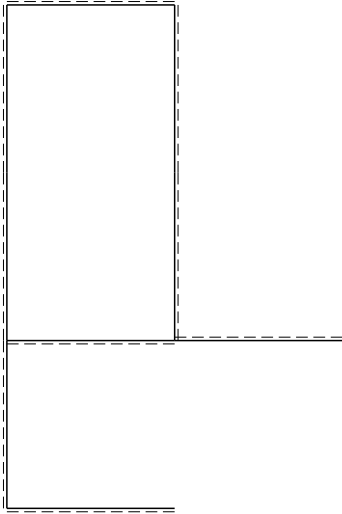
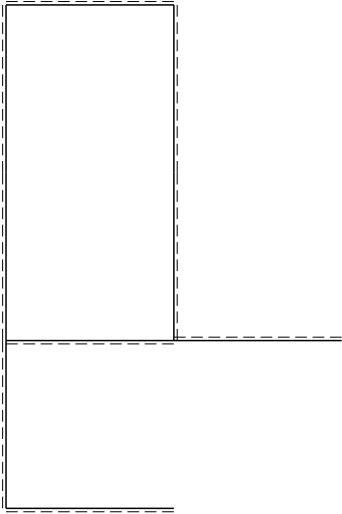
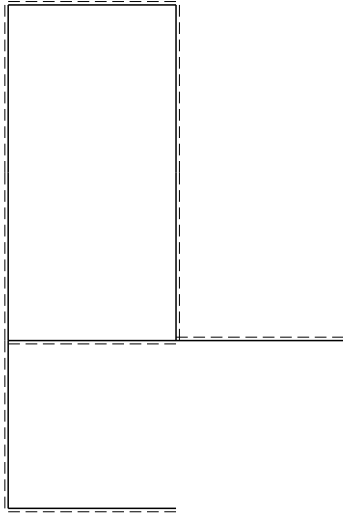
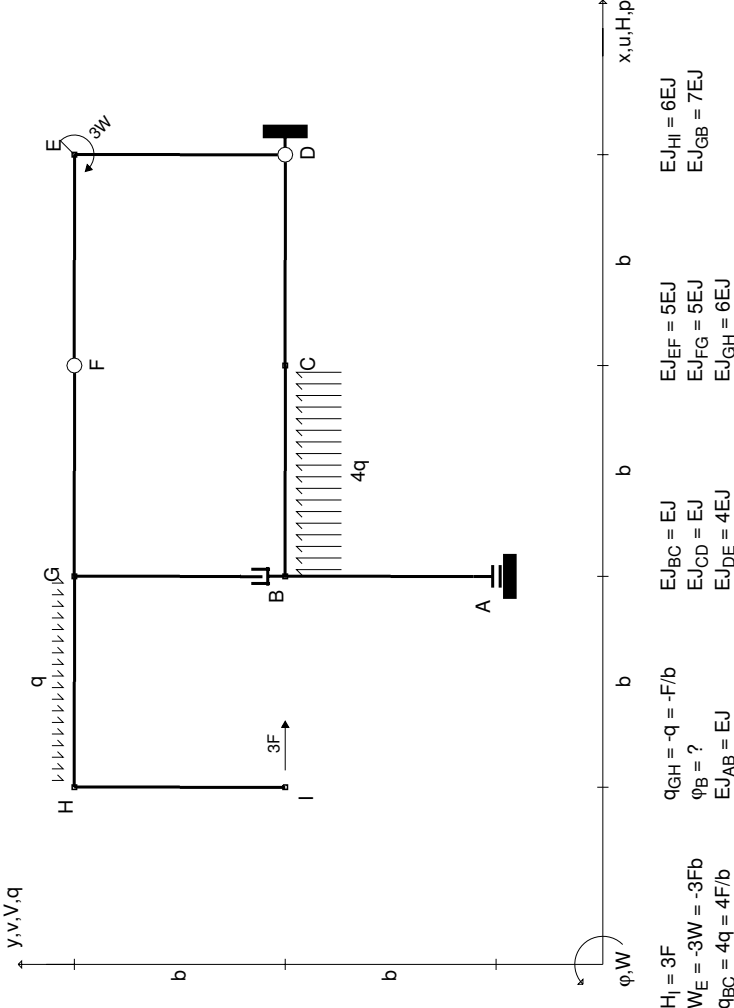


$\varphi_B =$

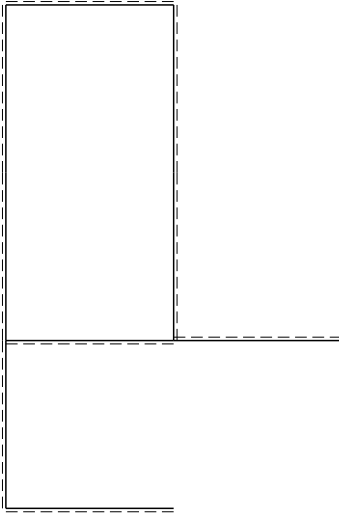
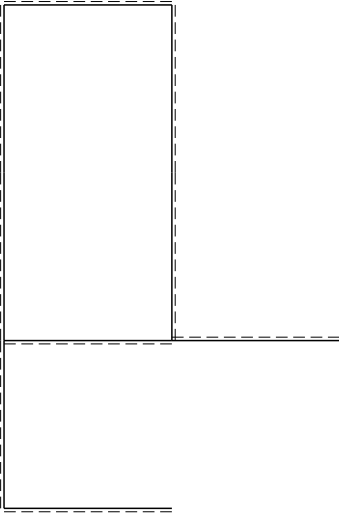
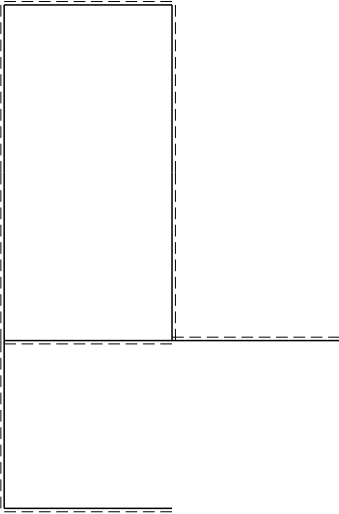


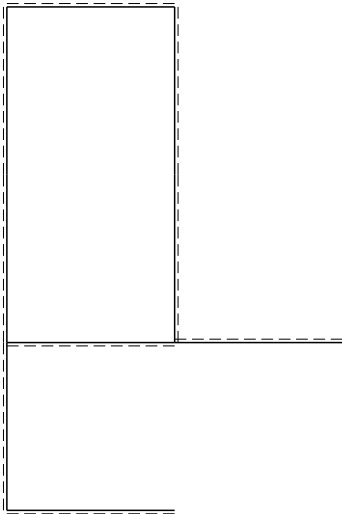
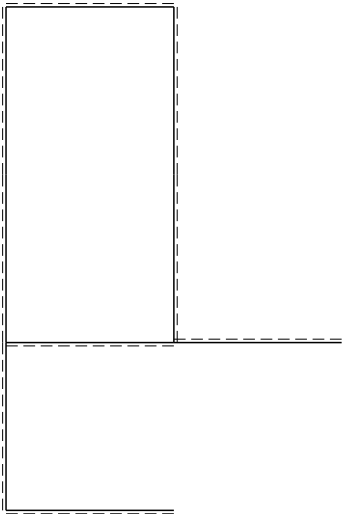
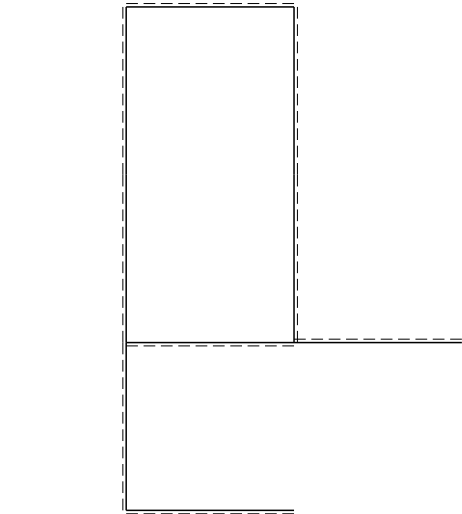
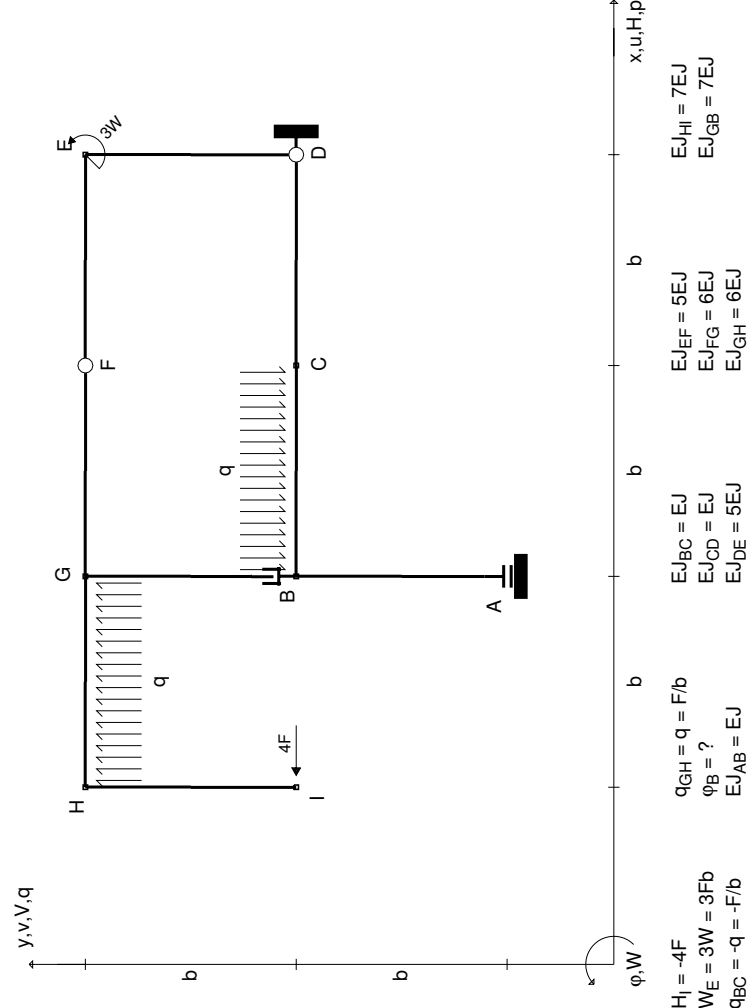
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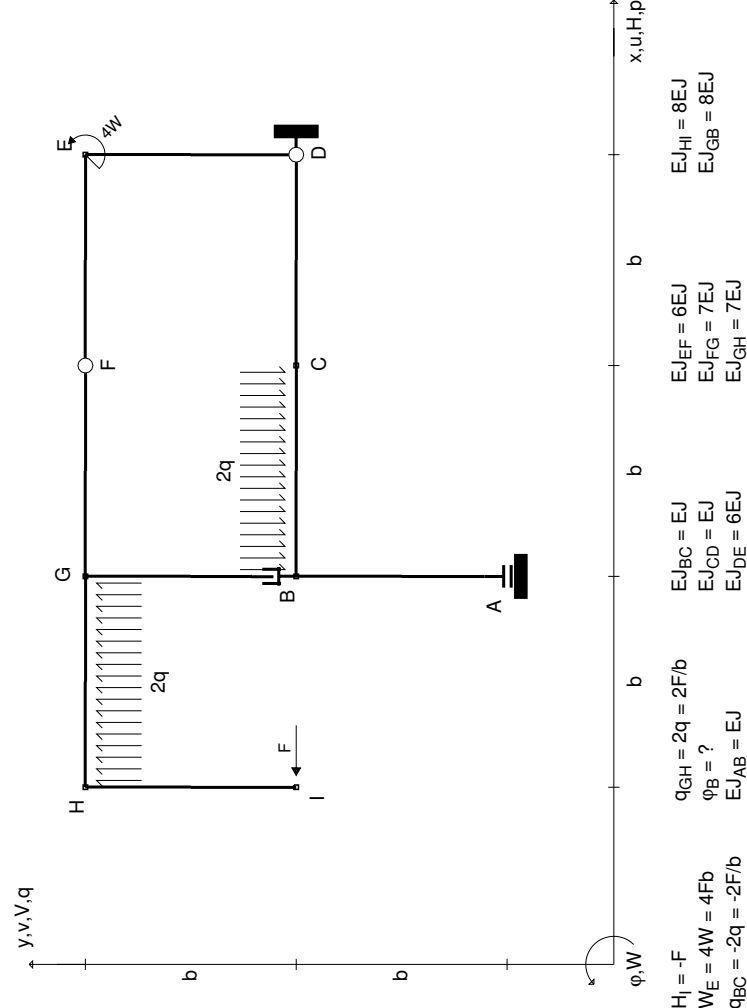
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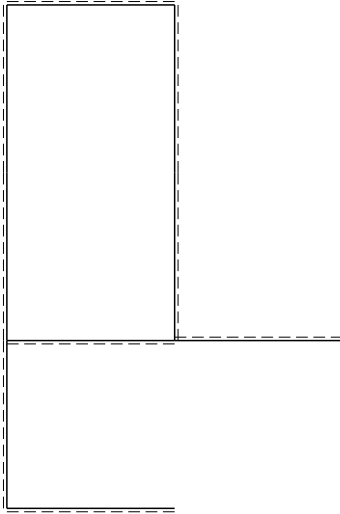
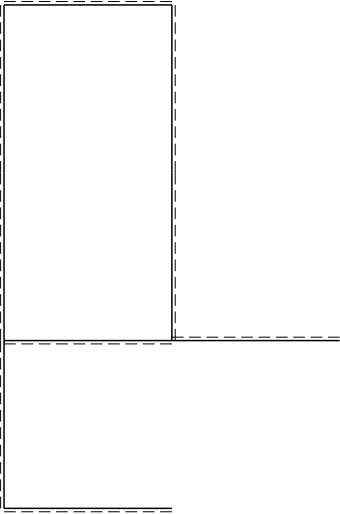
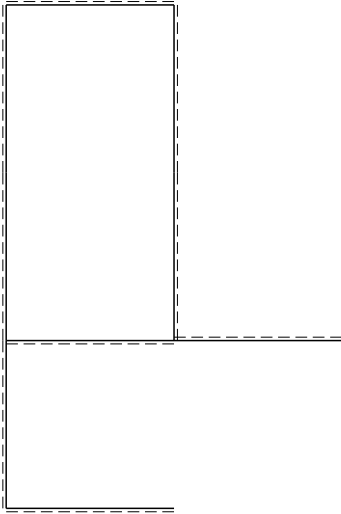




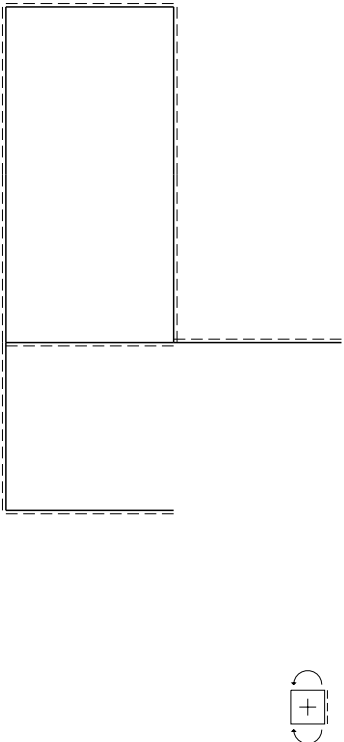
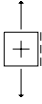
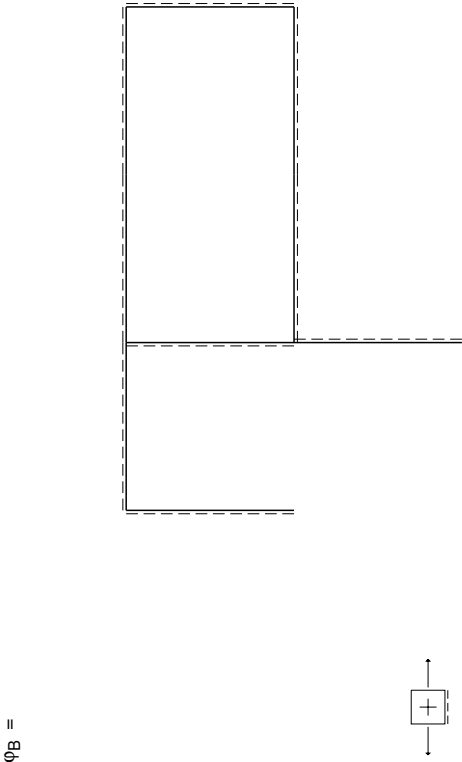
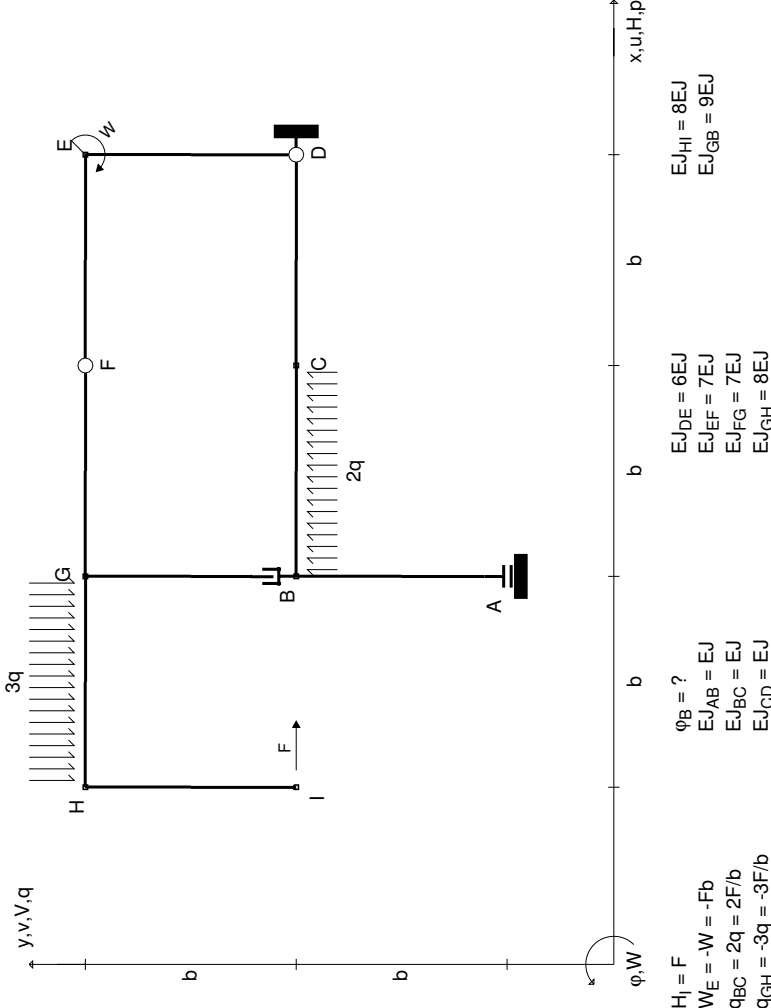
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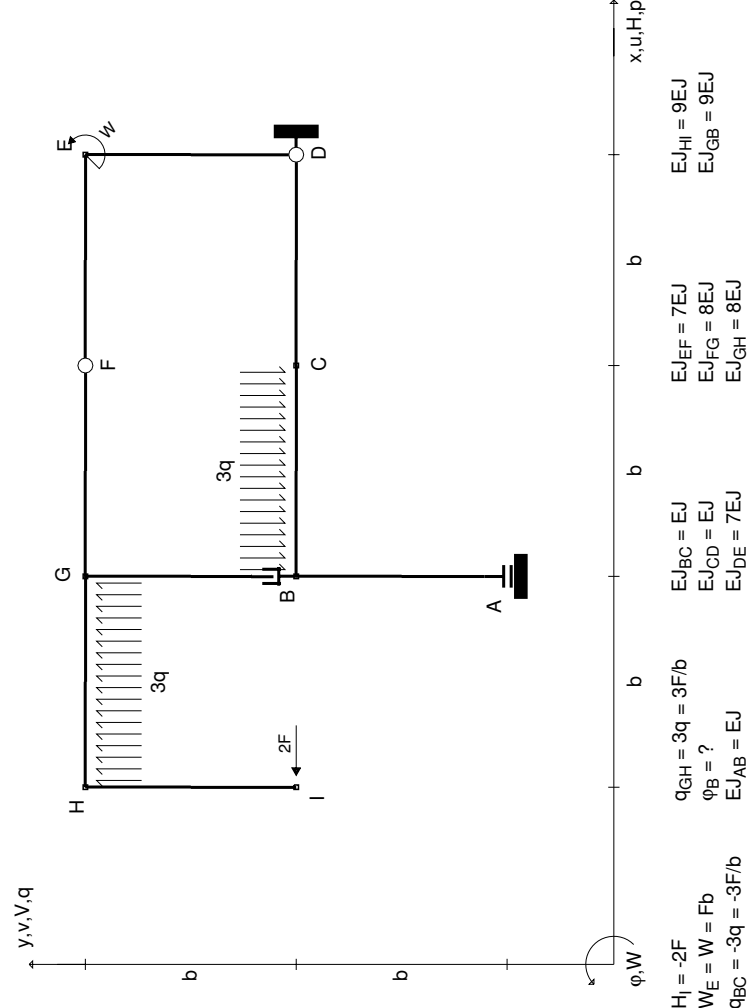
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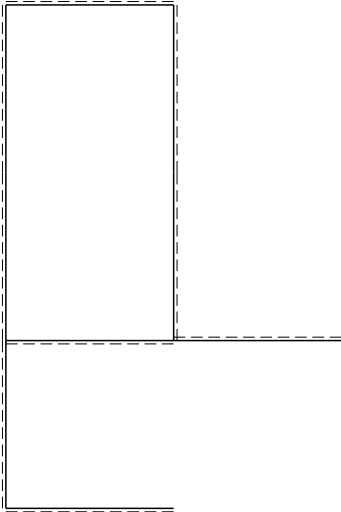
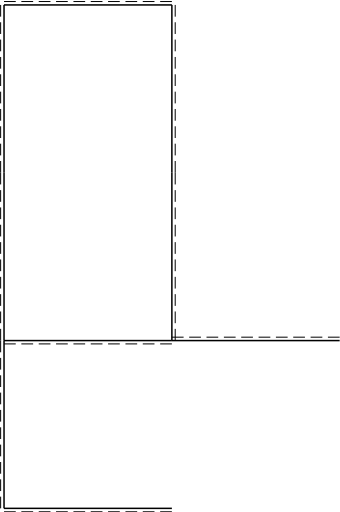
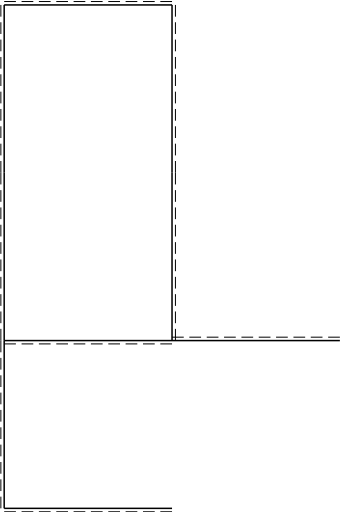


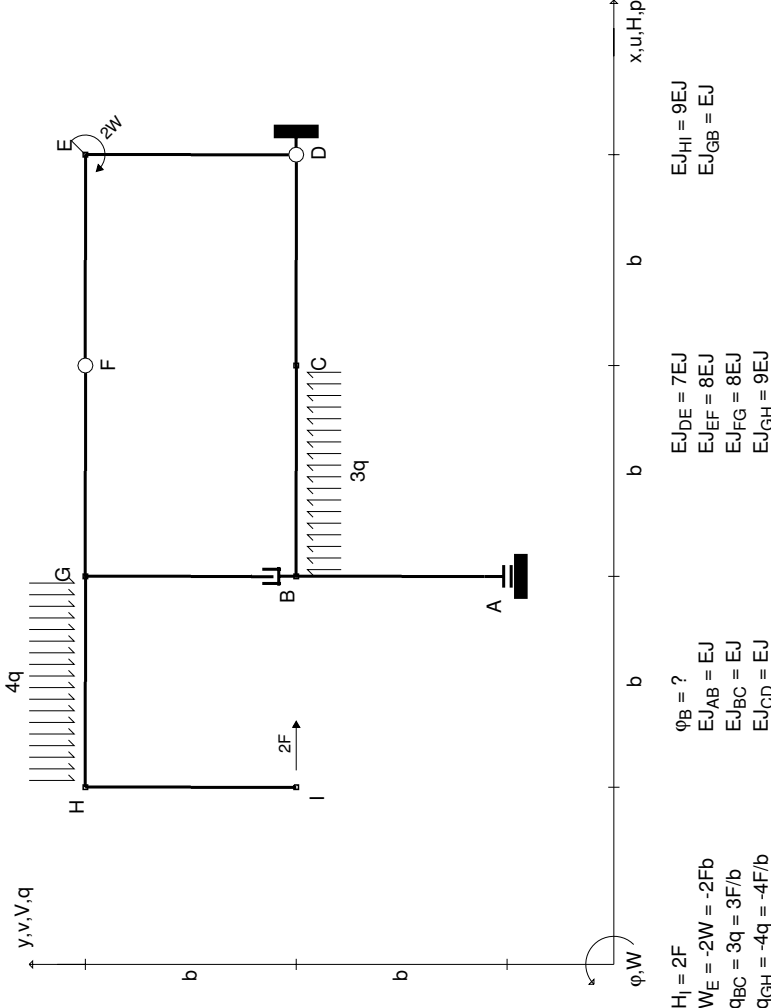
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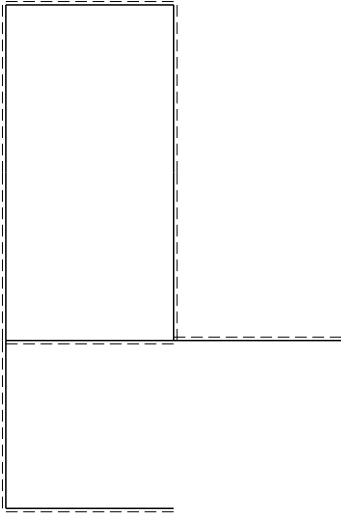
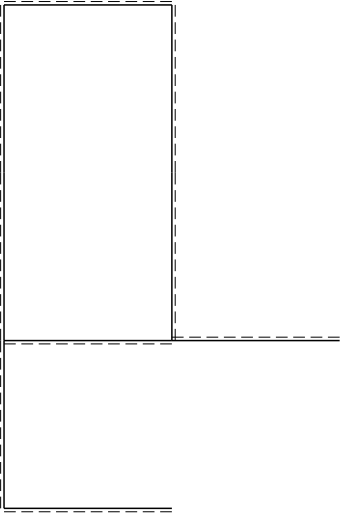
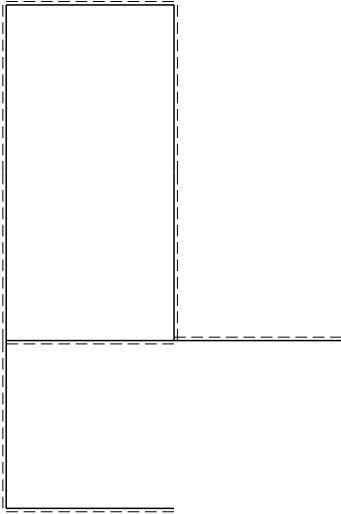
$\varphi_B =$

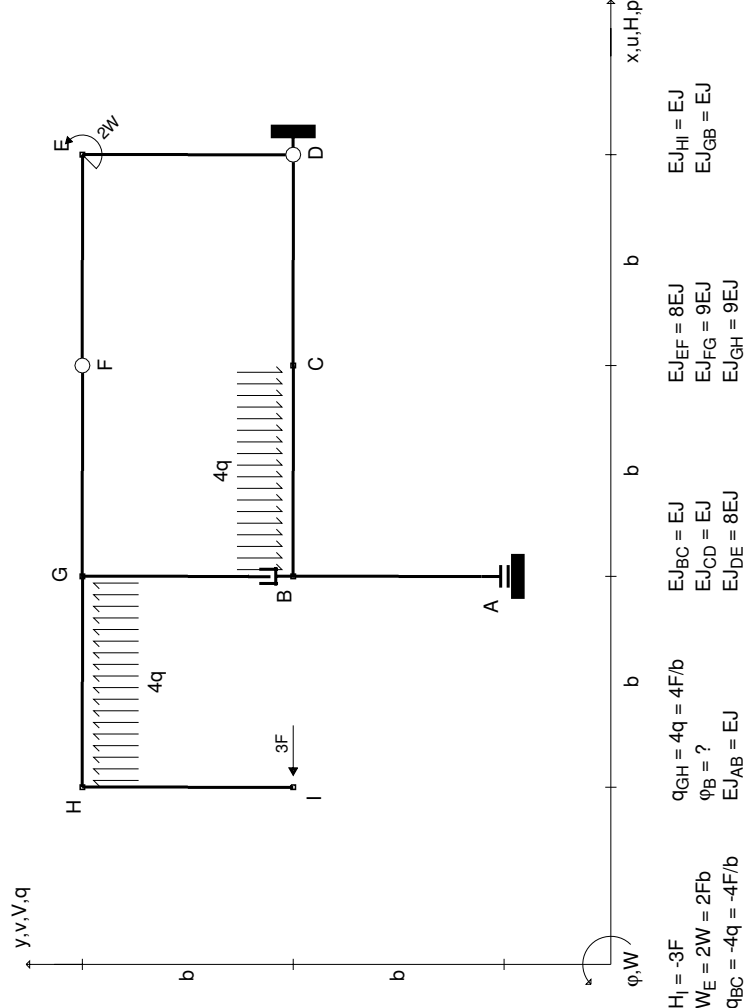




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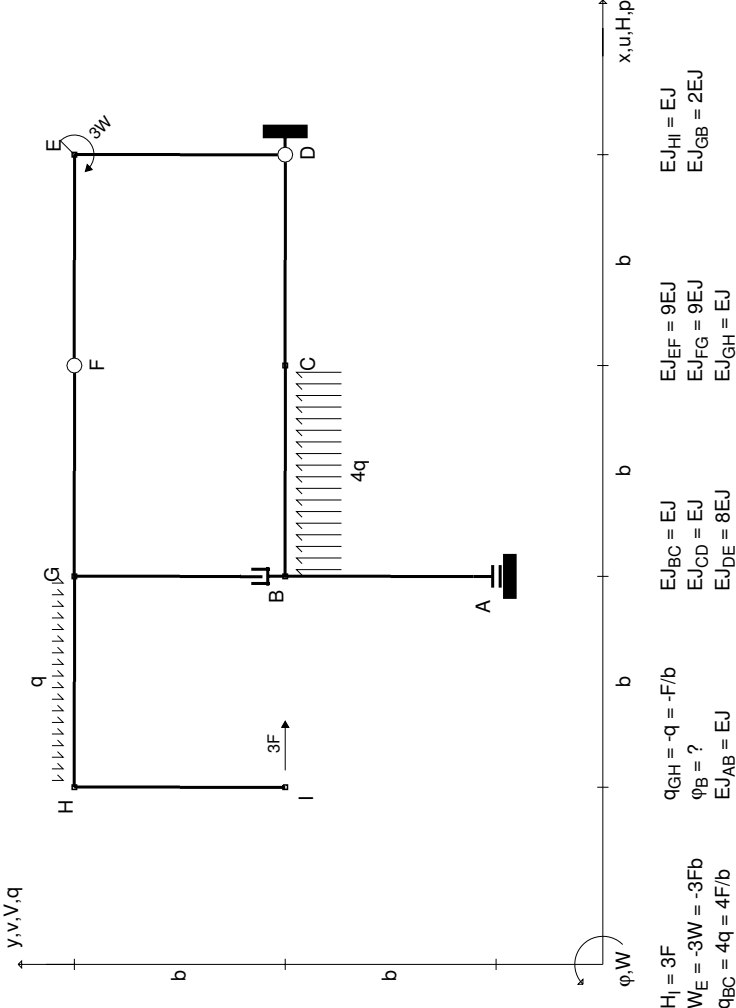
$\varphi_B =$





