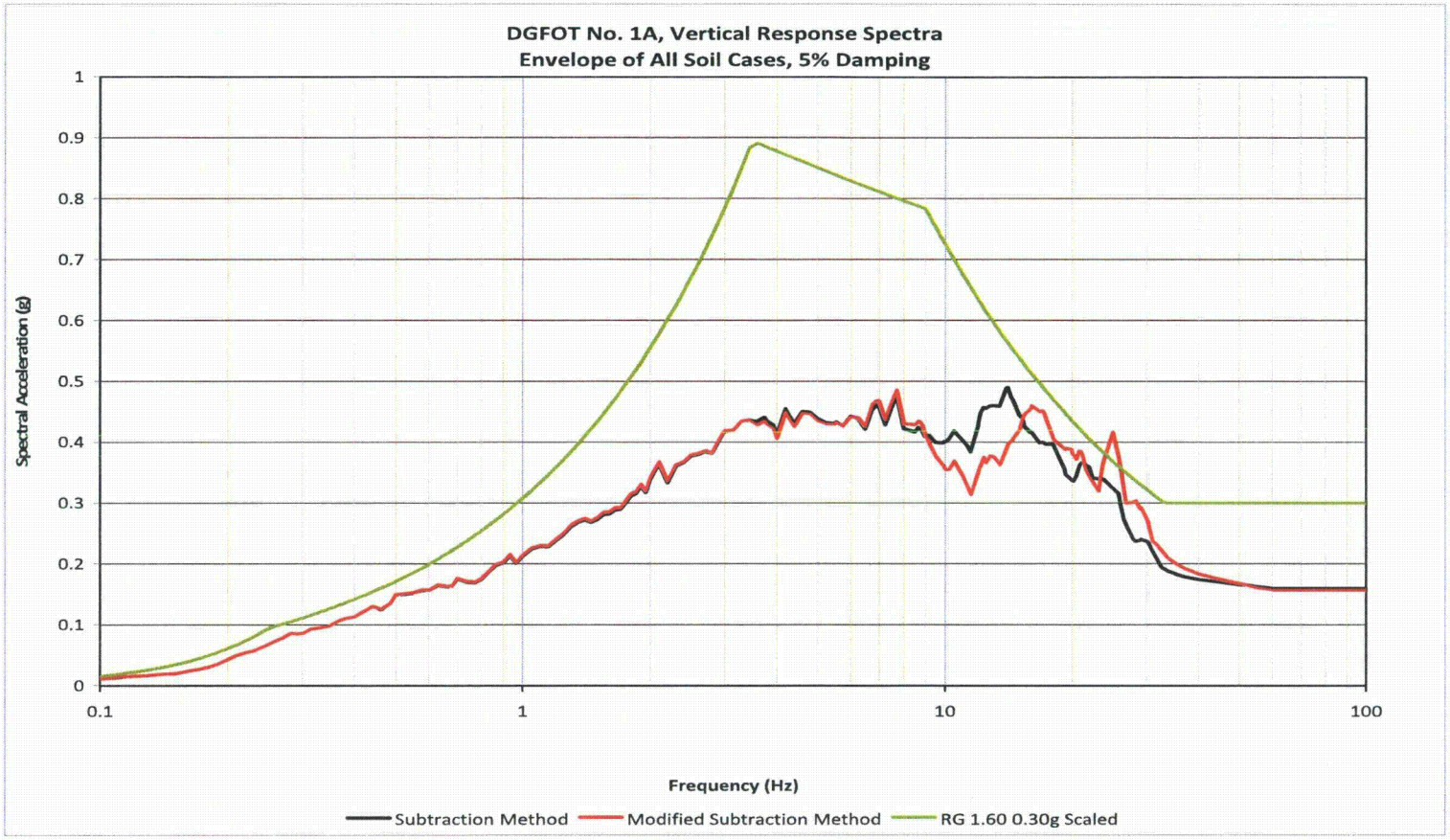


Figure 03.07.01-29 S1.258: Amplified Motion, MSM vs. SM

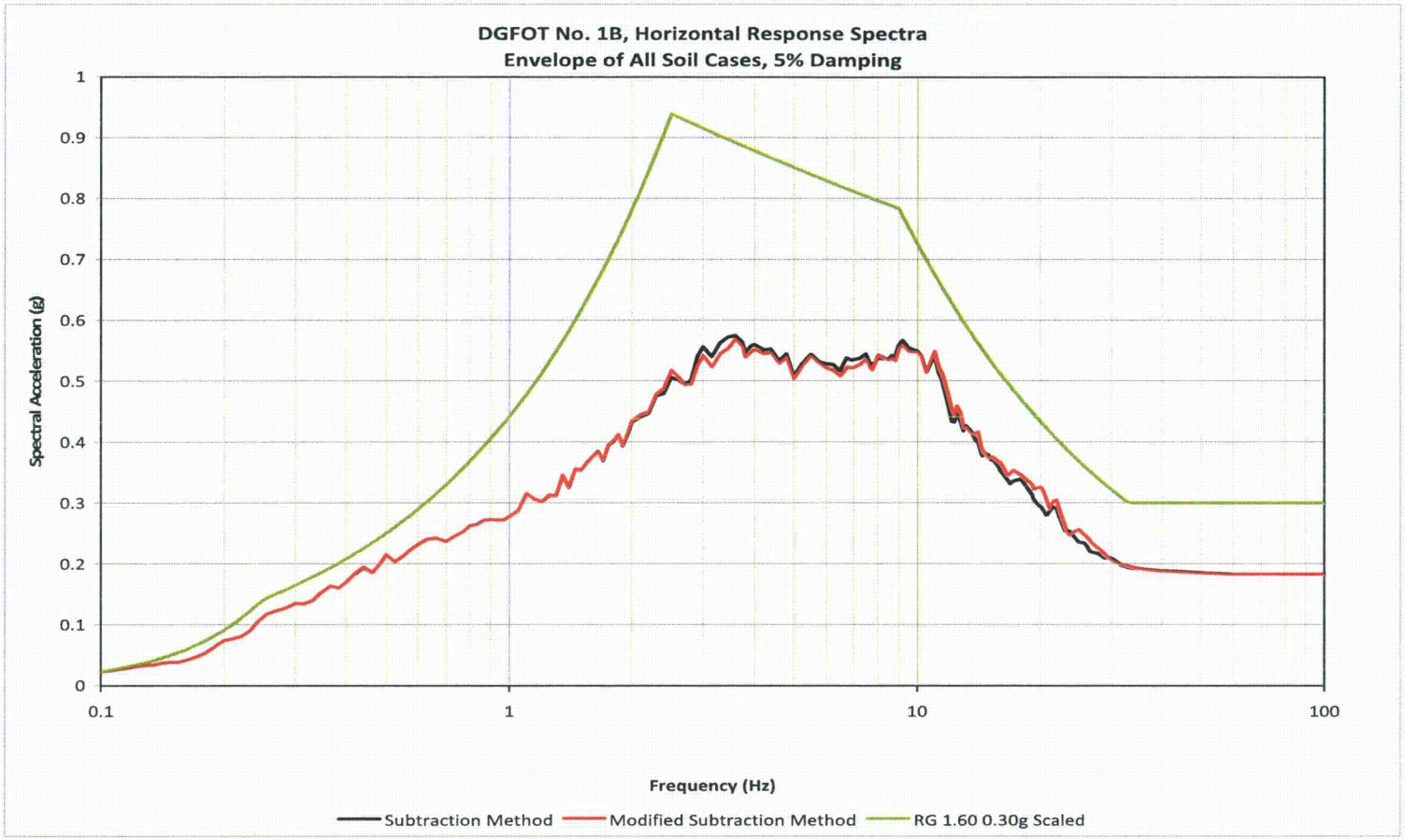


Figure 03.07.01-29 S1.259: Amplified Motion, MSM vs. SM

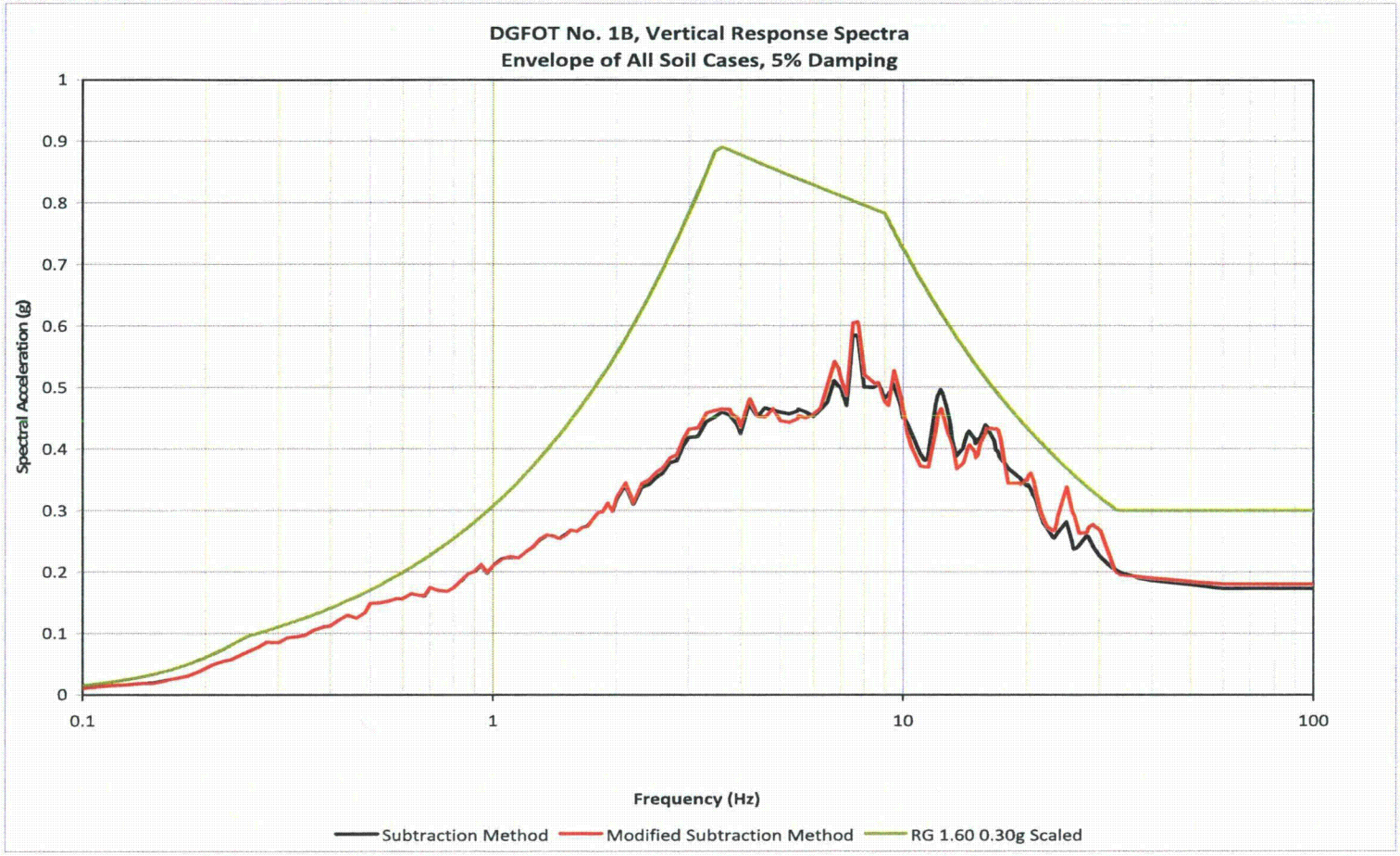


Figure 03.07.01-29 S1.260: Amplified Motion, MSM vs. SM

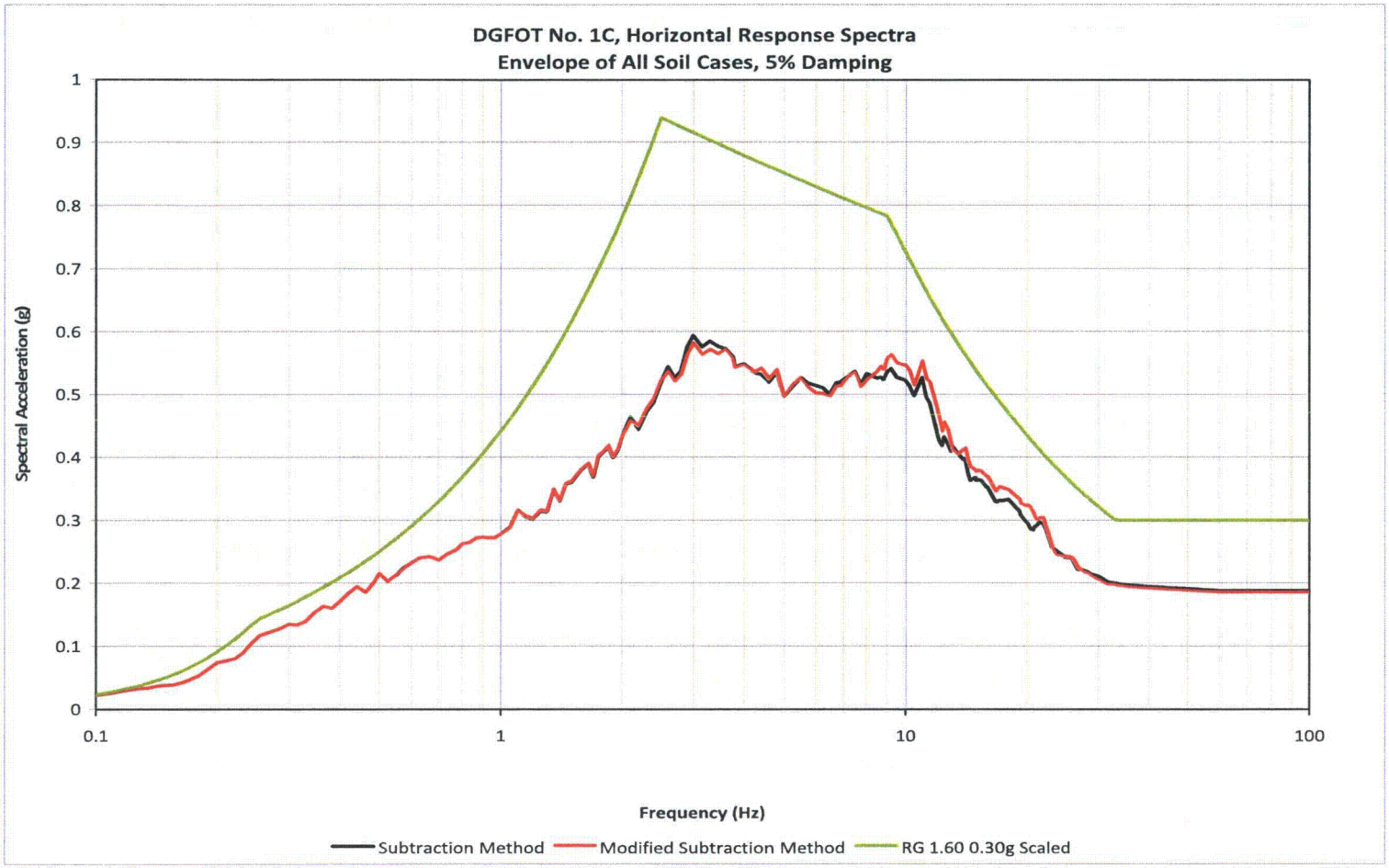


Figure 03.07.01-29 S1.261: Amplified Motion, MSM vs. SM

