

# Amdeck Eco Design Guide

## PROTECTIVE FOAM SOLUTIONS

INNOVATIVE INSULATION CONSTRUCTION SOLUTIONS FOR ENERGY EFFICIENT AND COMFORTABLE BUILDINGS

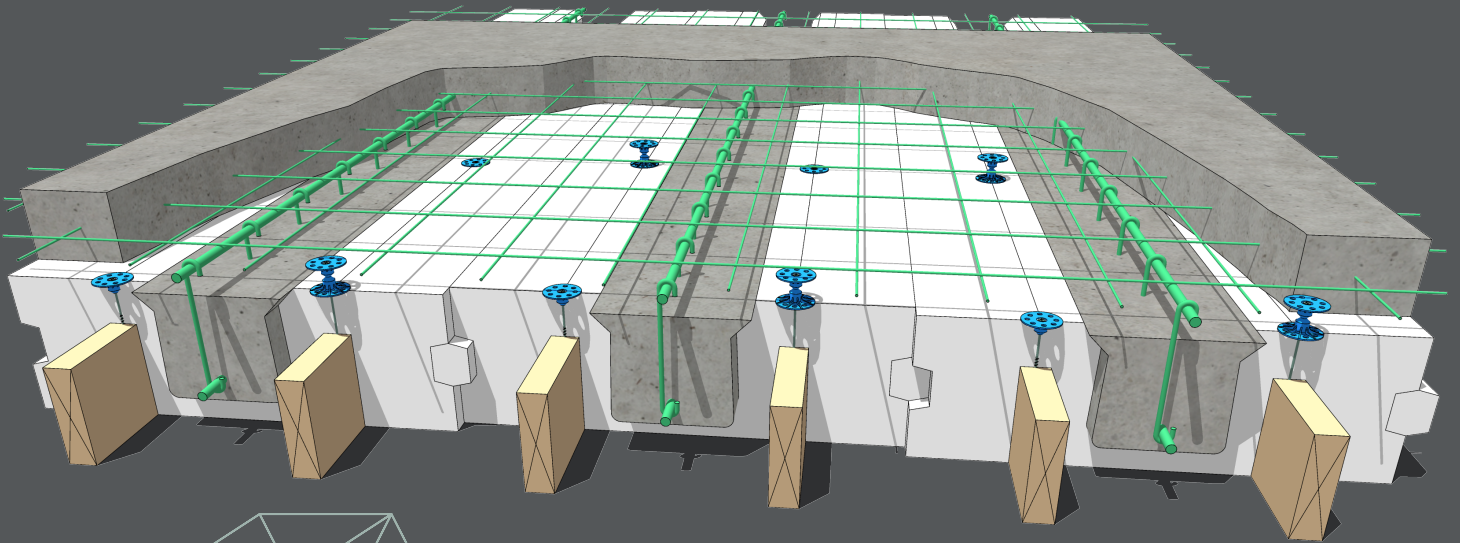


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**Introduction**

This document is provided for informational purposes and is only to be used as basic guideline for reinforcement design by a licensed design professional. The design and construction of all work shall conform to the local building code and any additional local regulations and bylaws including occupational health and safety acts. The final specification and application of this design guide shall be determined by a licensed engineer or qualified design professional.

**Using this Guide**

Select the desired span and thickness of concrete slab. Different version of Amdeck Eco will require different configurations of reinforcement. Once those three items are selected, choose the most accurate live load for the use case (e.g. garage, typical residential, party room). The typical values provided below are for reference only and if in doubt, consult an engineering professional.

- Live load of 40 psf (1.9 kPa) - Bedrooms, Living spaces in apartments, hotels, bathrooms,
- Live load of 50 psf (2.4 kPa) - Car garages, classrooms,
- Live load of 80 psf (3.8 kPa) - Billiard and pool rooms, equipment rooms,
- Live load of 100 psf (4.8 kPa) - Assembly areas, non-residential kitchens, retail and storage areas,