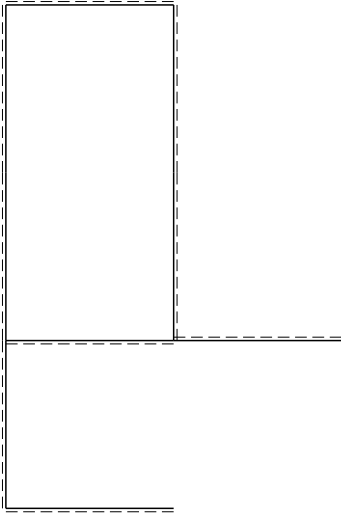
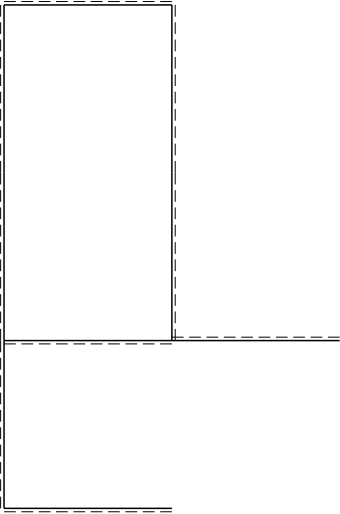
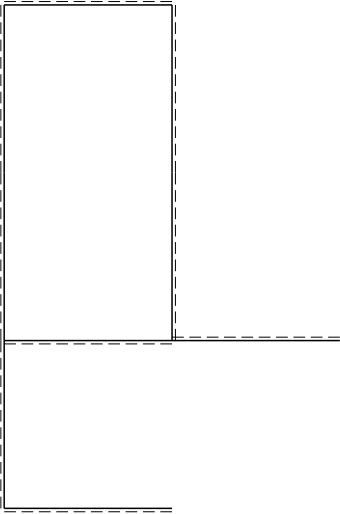
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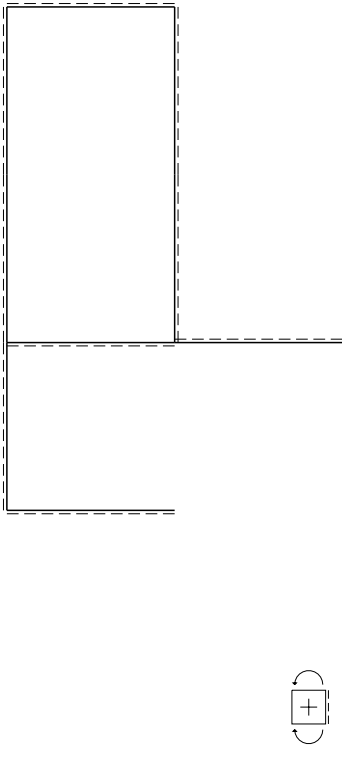
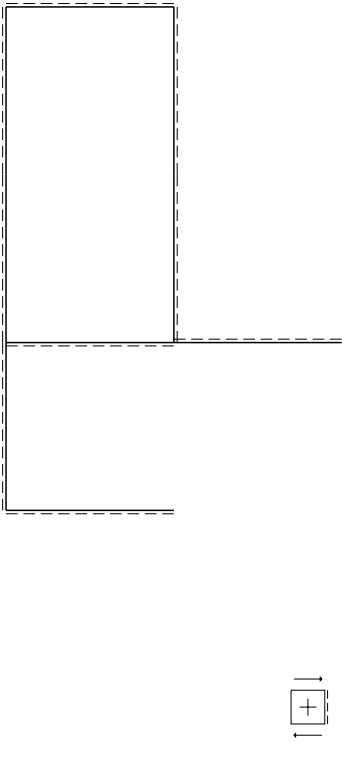
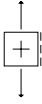
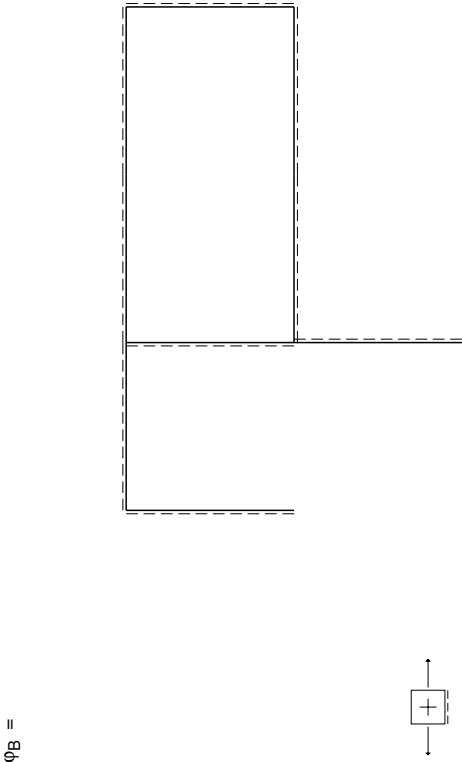
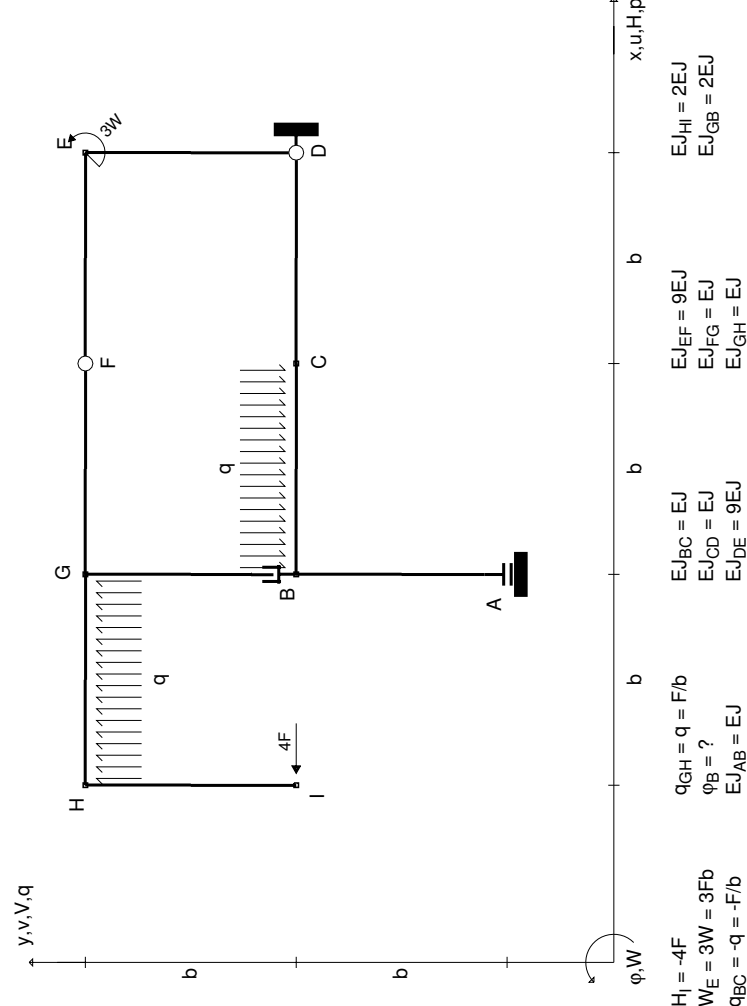




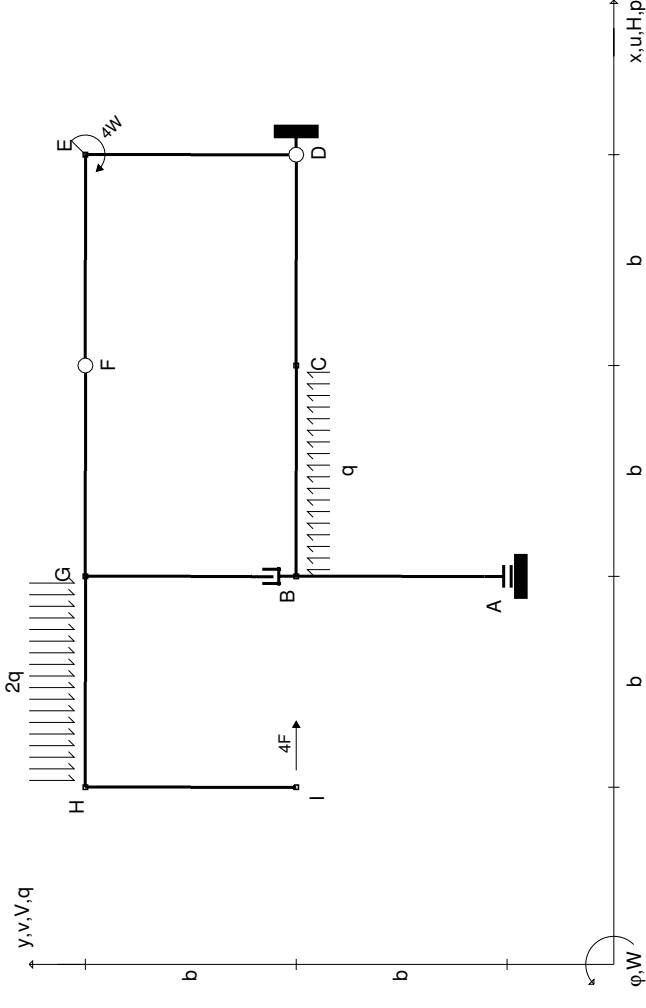
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$\phi_B =$





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$H_I = 4F$
 $W_E = -4W = -4Fb$
 $q_{BC} = q = F/b$
 $q_{GH} = -2q = -2F/b$

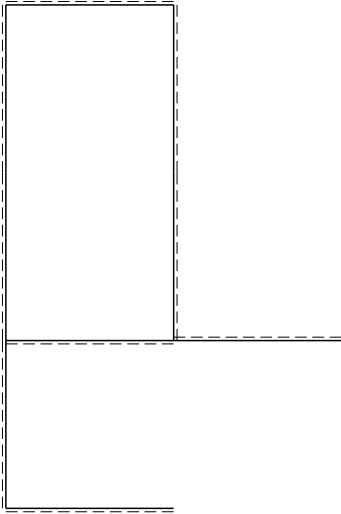
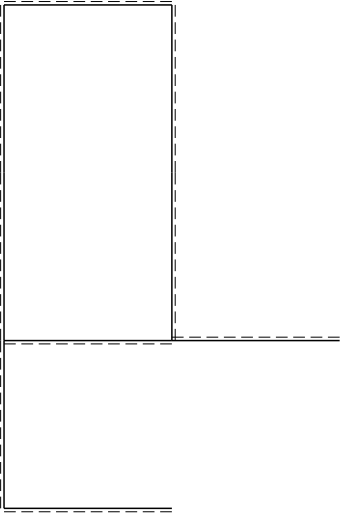
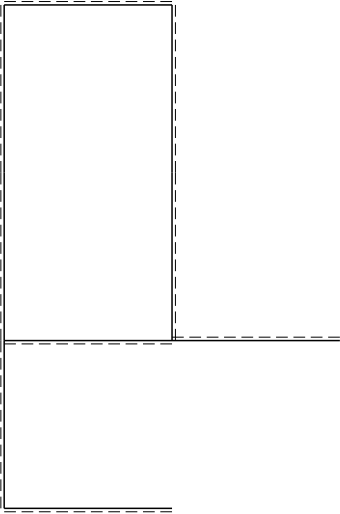
$\varphi_B = ?$
 $EJ_{AB} = EJ$
 $EJ_{BC} = EJ$
 $EJ_{CD} = EJ$

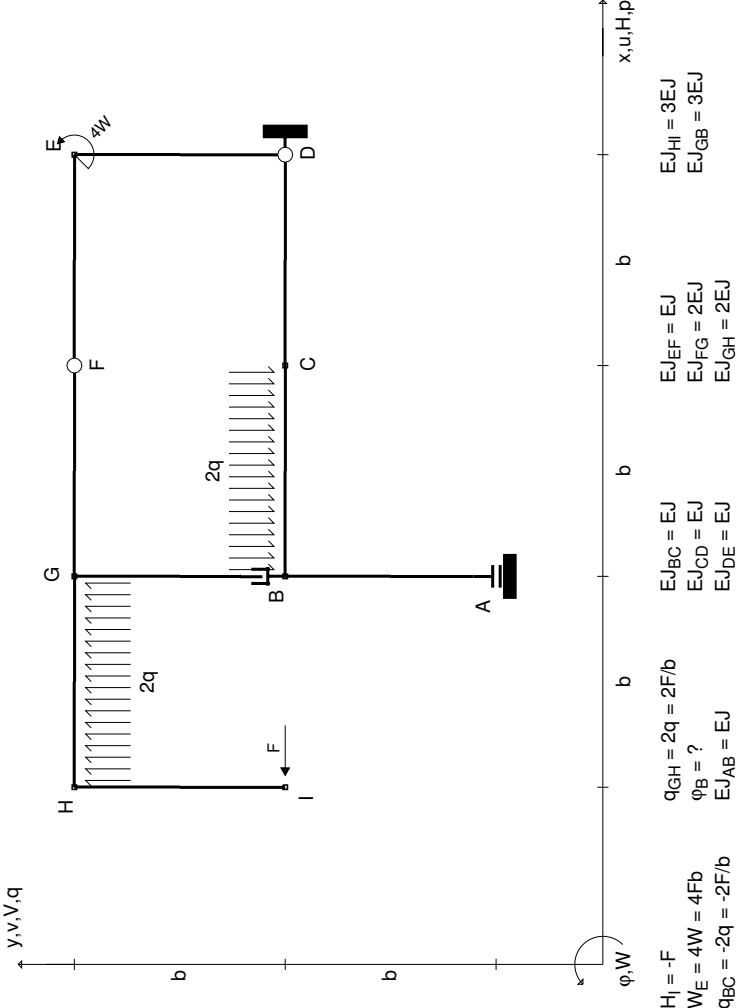
$EJ_{DE} = 9EJ$
 $EJ_{EF} = EJ$
 $EJ_{FG} = EJ$
 $EJ_{GH} = 2EJ$

$EJ_{HI} = 2EJ$
 $EJ_{GB} = 3EJ$

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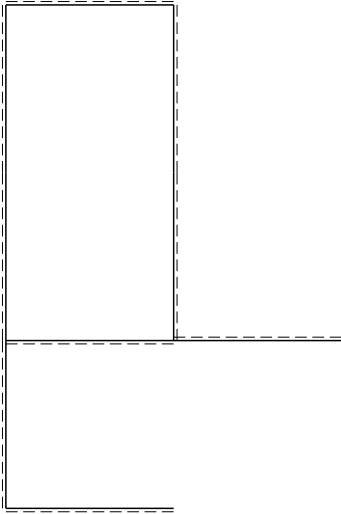
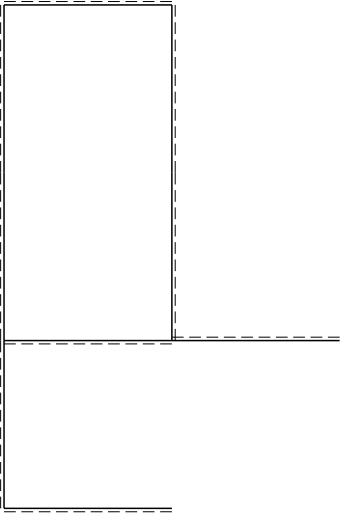
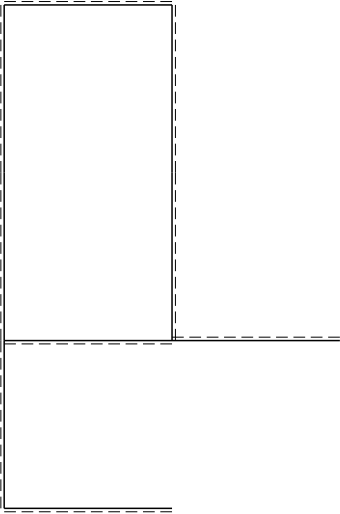
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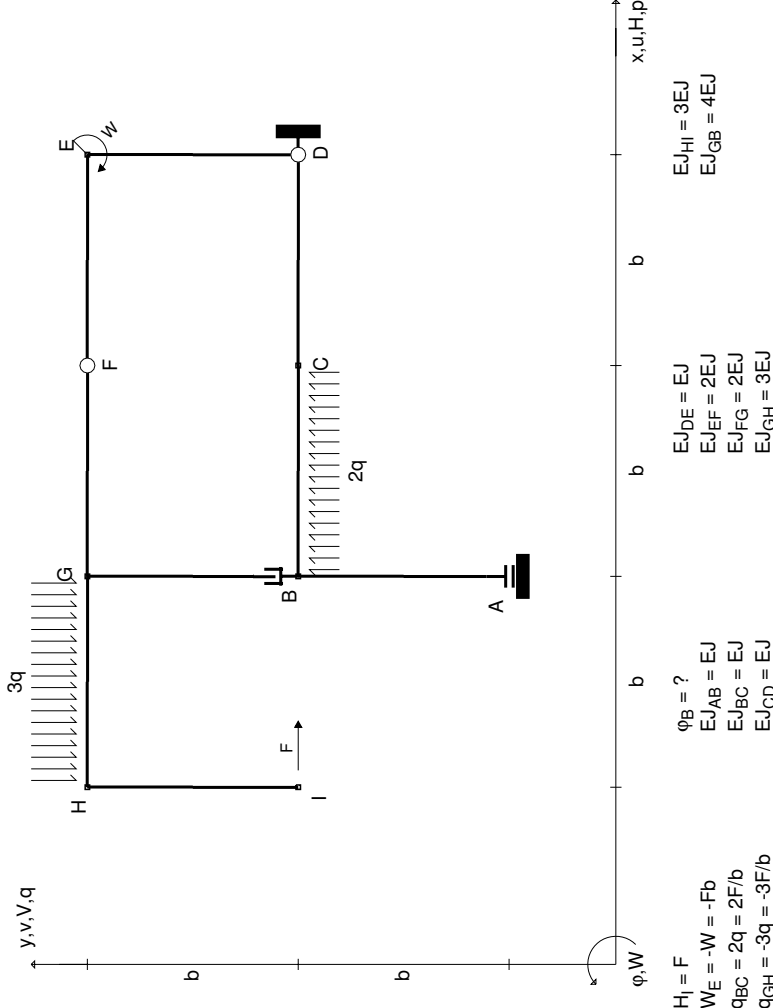




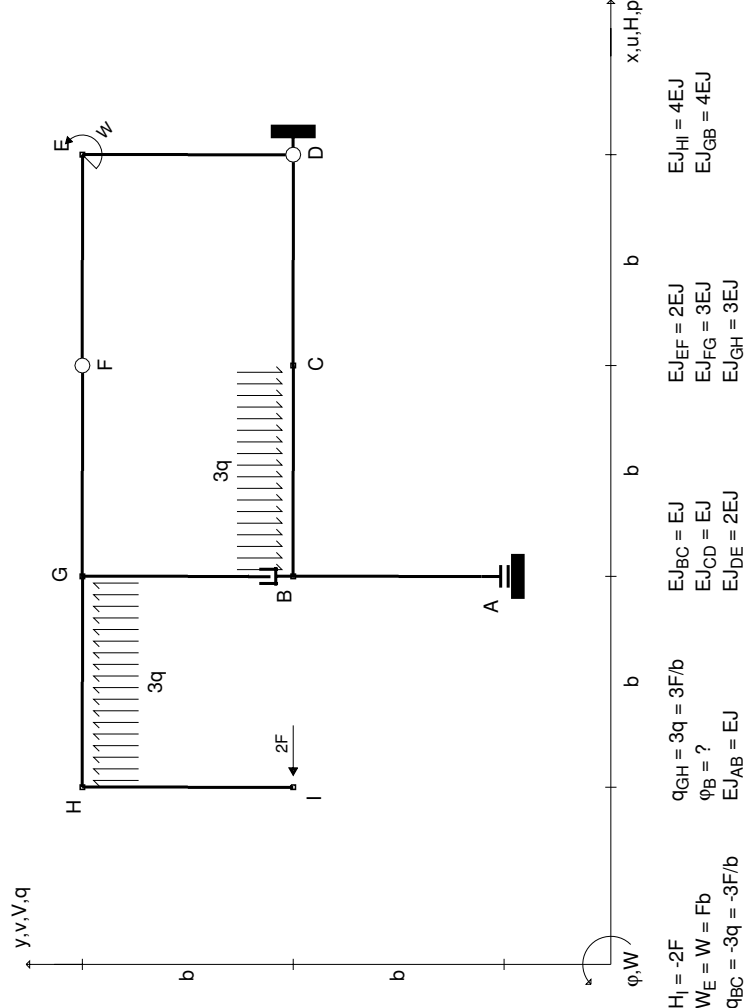
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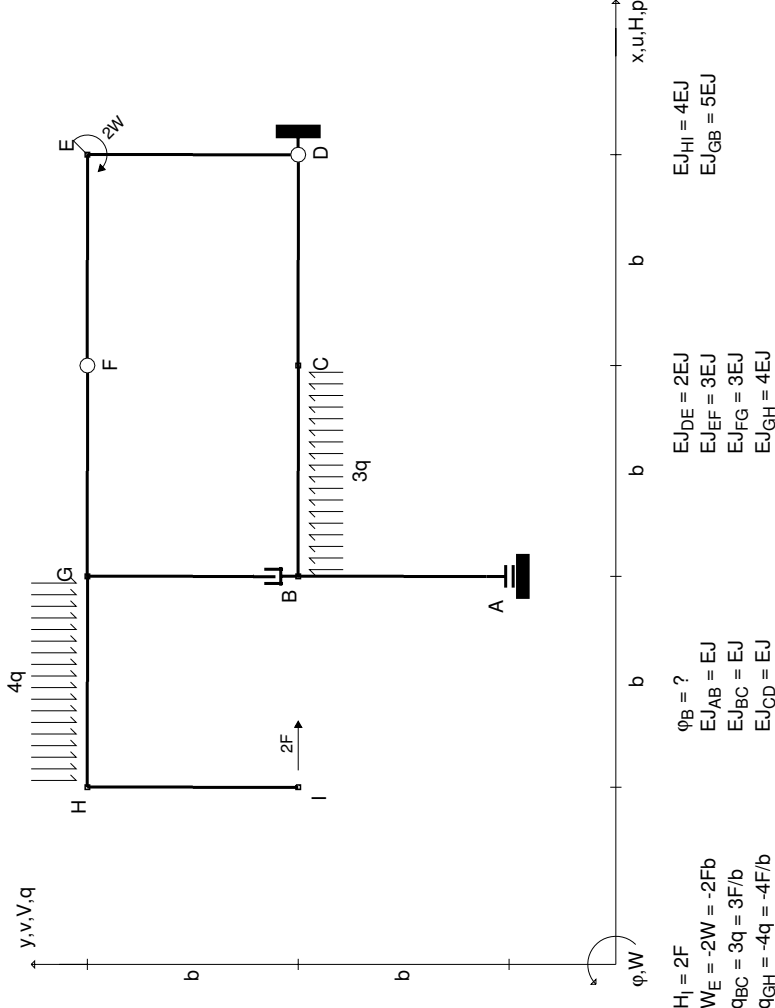


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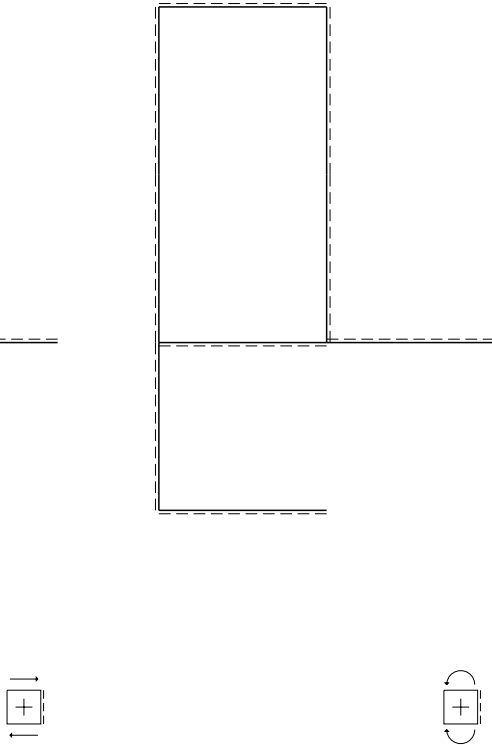
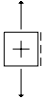
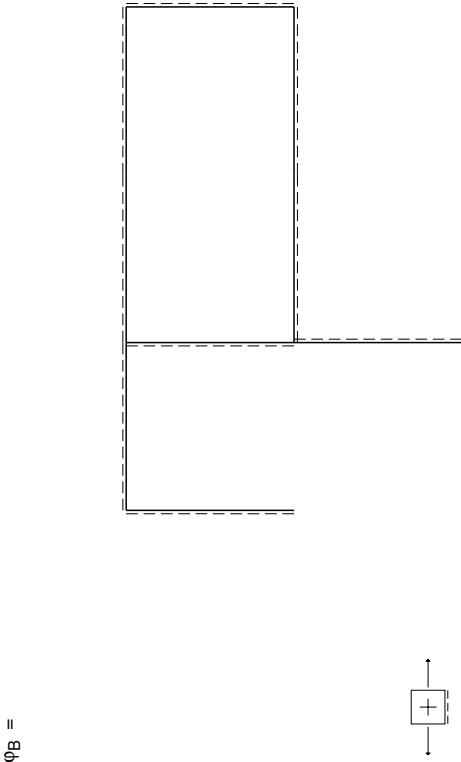
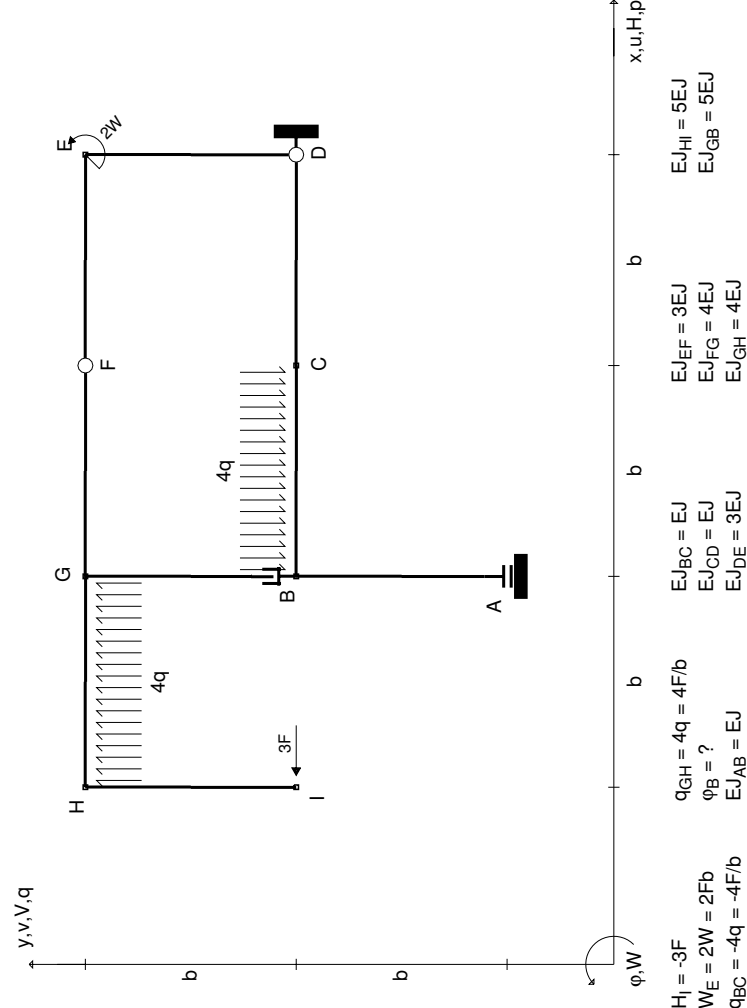
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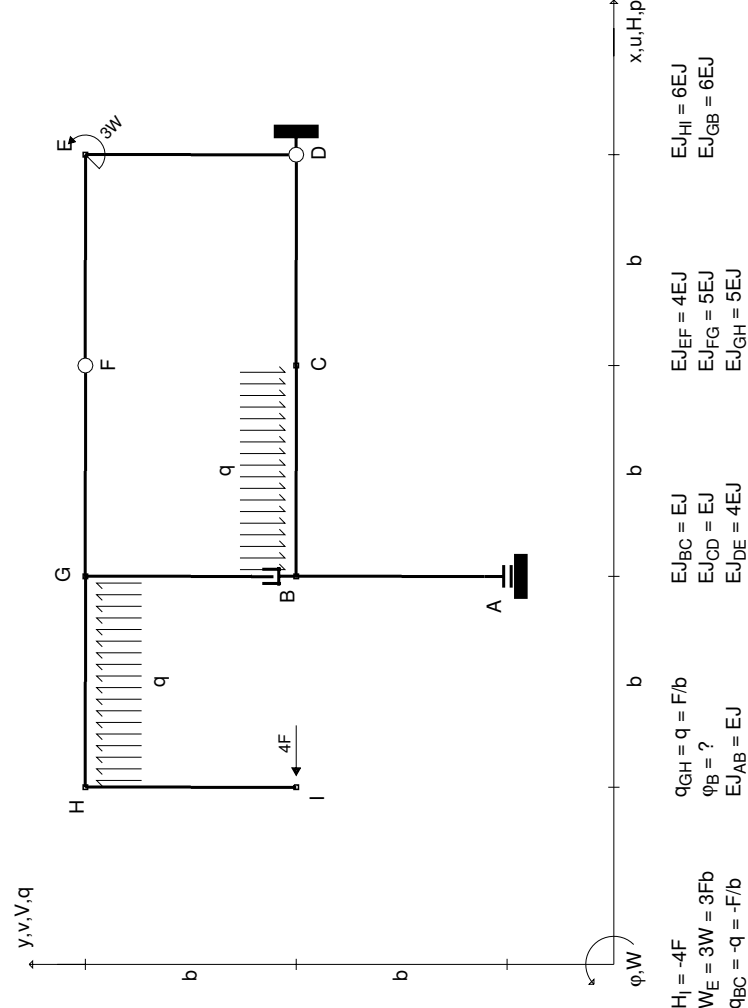