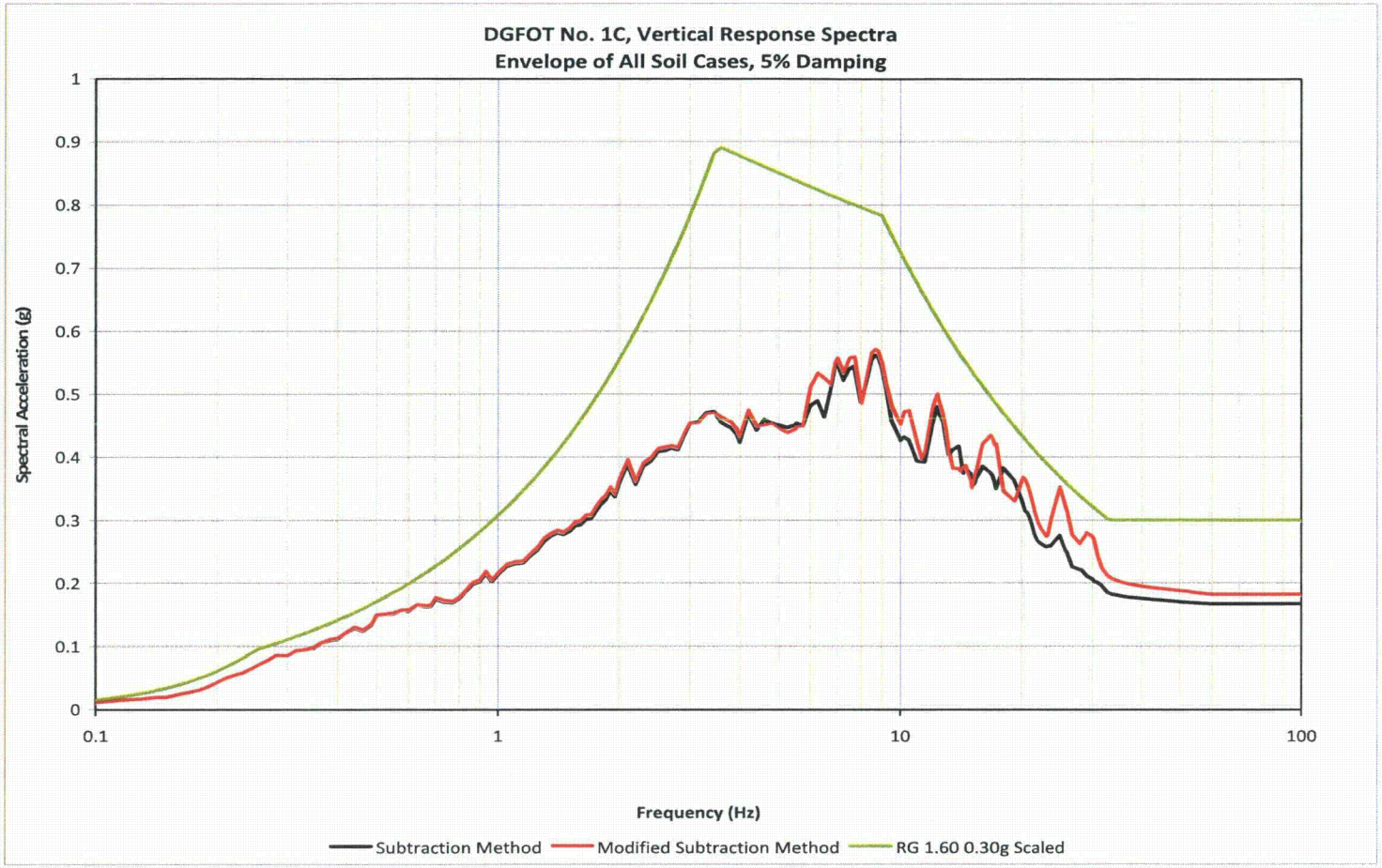


Figure 03.07.01-29 S1.262: Amplified Motion, MSM vs. SM

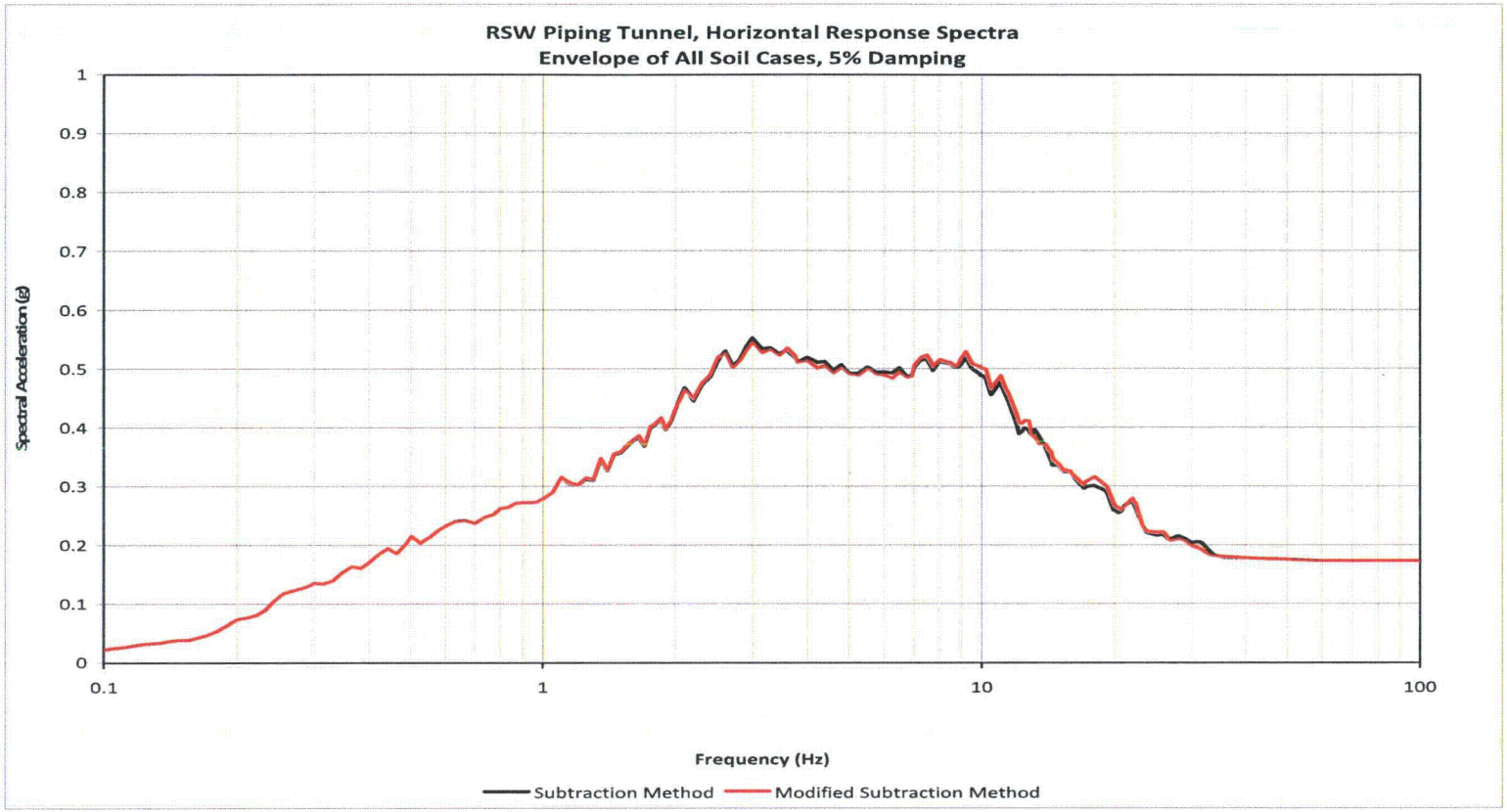


Figure 03.07.01-29 S1.263: Amplified Motion, MSM vs. SM

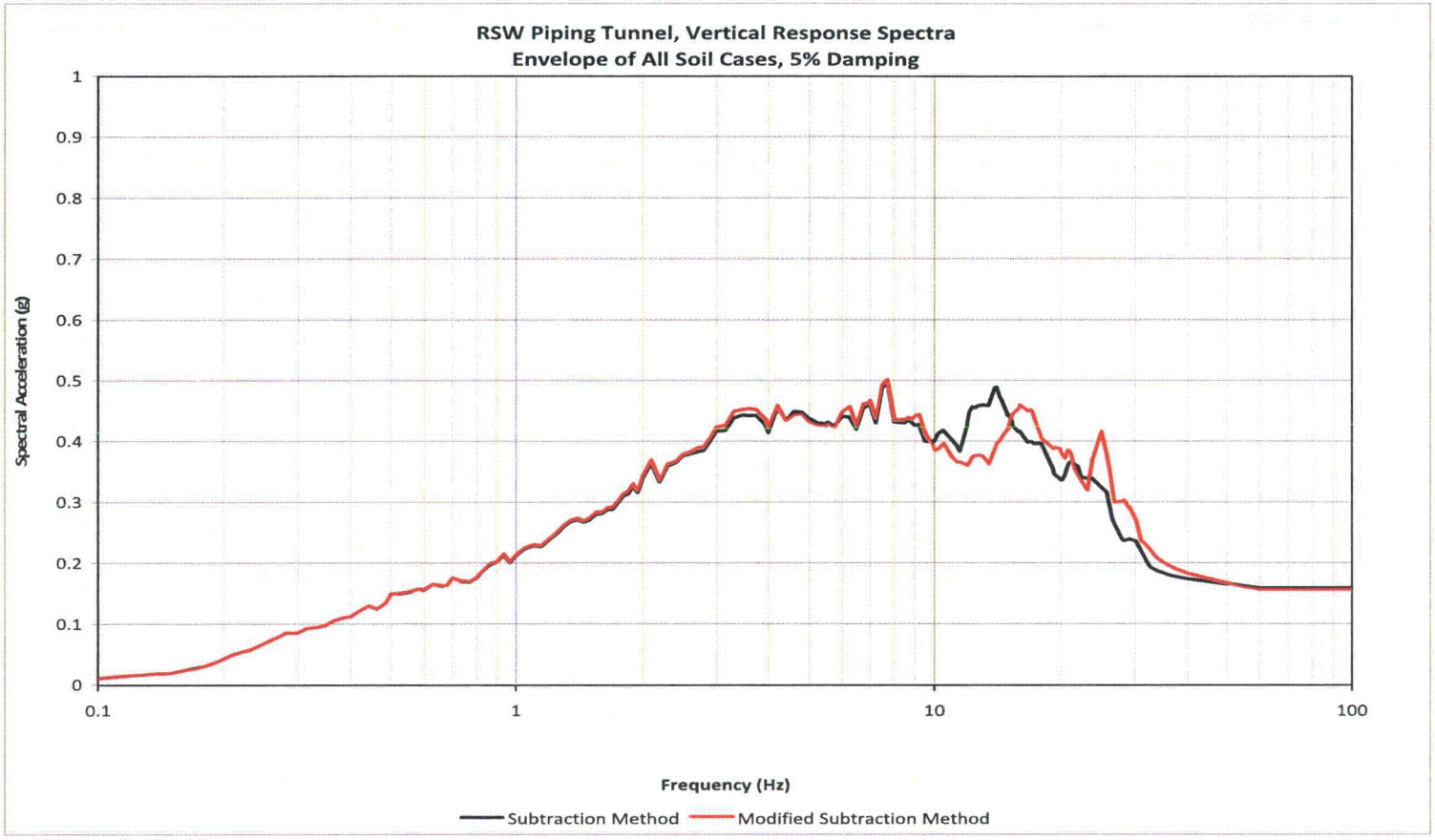


Figure 03.07.01-29 S1.264: Amplified Motion, MSM vs. SM

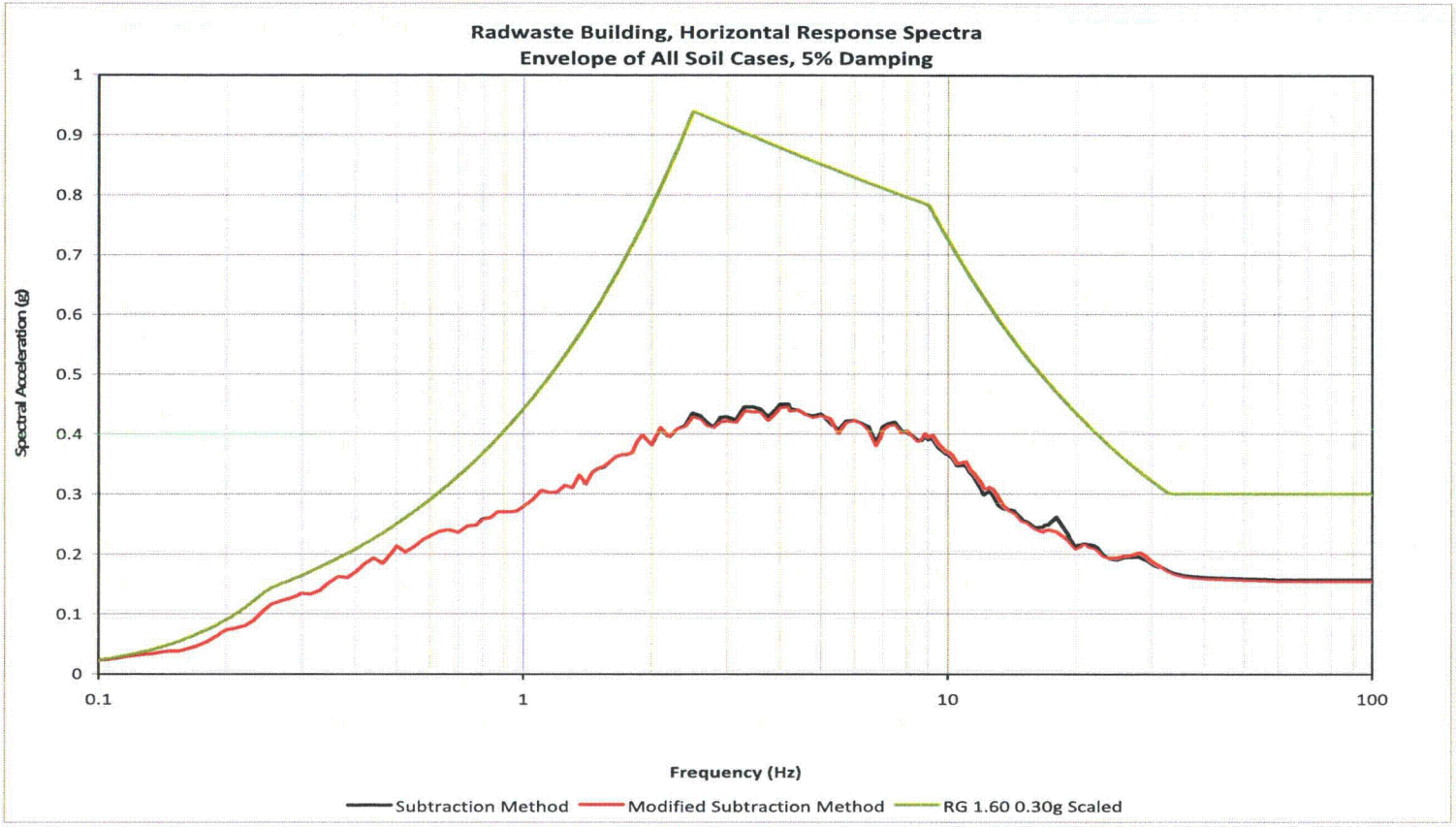


Figure 03.07.01-29 S1.265: Amplified Motion, MSM vs. SM

