

2-1/4" Chain Link Mesh Variables 11-1/2 ga to 5 ga

2-1/4" Mesh Wind & Weight Values				
Gauge	Dia (in)	ϵ	C_{fw}	D_m (psf)
5	0.207	0.17	1.3	1.5
6	0.192	0.16	1.3	1.3
8	0.162	0.14	1.3	0.9
9	0.148	0.13	1.3	0.8
10	0.135	0.12	1.3	0.6
11	0.120	0.10	1.3	0.5
11-1/2	0.113	0.10	1.2	0.5

ϵ = solidity ratio for chain link

ϵ' = solidity ratio for iced chain link

C_{fw} = wind force coefficient

C_{fi} = wind on ice force coefficient

D_m = estimated weight of chain link mesh - verify with supplier

D_i = estimated weight of ice (includes 0.7 ASD factor)

The values below are only valid for Risk Category I and $K_{zt} = 1.0$

For heights not shown, round up to the nearest 5', or interpolate

For ice thickness not shown, round up to nearest value

2-1/4" Mesh (all gauges) Estimated Ice Loading Risk Category I $K_{zt} = 1.0$												
ASCE 7-10 Nominal Ice Thickness, t (in)	Fence Height, h											
	5'			10'			15'			20'		
	ϵ'	C_{fi}	D_i (psf)	ϵ'	C_{fi}	D_i (psf)	ϵ'	C_{fi}	D_i (psf)	ϵ'	C_{fi}	D_i (psf)
0.25	0.58	1.5	1.3	0.61	1.5	1.4	0.62	1.5	1.5	0.63	1.5	1.5
0.50	0.86	See solid wall Case A or Case C tables	3.5	0.89	See solid wall Case A or Case C tables	3.9	0.90	See solid wall Case A or Case C tables	4.1	0.91	See solid wall Case A or Case C tables	4.3
0.75	0.99		6.2	1.00		6.7	1.00		7.0	1.00		7.3
1.00	1.00		9.0	1.00		9.9	1.00		10.4	1.00		10.8
1.25	1.00		12.0	1.00		13.0	1.00		13.6	1.00		14.1
1.50	1.00		14.8	1.00		16.1	1.00		16.8	1.00		17.4
ASCE 7-16 Nominal Ice Thickness, t (in)	Fence Height, h											
	5'			10'			15'			20'		
	ϵ'	C_{fi}	D_i (psf)	ϵ'	C_{fi}	D_i (psf)	ϵ'	C_{fi}	D_i (psf)	ϵ'	C_{fi}	D_i (psf)
0.25	0.39	1.5	0.5	0.41	1.5	0.5	0.41	1.5	0.5	0.42	1.5	0.6
0.50	0.58	1.5	1.3	0.61	1.5	1.4	0.62	1.5	1.5	0.63	1.5	1.5
0.75	0.74	See solid wall Case A or Case C tables	2.3	0.77	See solid wall Case A or Case C tables	2.5	0.78	See solid wall Case A or Case C tables	2.7	0.80	See solid wall Case A or Case C tables	2.8
1.00	0.86		3.5	0.89		3.9	0.90		4.1	0.91		4.3
1.25	0.94		4.8	0.96		5.3	0.97		5.6	0.98		5.8
1.50	0.99		6.2	1.00		6.7	1.00		7.0	1.00		7.3
1.75	1.00		7.5	1.00		8.3	1.00		8.7	1.00		9.1
2.00	1.00		9.0	1.00		9.9	1.00		10.4	1.00		10.8
2.25	1.00		10.5	1.00		11.5	1.00		12.1	1.00		12.5
2.50	1.00		12.0	1.00		13.0	1.00		13.6	1.00		14.1
ASCE 7-22 Nominal Ice Thickness, t (in)	Fence Height, h											
	5'			10'			15'			20'		
	ϵ'	C_{fi}	D_i (psf)	ϵ'	C_{fi}	D_i (psf)	ϵ'	C_{fi}	D_i (psf)	ϵ'	C_{fi}	D_i (psf)
0.25	0.44	1.50	0.6	0.46	1.50	0.7	0.47	1.50	0.7	0.48	1.50	0.8
0.50	0.67	1.5	1.7	0.69	1.5	1.9	0.71	See solid wall Case A or Case C tables	2.1	0.72	See solid wall Case A or Case C tables	2.2
0.75	0.83	See solid wall Case A or Case C tables	3.2	0.86	See solid wall Case A or Case C tables	3.5	0.88		3.8	0.89		3.9
1.00	0.94		4.8	0.96		5.3	0.97		5.6	0.98		5.8
1.25	0.99		6.5	1.00		7.0	1.00		7.5	1.00		7.8
1.50	1.00		8.3	1.00		9.1	1.00		9.6	1.00		10.0
1.75	1.00		10.2	1.00		11.1	1.00		11.7	1.00		12.1
2.00	1.00		12.0	1.00		13.0	1.00		13.6	1.00		14.1
2.25	1.00		13.8	1.00		14.9	1.00		15.6	1.00		16.1
2.50	1.00		15.5	1.00		16.8	1.00		17.6	1.00		18.2