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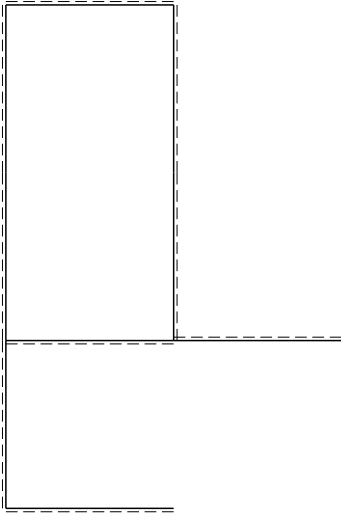
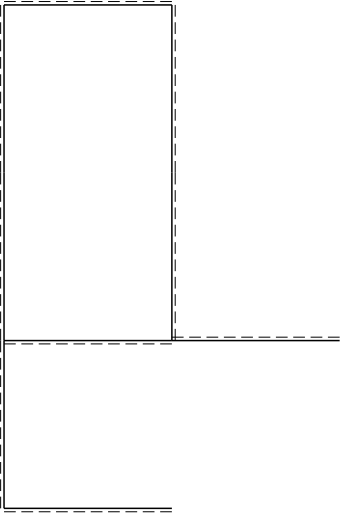
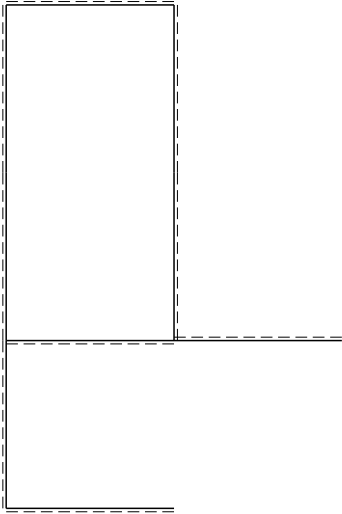


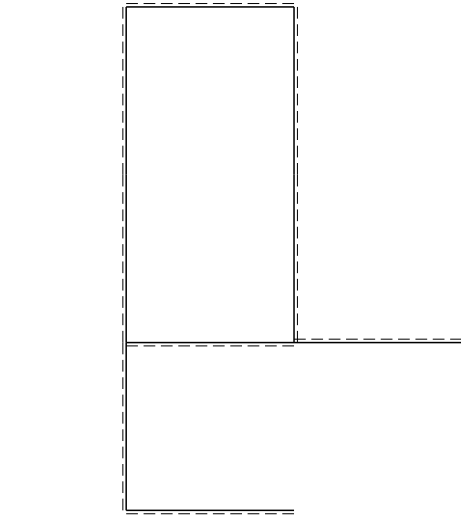
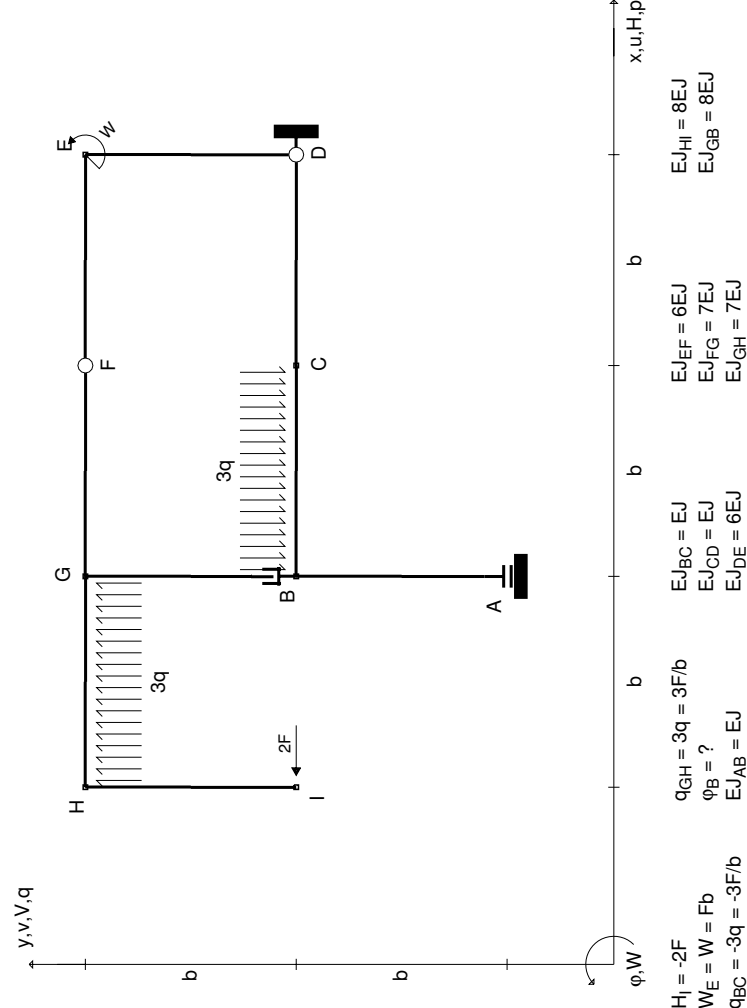
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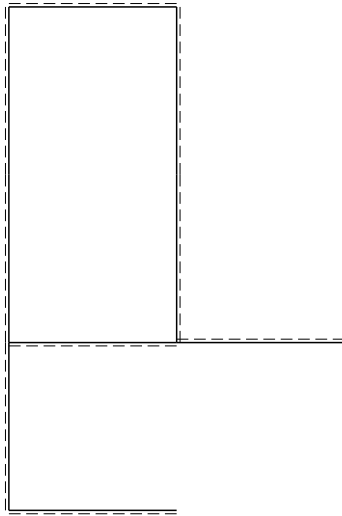
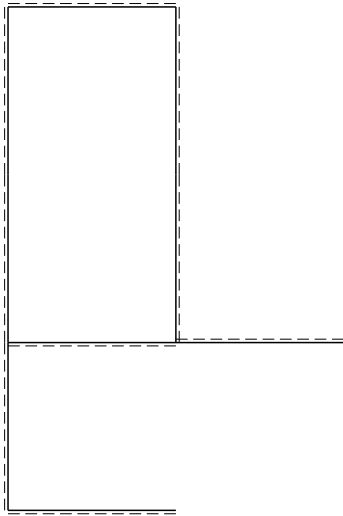
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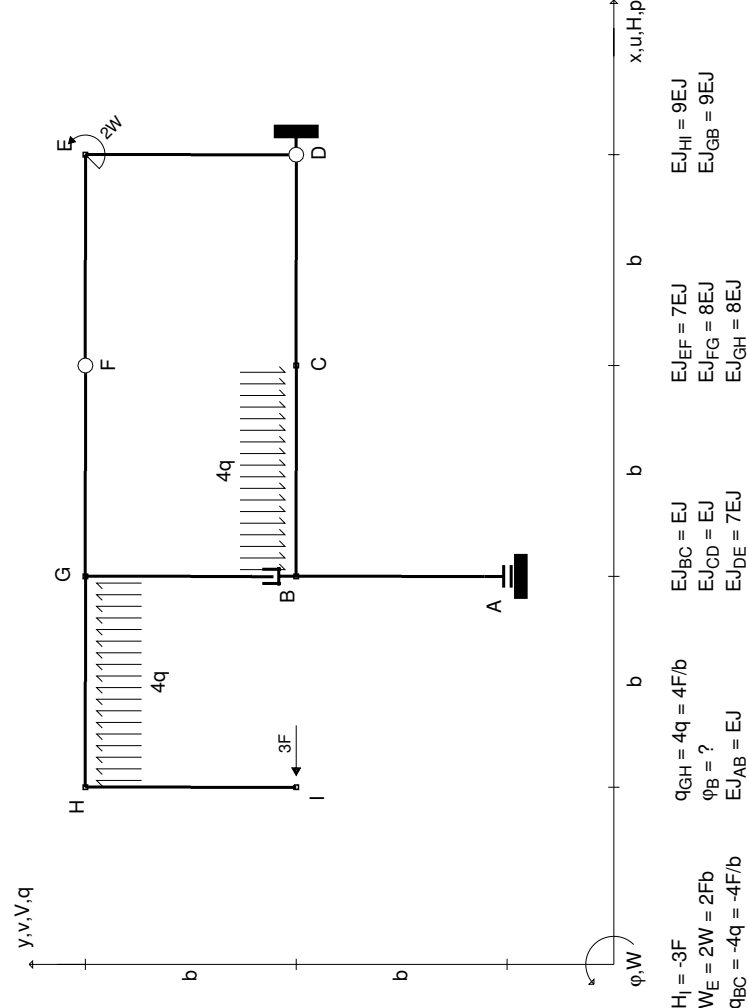




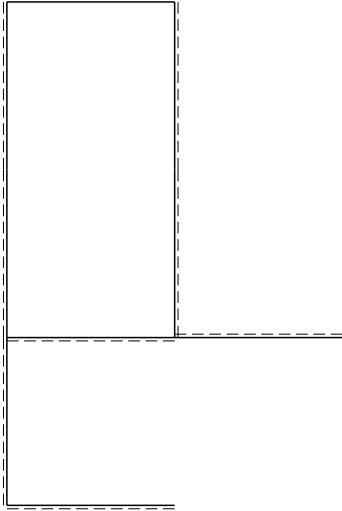
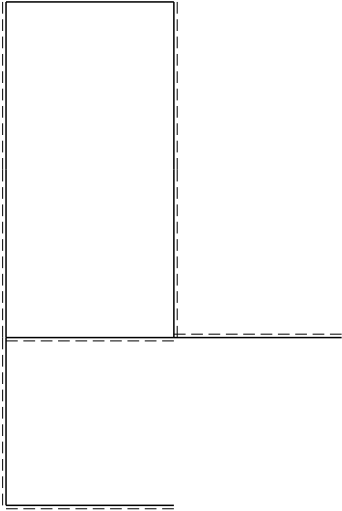
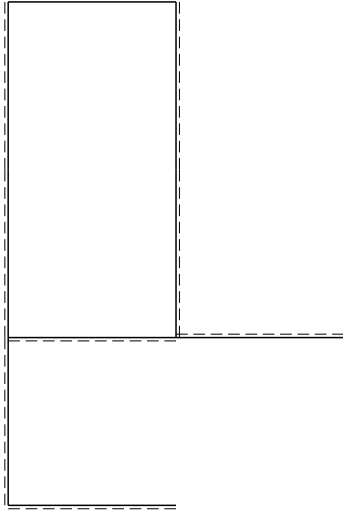
$\varphi_B =$



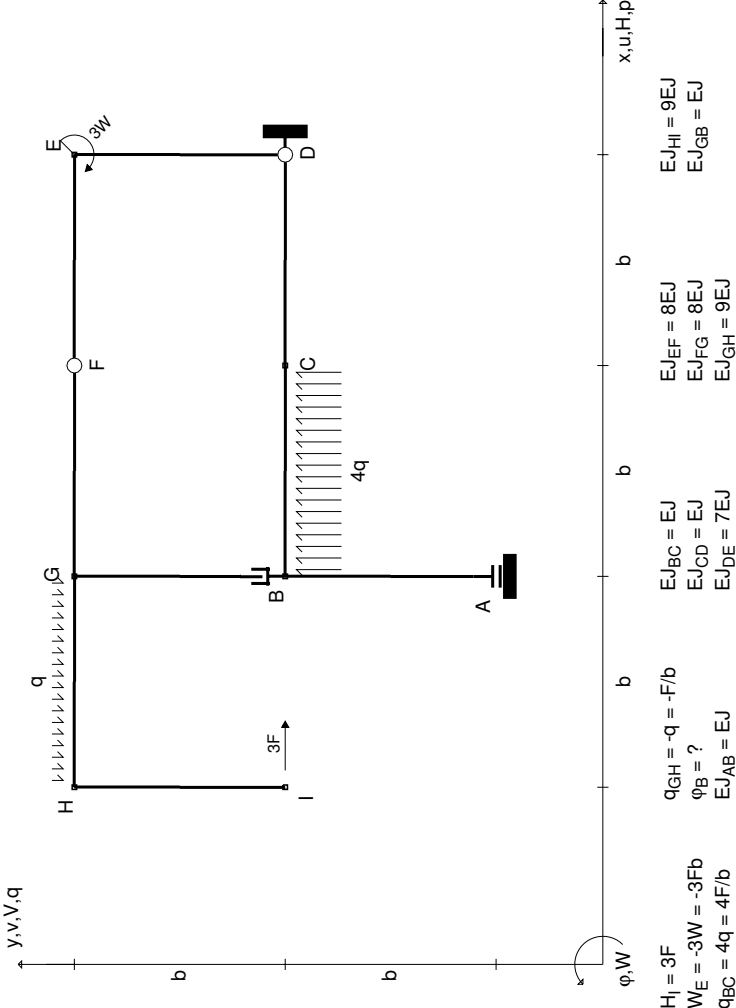
Carichi e deformazioni date hanno verso efficace in disegno.
Calcolare reazioni vincolari della struttura e delle aste.
Tracciare i diagrammi delle azioni interne nelle aste.
 $J_{YZ} - X_{YZ} - \phi_{YZ}$ riferimento locale asse YZ con origine in Y
Calcolare la rotazione assoluta del nodo B
Svolgere l'analisi cinematica.
Riportare la soluzione su questo foglio.
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$\varphi_B =$

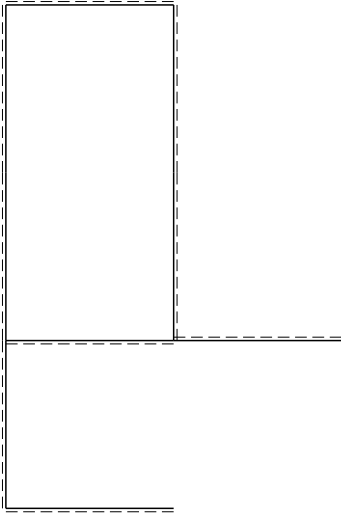
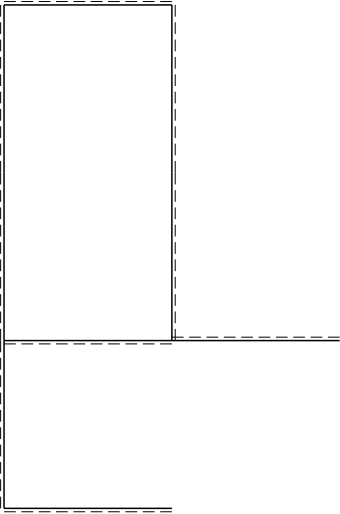
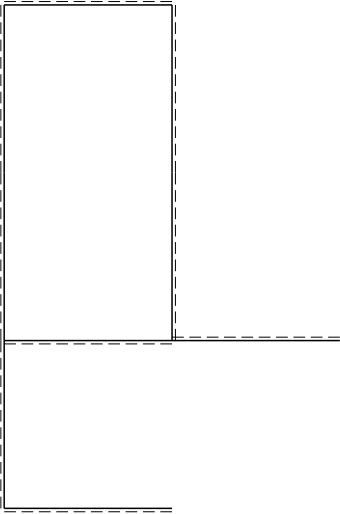


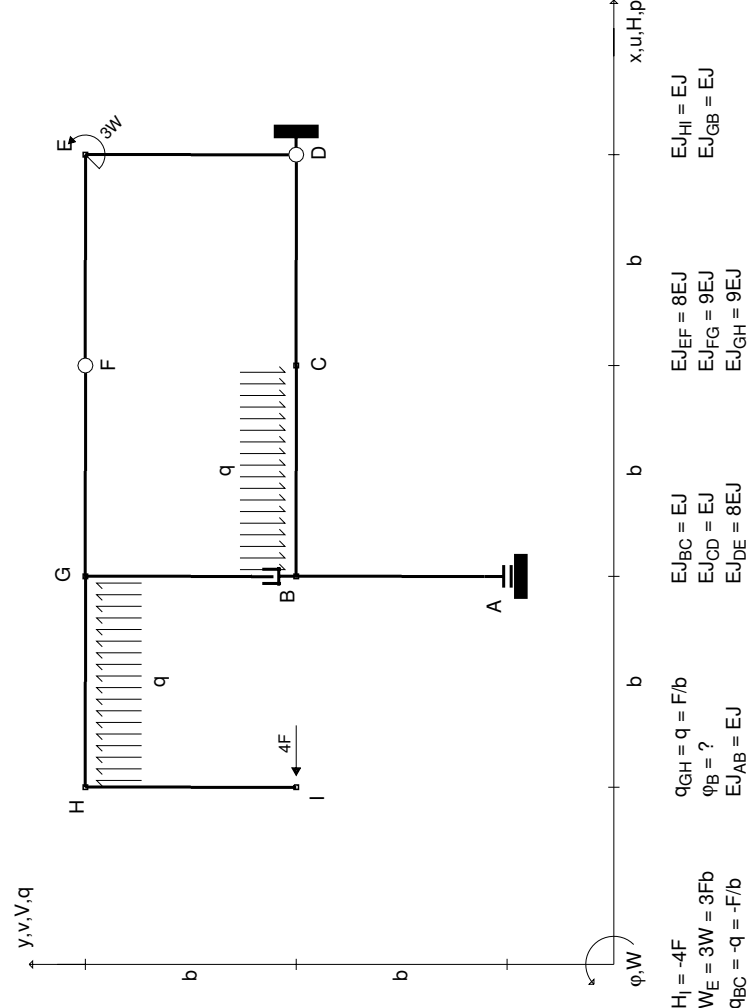
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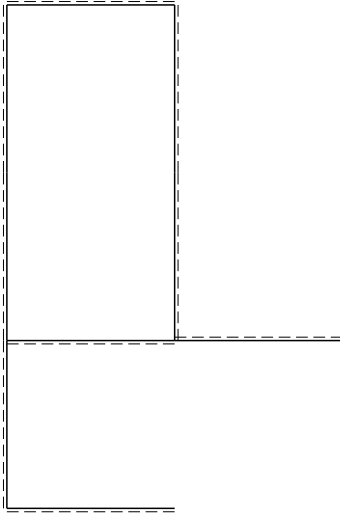
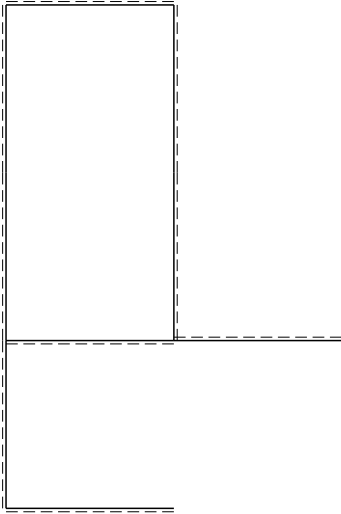
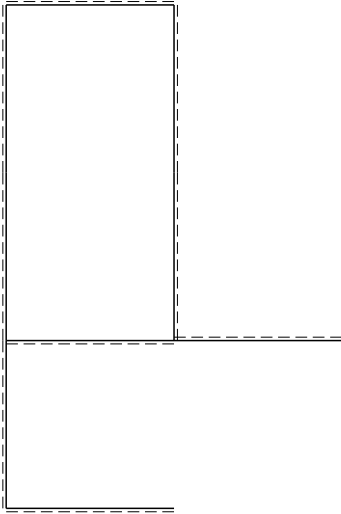
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$\phi_B =$

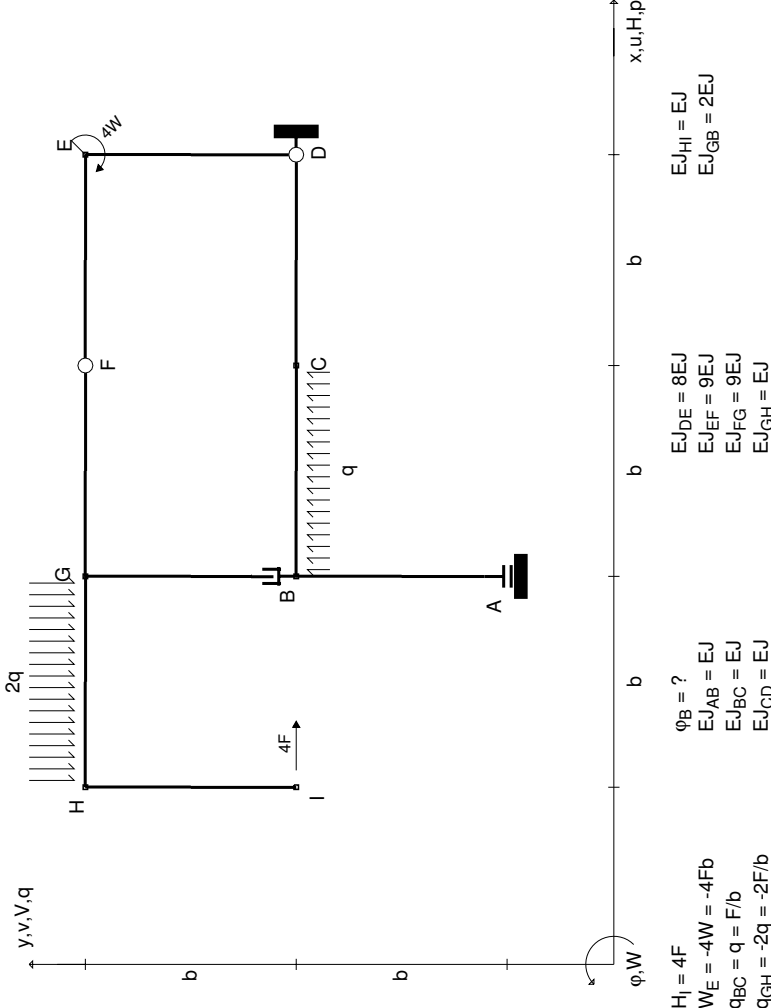




$\phi_B =$

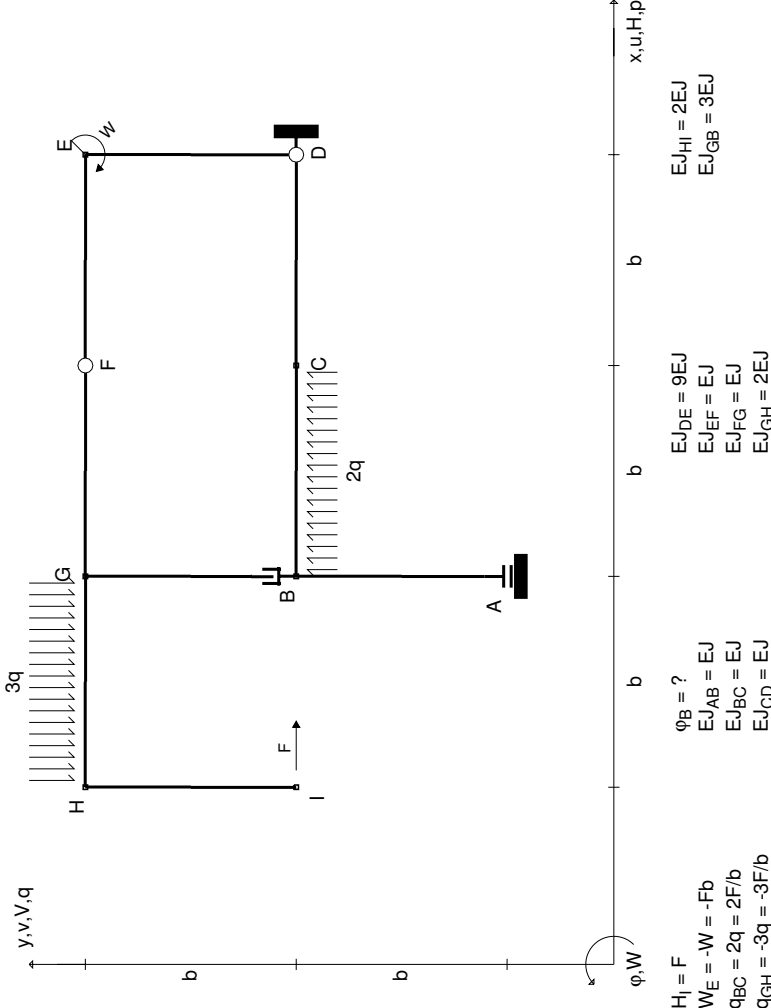


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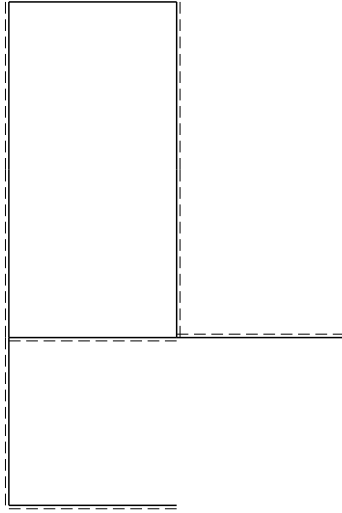
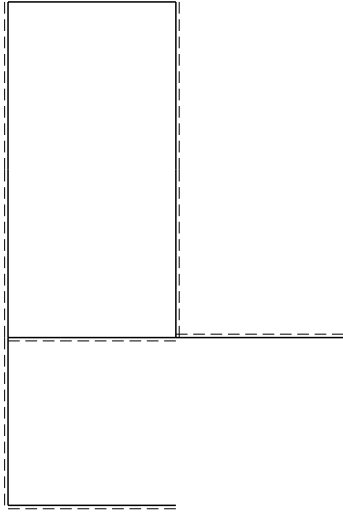
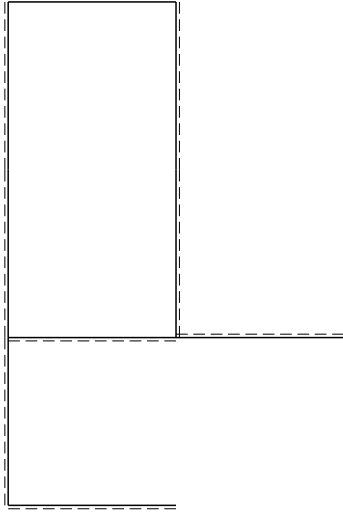