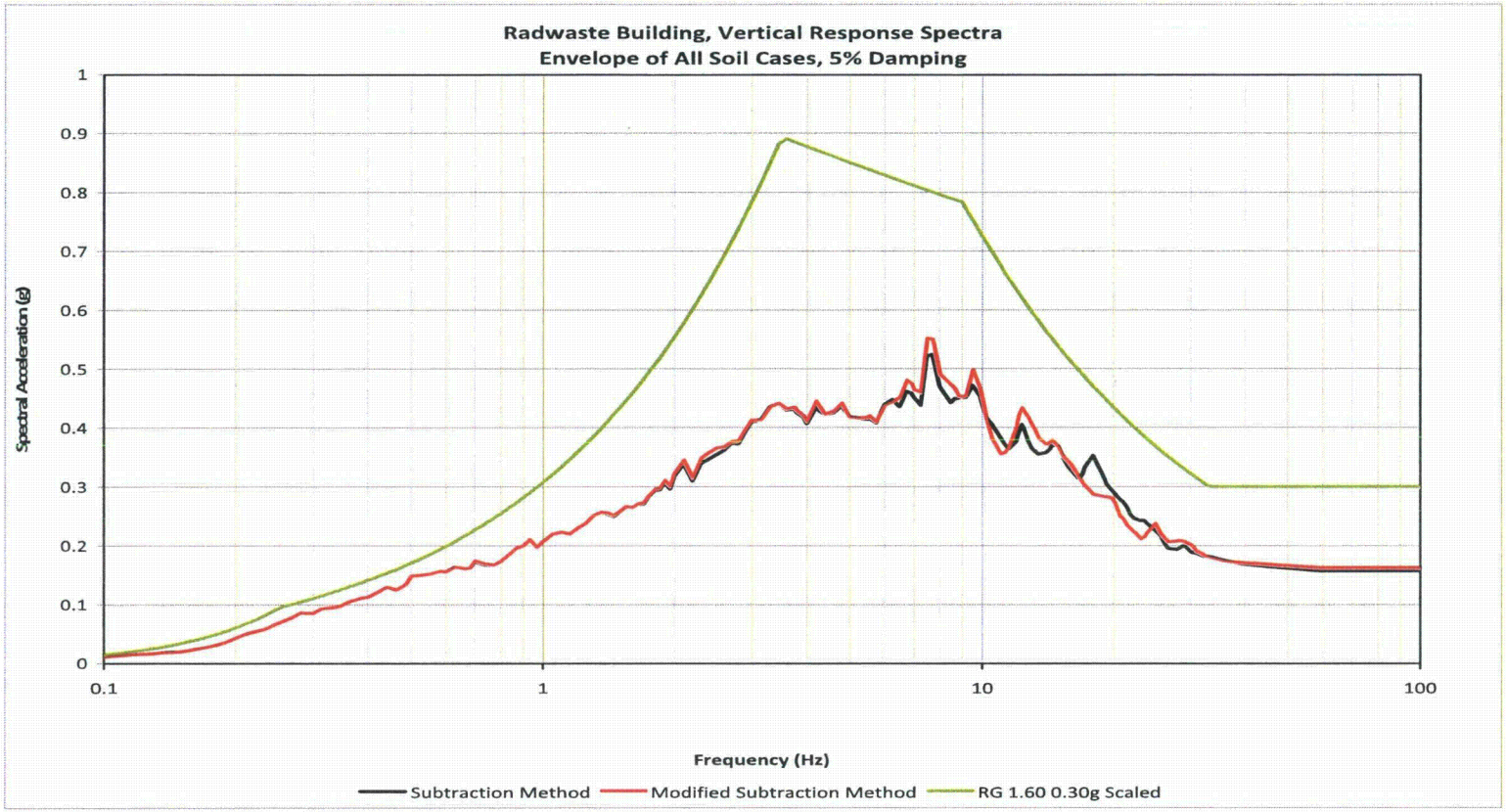


Figure 03.07.01-29 S1.266: Amplified Motion, MSM vs. SM

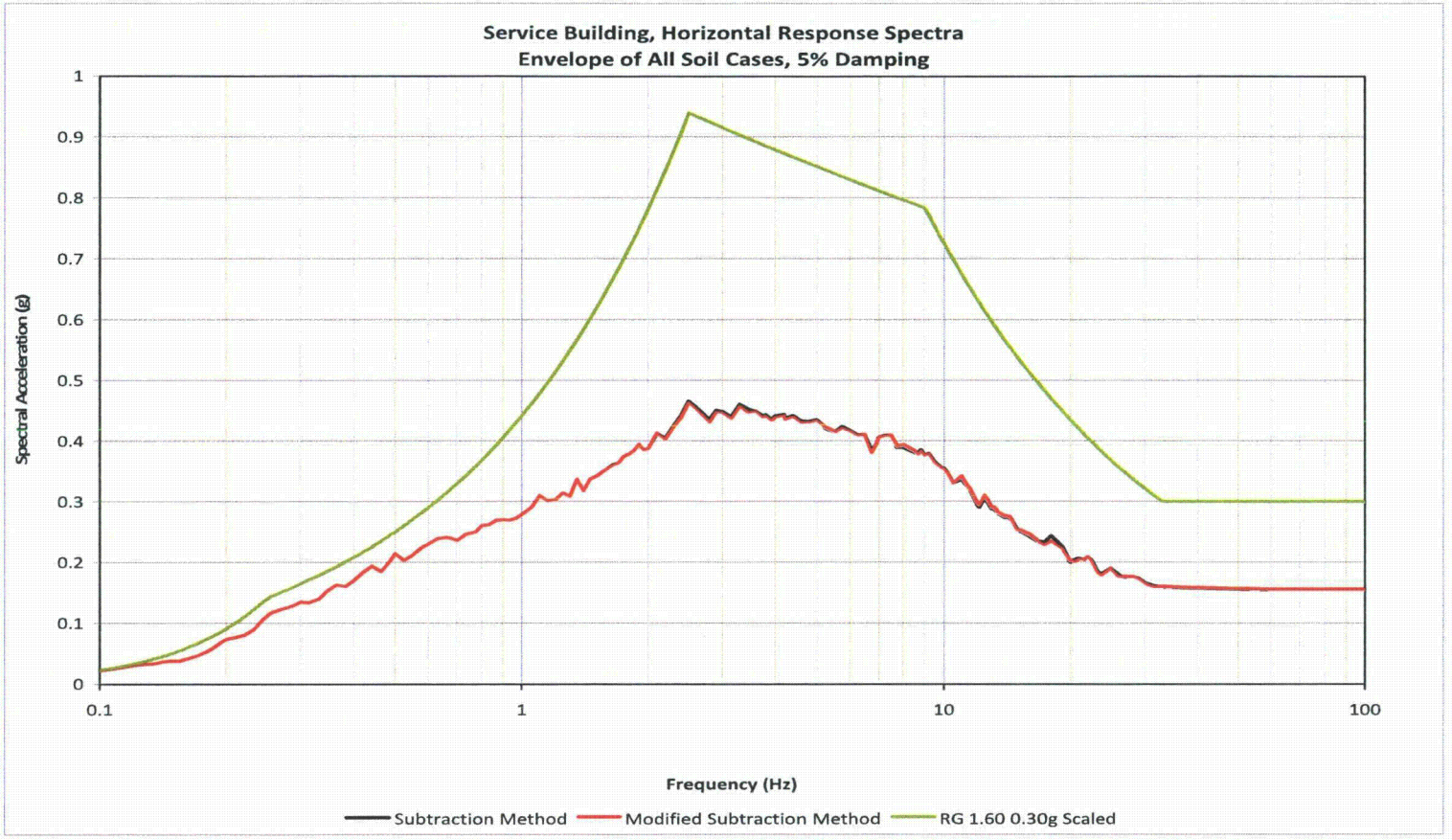


Figure 03.07.01-29 S1.267: Amplified Motion, MSM vs. SM

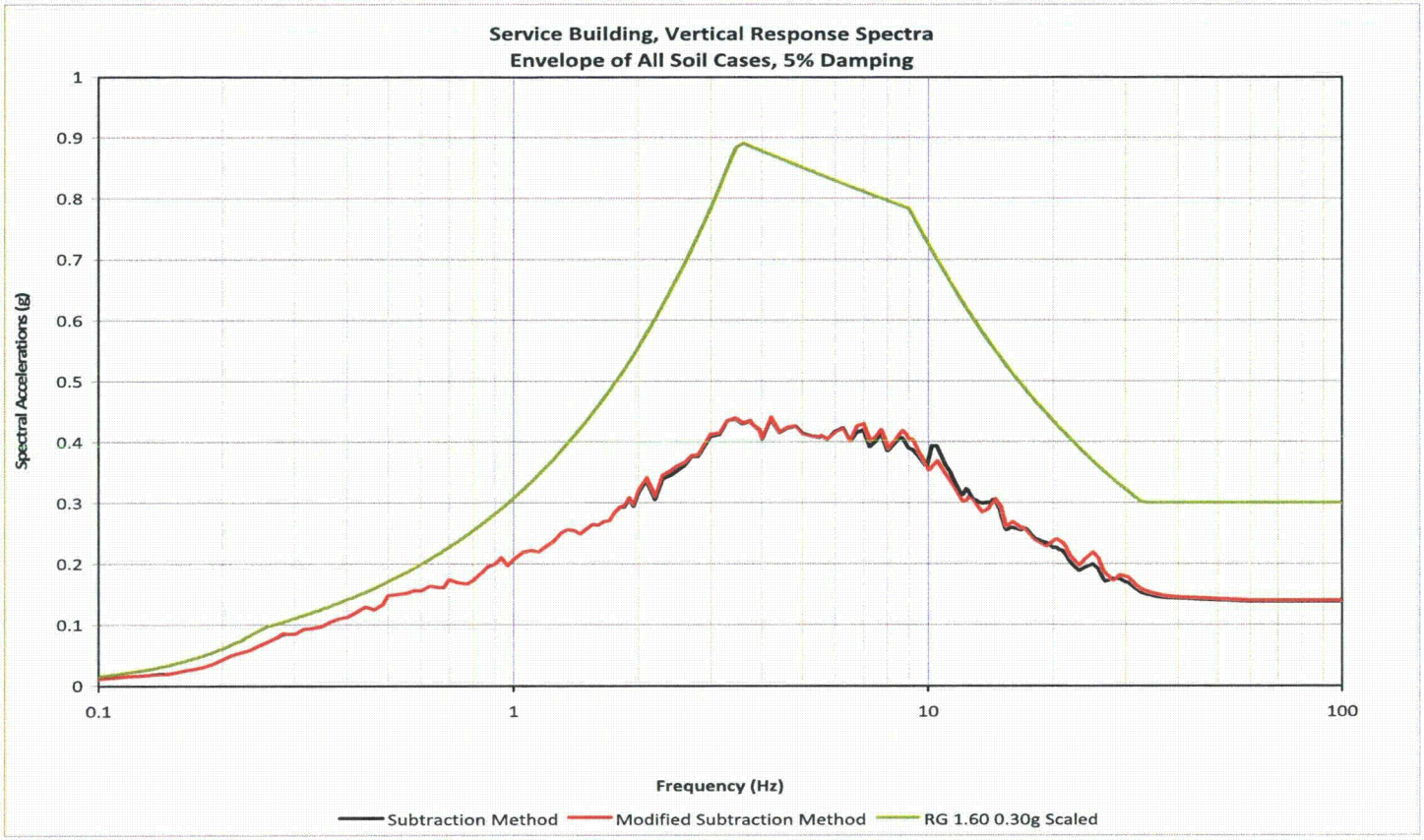


Figure 03.07.01-29 S1.268: Amplified Motion, MSM vs. SM

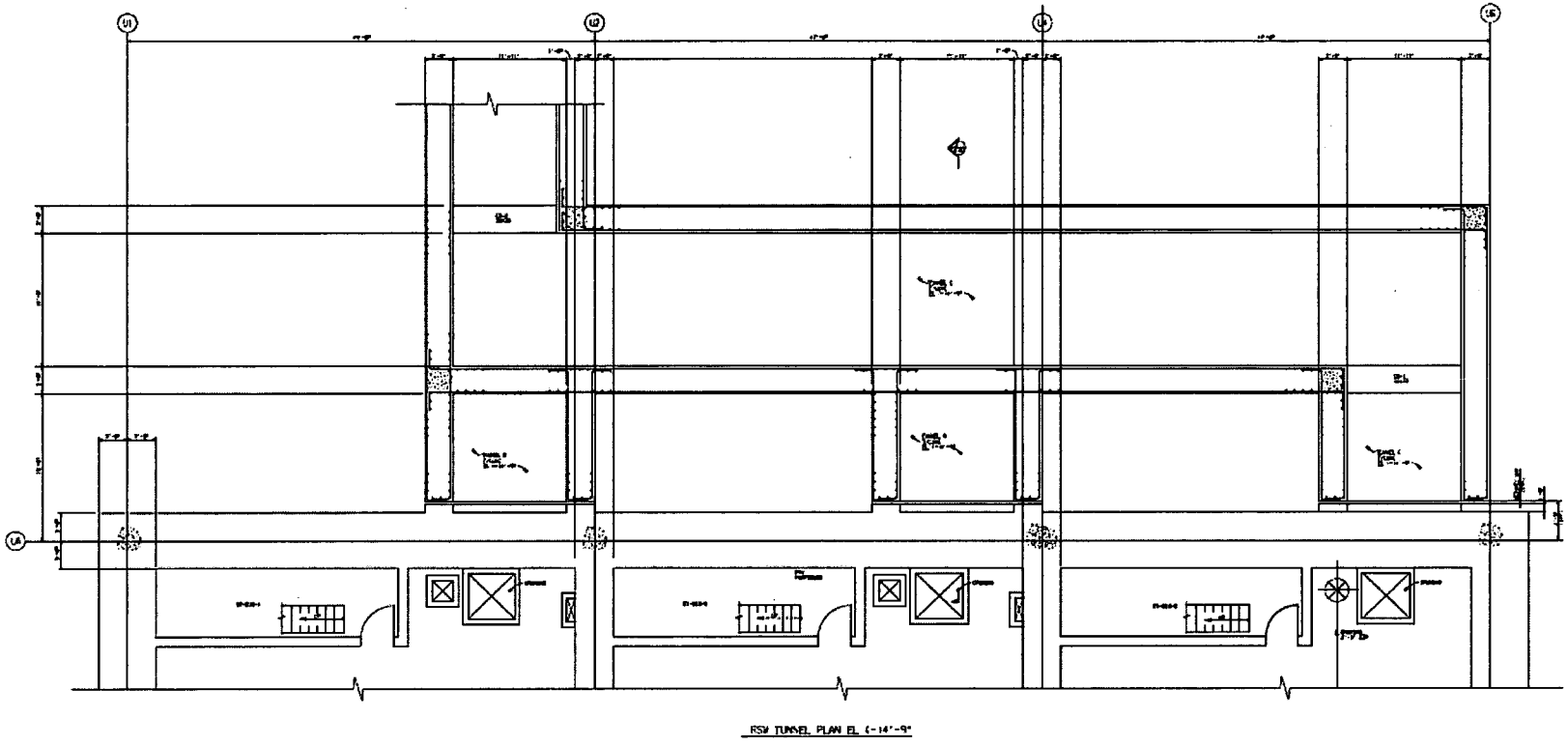


Figure 03.07.01-29 S1.269: Partial Plan of RSW Piping Tunnel and RSW Pump House