Chain Link Mesh

2-1/4" x 5 ga

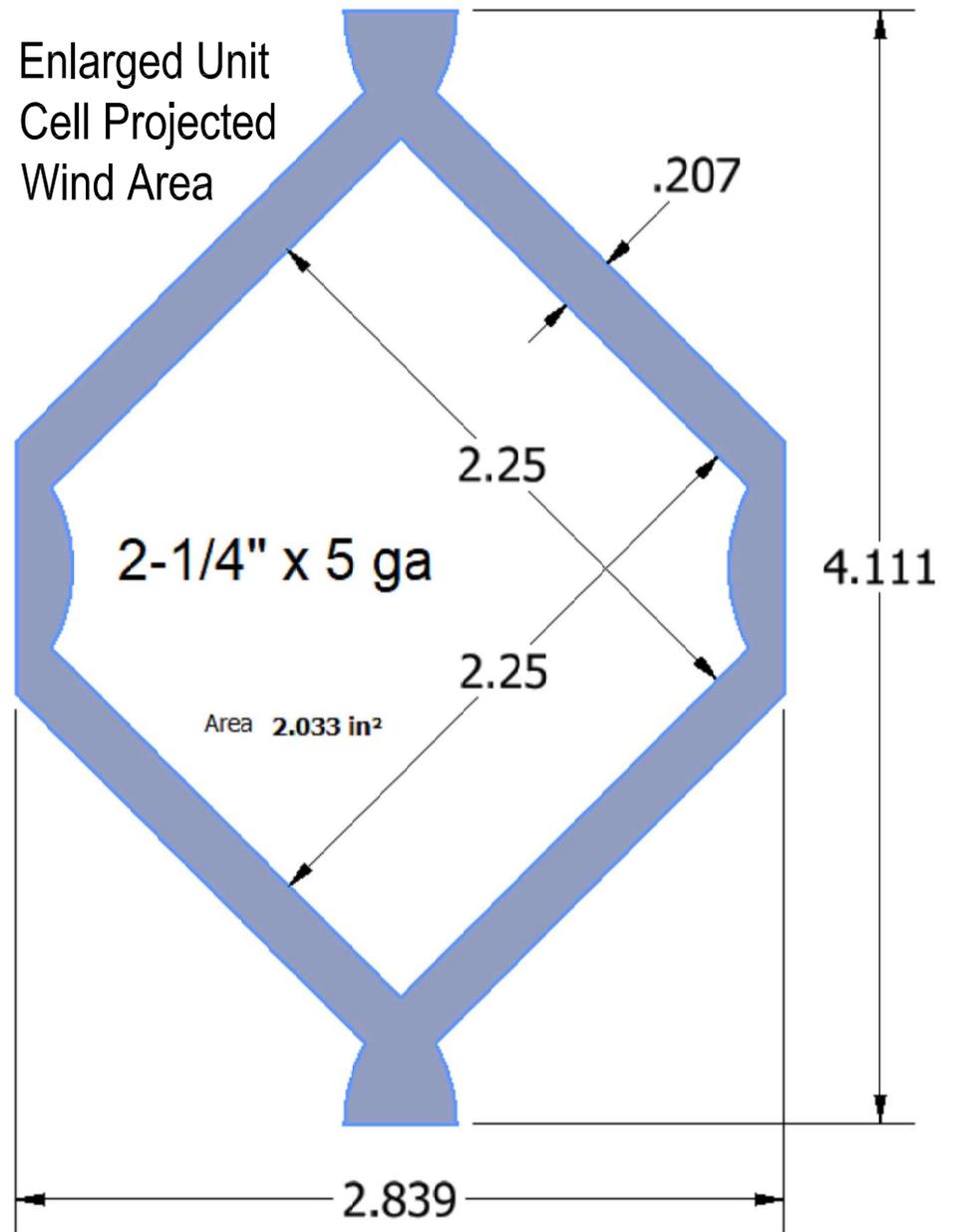
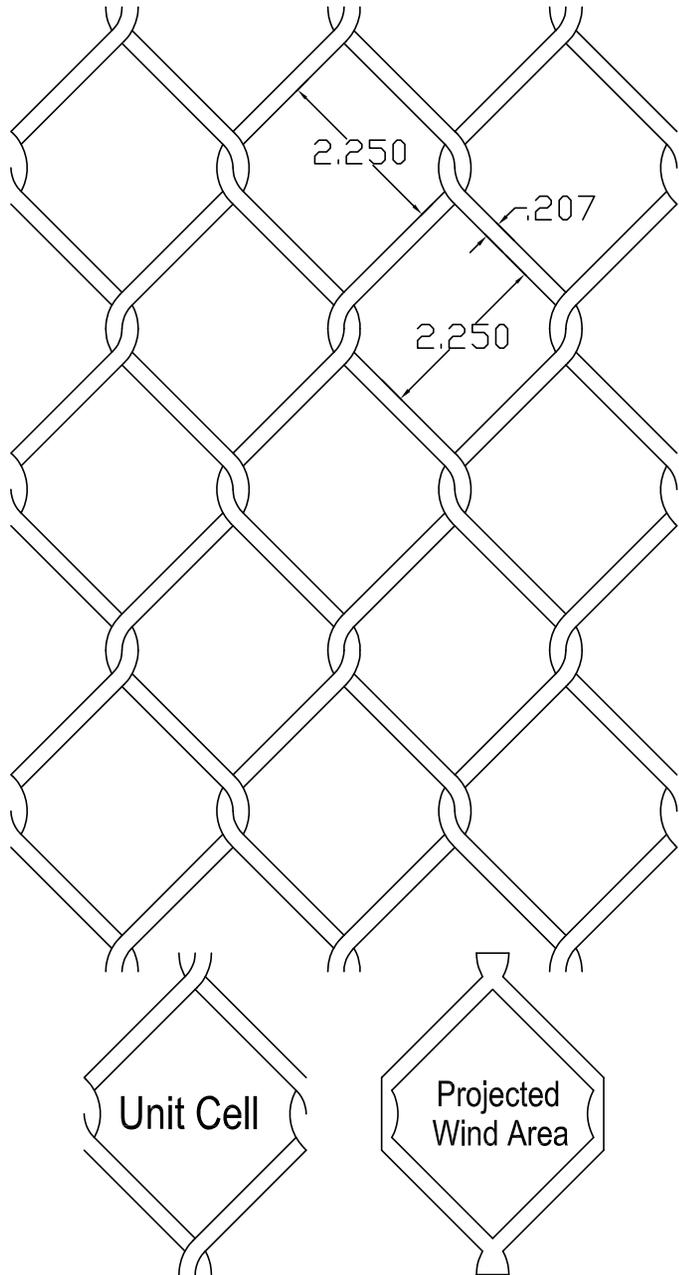
Wind Area, $A = 25.1 \text{ in}^2 / \text{ft}^2$