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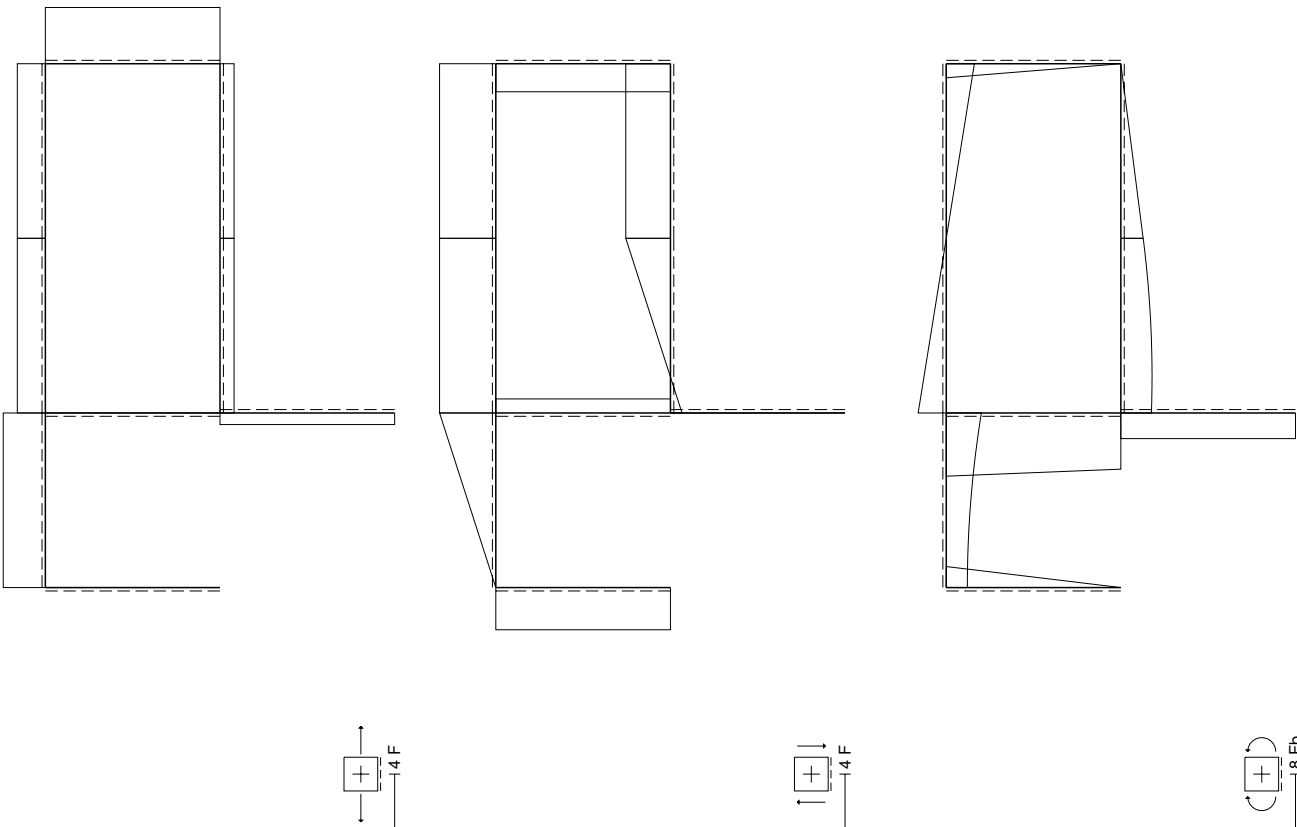
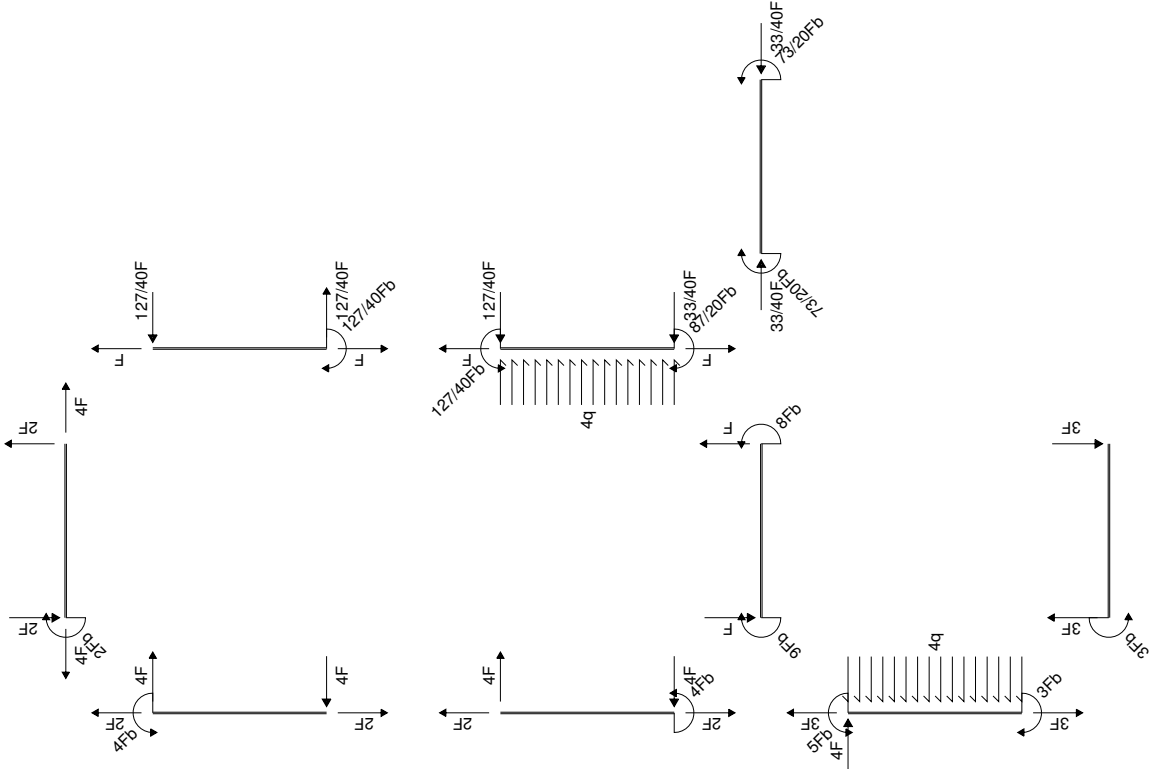


$\varphi_B =$

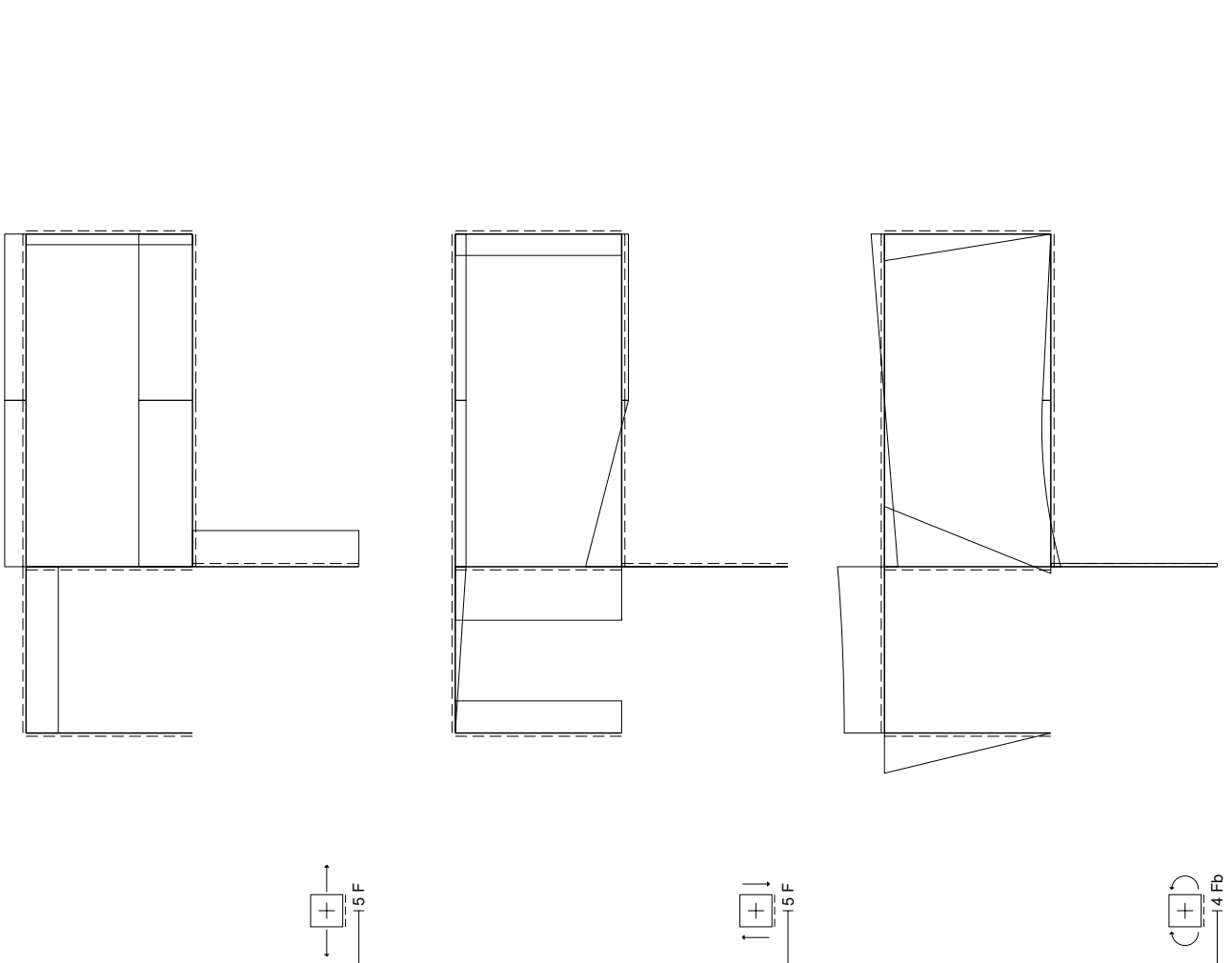
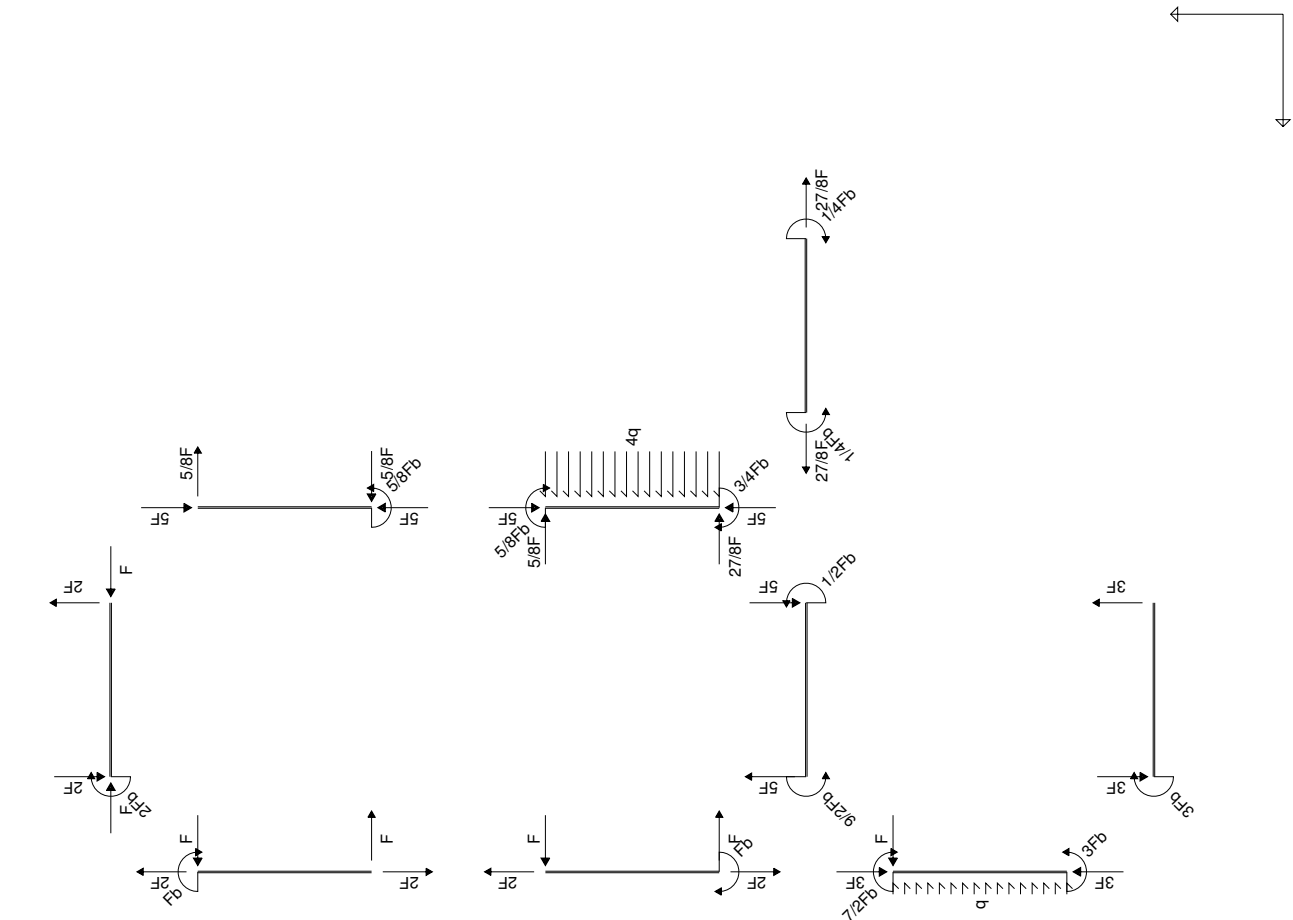


Carichi e deformazioni date hanno verso efficace in disegno.
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Calcolare la rotazione assoluta del nodo B
Svolgere l'analisi cinematica.
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$\varphi_B = -73/20(Fb^2/EJ)$



$\varphi_B = 1/4(Fb^2/EJ)$



The diagram illustrates the decomposition of a frame structure into two parts: a rigid frame and a beam. The rigid frame is subjected to a horizontal force F at the top left corner, and the beam is subjected to a uniformly distributed load q . The resulting internal forces and moments are calculated for each part.

Rigid Frame Analysis:

- At the top left corner, a horizontal force F is applied to the right. The internal forces are $2F$ (shear) and $2F$ (moment).
- At the bottom left corner, the internal forces are $2F$ (shear) and $2F$ (moment).
- At the top right corner, the internal forces are $7/160F$ (shear) and $7/160Fd$ (moment).
- At the bottom right corner, the internal forces are $7/160F$ (shear) and $7/160Fd$ (moment).

Beam Analysis:

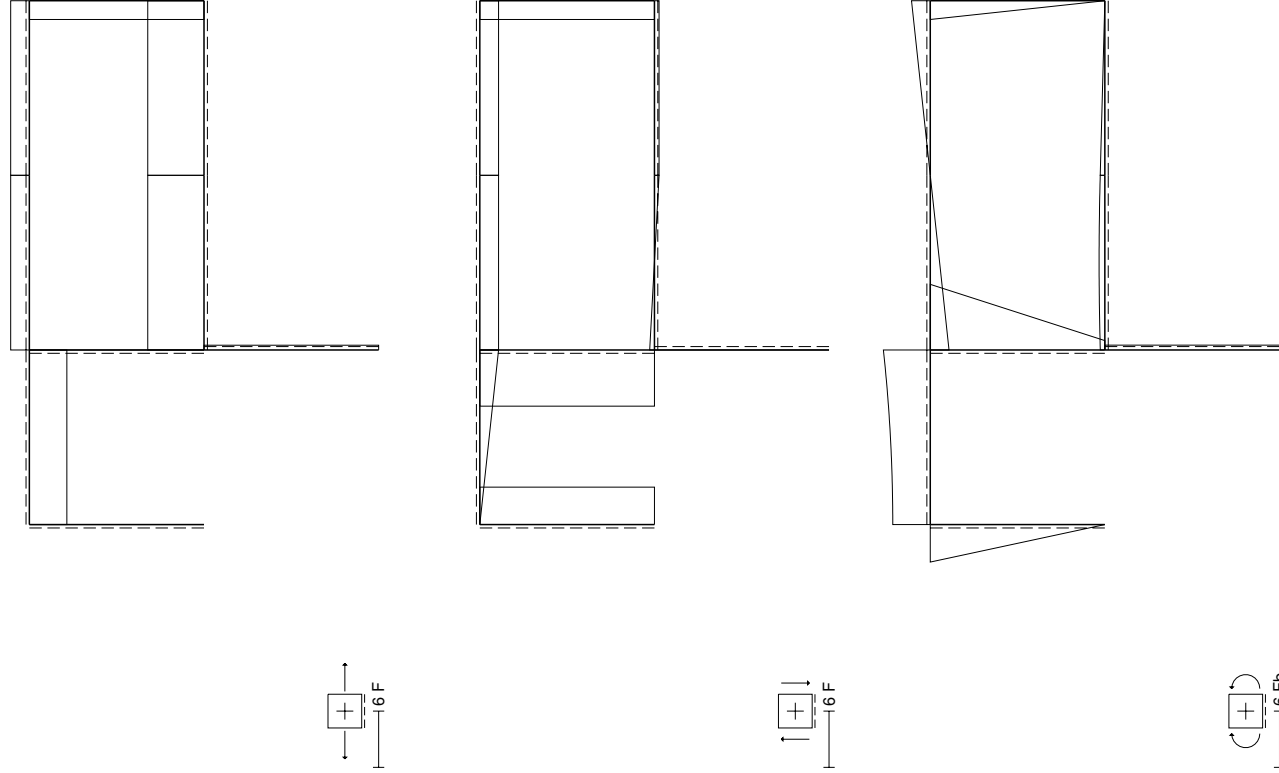
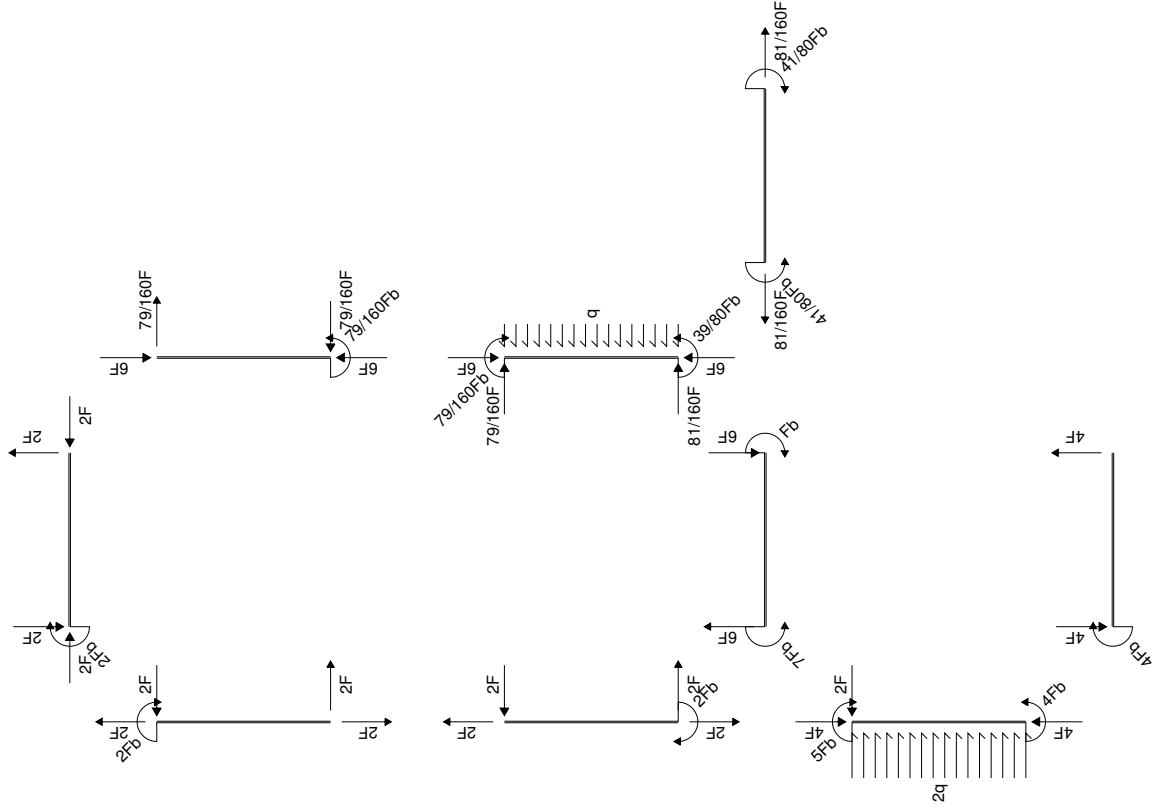
- The beam is subjected to a uniformly distributed load q over a length d .
- At the left end, the internal forces are $7/160F$ (shear) and $7/160Fd$ (moment).
- At the right end, the internal forces are $7/160F$ (shear) and $7/160Fd$ (moment).

Combined Structure Analysis:

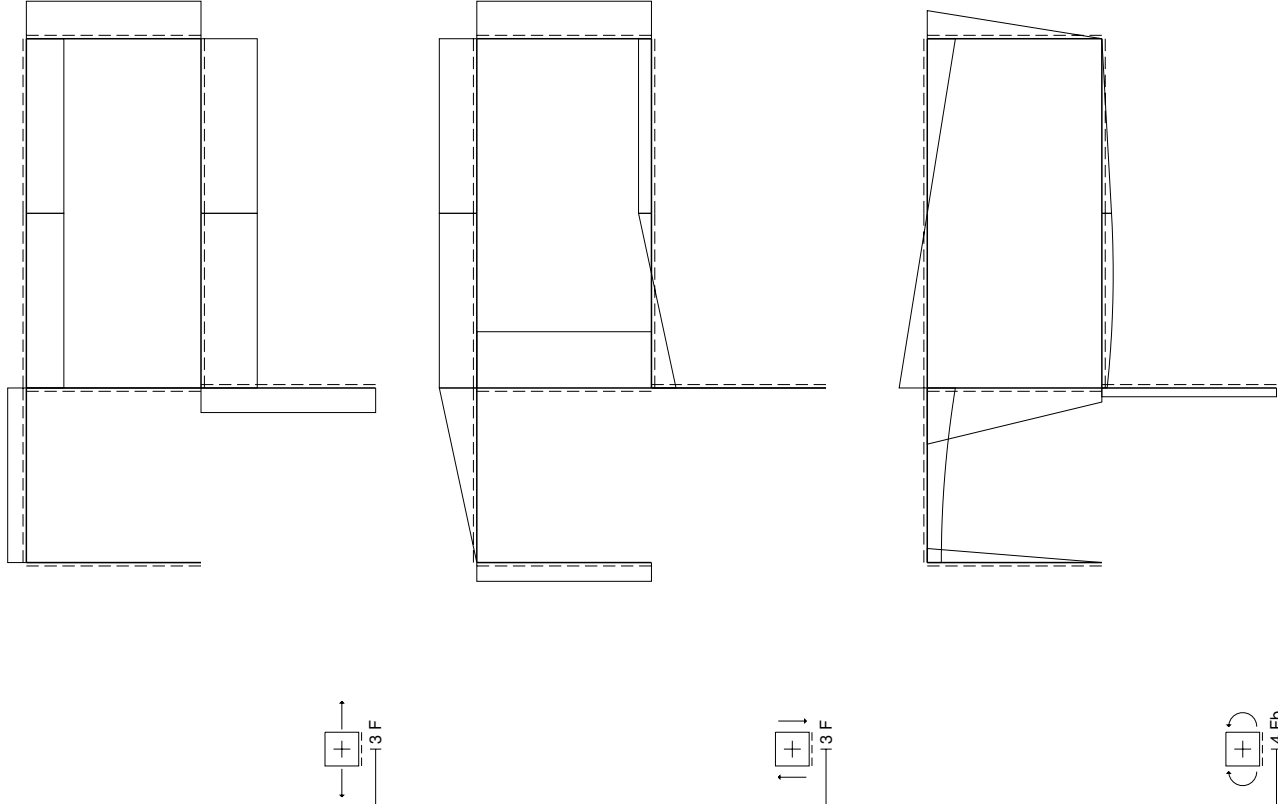
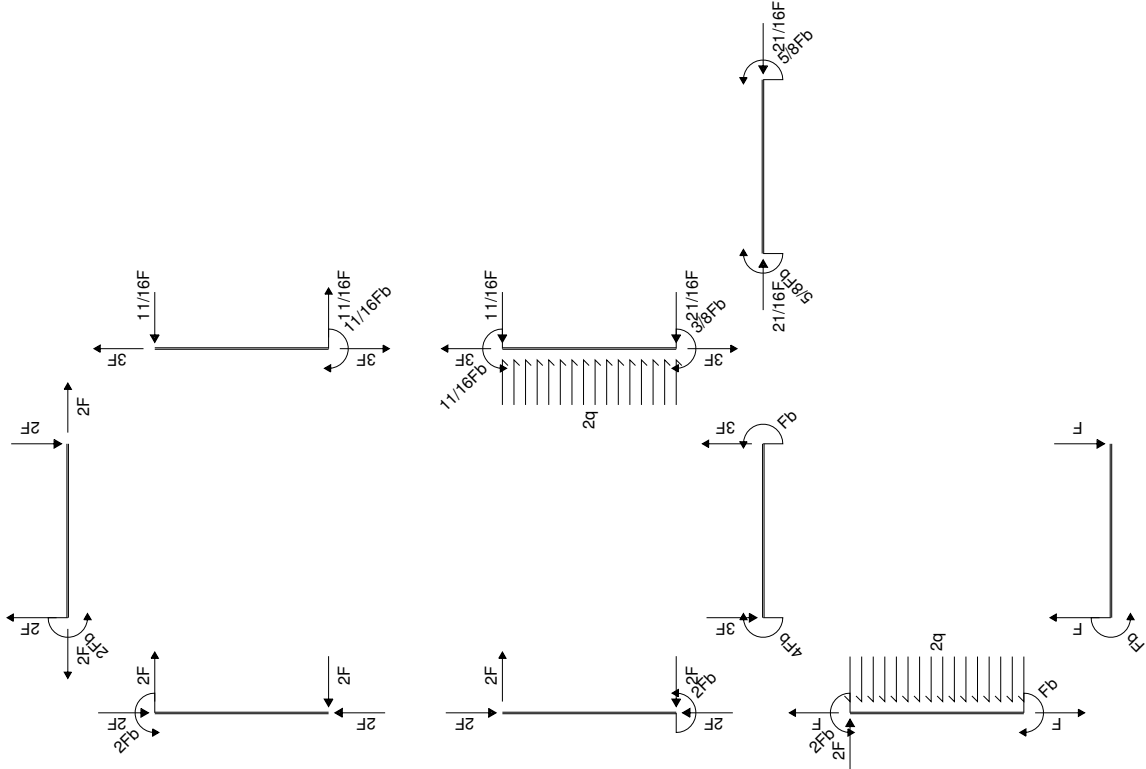
- The combined structure is subjected to a horizontal force F at the top left corner and a uniformly distributed load q over a length d .
- At the top left corner, the internal forces are $2F$ (shear) and $2F$ (moment).
- At the bottom left corner, the internal forces are $2F$ (shear) and $2F$ (moment).
- At the top right corner, the internal forces are $7/160F$ (shear) and $7/160Fd$ (moment).
- At the bottom right corner, the internal forces are $7/160F$ (shear) and $7/160Fd$ (moment).



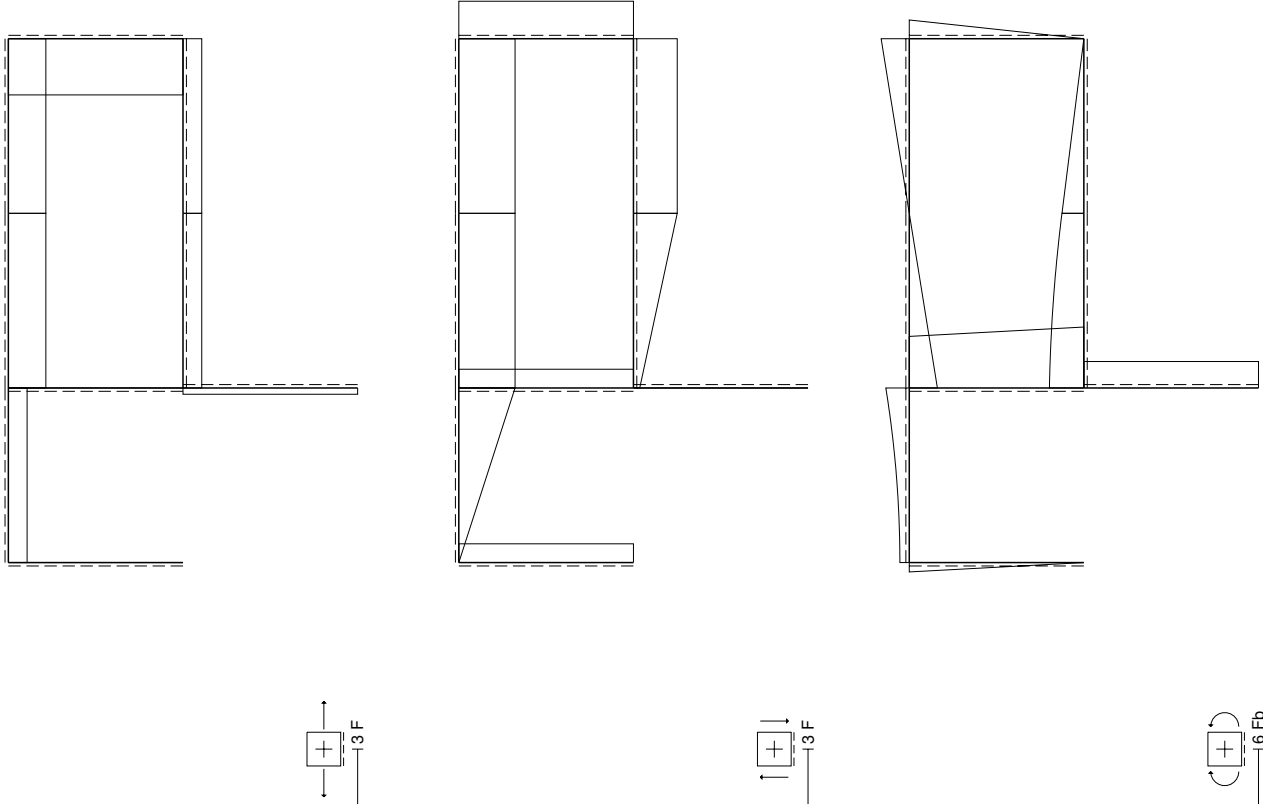
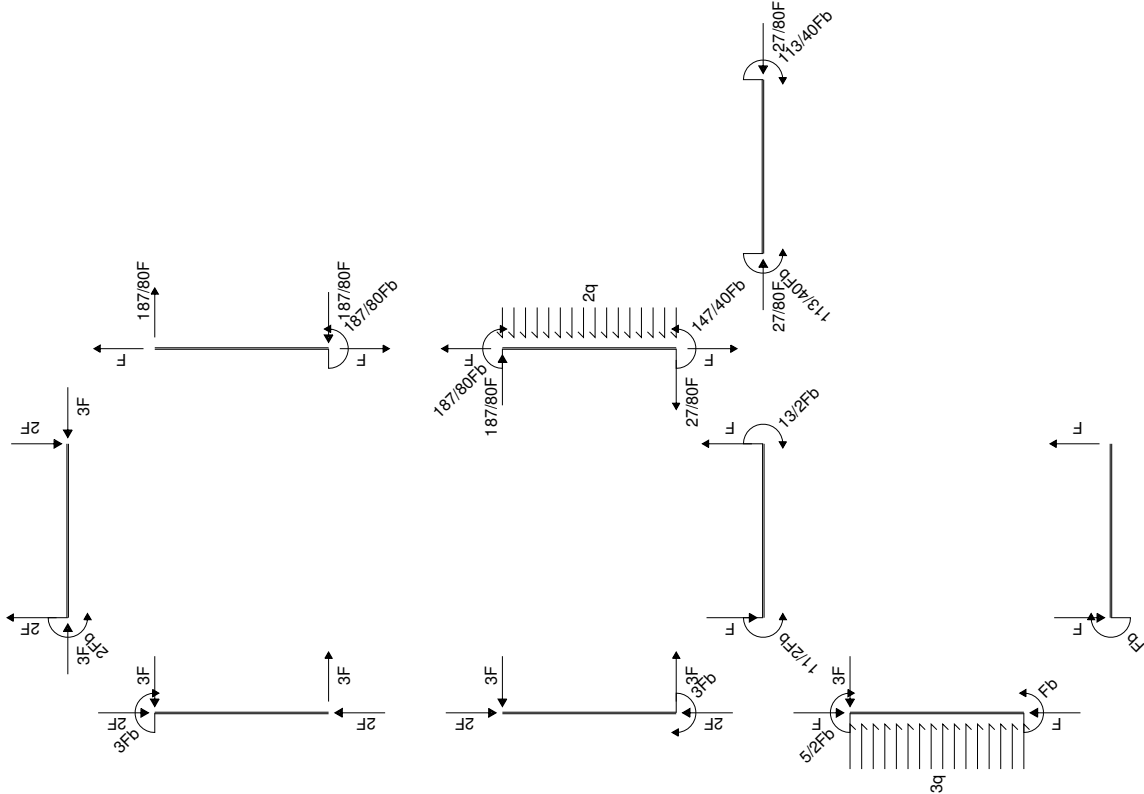
$$q_B = 41/80 \cdot (Fb^2/EJ)$$