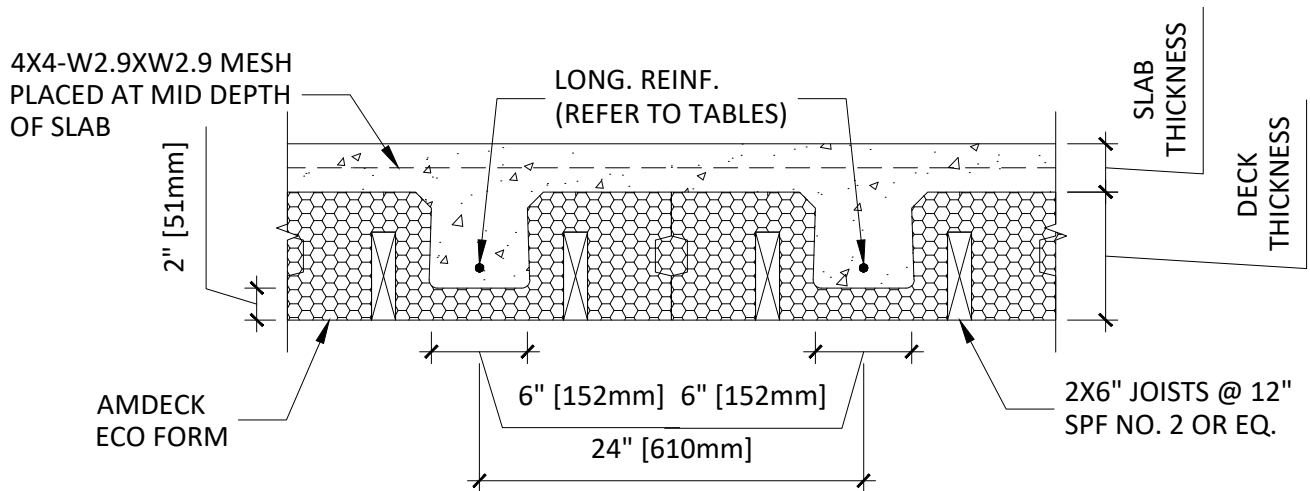


Diagram 1 - Single bottom bar reinforcement

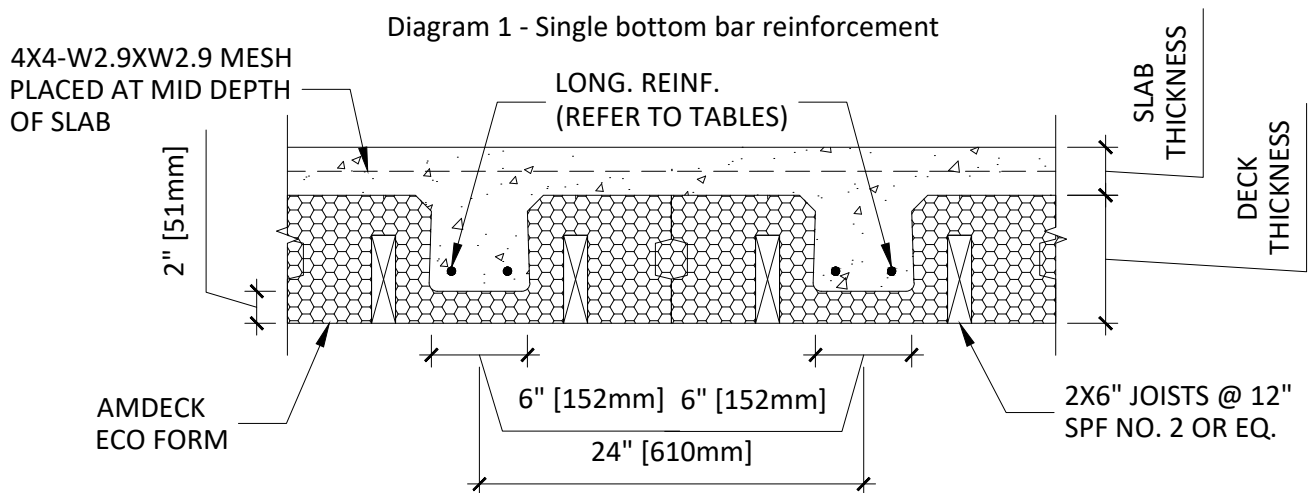


Diagram 2 - Double bottom bar reinforcement



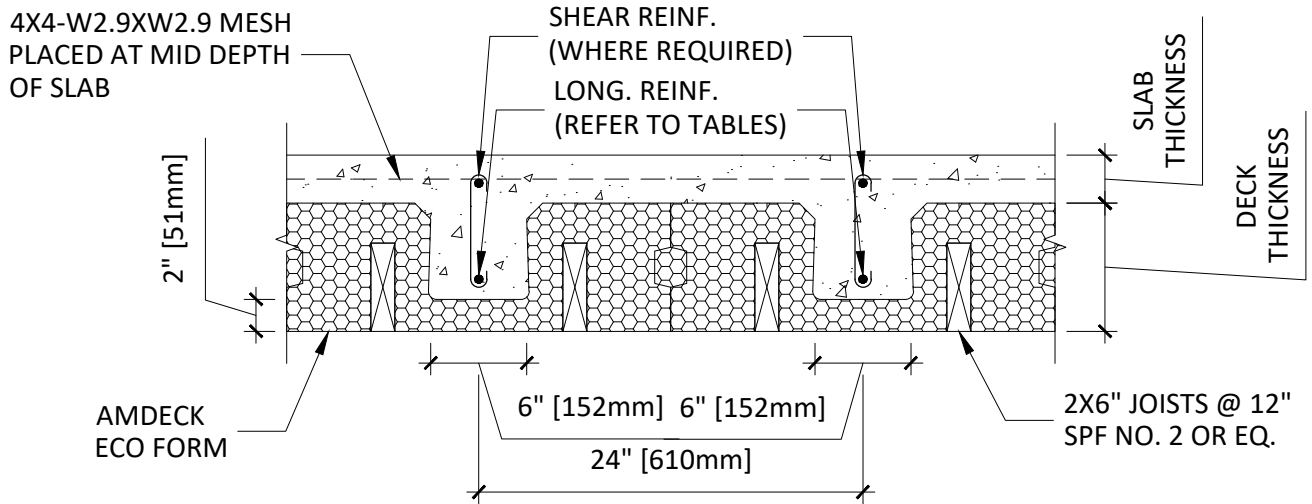