$\epsilon = 0.174$

$C_{fw} = 1.3$

$D_m = 1.5 \text{ psf}^*$

*estimated weight - check with manufacturer



Chain Link Mesh

2-1/4" x 6 ga

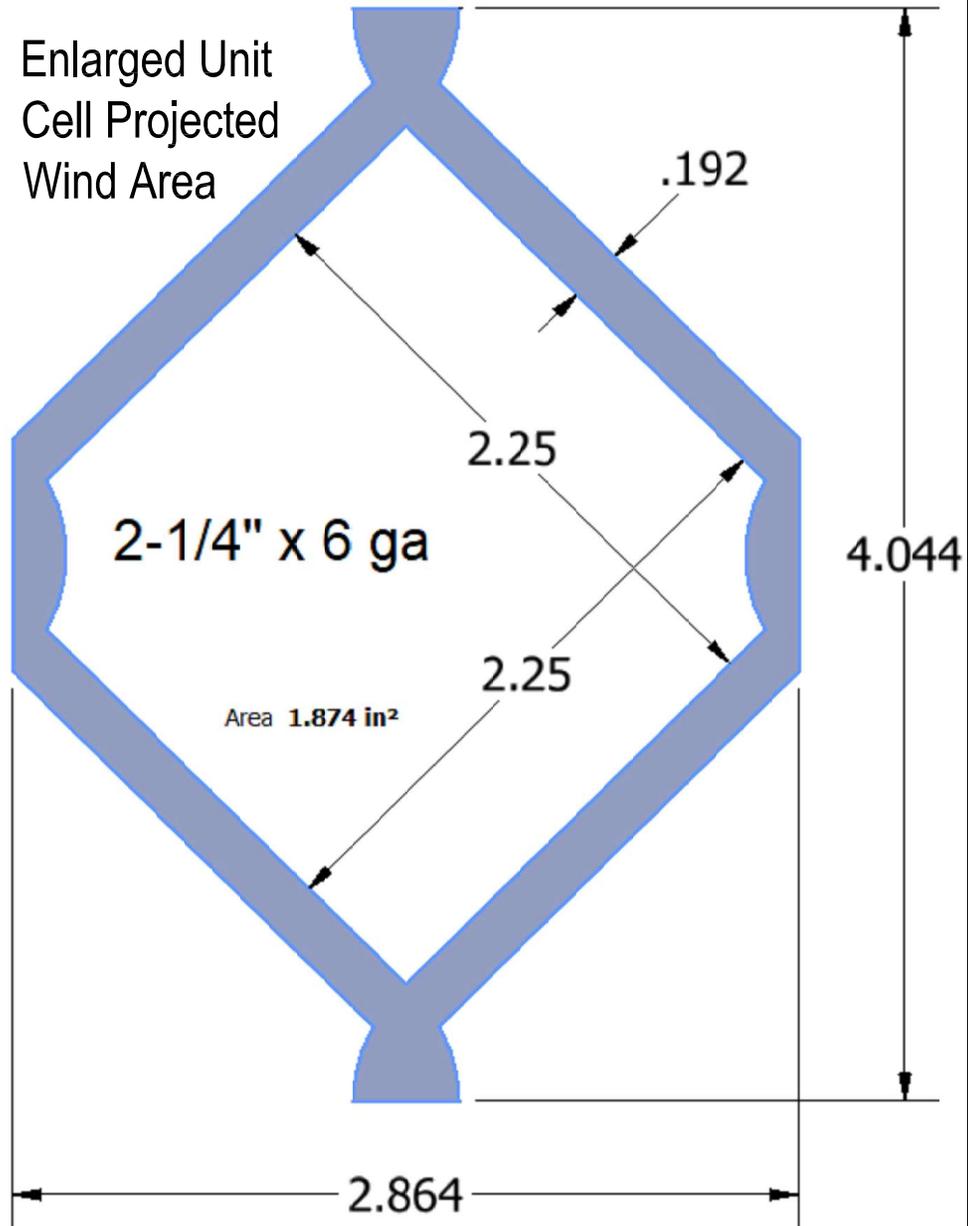
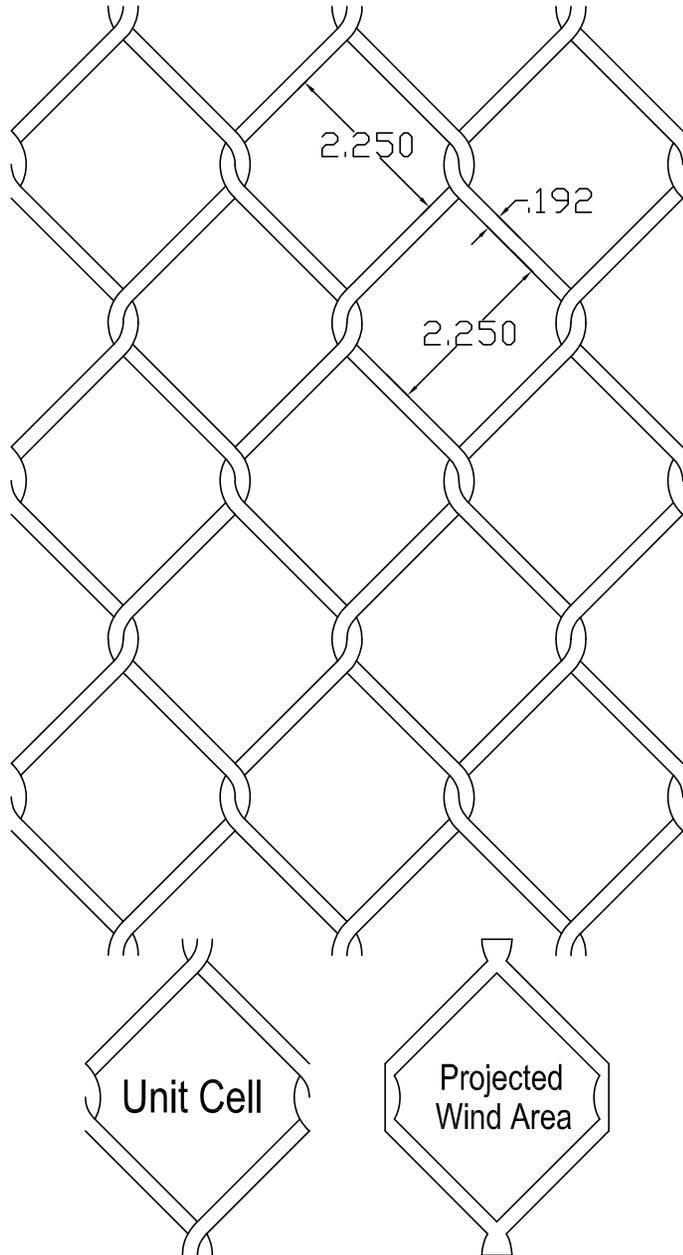
Wind Area, $A = 23.3 \text{ in}^2 / \text{ft}^2$