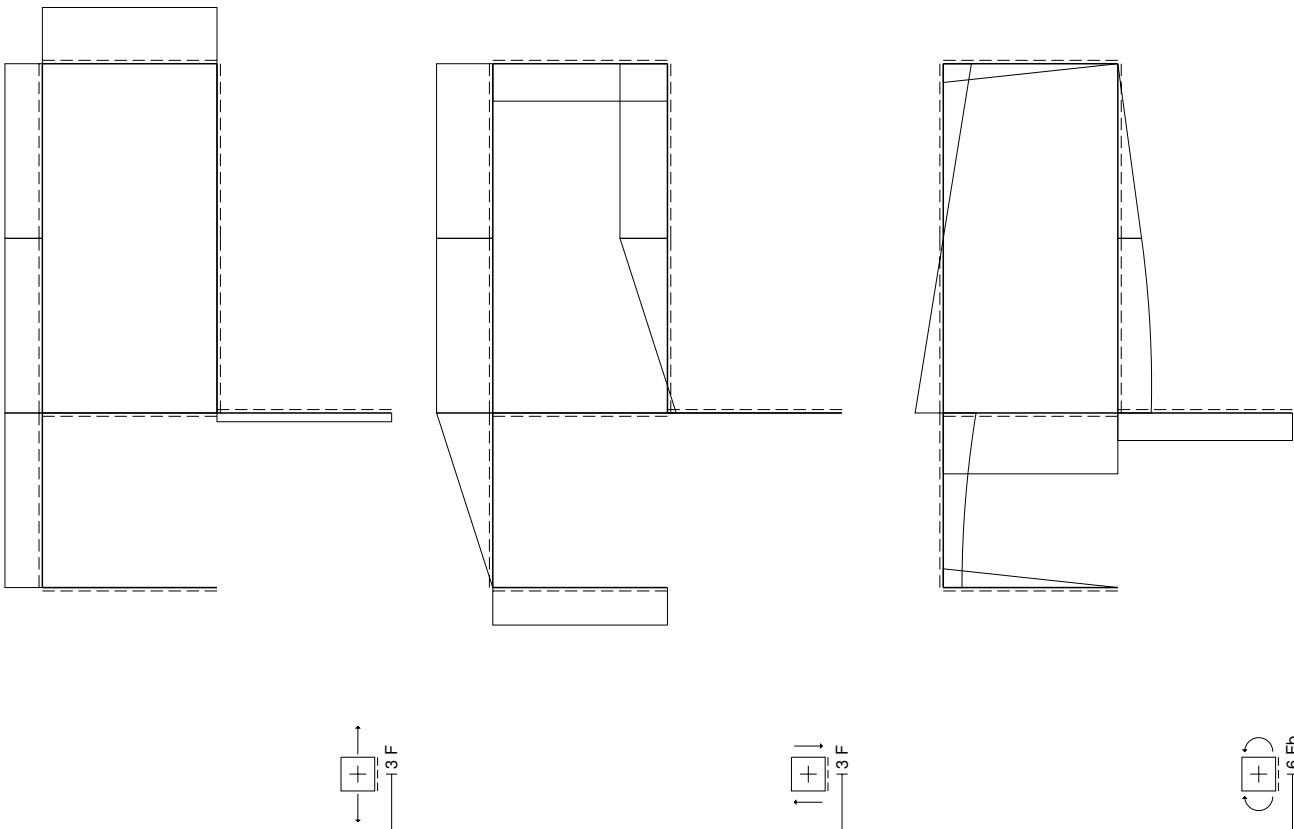
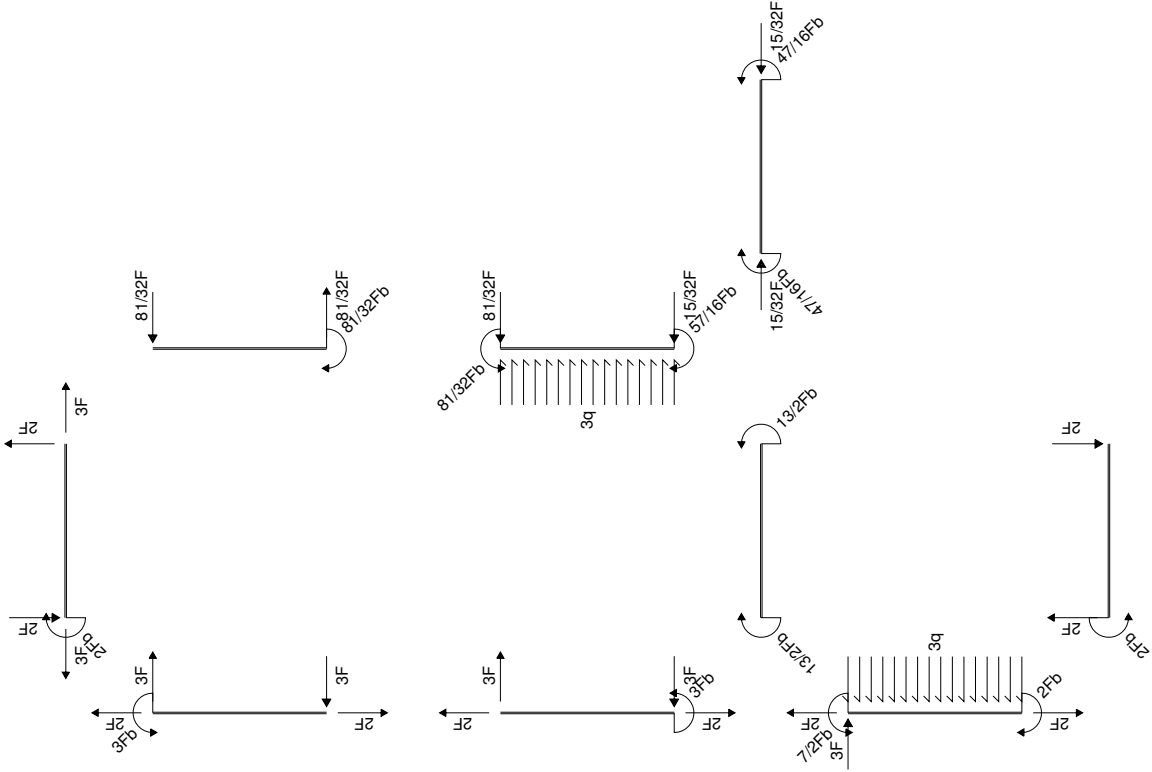
$\varphi_B = -5/8(Fb^2/EJ)$



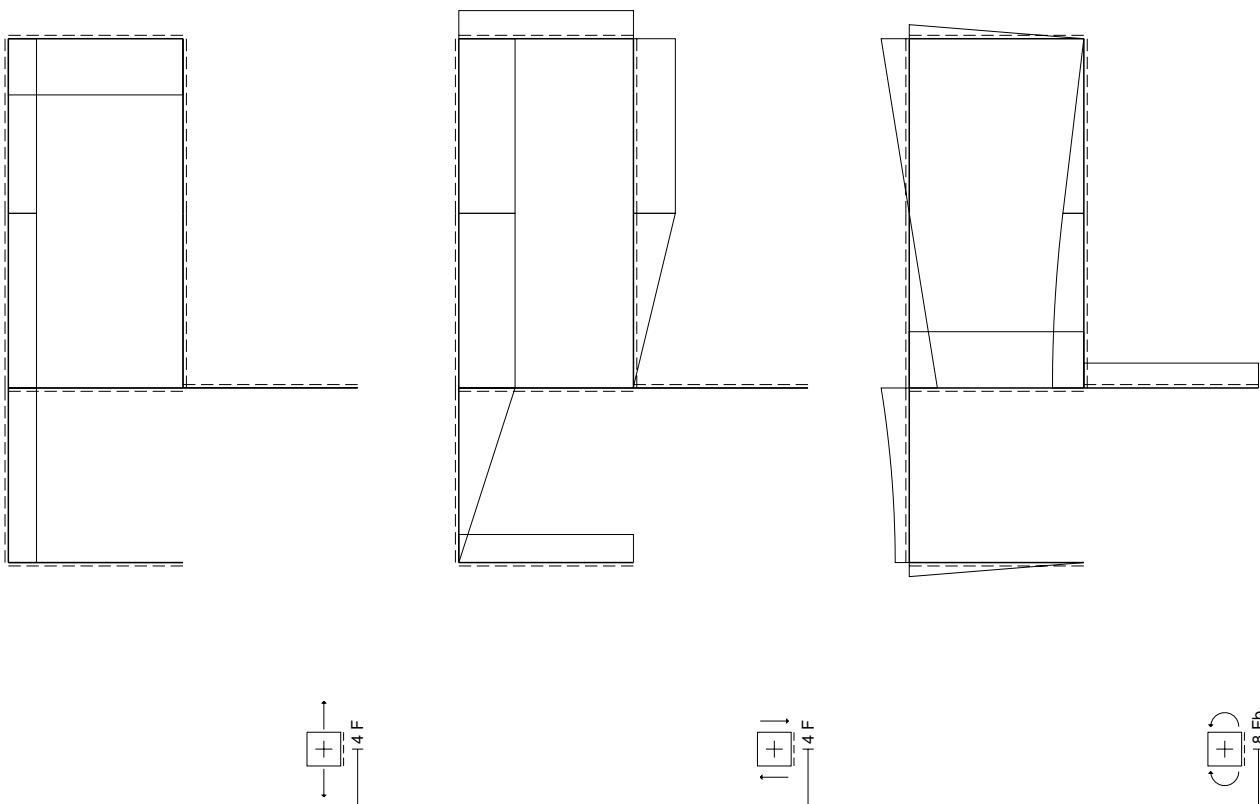
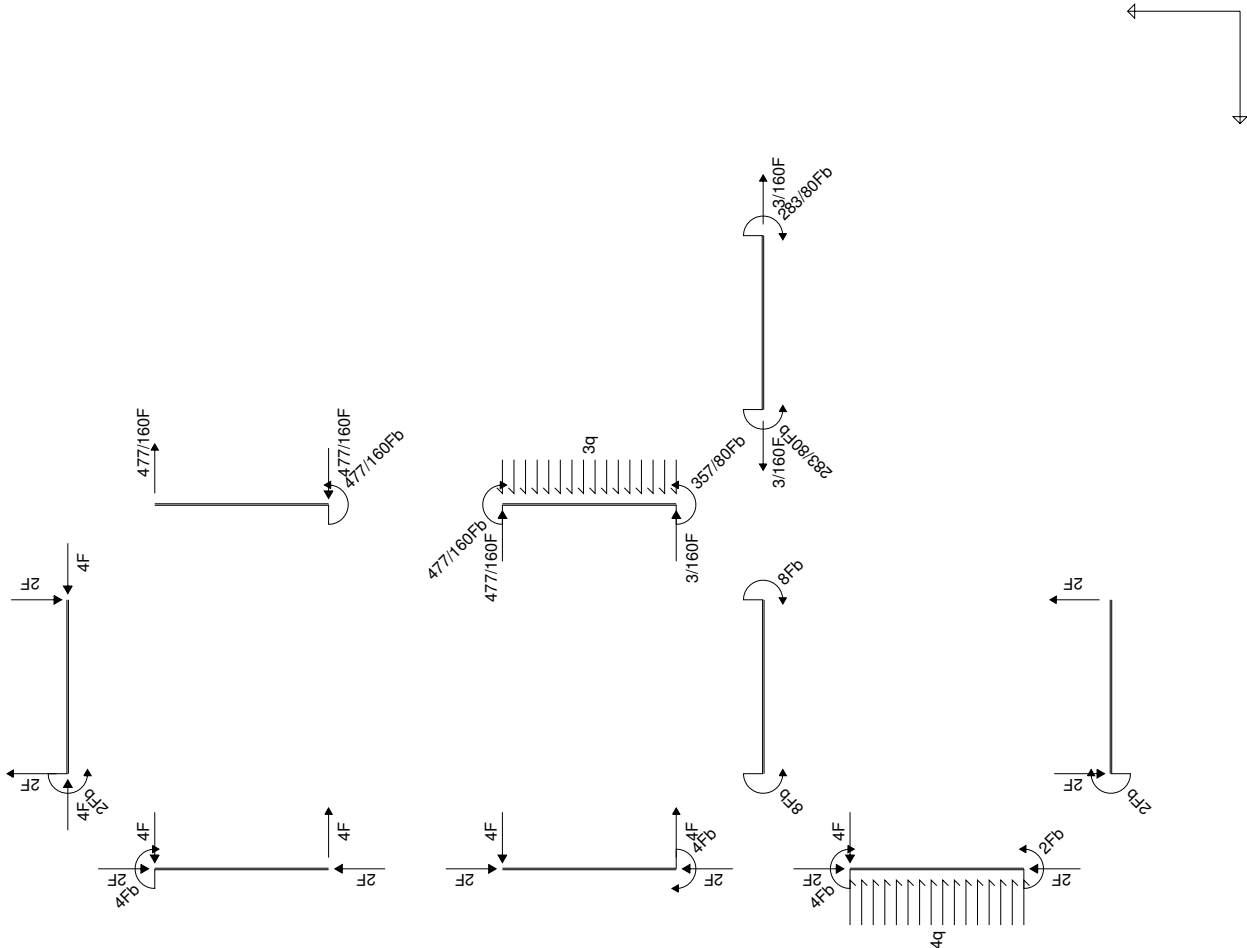
$\varphi_B = 113/40(Fb^2/EJ)$



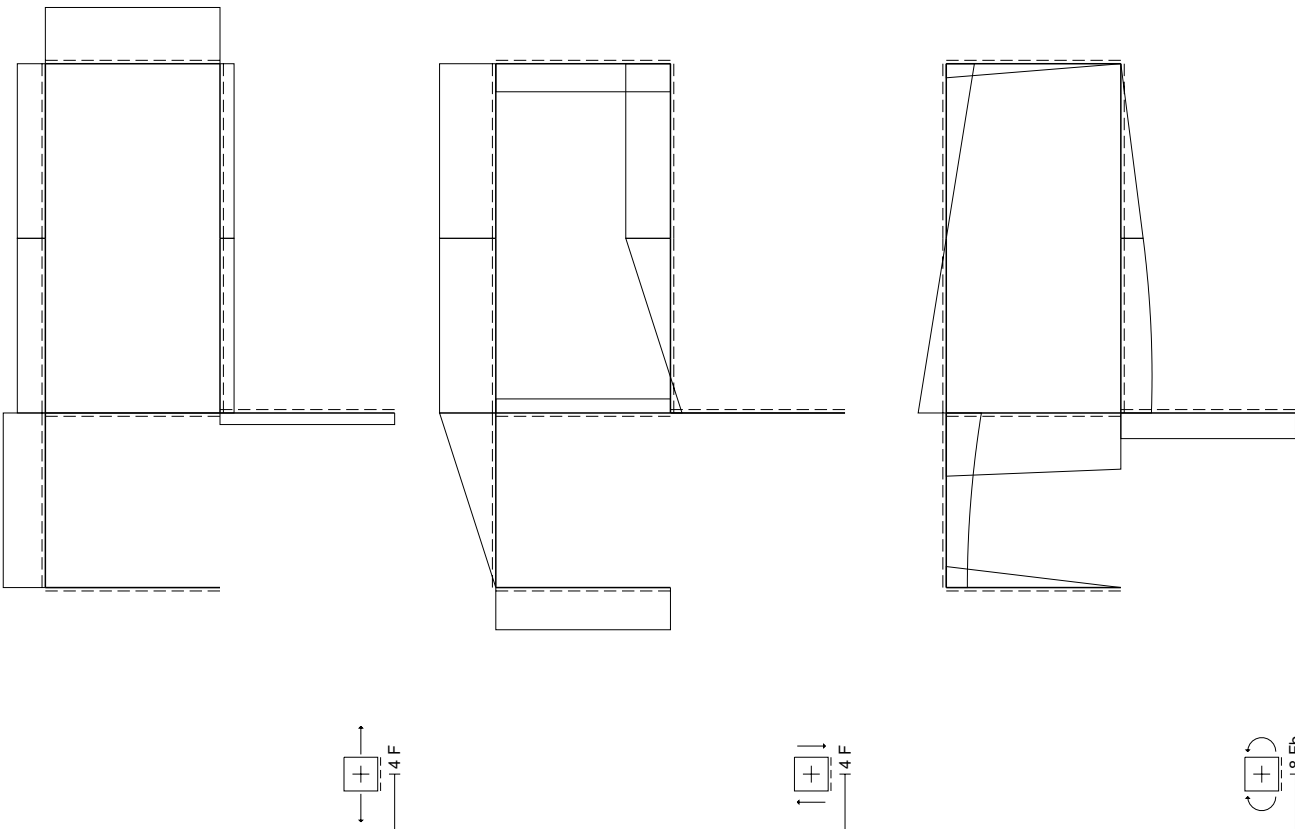
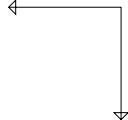
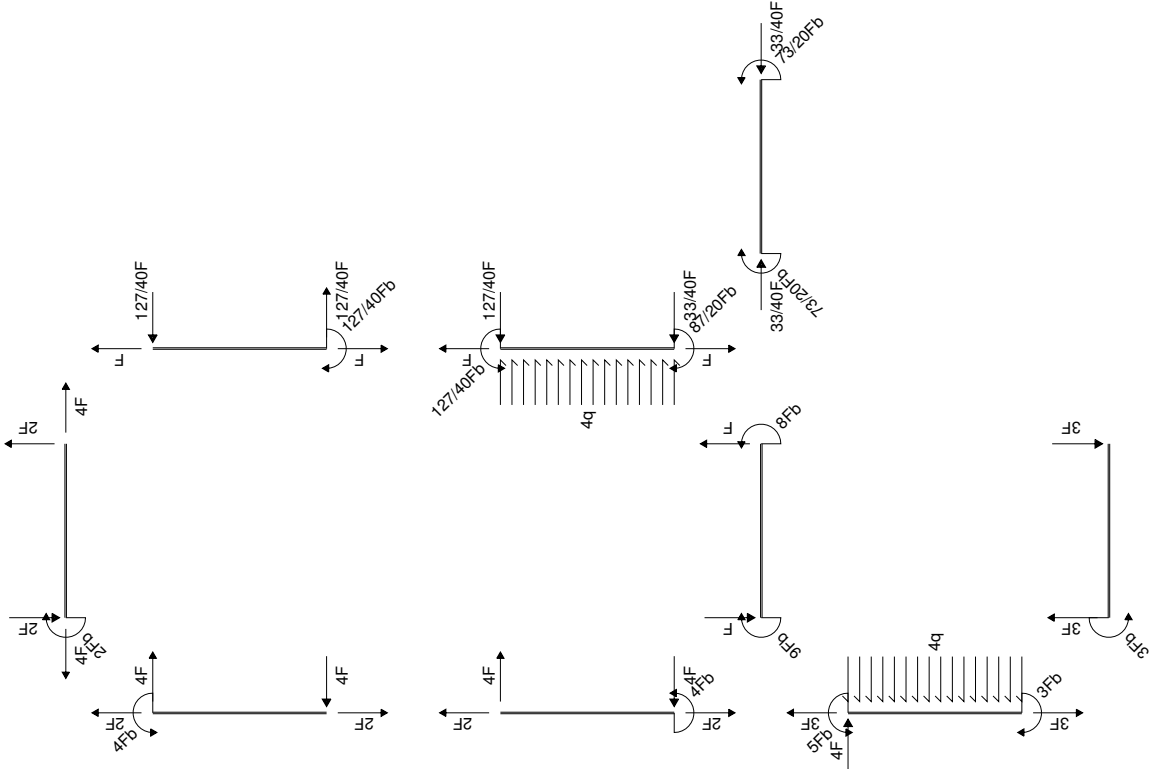
$q_B = -47/16(Fb^2/EJ)$



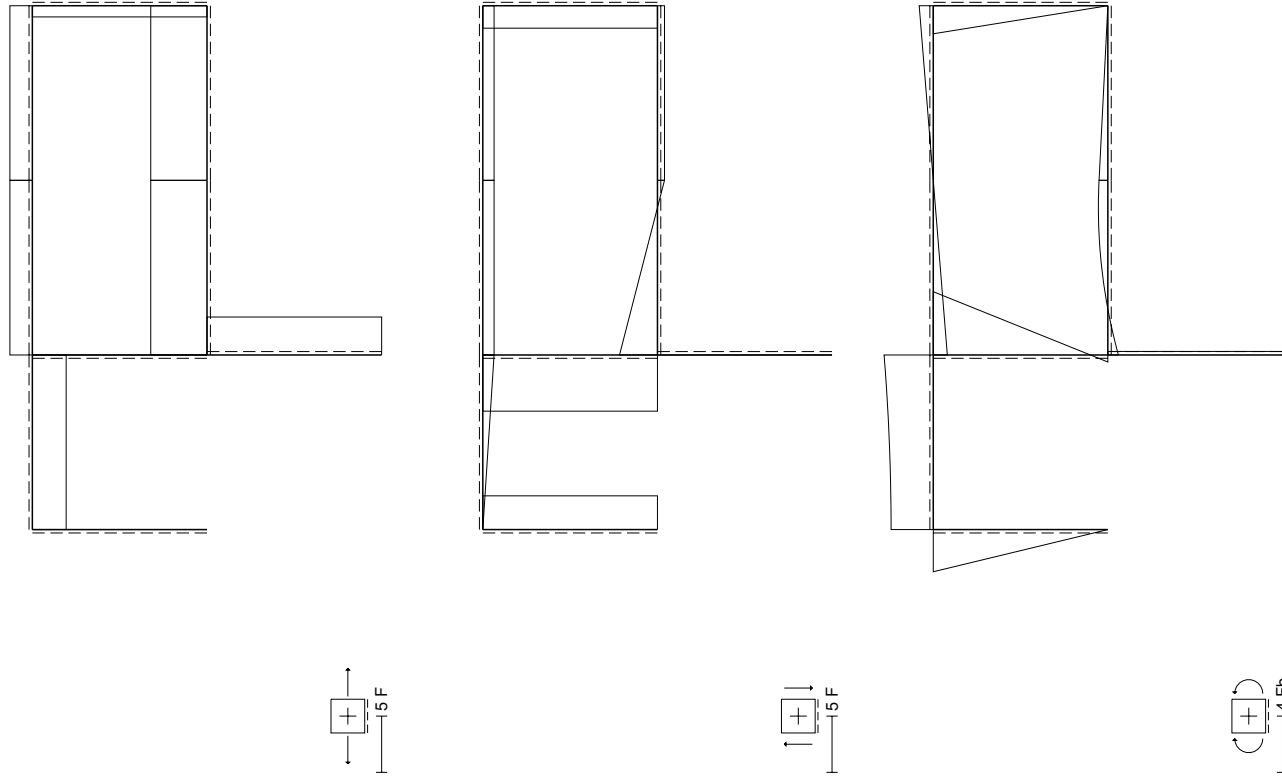
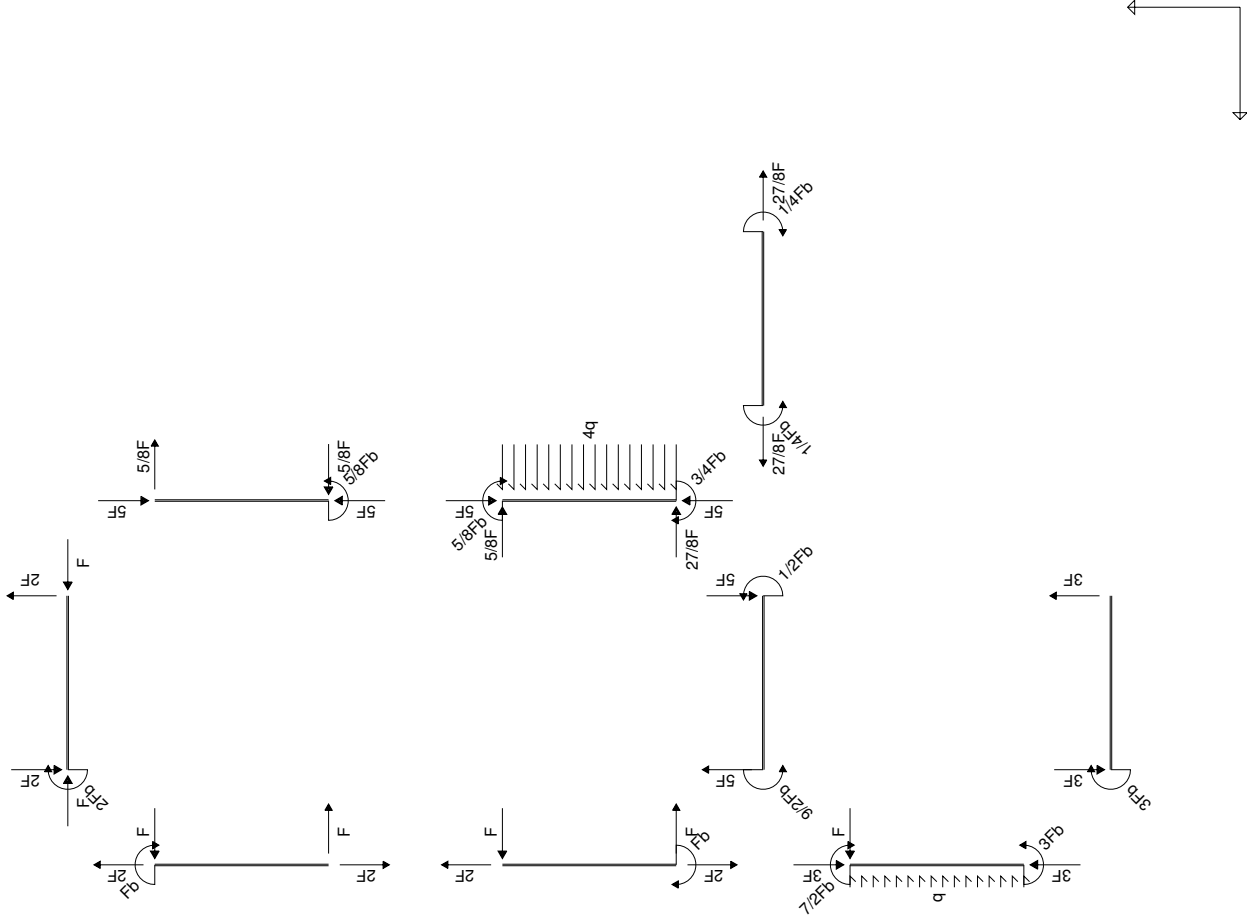
$q_B = 283/80(Fb^2/EJ)$