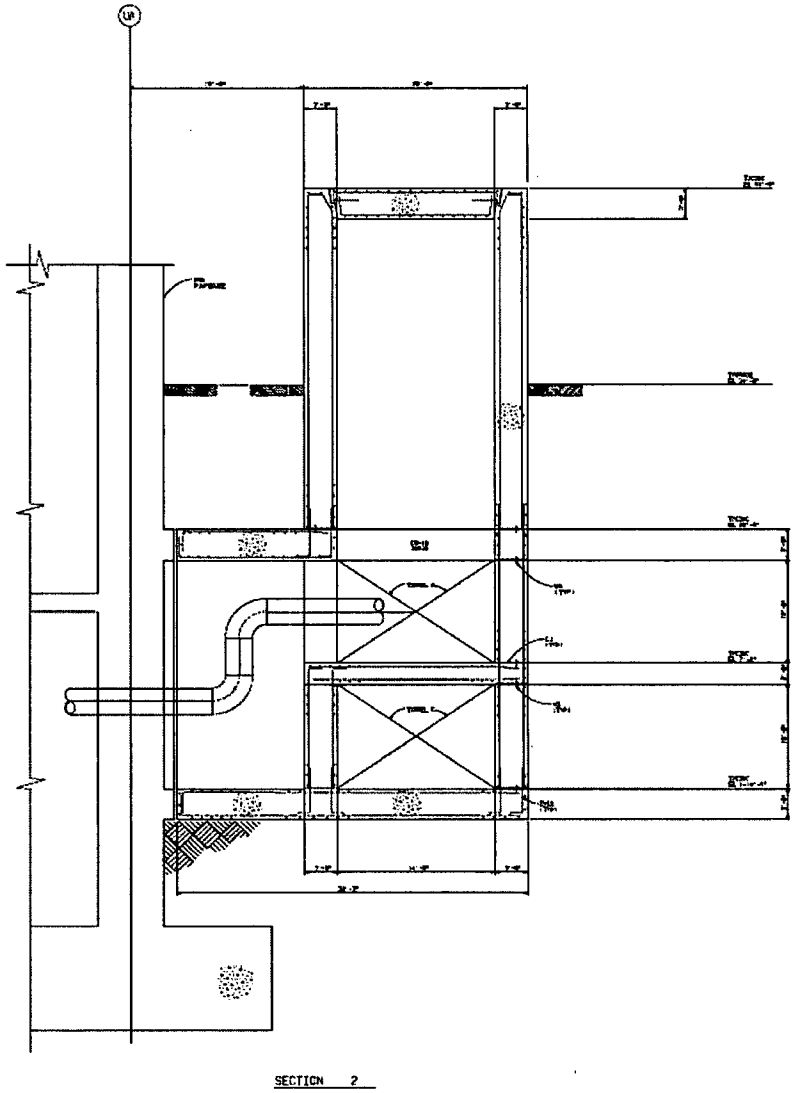


Figure 03.07.01-29 S1.270: RSW Piping Tunnel Section

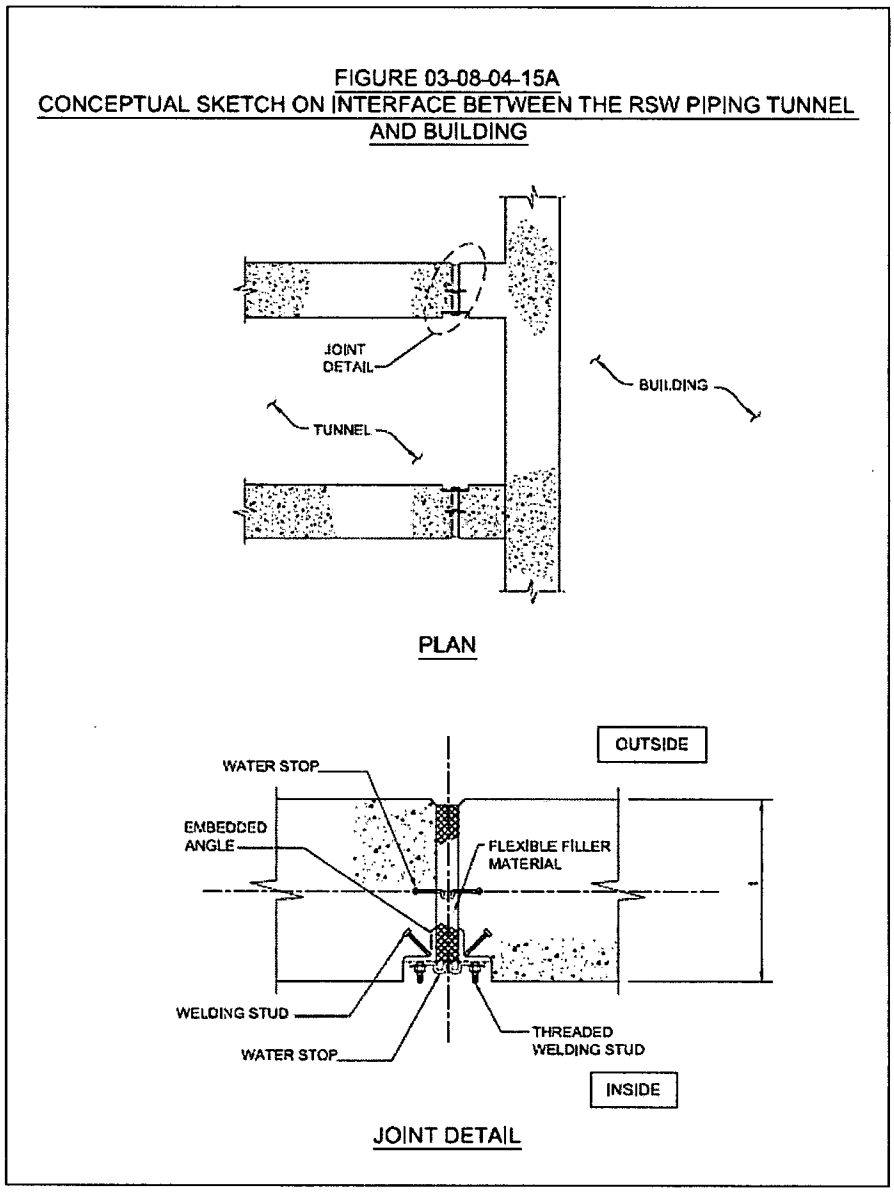


Figure 03.07.01-29 S1.271: Conceptual Detail of Seismic Joints

Design Margin for Total Force

Location	Maximum Total Force from Time History (kips/foot)			Total Force from Absolute of Maximum Pressures (kips/foot)	