$\epsilon = 0.162$

$C_{fw} = 1.3$

$D_m = 1.3 \text{ psf}^*$

*estimated weight - check with manufacturer



Chain Link Mesh

2-1/4" x 8 ga

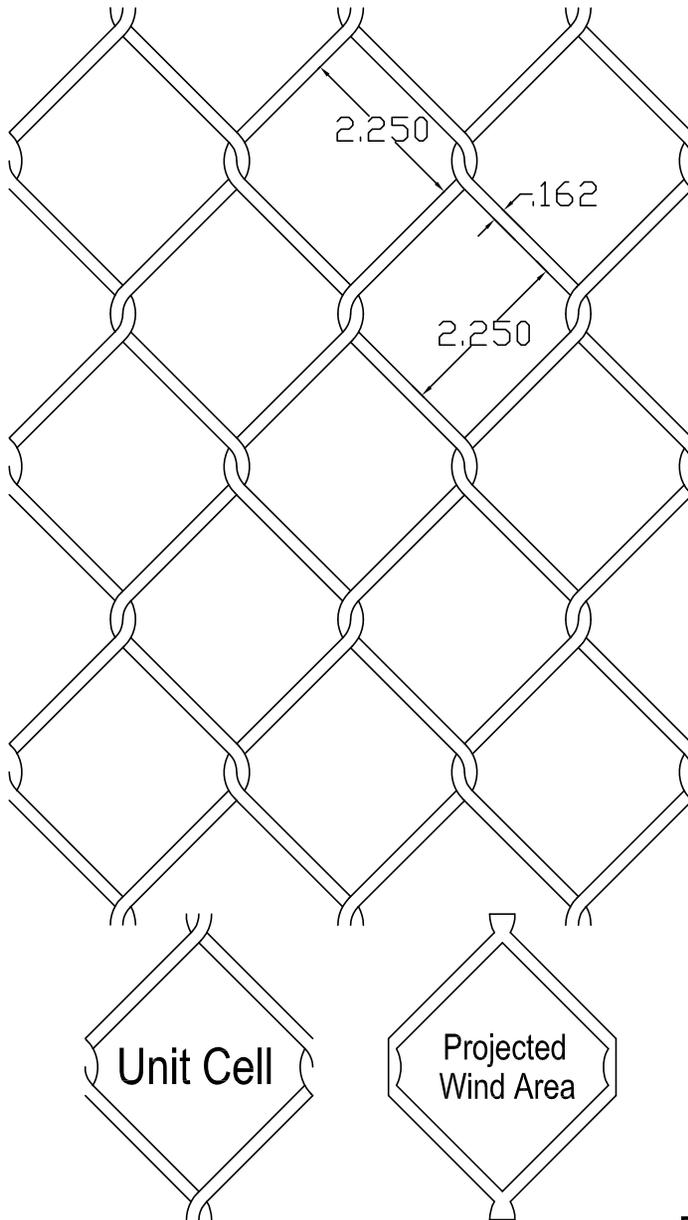
Wind Area, $A = 19.8 \text{ in}^2 / \text{ft}^2$

