

PROJECT TITLE :

	Company		Client	
	Author		File Name	

midas Gen - RC-Slab Flexural Design [NSR-10] Gen 2025

[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN 1-[1], Dir 2.

Thk	Elem	POS	AsReq	AsUse	Mu (LCB)	fMn	Rat	CHK
200.00	224	BOT	0.2302	0.5161	2513.74(1)	23145.3	0.109	OK
	168	TOP	0.2500	0.5161	4153.98(7)	23145.3	0.179	OK

<< BOTTOM >>

-. Information of Parameters.

Elem No. : 224
 Node No. : 179
 Thickness : 200.0000 mm.
 Materials : fc = 27.5790 MPa.
 Fy = 413.6856 MPa.
 Covering : dB = 75.0000 mm.
 dT = 75.0000 mm.
 LCB No. : 1

-. Information of Strength Reduction Factor.

phic = 0.650
 phit = 0.900
 et = 0.03200
 ety = 0.00207
 etu = 0.00500
 et > etu ; Tension-controlled
 phi = phit = 0.900

-. Information of Design.

b = 1.0000 mm. (by Code Unit Length).
 d = 125.0000 mm.

-. Information of Moments and Result.

Rein. Bar : #4 @250
 As_req = 0.2302 mm²/mm. (230.2434 mm²/m.)
 As_use = 0.5161 mm²/mm. (516.1280 mm²/m.)
 Mn = As_use * Fy * [d - As_use * Fy / (1.7 * fc * b)] = 25716.9770 N-mm./mm.
 phiMn = phi * Mn = 23145.2793 N-mm./mm.
 Mu = 2513.7417 N-mm./mm.
 RatM = Mu / phiMn = 0.109 < 1.0 ---> O.K !

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-. Information of Parameters.

Elem No. : 168
 Node No. : 155
 Thickness : 200.0000 mm.
 Materials : fc = 27.5790 MPa.
 Fy = 413.6856 MPa.
 Covering : dB = 75.0000 mm.
 dT = 75.0000 mm.
 LCB No. : 7

-. Information of Strength Reduction Factor.

phic = 0.650
 phit = 0.900
 et = 0.03200
 ety = 0.00207
 etu = 0.00500
 et > etu ; Tension-controlled
 phi = phit = 0.900

-. Information of Design.

b = 1.0000 mm. (by Code Unit Length).
 d = 125.0000 mm.

-. Information of Moments and Result.

Rein. Bar : #4 @250
 As_req = 0.2500 mm²/mm. (250.0000 mm²/m.)
 As_use = 0.5161 mm²/mm. (516.1280 mm²/m.)

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Mn      = As_use*Fy*[d-As_use*Fy/(1.7*fc*b)] = 25716.9770 N-mm./mm.
phiMn   = phi * Mn      = 23145.2793 N-mm./mm.
Mu       = 4153.9763 N-mm./mm.
RatM     = Mu / phiMn = 0.179 < 1.0 ---> O.K !

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[[[*]]] SLAB DESIGN MAXIMUM RESULT DATA : DOMAIN 2-[1], Dir 2.

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Thk	Elem	POS	AsReq	AsUse	Mu (LCB)	fMn	Rat	CHK
300.00	447	BOT	0.4500	0.5161	15255.4(7)	42361.6	0.360	OK
	549	TOP	0.4500	0.5161	11938.7(1)	42361.6	0.282	OK

<< BOTTOM >>

-. Information of Parameters.

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Elem No. : 447
Node No. : 559
Thickness : 300.0000 mm.
Materials : fc = 27.5790 MPa.
            Fy = 413.6856 MPa.
Covering  : dB = 75.0000 mm.
            dT = 75.0000 mm.
LCB No.   : 7

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-. Information of Strength Reduction Factor.

```

phic = 0.650
phit = 0.900
et    = 0.05999
ety   = 0.00207
etu   = 0.00500
et > etu ; Tension-controlled
phi   = phit = 0.900

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-. Information of Design.

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b = 1.0000 mm. (by Code Unit Length).
d = 225.0000 mm.

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-. Information of Moments and Result.

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Rein. Bar : #4 @250
As_req = 0.4500 mm^2/mm. ( 450.0000 mm^2/m.)
As_use = 0.5161 mm^2/mm. ( 516.1280 mm^2/m.)
Mn      = As_use*Fy*[d-As_use*Fy/(1.7*fc*b)] = 47068.4474 N-mm./mm.
phiMn   = phi * Mn      = 42361.6026 N-mm./mm.
Mu       = 15255.3534 N-mm./mm.
RatM     = Mu / phiMn = 0.360 < 1.0 ---> O.K !

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-. Information of Parameters.

Elem No. : 549
Node No. : 731
Thickness : 300.0000 mm.
Materials : fc = 27.5790 MPa.
Fy = 413.6856 MPa.
Covering : dB = 75.0000 mm.
dT = 75.0000 mm.
LCB No. : 1

-. Information of Strength Reduction Factor.

phic = 0.650
phit = 0.900
et = 0.05999
ety = 0.00207
etu = 0.00500
et > etu ; Tension-controlled
phi = phit = 0.900

-. Information of Design.

b = 1.0000 mm. (by Code Unit Length).
d = 225.0000 mm.

-. Information of Moments and Result.

Rein. Bar : #4 @250
As_req = 0.4500 mm²/mm. (450.0000 mm²/m.)
As_use = 0.5161 mm²/mm. (516.1280 mm²/m.)
Mn = As_use * Fy * [d - As_use * Fy / (1.7 * fc * b)] = 47068.4474 N-mm./mm.
phiMn = phi * Mn = 42361.6026 N-mm./mm.
Mu = 11938.7490 N-mm./mm.
RatM = Mu / phiMn = 0.282 < 1.0 ---> O.K !