	Subtraction	Direct	Modified Subtraction	Used for Design	Design Pressure Margin
Reactor Building, East Wall	25.3	25.3	25.7	28.1	9
Reactor Building, West Wall	79.5	78.8	80.5	225.5	180%
Tunnel, East Wall	70.5	68.8	69.3	89.4	27%
Tunnel, West Wall	50.6	50.7	50.4	69.5	37%
Radwaste Building, East Wall	94.5	94.5	94.6	113.6	20%
Radwaste Building, West Wall	28.5	30.3	29	29.5	-

Figure 03.07.01-29 S1.272: Table 5.1 Presented to the NRC during July 27, 2011 Audit

Soil Pressures at Max Total Soil Force from Time History
RSW Tunnel East Wall, Subtraction, Lower Bound In-Situ

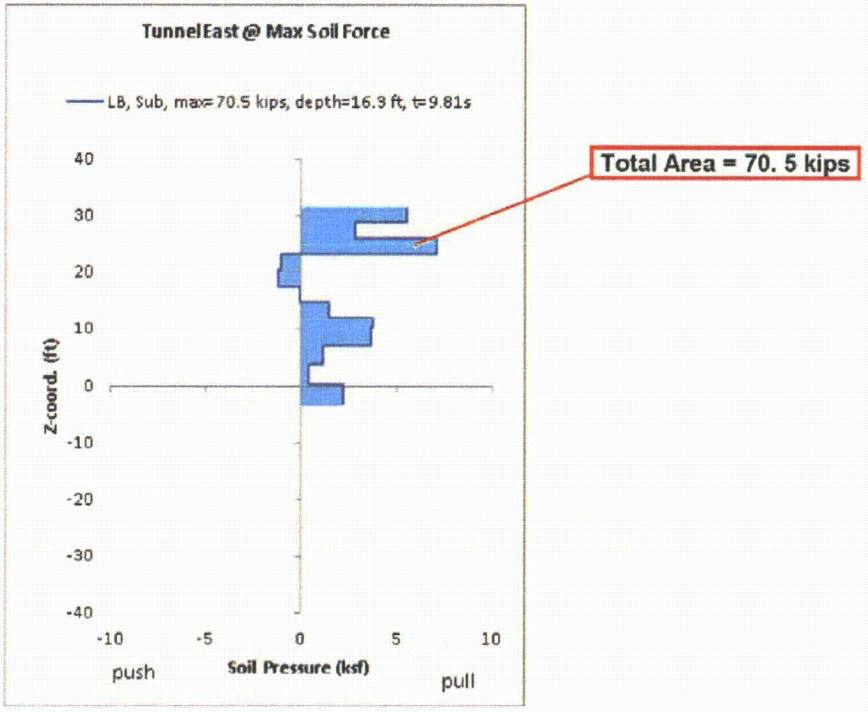


Figure 03.07.01-29 S1.273: Integration of Seismic Soil Pressure to Obtain Total Soil Force RSW Tunnel East Wall, Subtraction Method, Lower Bound In-Situ soil Case