$\epsilon = 0.137$

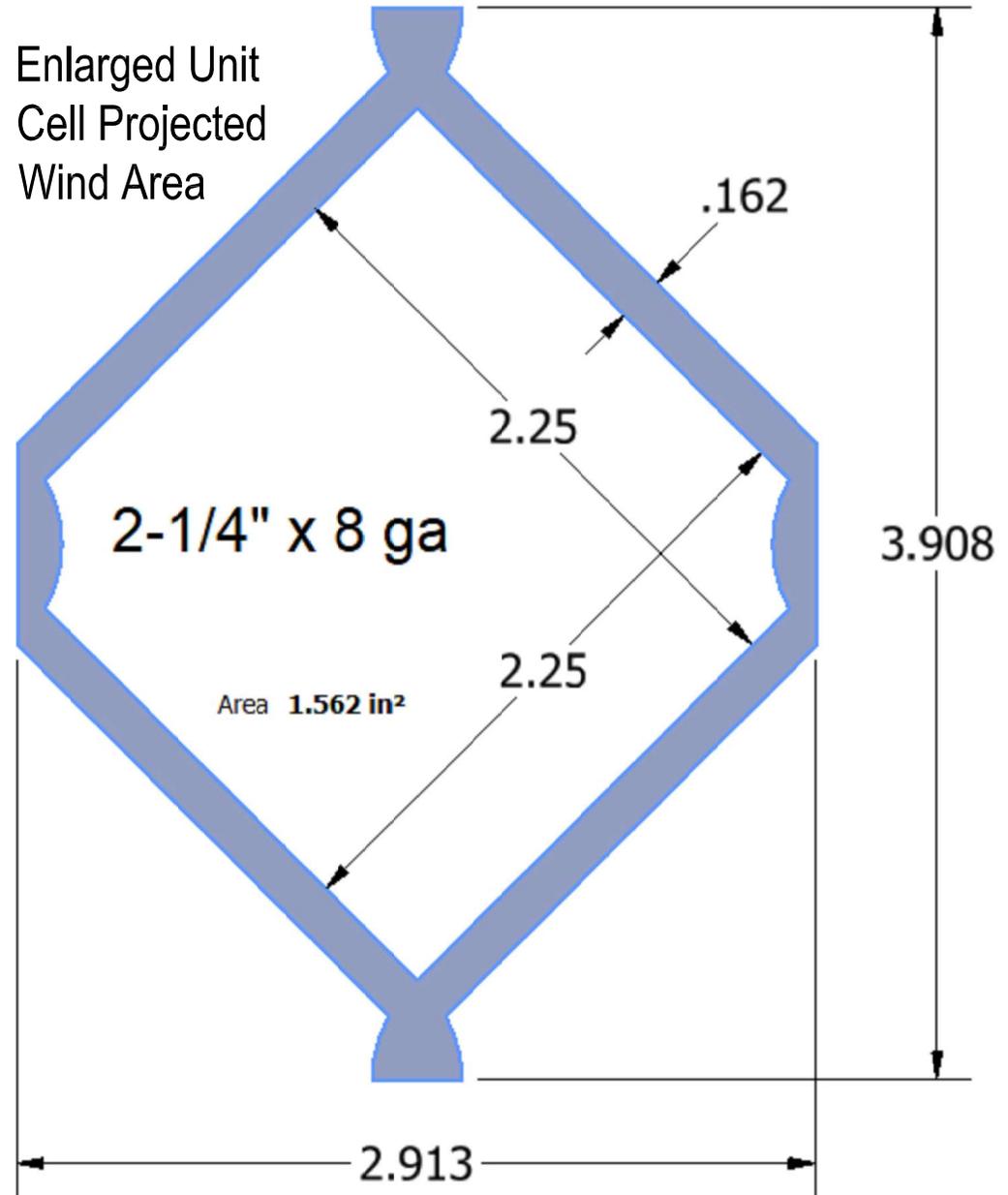
$C_{fw} = 1.3$

$D_m = 0.8 \text{ psf}^*$

*estimated weight - check with manufacturer



Enlarged Unit Cell Projected Wind Area



