Company: PDelta Ingenieria Estructural S.A.S **Engineer: Ing. Osvaldo Guzman A**
Project: P046-2024 - PLAZA DOÑA CEIBA (LOCALES) **5:49:59 p. m. 26/06/2024**
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R E D U N D A N C Y A N A L Y S I S

STORY-STRENGTH REDUCTION DUE TO REMOVAL OF CRITICAL ELEMENT

	E A R T H Q U A K E - X				E A R T H Q U A K E - Y			
Story	Vi	Vi/Vb	Crit.Element	Ve/Vi	Vi	Vi/Vb	Crit.Element	Ve/Vi
1	1.6	1.00	BEM:A(1-2)	0.51	1.6	1.00	BEM:1(A-B)	0.54
MAXIMA				0.51				0.54

NOTE: Shear values are divided by R

Removal of a critial element on a story supporting more than 35% of Vb (Base Shear) would reduce the story strength by more than 33%. Thus SYSTEM LACKS REDUNDANCY!!!

Proposed Reduction Factor for Lack of Redundancy: Ørx = 0.75 Øry = 0.75