Soil Pressures at Max Total Soil Force from Time History
RSW Tunnel East Wall, Direct, Lower Bound In-Situ

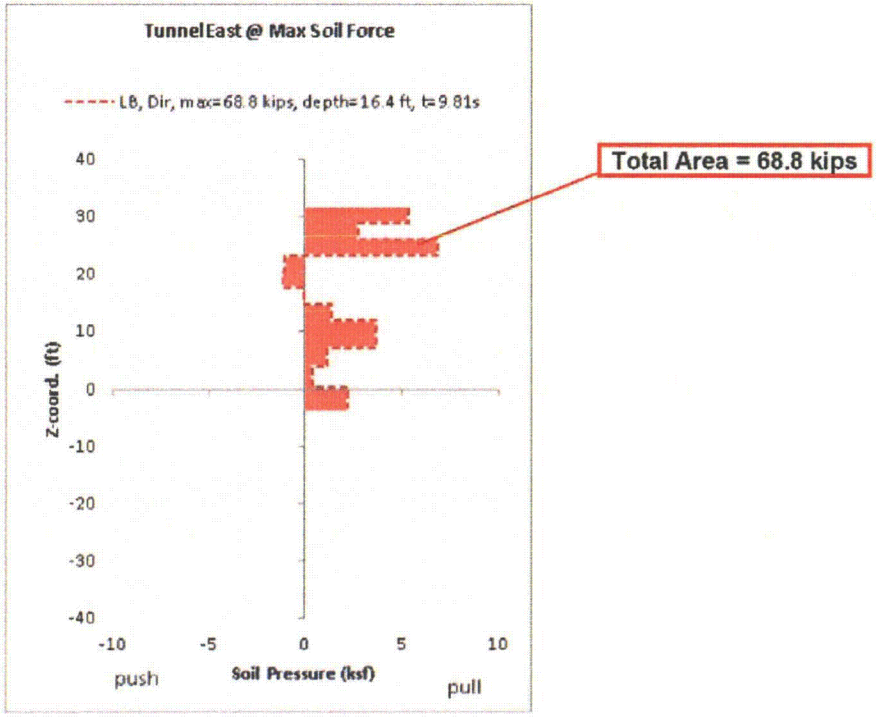


Figure 03.07.01-29 S1.274: Integration of Seismic Soil Pressure to Obtain Total Soil Force RSW Tunnel East Wall, Direct Method, Lower Bound In-Situ soil Case

Soil Pressures at Max Total Soil Force from Time History
RSW Tunnel East Wall, MSM, Lower Bound In-Situ