Chain Link Mesh

2-1/4" x 9 ga

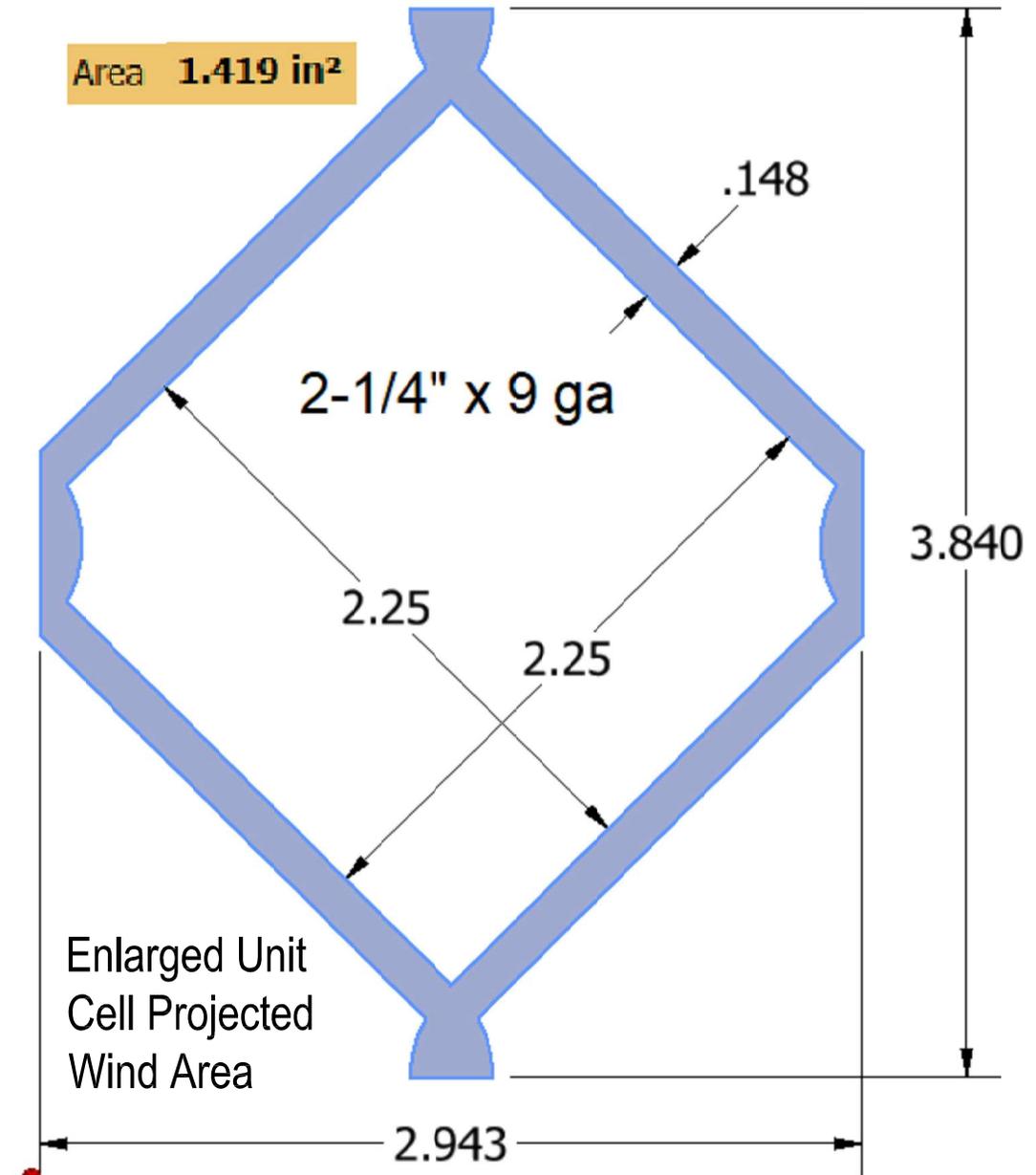
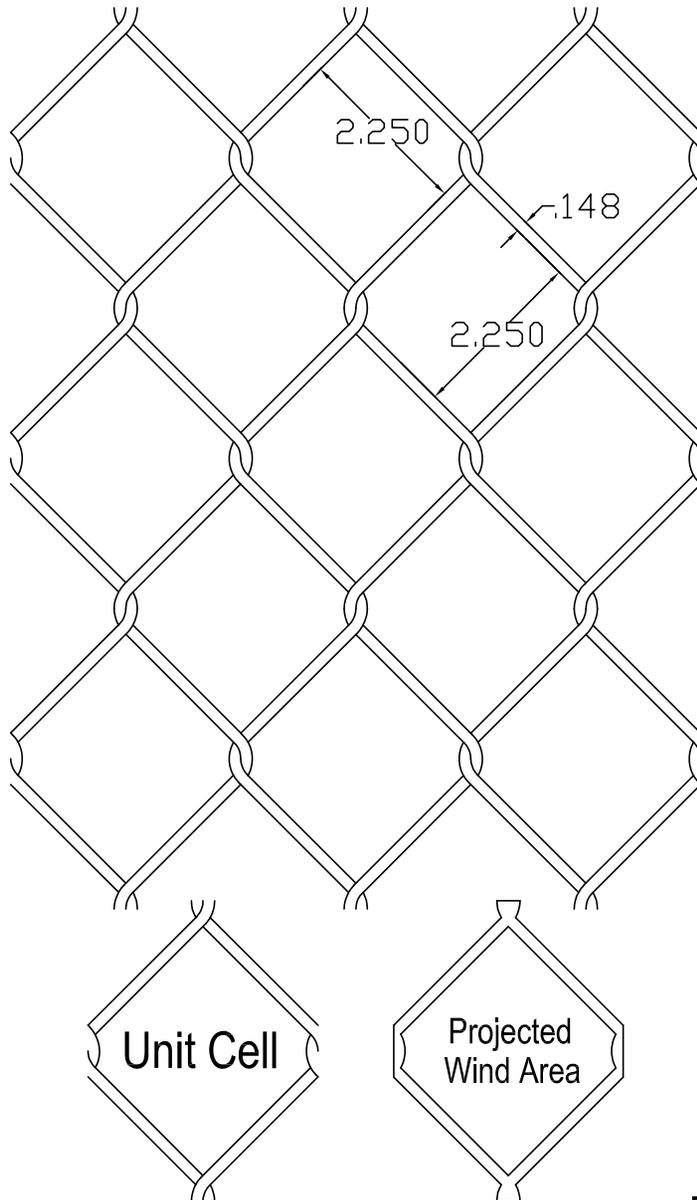
Wind Area, $A = 18.1 \text{ in}^2 / \text{ft}^2$