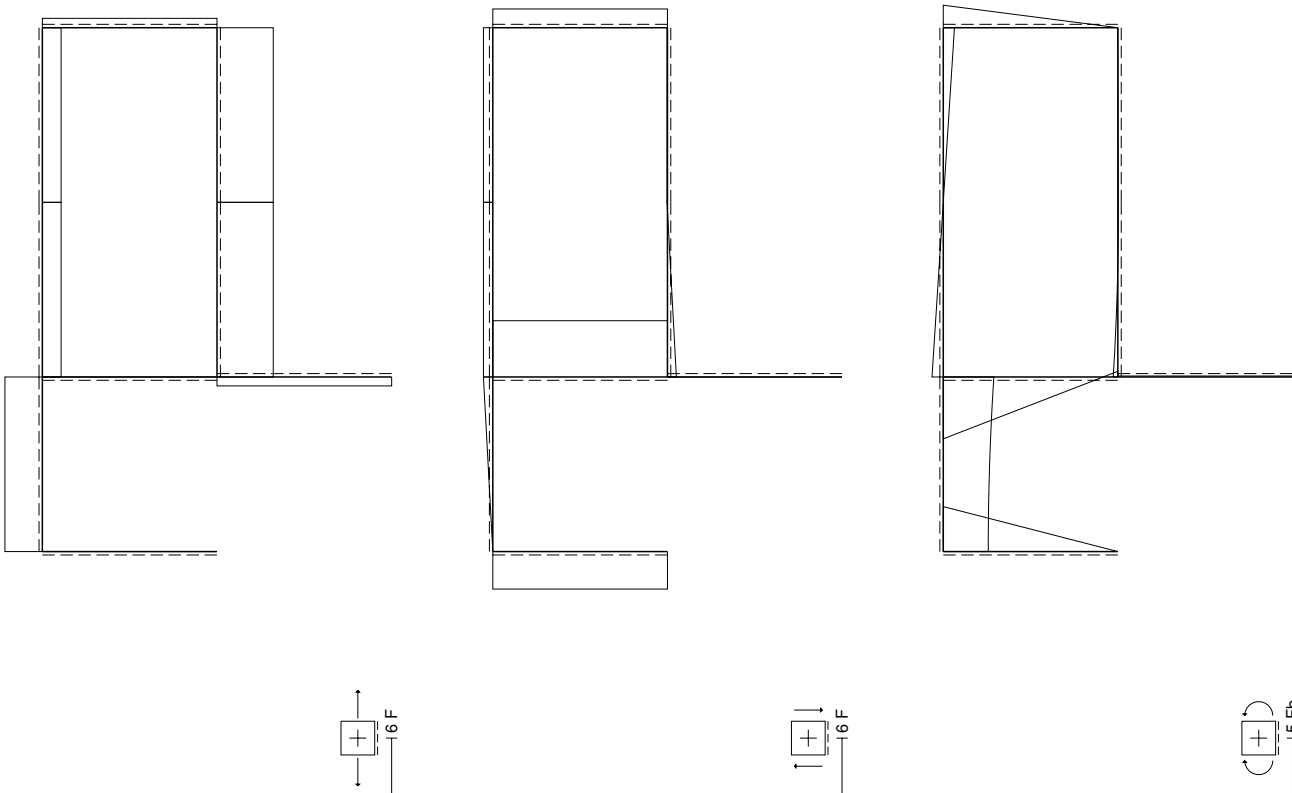
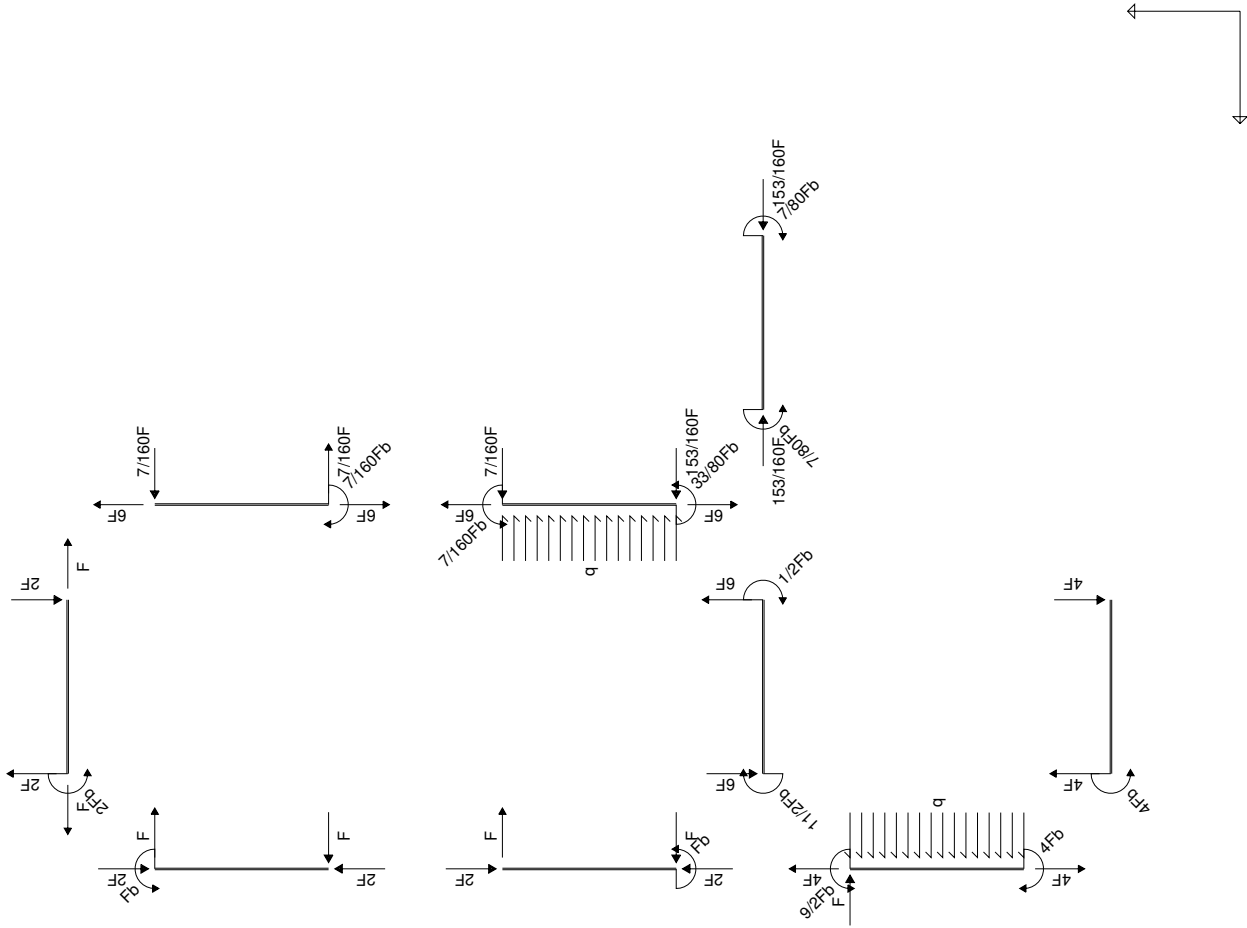
$\varphi_B = -73/20(Fb^2/EJ)$



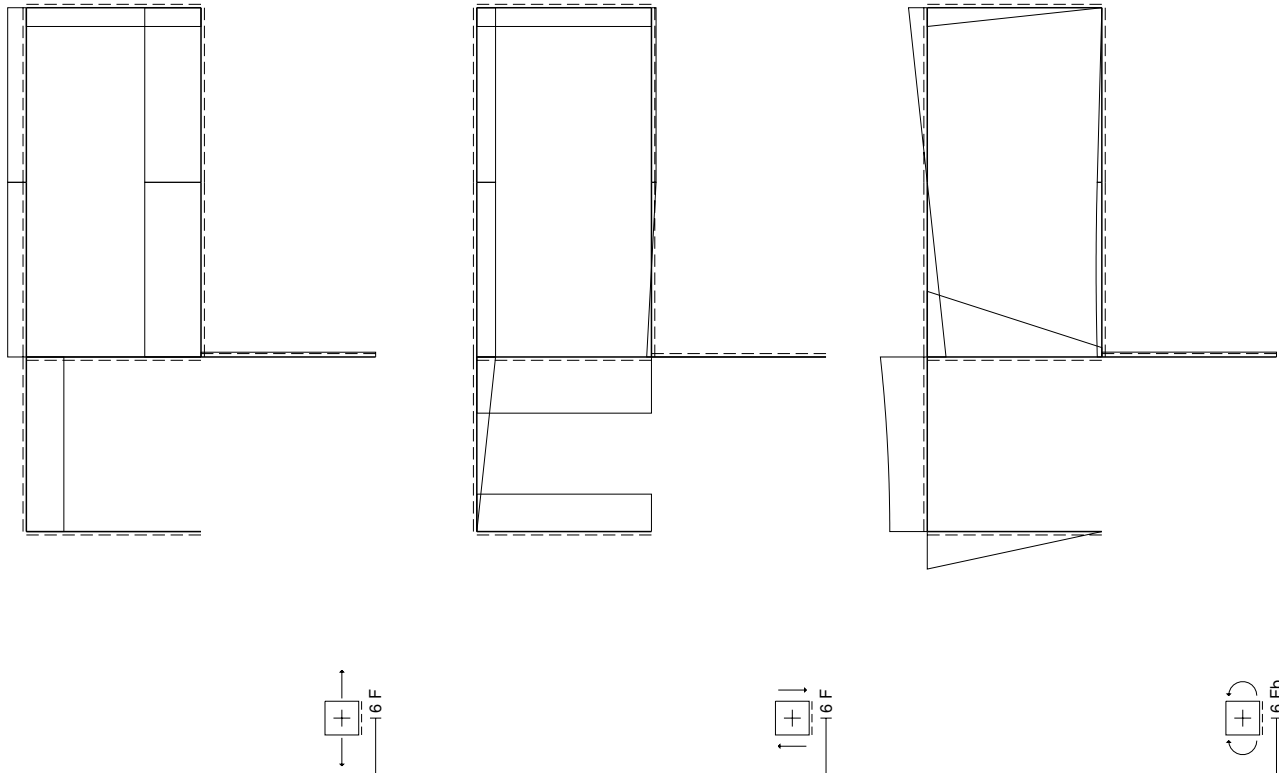
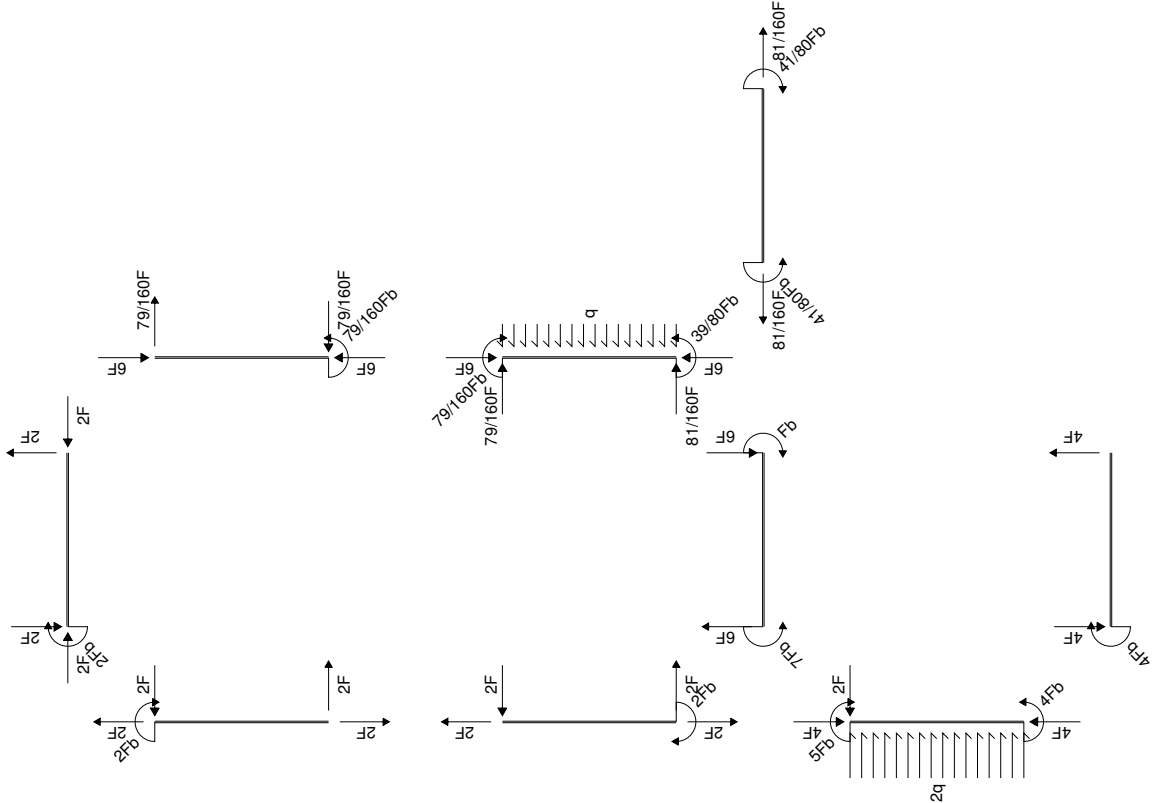
$$\varphi_B = 1/4(Fb^2/EJ)$$



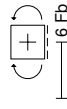
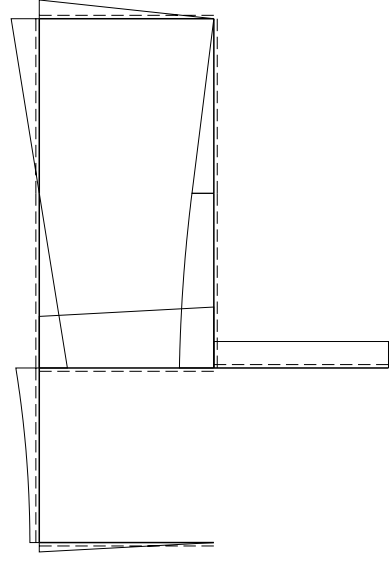
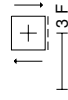
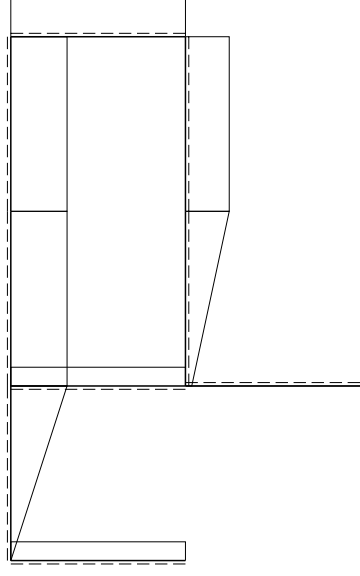
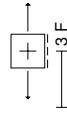
$\varphi_B = 7/80 (Fb^2/EJ)$



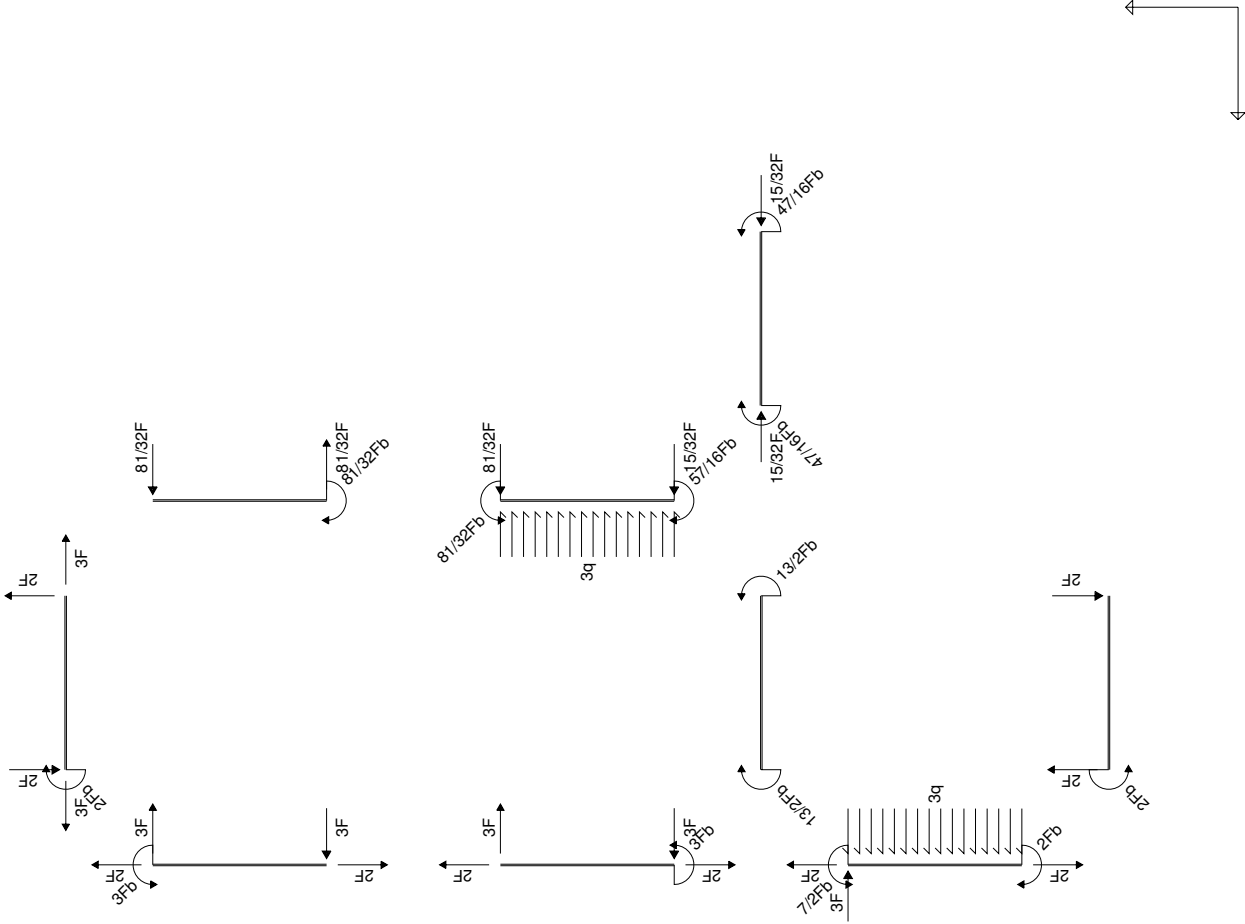
$q_B = 41/80 (Fb^2/EJ)$



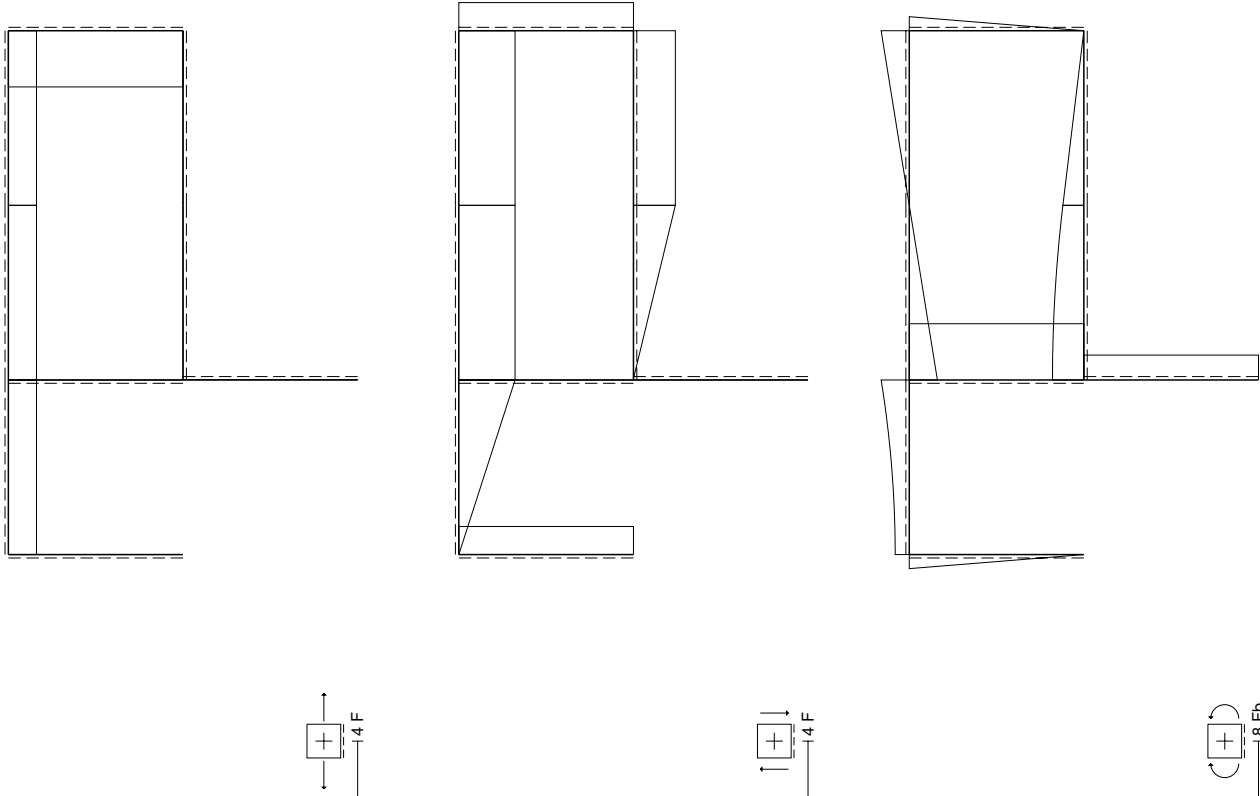
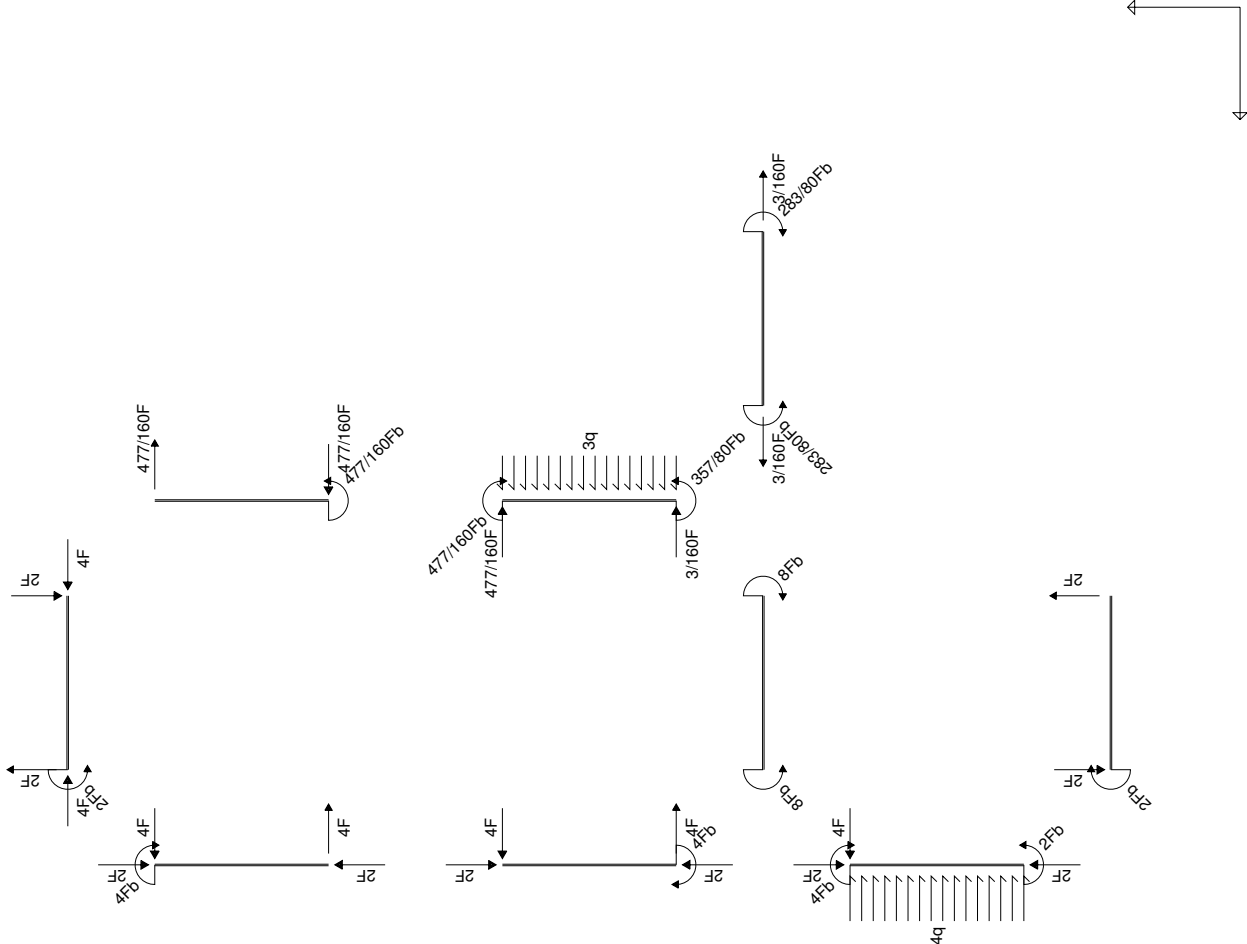
The diagram shows a rectangular frame composed of solid and dashed lines. The outer boundary is defined by solid lines. Inside this, a second set of lines, mostly dashed, indicates an internal structure or a second layer. The dashed lines follow the same rectangular path as the solid lines, with some segments being solid, suggesting a complex or multi-layered construction. The overall shape is a rectangle with a smaller rectangular section on the left side, creating a stepped profile.



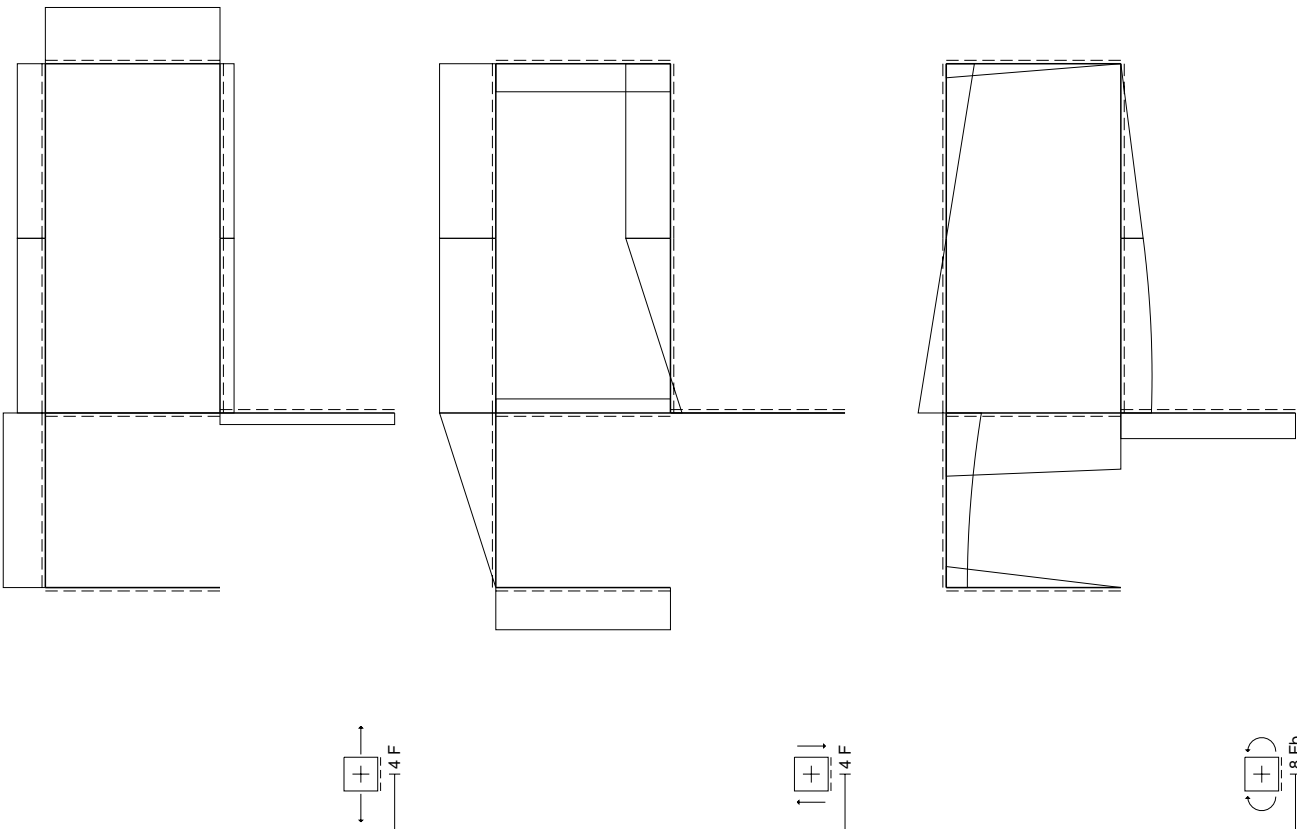
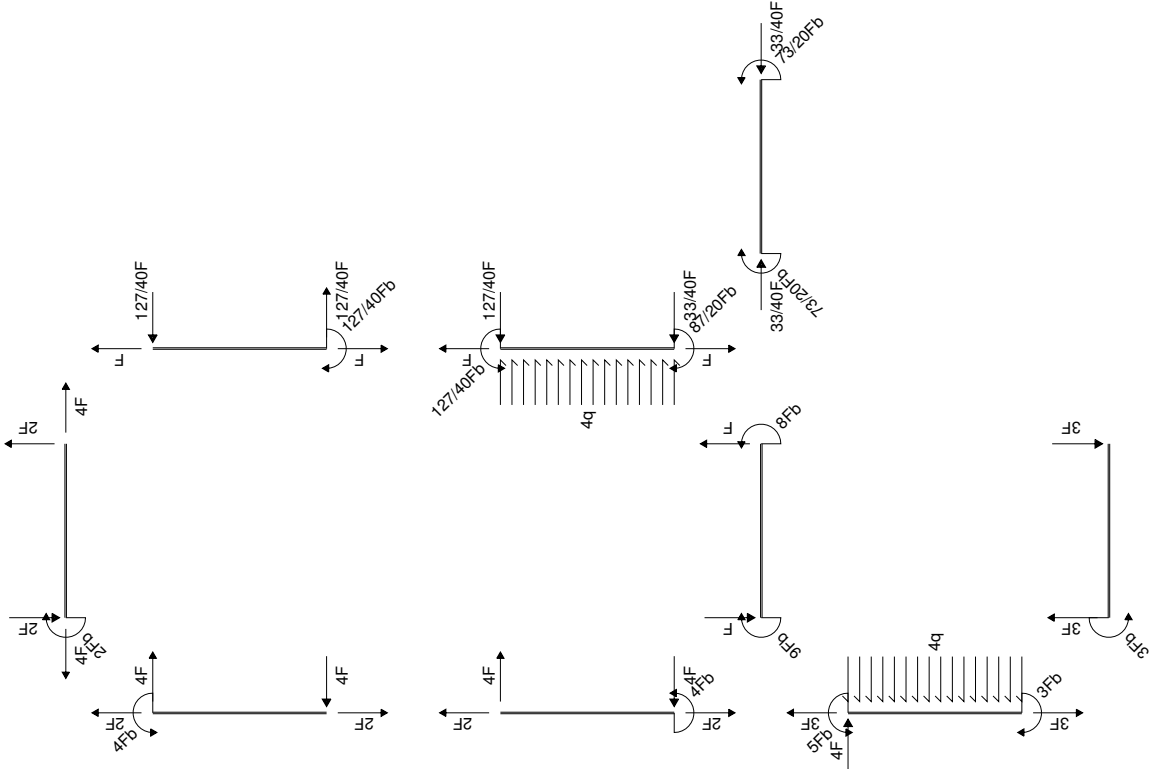
$\varphi_B = -47/16(Fb^2/EJ)$



