

結構構件詳細計算式□□

案名: 臺中市沙鹿區鹿陽國民小學第二期校舍新建工程--圖號: 4F (代表樓層:4F->4F)

PNA21-01-樓層: 4F, 梯代號: ST1, 位置序號: 2 [X7:+119,Y23:+539], 梯寬: 187.5 cm, 級高: 16.8, 級深: 26, 踏步數: 12, 梯長: 371.4654 cm

梯斜版長: $371.47 = \text{開根號}(16.8*16.8+26*26)*[\text{階數}]12$

#5		上端線筋-雙層雙向型	#5 上端線筋-雙層雙向型= $(371.47++[\text{握持長度}L_d]46*2)*[\text{排數}]$ $(\text{Int}(187.5/10)+1)/100 = 88.06 \text{ M}$	88.06
#5		上端點筋-雙層雙向型	#5 上端點筋-雙層雙向型= $[\text{單側接牆}](187.5+[\text{延伸}+\text{彎鉤}L_{dh}+A1])(16+21.9)*1)*[\text{排數}]$ $(\text{Int}((371.4654/15)+1)/100 = 56.34 \text{ M}$	56.34
#5		下端線筋-雙層雙向型	$(371.47++[\text{握持長度}L_d]46*2)*[\text{排數}](\text{Int}(187.5/10)+1)/100$	88.06
#5		下端點筋-雙層雙向型	$[\text{單側接牆}](187.5+[\text{延伸}+\text{彎鉤}L_{dh}+A1])(16+21.9)*1)*[\text{排數}]$ $(\text{Int}((371.4654/15)+1)/100 = 56.34 \text{ M}$	56.34

模版計算:

模版(底模) = $371.47*187.5/10000 = 6.96 \text{ M2}$
 模版(立模) = $187.5*16.8*12/10000 = 3.78 \text{ M2}$
 模版(側邊-封單邊) = $371.47*25*1/10000 = 0.93 \text{ M2}$
 模版(踏步側邊-封單邊) = $(16.8*26/2)*12*1/10000 = 0.26 \text{ M2}$
 模版_小計 = $6.96+3.78+0.93+0.26+0.00 = 11.94 \text{ M2}$

RC計算:

RC(斜版) = $371.4654*187.5*25/1000000 = 1.741 \text{ M3}$
 RC(階梯) = $(16.8*26/2)*187.5*12/1000000 = 0.491 \text{ M3}$
 RC_小計 = $1.741+0.491+0.000 = 2.233 \text{ M3}$

-----計算結果小計-----

鋼筋計算結果:

#5=288.794 M ($288.794 \text{ M}*1.560/1000 = 0.4505 \text{ T}$)

鋼筋小計 = 0.4505 T

模版小計(普) = 11.94 M2

混凝土小計 = 2.233 M3

PNA21-01-樓層: 4F, 梯代號: ST1, 位置序號: 1 [X6:-194,Y23:+578], 梯寬: 187.5 cm, 級高: 16.8, 級深: 26, 踏步數: 13, 梯長: 402.4209 cm

梯斜版長: $402.42 = \text{開根號}(16.8*16.8+26*26)*[\text{階數}]13$

#5		上端線筋-雙層雙向型	#5 上端線筋-雙層雙向型= $(402.42++[\text{握持長度}L_d]46*2)*[\text{排數}]$ $(\text{Int}(187.5/10)+1)/100 = 93.94 \text{ M}$	93.94
#5		上端點筋-雙層雙向型	#5 上端點筋-雙層雙向型= $[\text{單側接牆}](187.5+[\text{延伸}+\text{彎鉤}L_{dh}+A1])(16+21.9)*1)*[\text{排數}]$ $(\text{Int}((402.4209/15)+1)/100 = 60.85 \text{ M}$	60.85
#5		下端線筋-雙層雙向型	$(402.42++[\text{握持長度}L_d]46*2)*[\text{排數}](\text{Int}(187.5/10)+1)/100$	93.94
#5		下端點筋-雙層雙向型	$[\text{單側接牆}](187.5+[\text{延伸}+\text{彎鉤}L_{dh}+A1])(16+21.9)*1)*[\text{排數}]$ $(\text{Int}((402.4209/15)+1)/100 = 60.85 \text{ M}$	60.85

模版計算:

模版(底模) = $402.42*187.5/10000 = 7.55 \text{ M2}$
 模版(立模) = $187.5*16.8*13/10000 = 4.10 \text{ M2}$
 模版(側邊-封單邊) = $402.42*25*1/10000 = 1.01 \text{ M2}$
 模版(踏步側邊-封單邊) = $(16.8*26/2)*13*1/10000 = 0.28 \text{ M2}$
 模版_小計 = $7.55+4.10+1.01+0.28+0.00 = 12.93 \text{ M2}$

RC計算:

RC(斜版) = $402.4209*187.5*25/1000000 = 1.886 \text{ M3}$
 RC(階梯) = $(16.8*26/2)*187.5*13/1000000 = 0.532 \text{ M3}$
 RC_小計 = $1.886+0.532+0.000 = 2.419 \text{ M3}$

-----計算結果小計-----

鋼筋計算結果:

#5=309.571 M (309.571 M*1.560/1000= 0.4829 T)

鋼筋小計 = 0.4829 T

模版小計(普)= 12.93 M2

混凝土小計 = 2.419 M3