$\epsilon = 0.126$

$C_{fw} = 1.3$

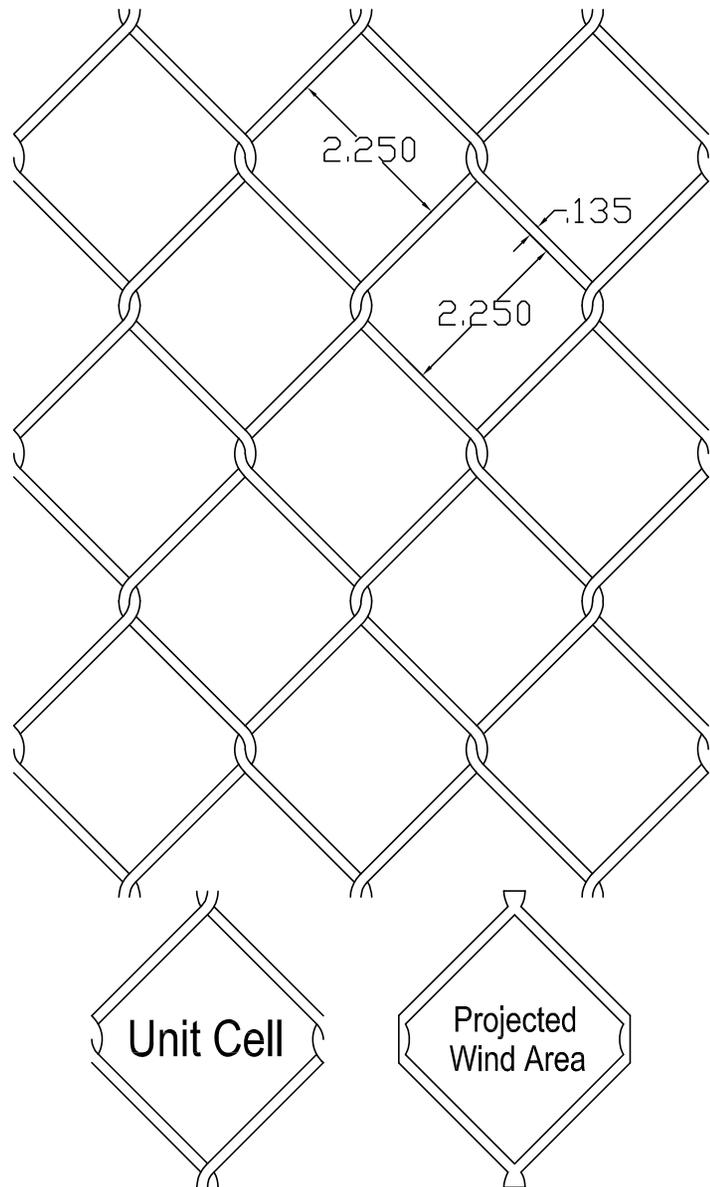
$D_m = 0.8 \text{ psf}^*$

*estimated weight - check with manufacturer



Chain Link Mesh

2-1/4" x 10 ga



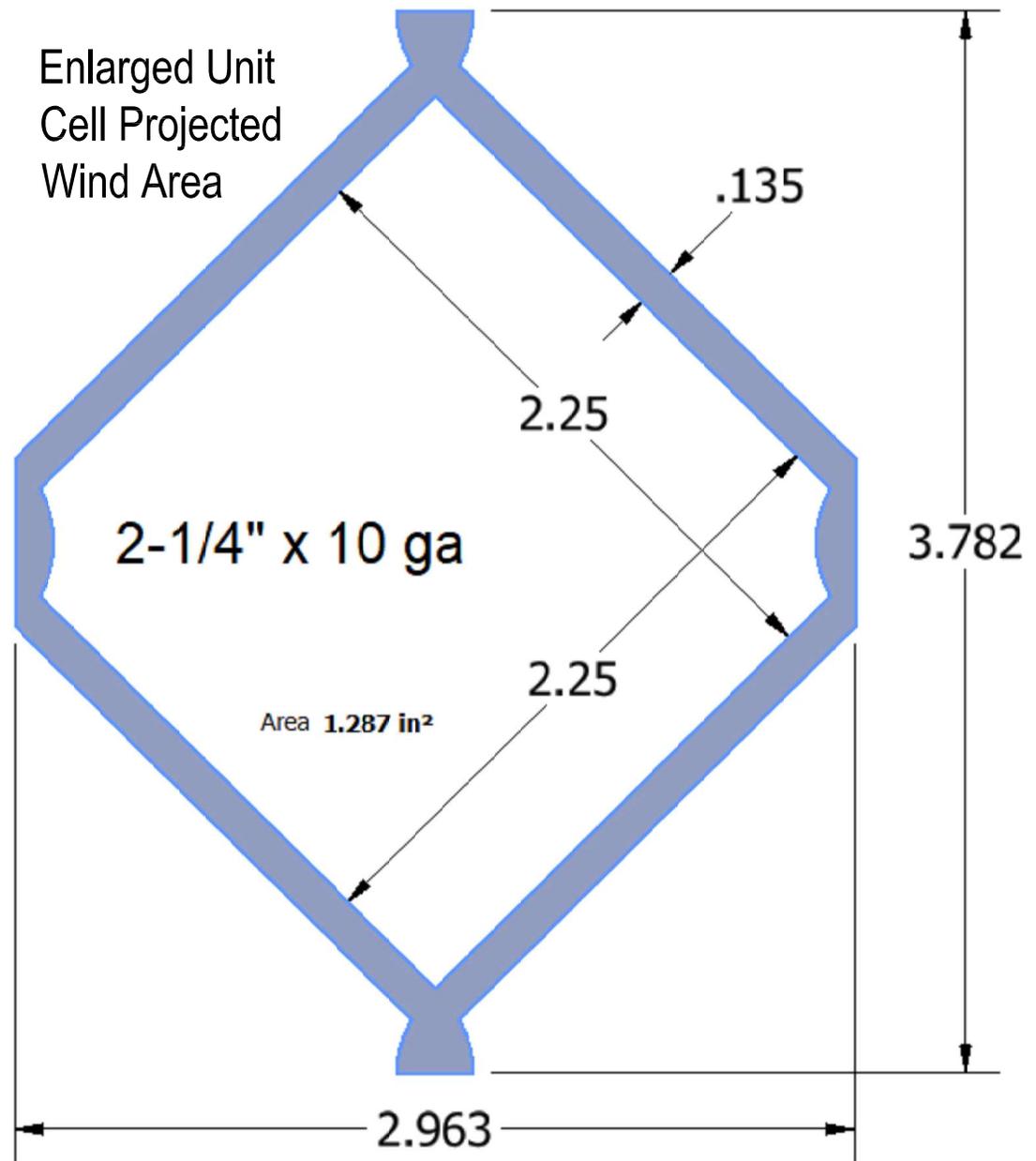
Wind Area, $A = 16.5 \text{ in}^2 / \text{ft}^2$