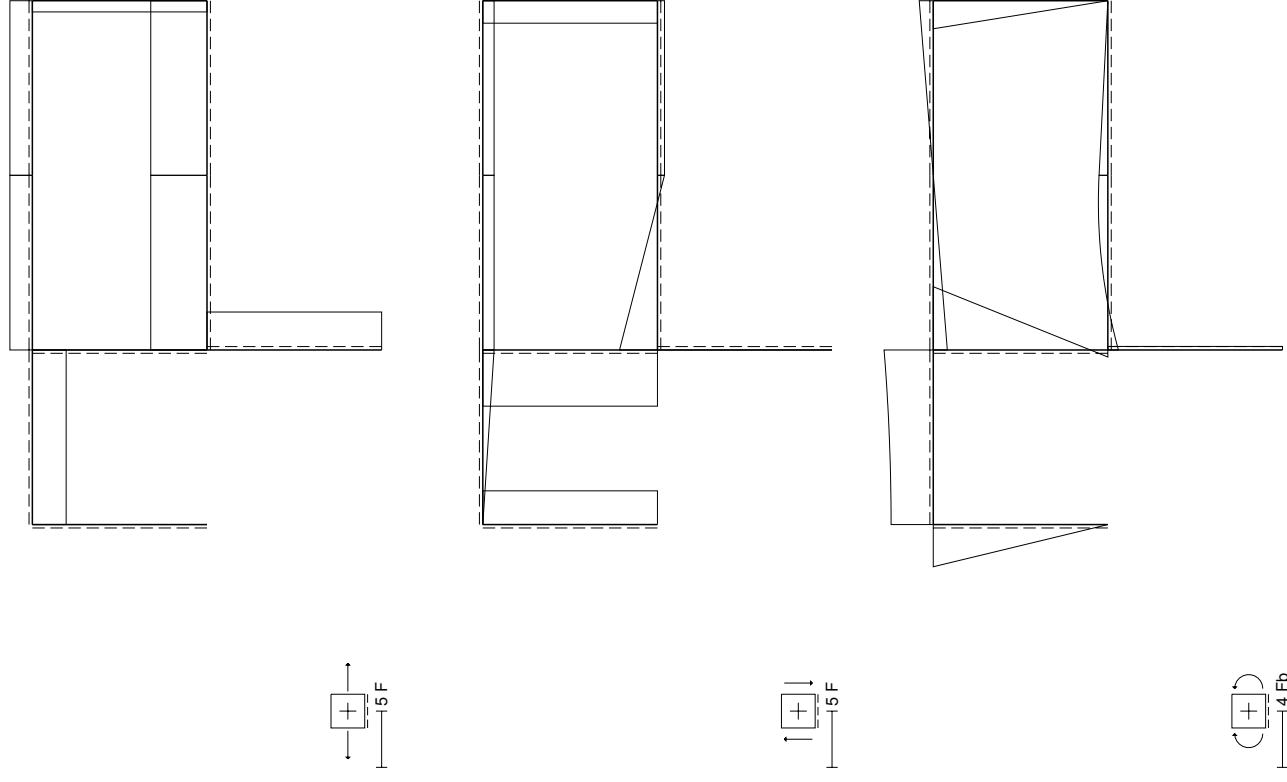
$q_B = 283/80(Fb^2/EJ)$



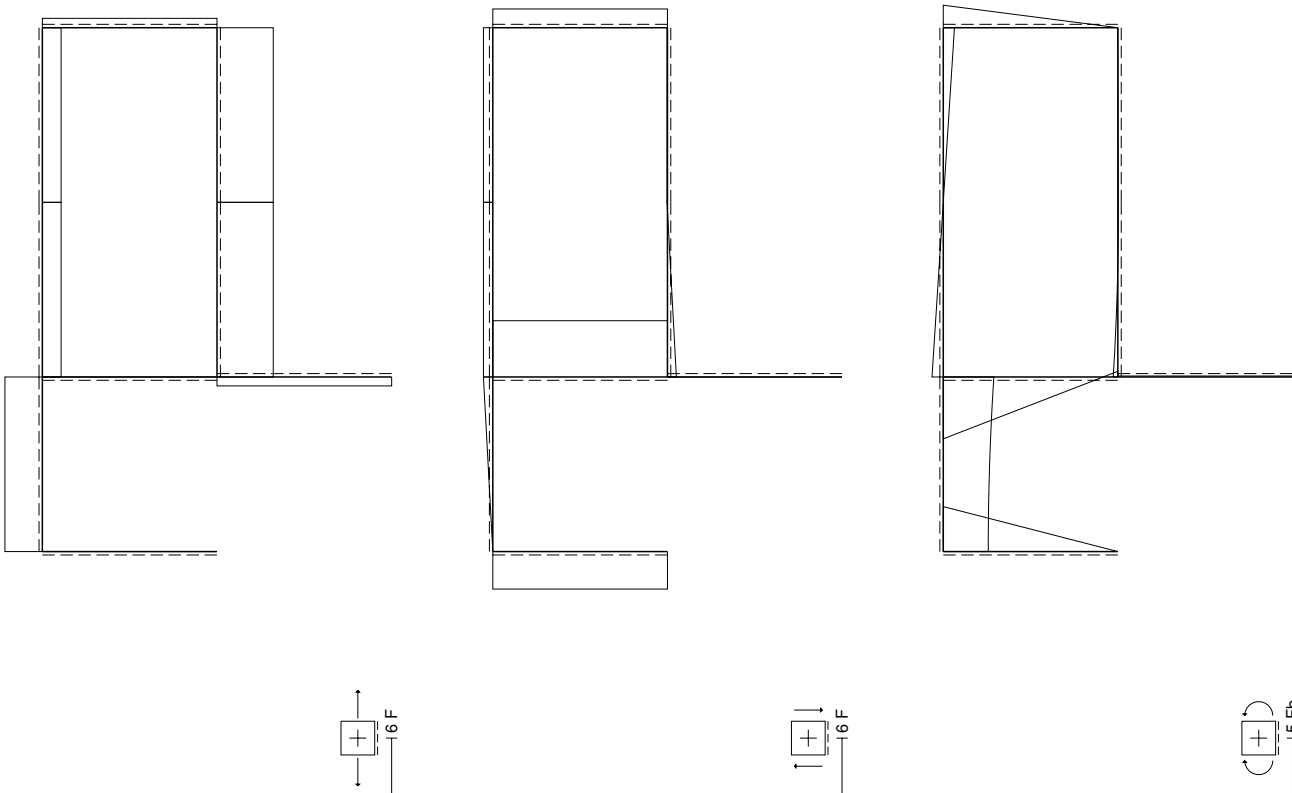
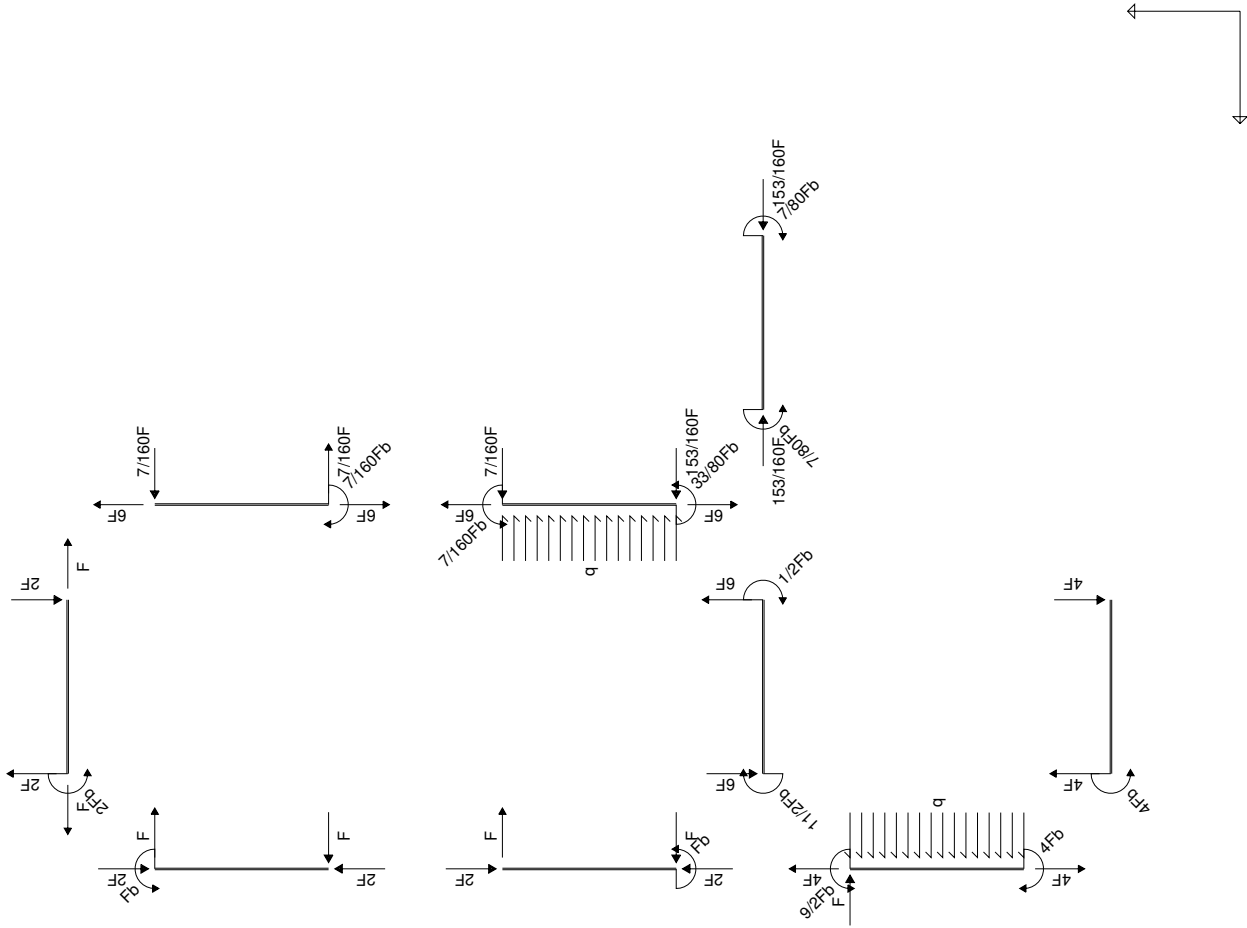
$\varphi_B = -73/20(Fb^2/EJ)$



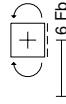
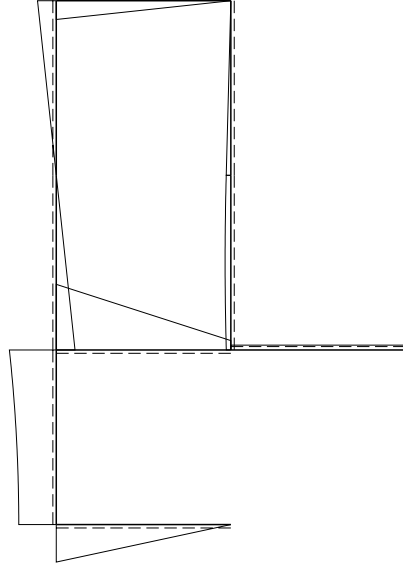
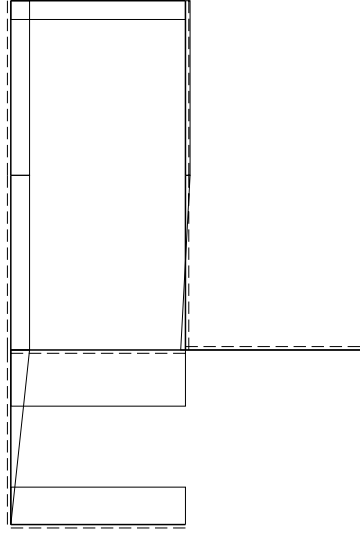
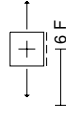
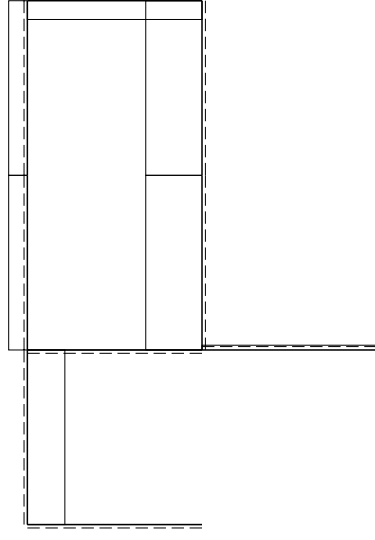
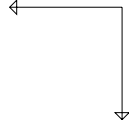
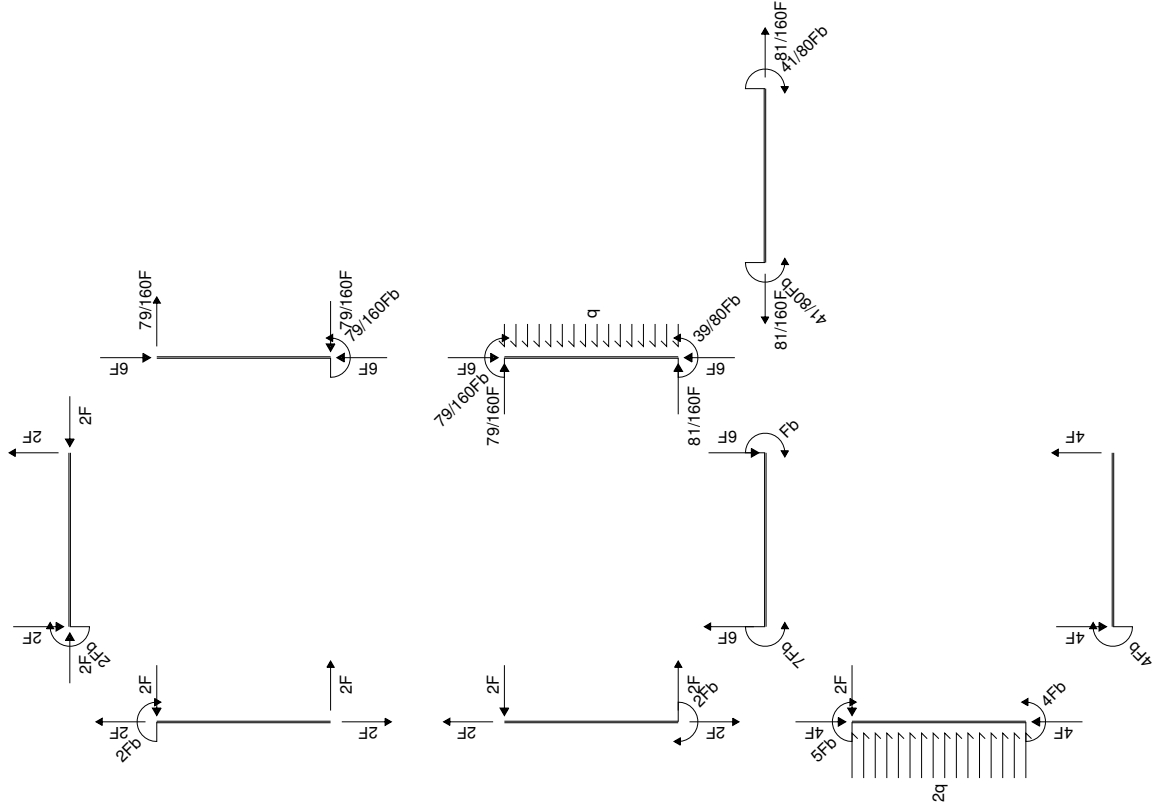
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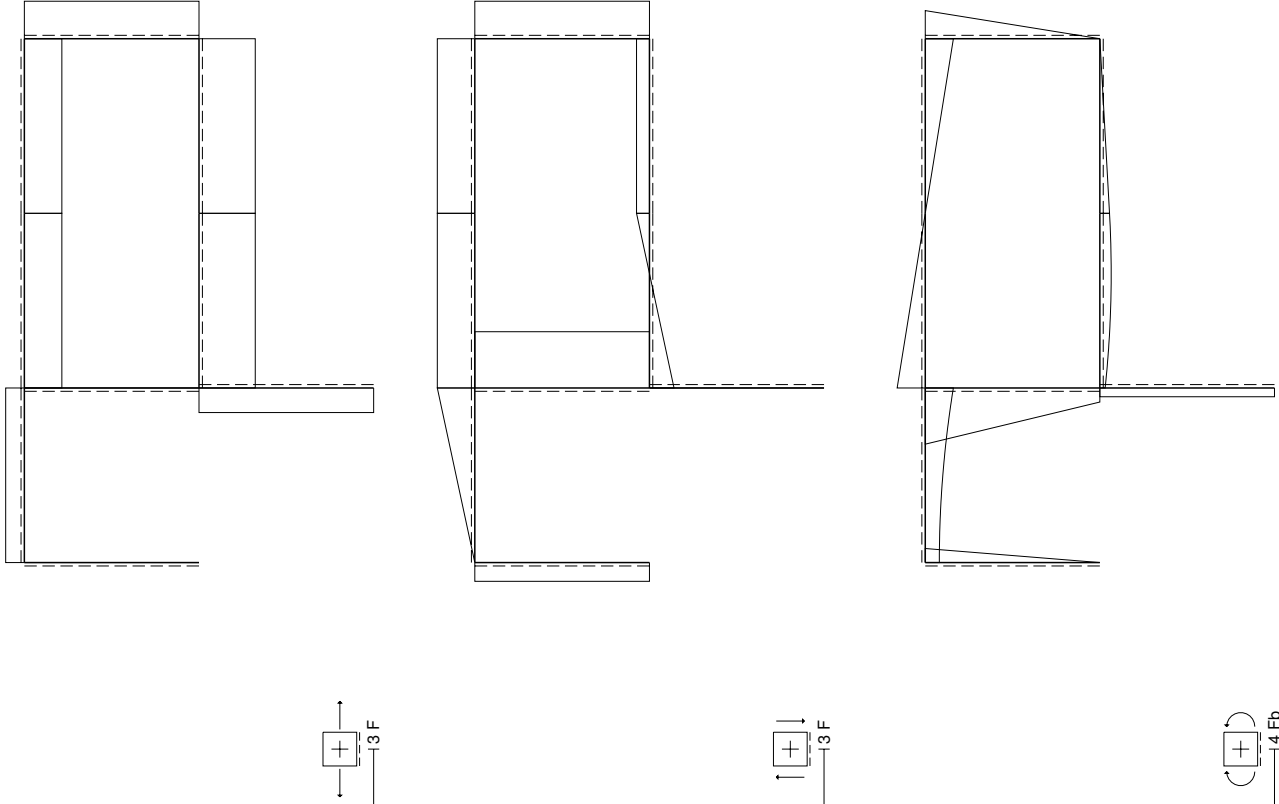
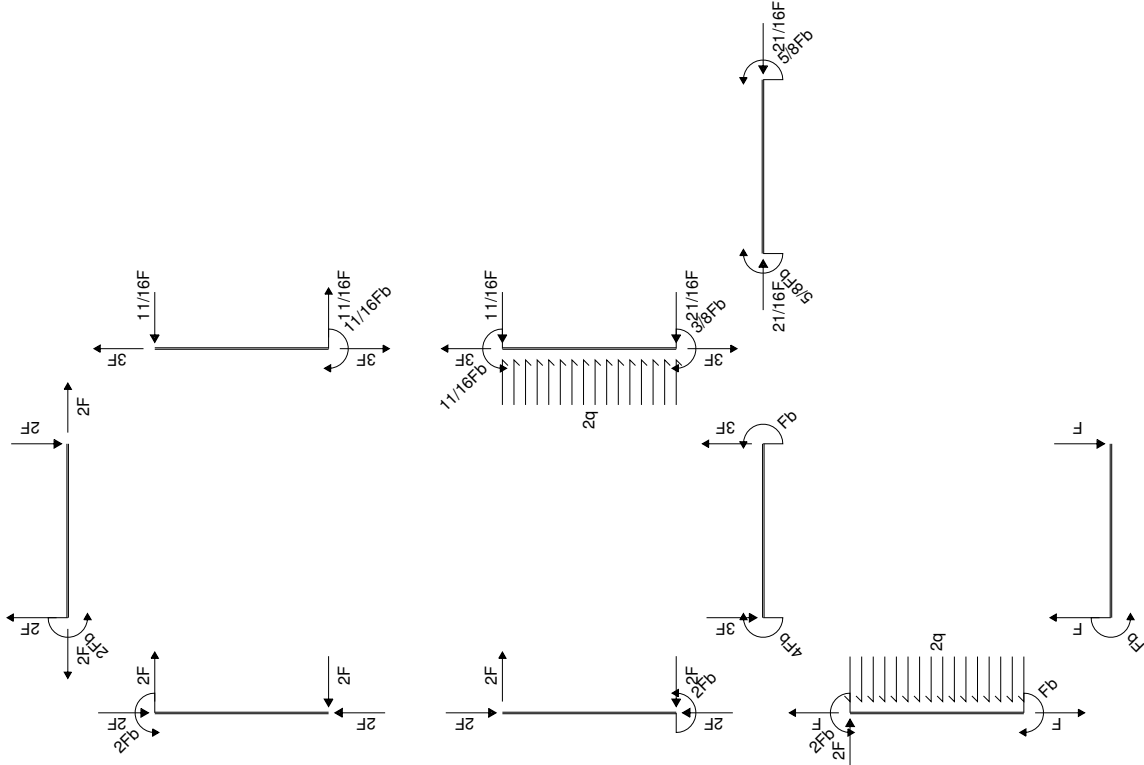
$\varphi_B = 7/80(Fb^2/EJ)$



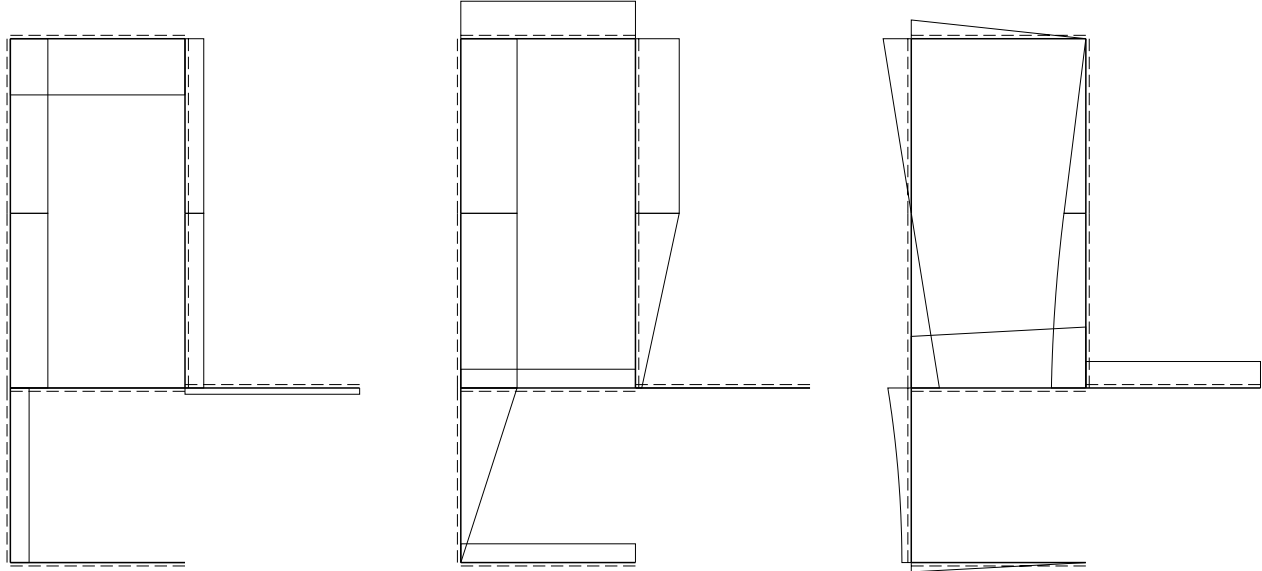
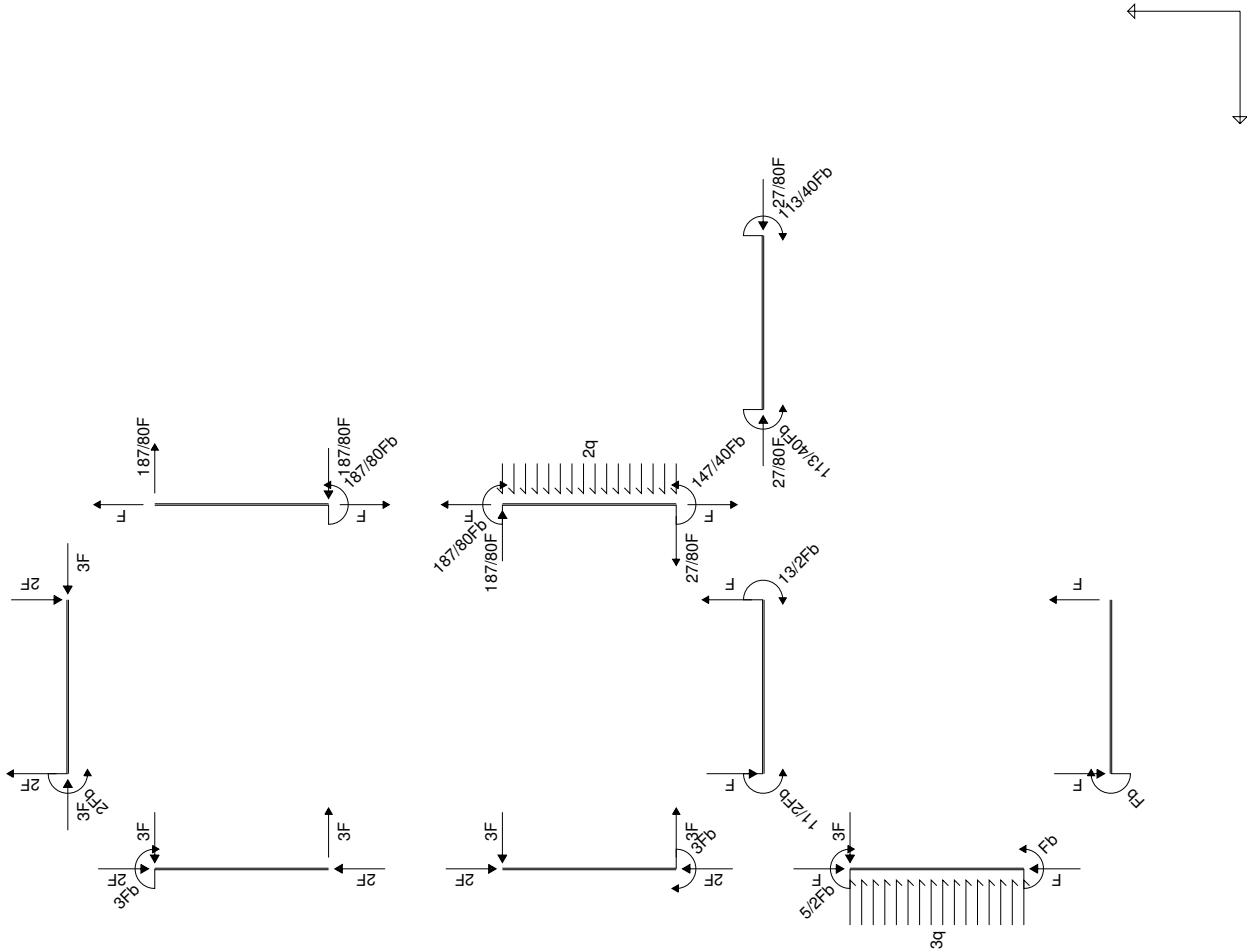
$$q_B = 41/80 \cdot (Fb^2/EJ)$$



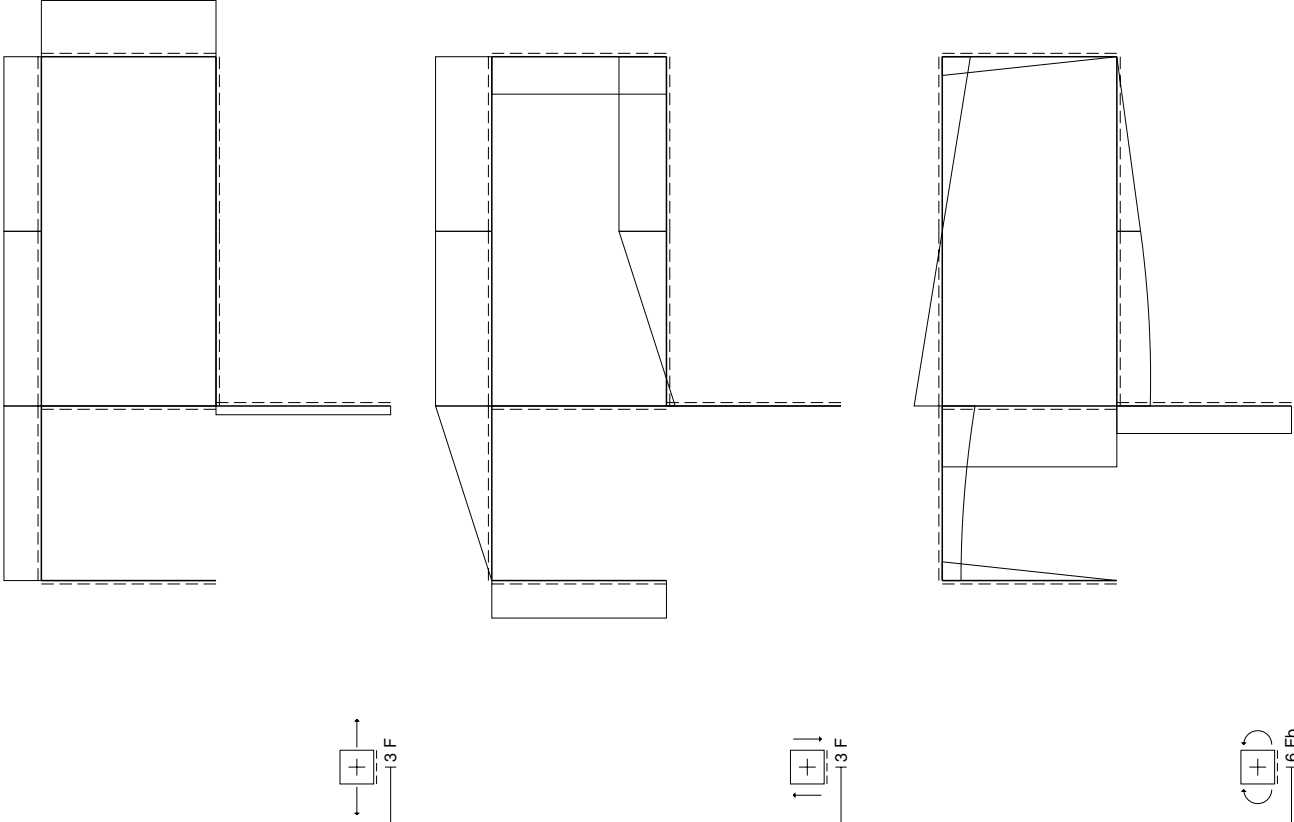
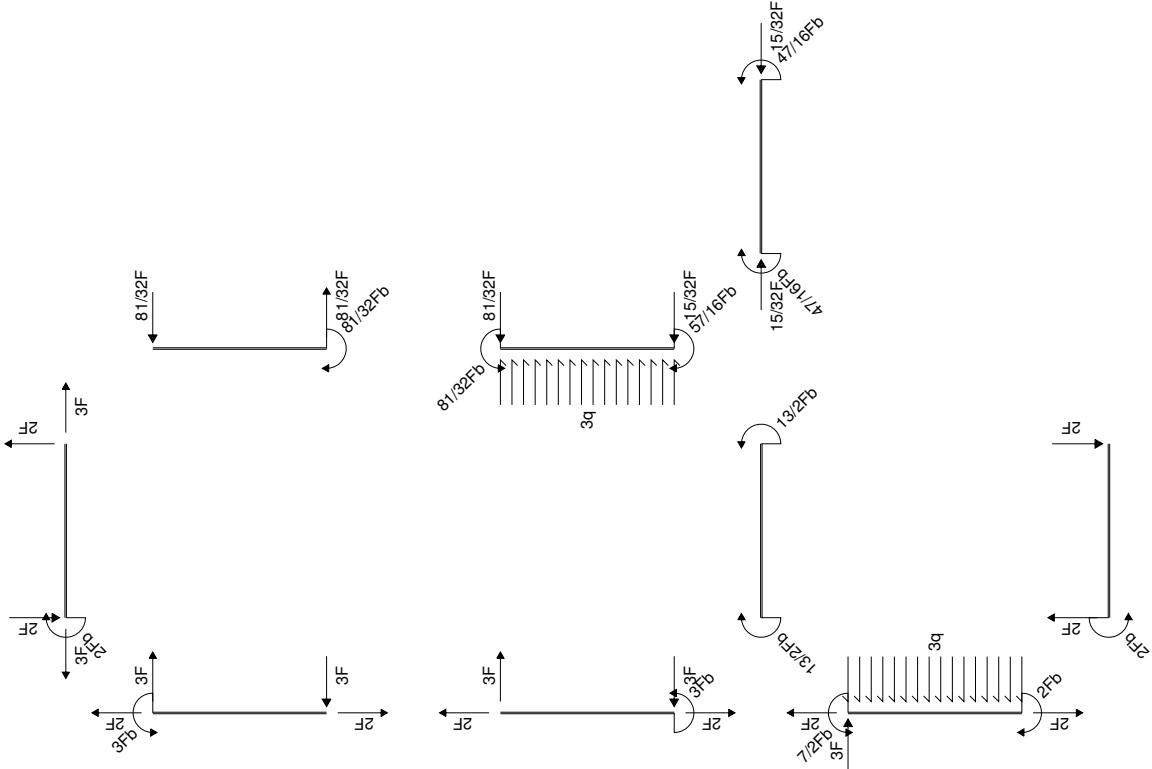
$\varphi_B = -5/8(Fb^2/EJ)$



