

Company: Company

Project: IE HECTOR MANUEL VIDES BALLESTEROS (MÓDULO 8)

File: C:\IE REGIDOR\MOD8.rcb

Engineer: Name

10:14:00 a. m. 27/06/2025

REDUNDANCY ANALYSIS

STORY-STRENGTH REDUCTION DUE TO REMOVAL OF CRITICAL ELEMENT

Story	E A R T H Q U A K E - X				E A R T H Q U A K E - Y			
	Vi	Vi/Vb	Crit.Element	Ve/Vi	Vi	Vi/Vb	Crit.Element	Ve/Vi
1	9.4	1.00	BEM:R(7-10)	0.37	9.3	1.00	BEM:7(R-Q)	0.60
MAXIMA				0.37				0.60

NOTE: Shear values are divided by R

Removal of a critical 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: $\phi_{rx} = 0.75$ $\phi_{ry} = 0.75$