$\epsilon = 0.115$

$C_{fw} = 1.3$

$D_m = 0.6 \text{ psf}^*$

*estimated weight - check with manufacturer



Chain Link Mesh

2-1/4" x 11 ga

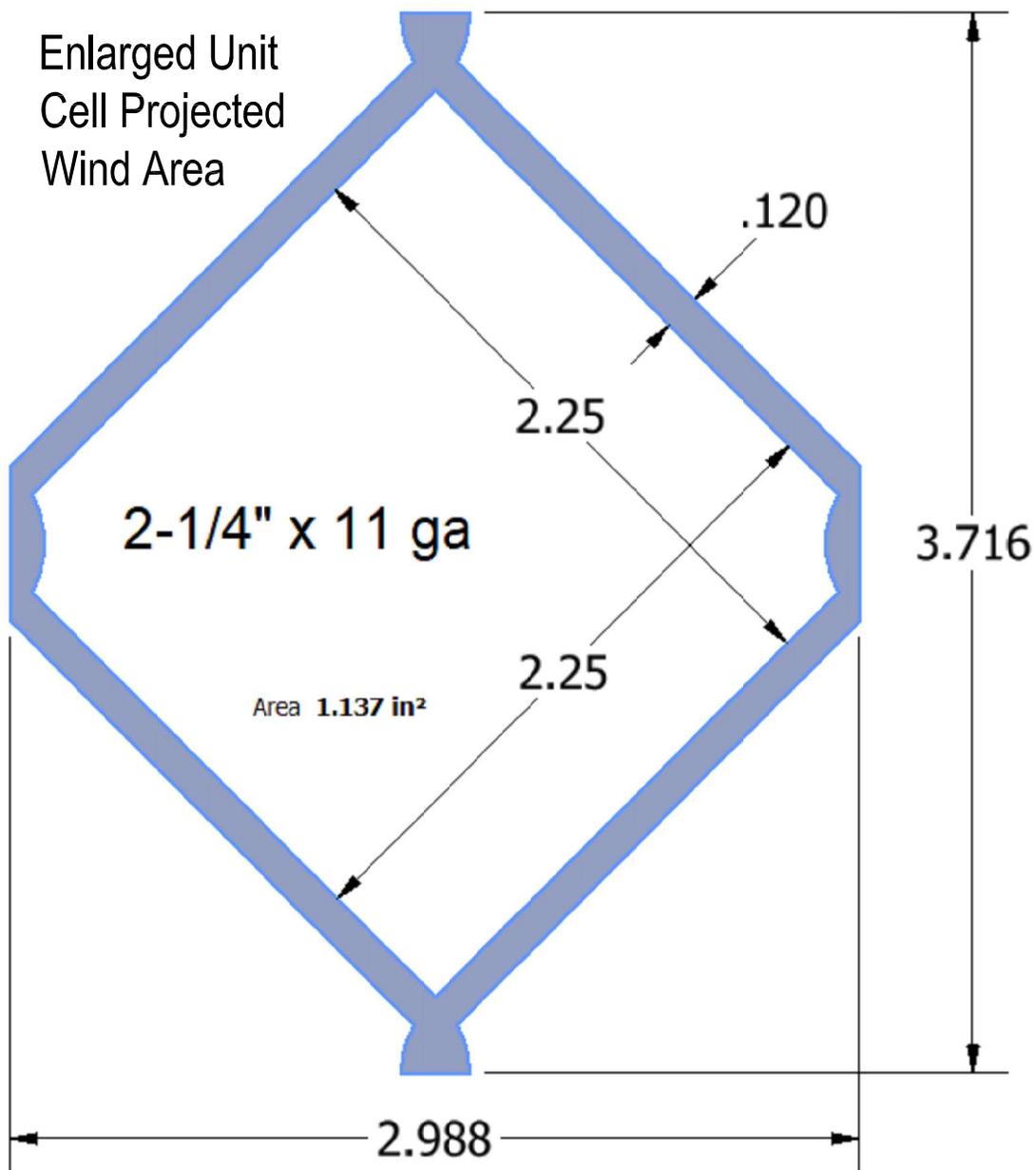
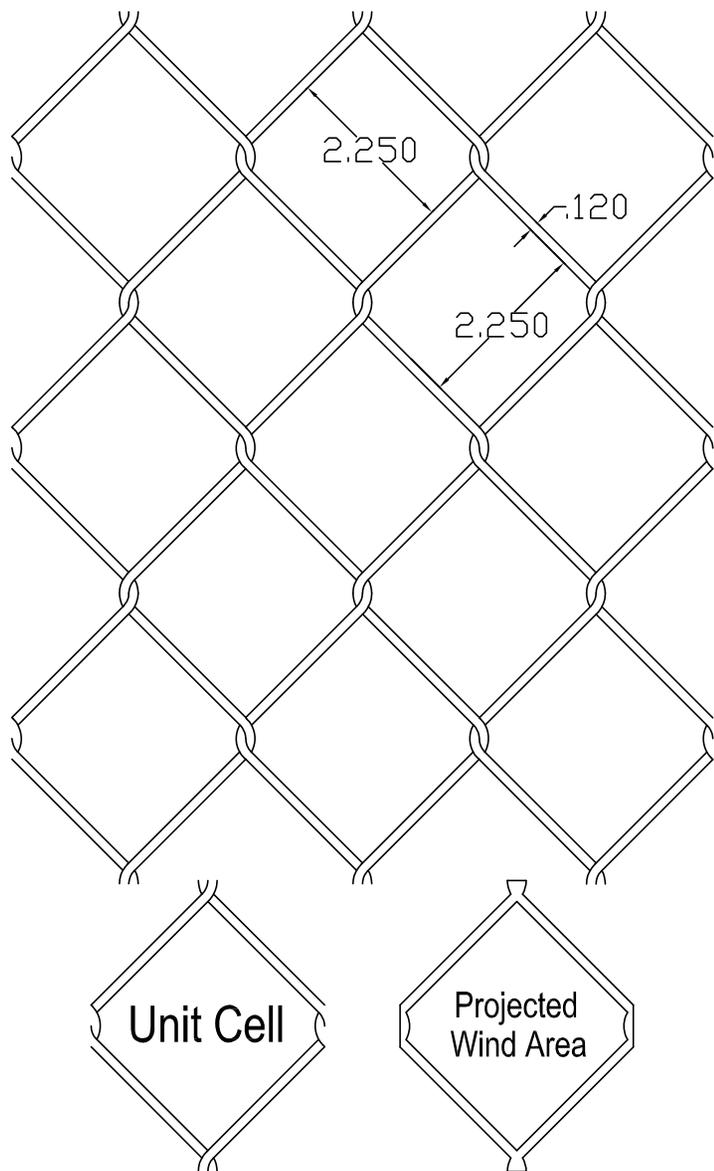
Wind Area, $A = 14.7 \text{ in}^2 / \text{ft}^2$

$\epsilon = 0.102$

$C_{fw} = 1.3$

$D_m = 0.5 \text{ psf}^*$

*estimated weight - check with manufacturer



Chain Link Mesh

2-1/4" x 11-1/2 ga

Wind Area, $A = 13.9 \text{ in}^2 / \text{ft}^2$

$\epsilon = 0.097$

$C_{fw} = 1.2$

$D_m = 0.5 \text{ psf}^*$

*estimated weight - check with manufacturer

