

PASS

DATE:	3/11/2024	COMPANY:	ASM Engineering, PLLC
STRUCALC BUILD:	StruCalc Pro	DESIGNED BY:	Scott Matthews
CUSTOMER:		REVIEWED BY:	--
PROJ. ADDRESS:	--	PROJECT NAME:	1204 W. Blackman Rd
LEVEL:	Main Floor	LOADING:	ASD
MEMBER NAME:	New Isolated Footing	CODE:	2021 International Building Code
MEMBER TYPE:	ISOLATED FOOTING	ACI:	ACI 318-19
MATERIAL:	Concrete		
3 (ft) X 3 (ft) X 12 (in)		Soil Depth TOF: 0 (ft)	Bot. (4) #4 Long, (4) #4 Short

MATERIAL PROPERTIES

FOOTING

Width (ft)	Length (ft)	Depth (in)	Volume (ft ³)	Footing Weight (lb/ft)
3	3	12	9	1305

CONCRETE

fc' (psi)	Ec (psi)	Density (lb/ft ³)	Agg. Dia. (in)
3000	0	145	0.75

CALCULATION VARIABLES

Bo (in)
0

COLUMN

Width (in)	Length (in)	Material	Offset X (in)	Offset Y (in)
4	4	Concrete	0	0

SOIL

Bearing Strength (lb/ft ²)	Density (lb/ft ³)	Cohesion	Friction Angle	Depth (ft)	Rankine Coefficient (Kp)
2000	110	0	30	0	3

REBAR

Bottom Bar Size #	fy (psi)	Es (psi)
4	40000	2.9E+07

COVER

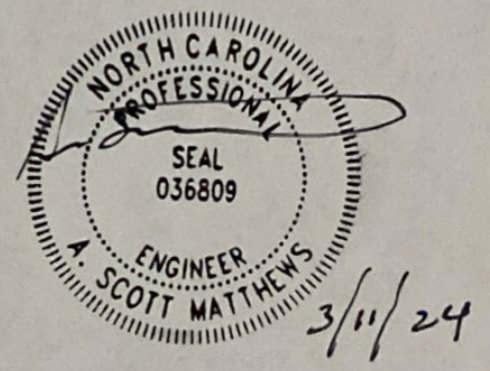
Top Cover (in.)	Bottom Cover (in.)	Side Cover (in.)
3	3	3

PASS-FAIL

	PASS/FAIL	MAGNITUDE	STRENGTH	LOAD COMBO	CALCULATION TYPE
Soil Bearing Pressure (lb/ft ²)	PASS (47.8%)	1045.0	2000.0	D+L	ASD
One-Way Shear X (lbf)	PASS (86.4%)	3862.1	28393.9	1.2D+1.6L+0.5Lr	LRFD
One-Way Shear Y (lbf)	PASS (86.4%)	3862.1	28393.9	1.2D+1.6L+0.5Lr	LRFD
Two-Way Shear (lbf)	PASS (87.0%)	10459.8	80449.5	1.2D+1.6L+0.5Lr	LRFD
Moment X (lbf-ft)	PASS (82.5%)	3543.7	20212.3	1.2D+1.6L+0.5Lr	LRFD
Moment Y (lbf-ft)	PASS (82.5%)	3543.7	20212.3	1.2D+1.6L+0.5Lr	LRFD
Crushing (lbf)	PASS (77.5%)	11960.0	53040.0	1.2D+1.6L+0.5Lr	LRFD
Compression (ft ²)	PASS (100.0%)	9.0	9.0	D	LRFD

LOAD LIST

Type	Name	Left Magnitude	Right Magnitude	Load Start (ft)	Load End (ft)	Load Type	Direction
Point (lbf)	Point	2500	-	0	-	Dead	Z
Point (lbf)	Point	5600	-	0	-	Live	Z



New Isolated Footing DIAGRAMS

