Universidad del sureste

LICENCIATURA EN ARQUITECTURA

“ANALISIS DE ESTRUCTURAS”

METODOS ENERGETICOS

Presenta:

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Profesor:

ARQUITECTO. Pedro Alberto García López

Comitán de Domínguez **Febrero 12 del 2021**

TEMA

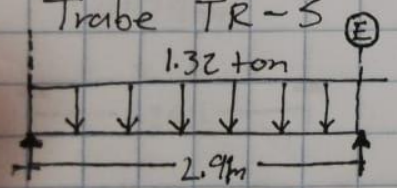
FECHA

Trabe #3

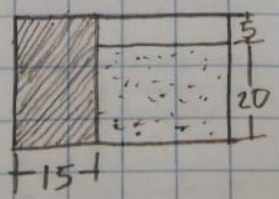
$(4.8210\ m^2)(635\ kg/m^2) = \frac{3061.335\ kg/m^2}{4.69\ m} = 652.736\ kg/m$

$(4.9616\ m^2)(635\ kg/m^2) = \frac{3150.616\ kg/m^2}{4.69\ m} = 671.773\ kg/m$

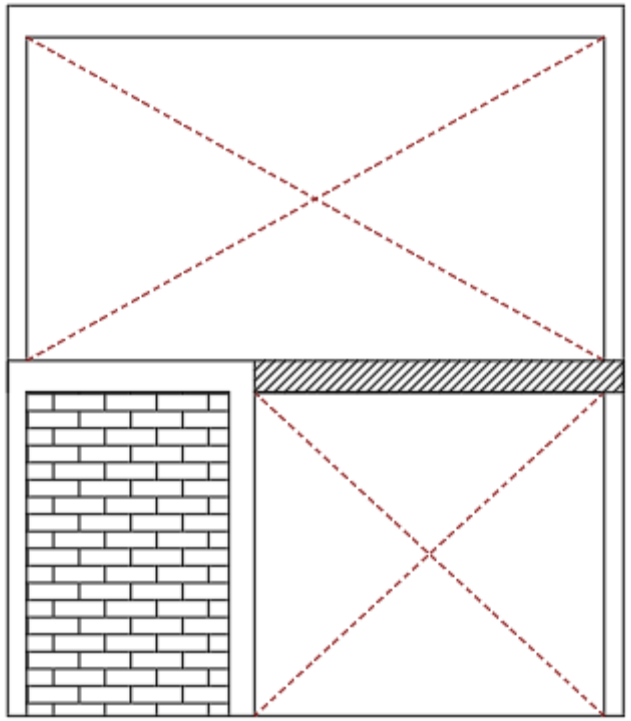
Trabe TR-3



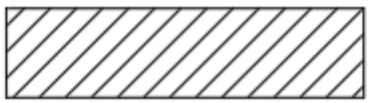
$2.91\ m/12 = 0.2425 = 25\ cm\ cm$



Trabe #5



TRABE A ANALIZAR



Trabe #5

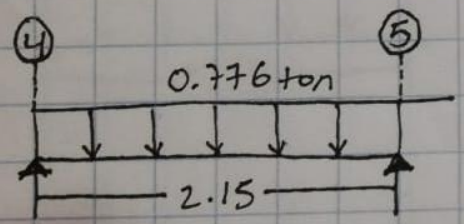
$(0.9533\ m^2)(635\ kg/m^2) = \frac{605.345\ kg/m^2}{2.15\ m} = 281.556\ kg/m$