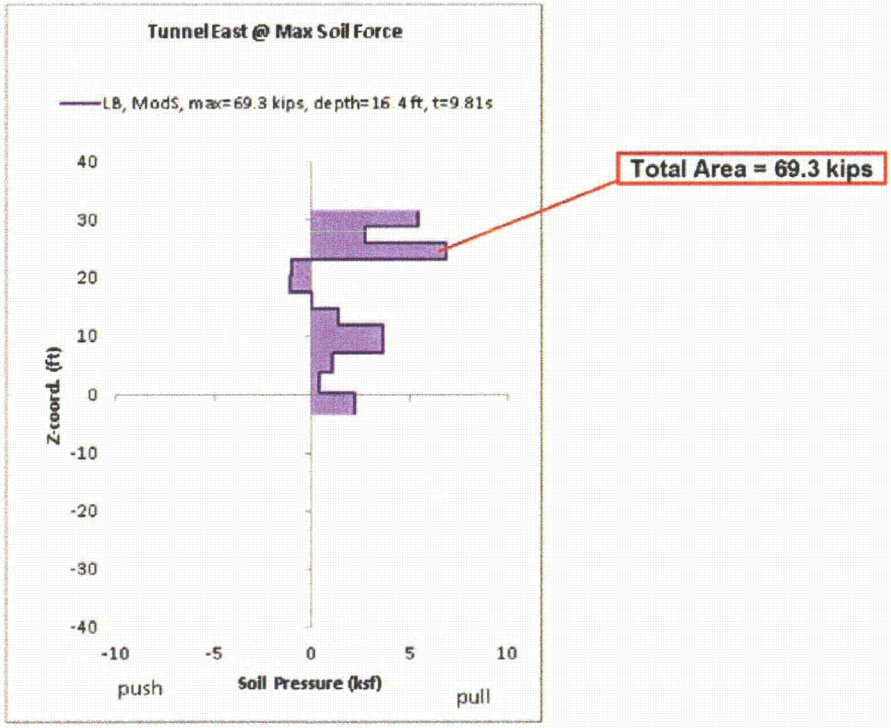


Figure 03.07.01-29 S1.275: Integration of Seismic Soil Pressure to Obtain Total Soil Force RSW Tunnel East Wall, Modified Subtraction Method, Lower Bound In-Situ soil Case

Absolute of Maximum Soil Pressures
RSW Tunnel East Wall, Subtraction, Lower Bound In-Situ

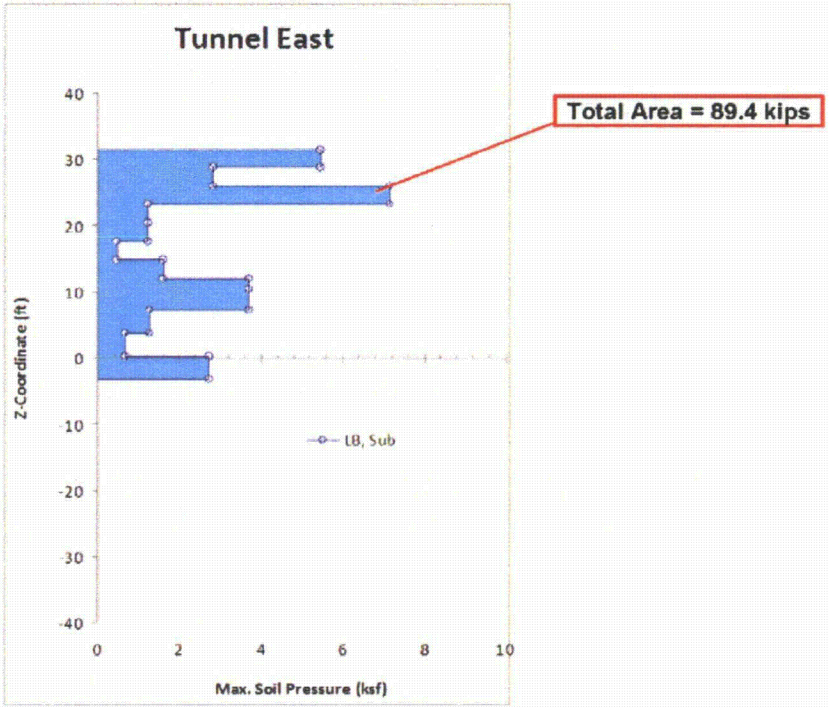


Figure 03.07.01-29 S1.276: Integration of Absolute Maximum Seismic Soil Pressure to Obtain Total Soil Force RSW Tunnel East Wall, Subtraction Method, Lower Bound In-Situ soil Case

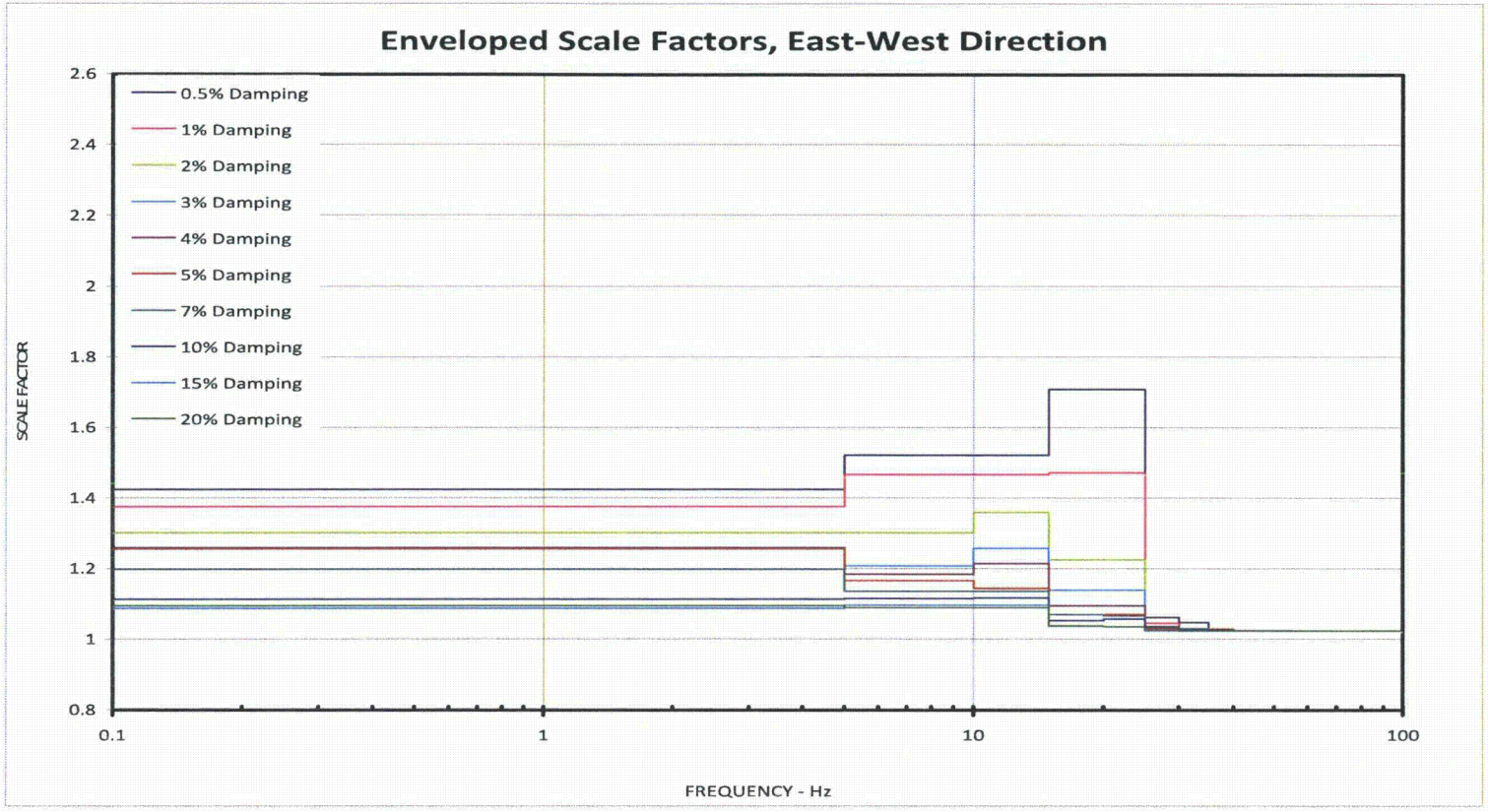


Figure 03.07.01-29 S1.277: Enveloped Scale Factors for East-West Response Spectra, Reactor Service Water (RSW) Piping Tunnel