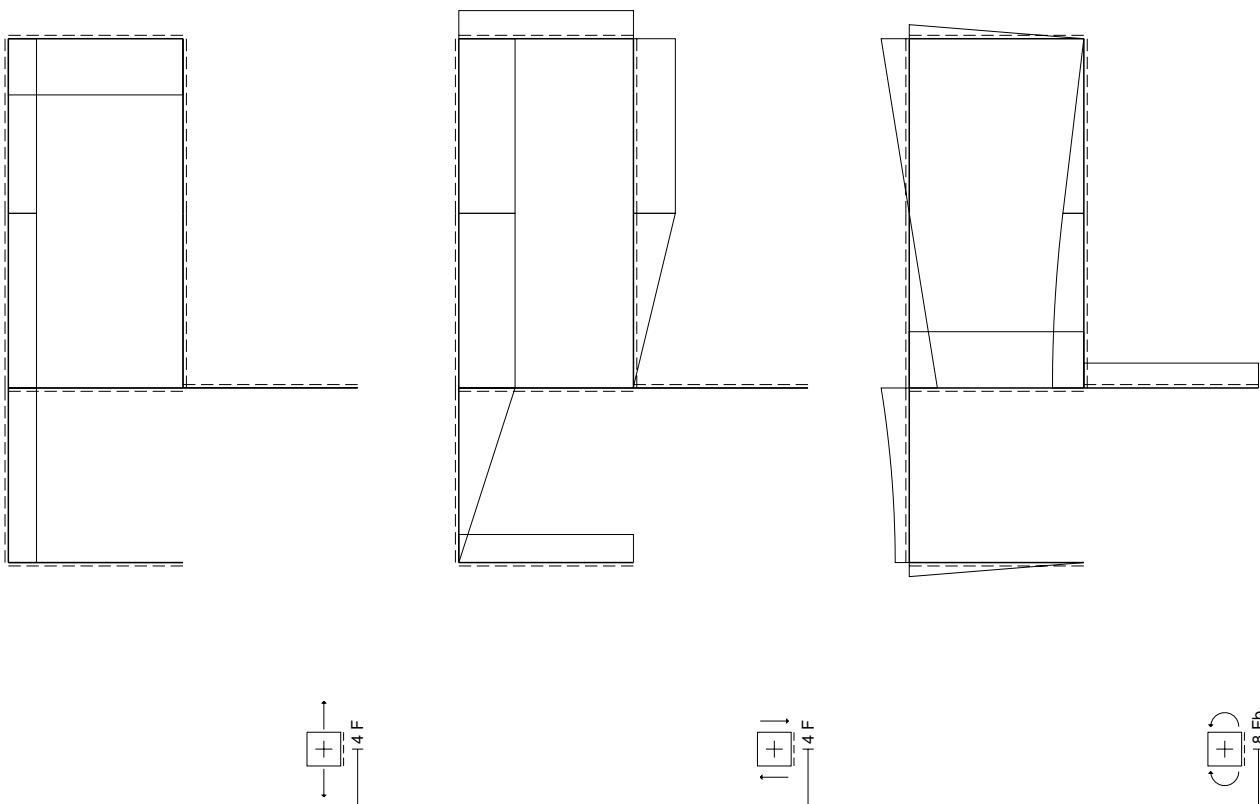
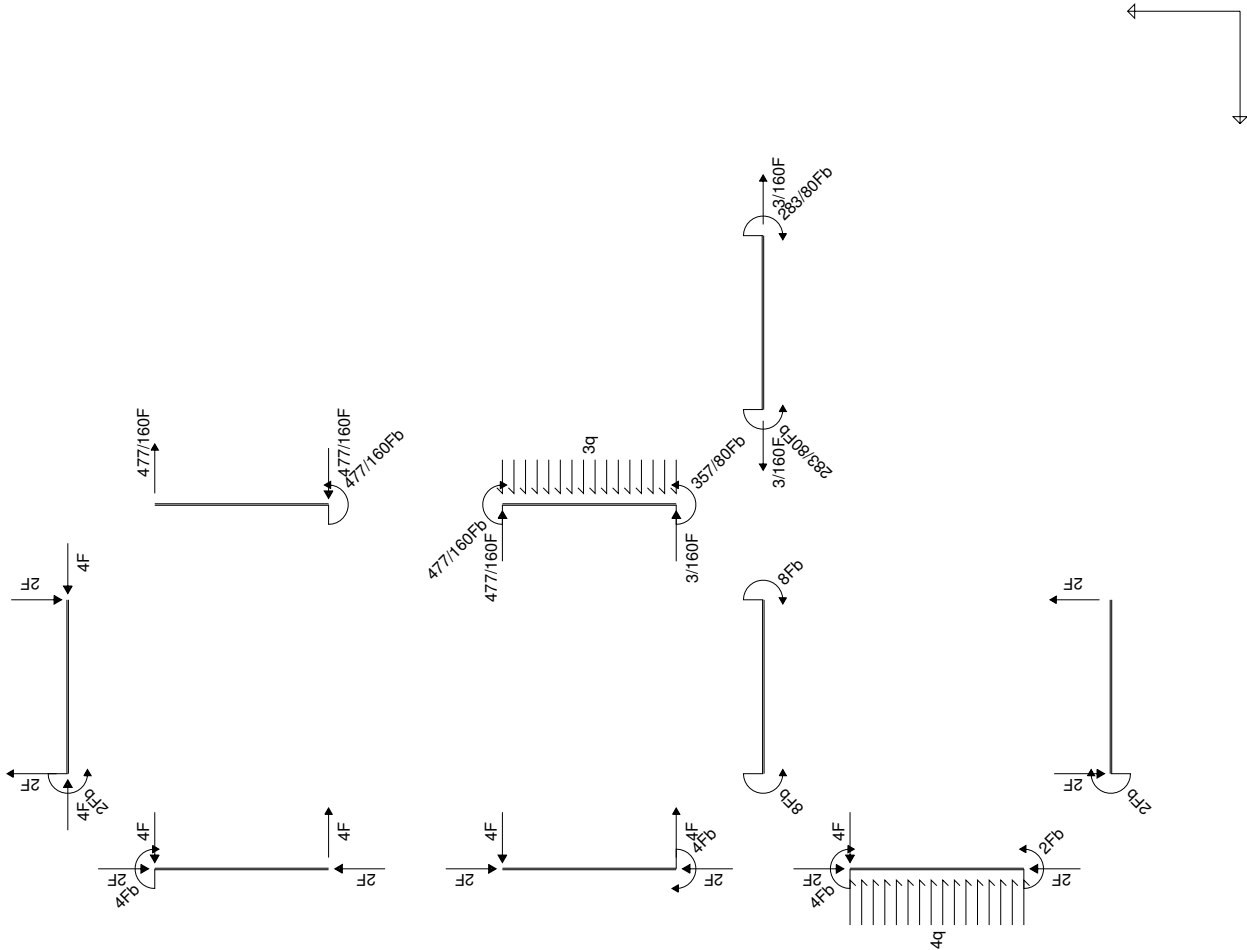
$q_B = 113/40(Fb^2/EJ)$



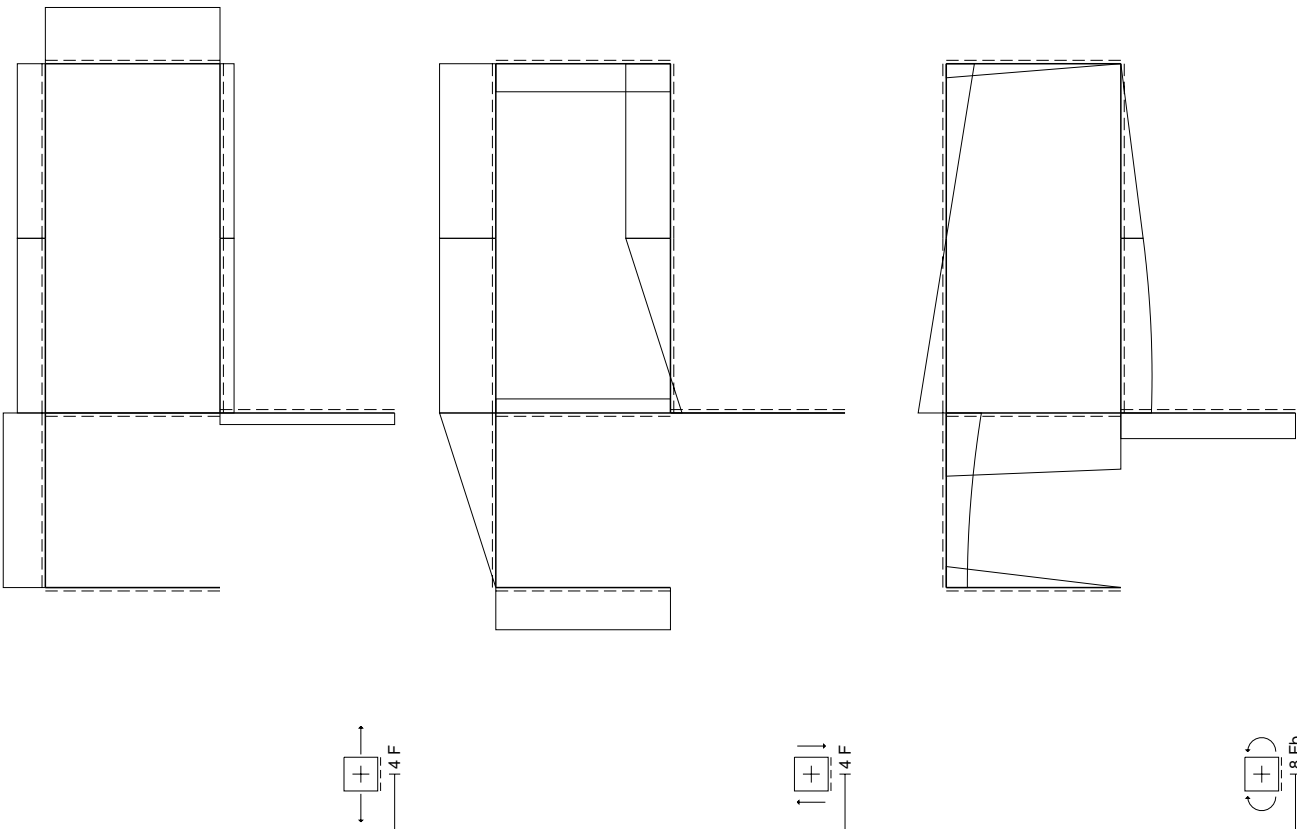
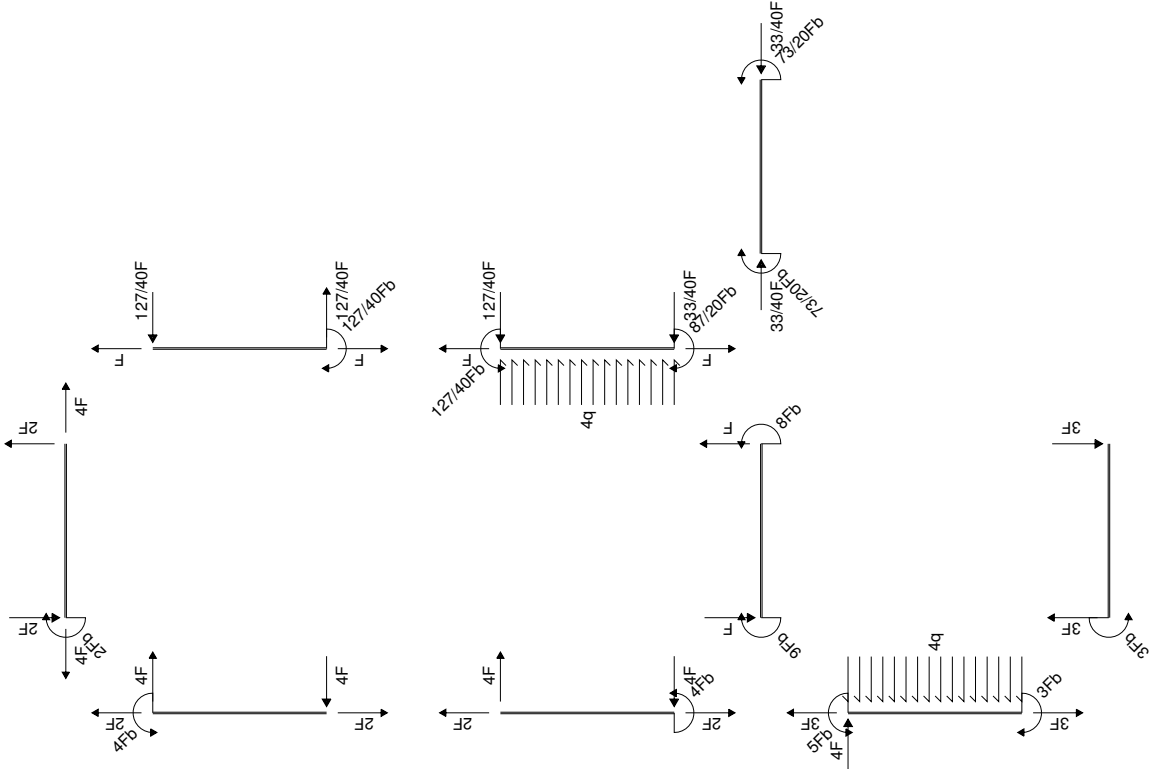
$q_B = -47/16(Fb^2/EJ)$



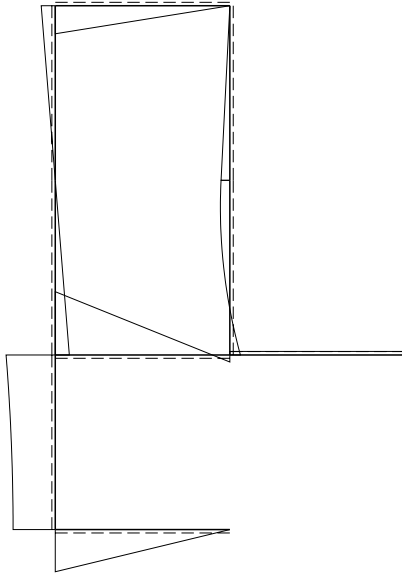
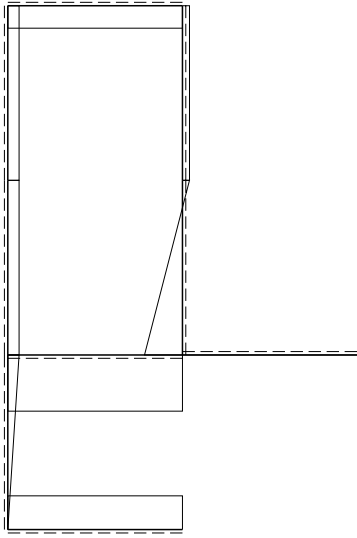
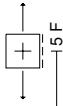
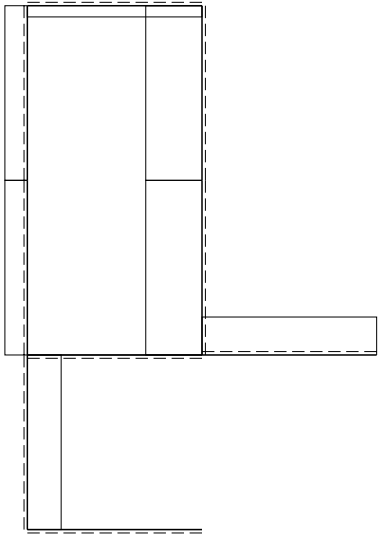
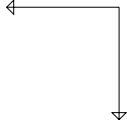
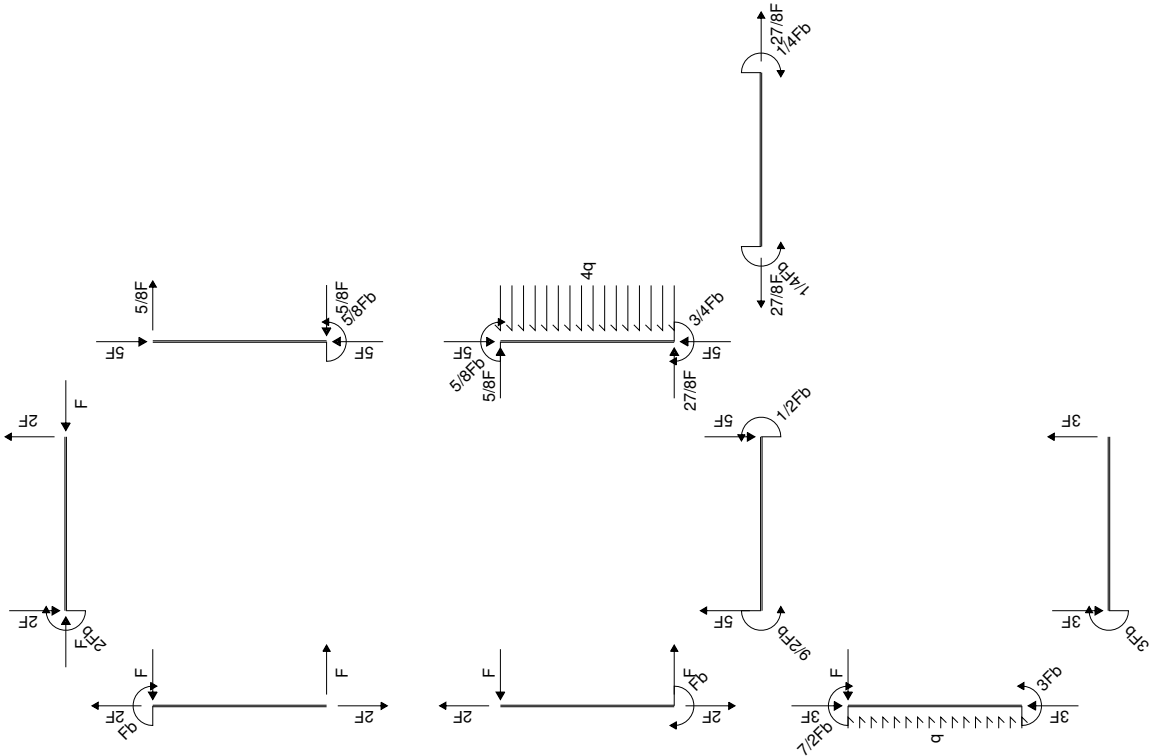
$q_B = 283/80(Fb^2/EJ)$



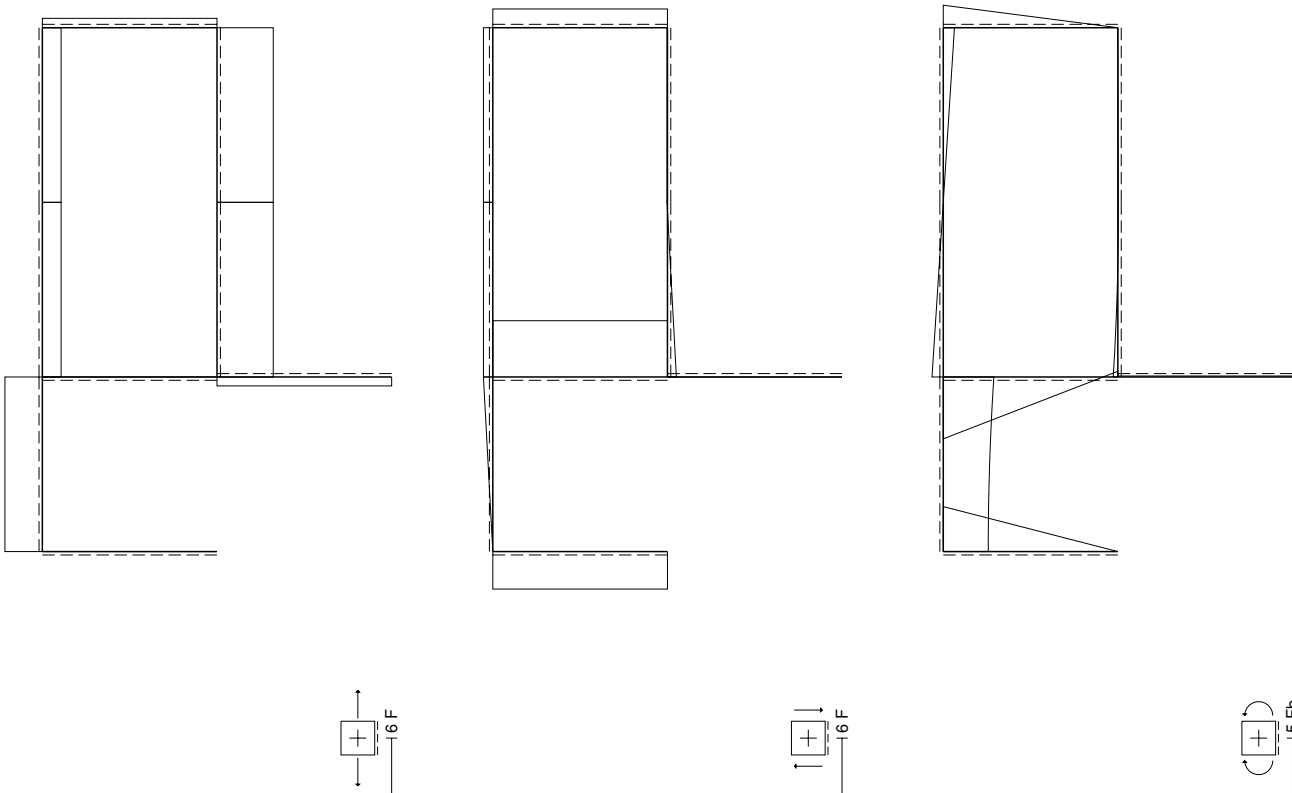
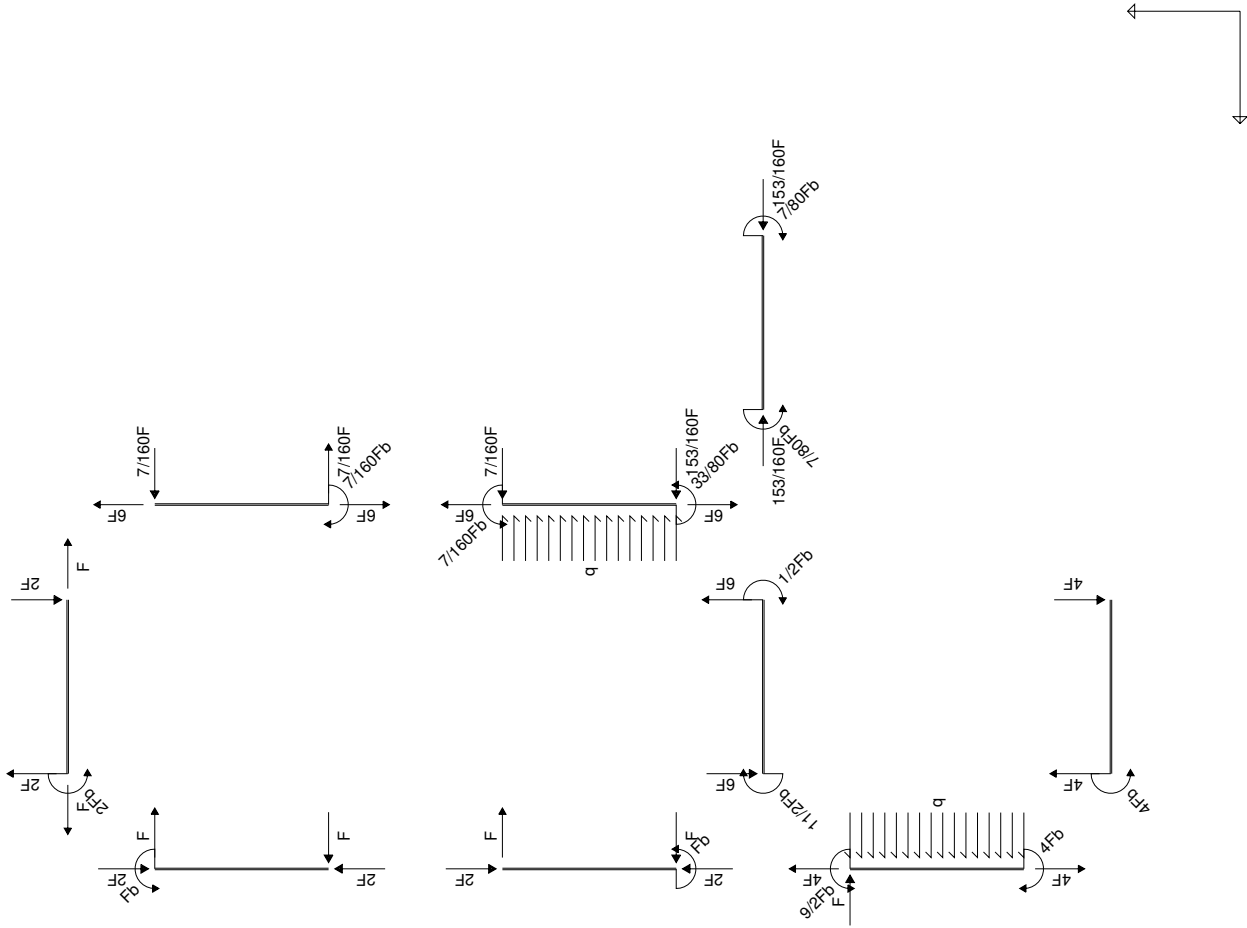
$\varphi_B = -73/20(Fb^2/EJ)$

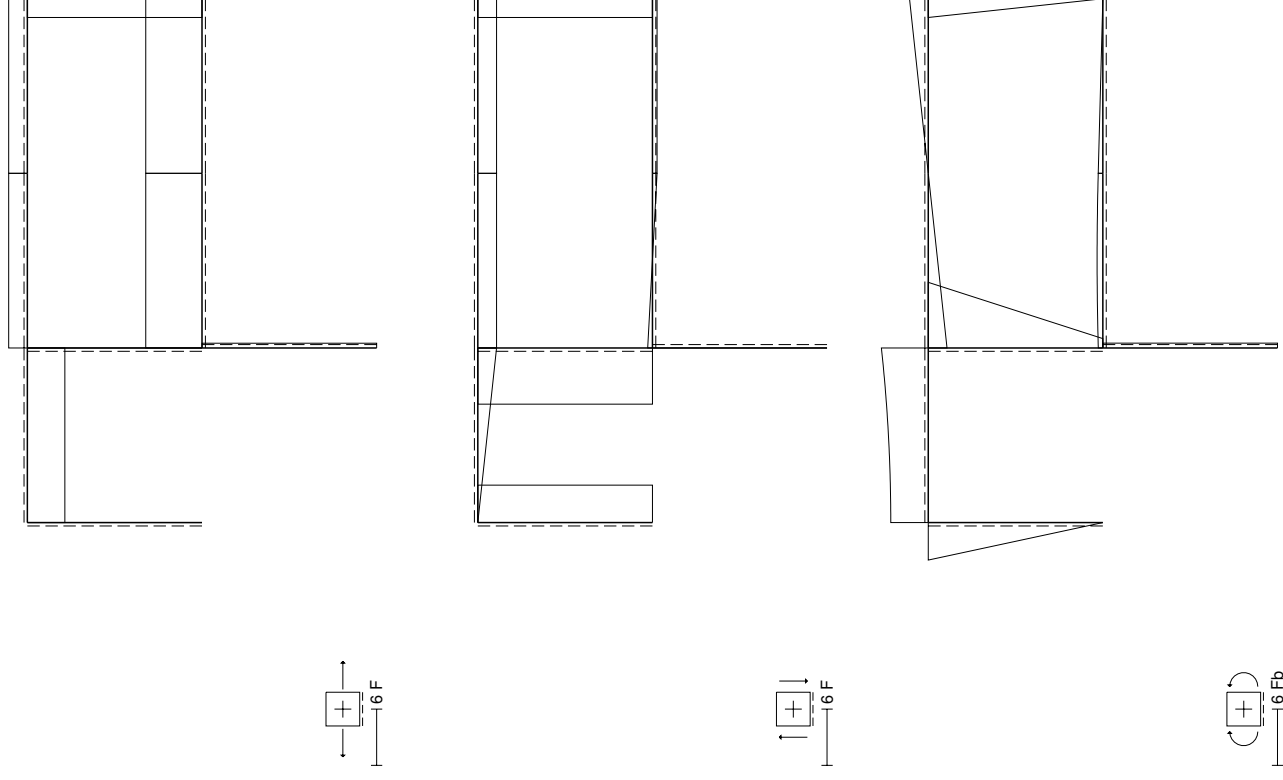


$\varphi_B = 1/4(Fb^2/EJ)$



$\varphi_B = 7/80 (Fb^2/EJ)$





$\varphi_B = 113/40(Fb^2/EJ)$