$(2.472\ m^2)(635\ kg/m^2) = \frac{1569.72\ kg/m^2}{3.17\ m} = 495.179\ kg/m$

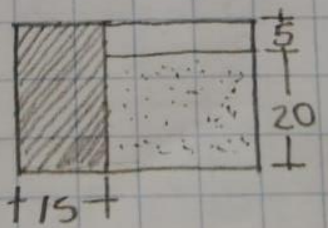
$\downarrow$

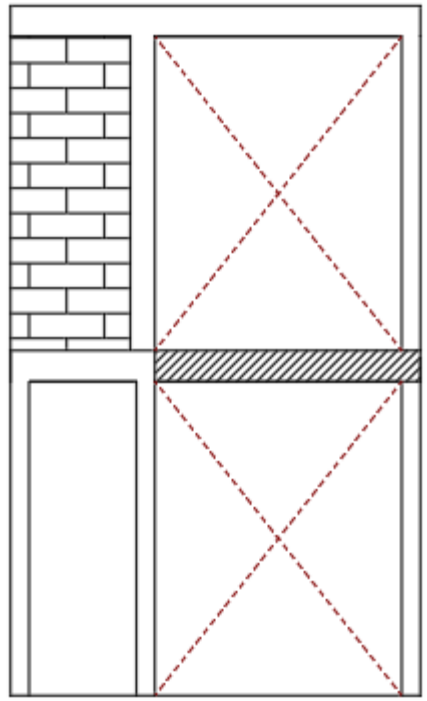
$776.735\ kg/m$

Trabe TR-5



$2.15m/12 = 0.17 = 20\ cm$





TRABE A ANALIZAR

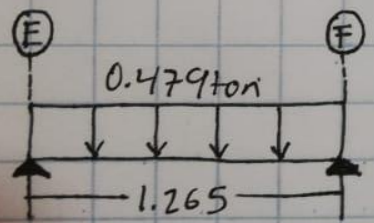
Trabe #9

$(0.4066\,m^2)(635\,kg/m^2) = \frac{258.191\,kg/m^2}{1.265\,m} = 204.103\,kg/m$

$(0.7590\,m^2)(635\,kg/m^2) = \frac{481.965\,kg/m^2}{1.75\,m} = 275.408\,kg/m$

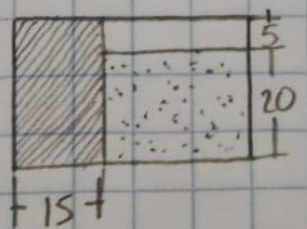
$\downarrow$

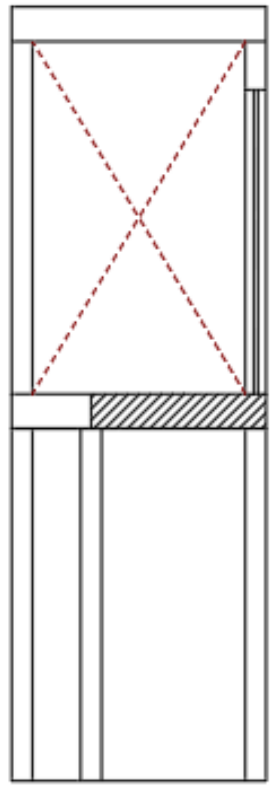
$479.543\,kg/m$



$1.265\,m/12 = 0.105 = 10\,cm$

Trabe TR-9





TRABE A ANALIZAR

TEMA

FECHA

Trabe #11

$(0.8584\ m^2)(635\ kg/m^2) = \frac{545.084\ kg/m^2}{2m} = 272.542\ kg/m$

muro = $2.55\ m\ (0.270\ t/m) = 0.675\ t/m$

Cerramiento = $0.15m \times 0.25m \times 0.240t = 0.009\ t/m$

Cerramiento sobre puerta = $0.15m \times 0.20m \times 0.240t = 0.0072\ t/m$

Losa de azotea = $(2.233m^2)(0.665\ t/m^2) = \frac{1.484\ t/m^2}{3.5\ m} = 0.404\ t/m$

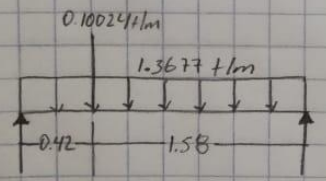
Sumatoria = $0.2725t/m + 0.675t/m + 0.009t/m + 0.0072t/m + 0.404\ t/m = 1.3677\ t/m$

$0.30(0.27) = 0.081$

Carga puntual.

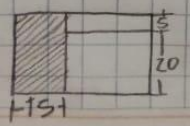
$\frac{0.404t/m + 0.009t/m + 0.0072t/m + 0.081}{2m} = 0.2506\ t/m$

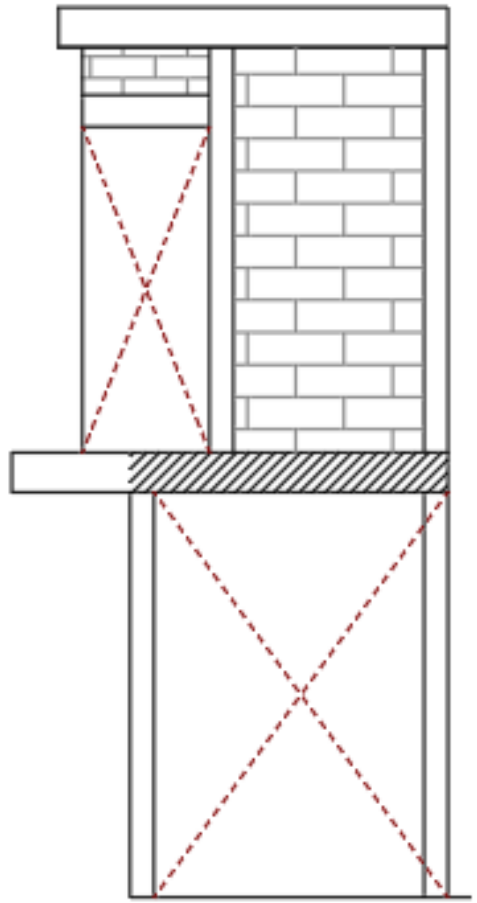
$0.2506\ (0.80m) = \frac{0.20048}{2} = 0.10024\ t/m$



TR-11

$2m/12 = 0.166 = 20cm$

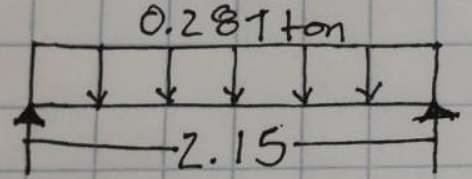




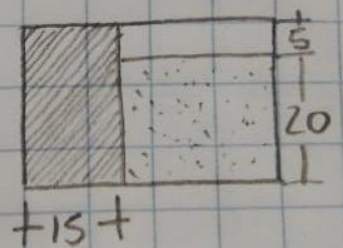
TRABE A ANALIZAR

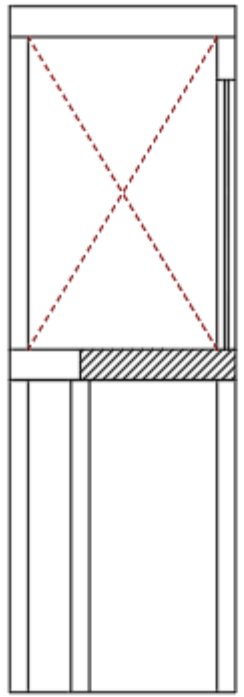
Trabe #6

$(0.9533\ m^2)(635\ kg/m^2) = \frac{605.3455\ kg/m^2}{2.15\ m} = 281.556$



2.15m /12 = 0.179 = 20cm





TRABE A ANALIZAR