Diagram 3 - Single bar reinforcement with shear

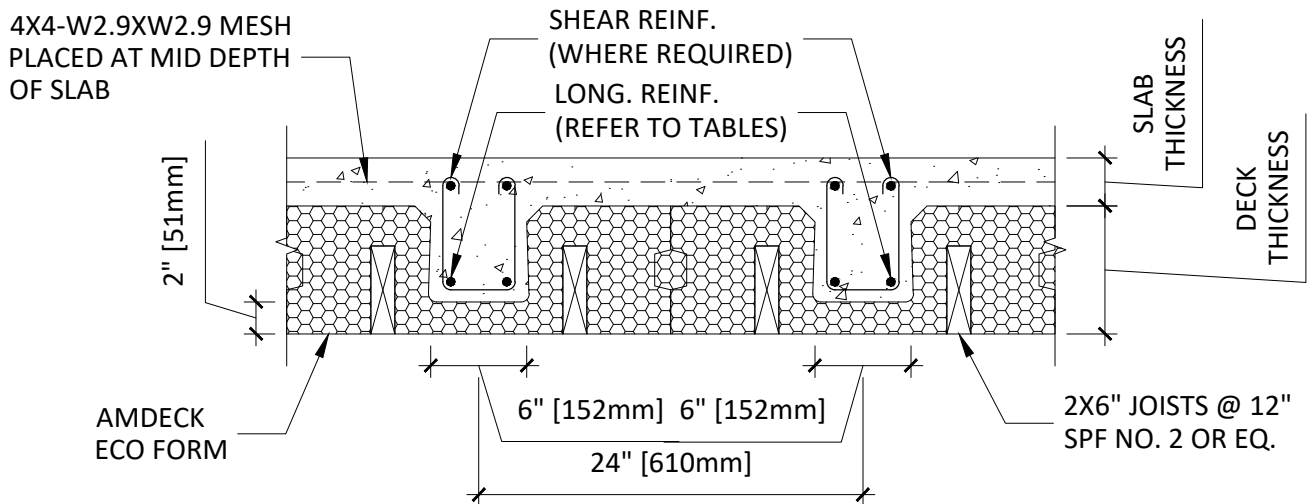


Diagram 4 - Double bar reinforcement with shear

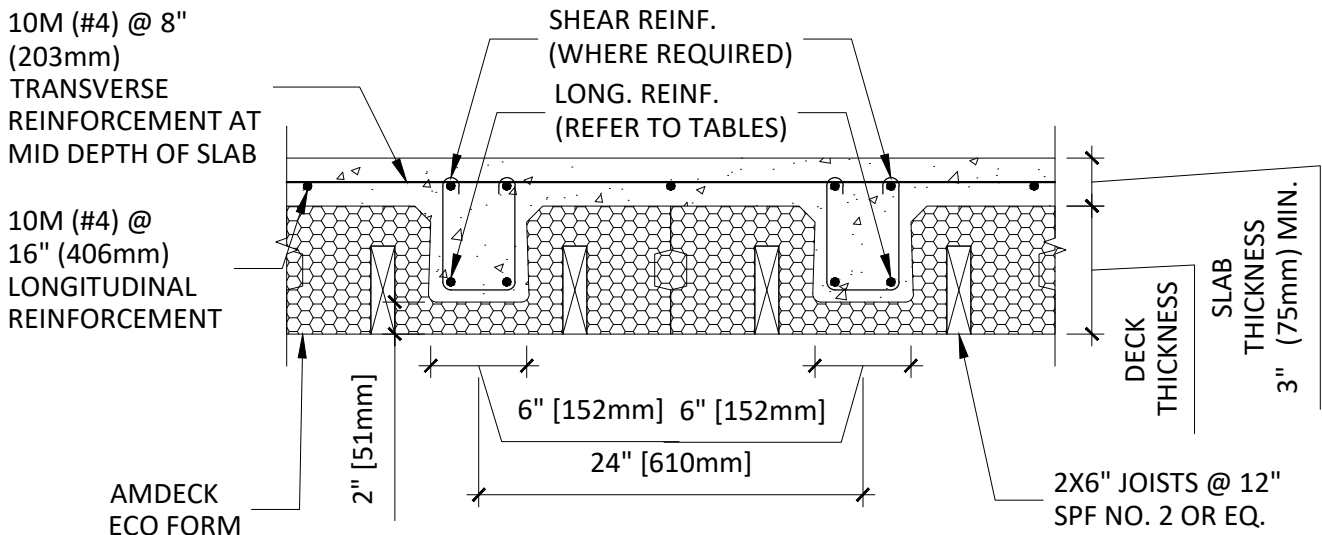


Diagram 5 - Typical car garage double bar reinforcement



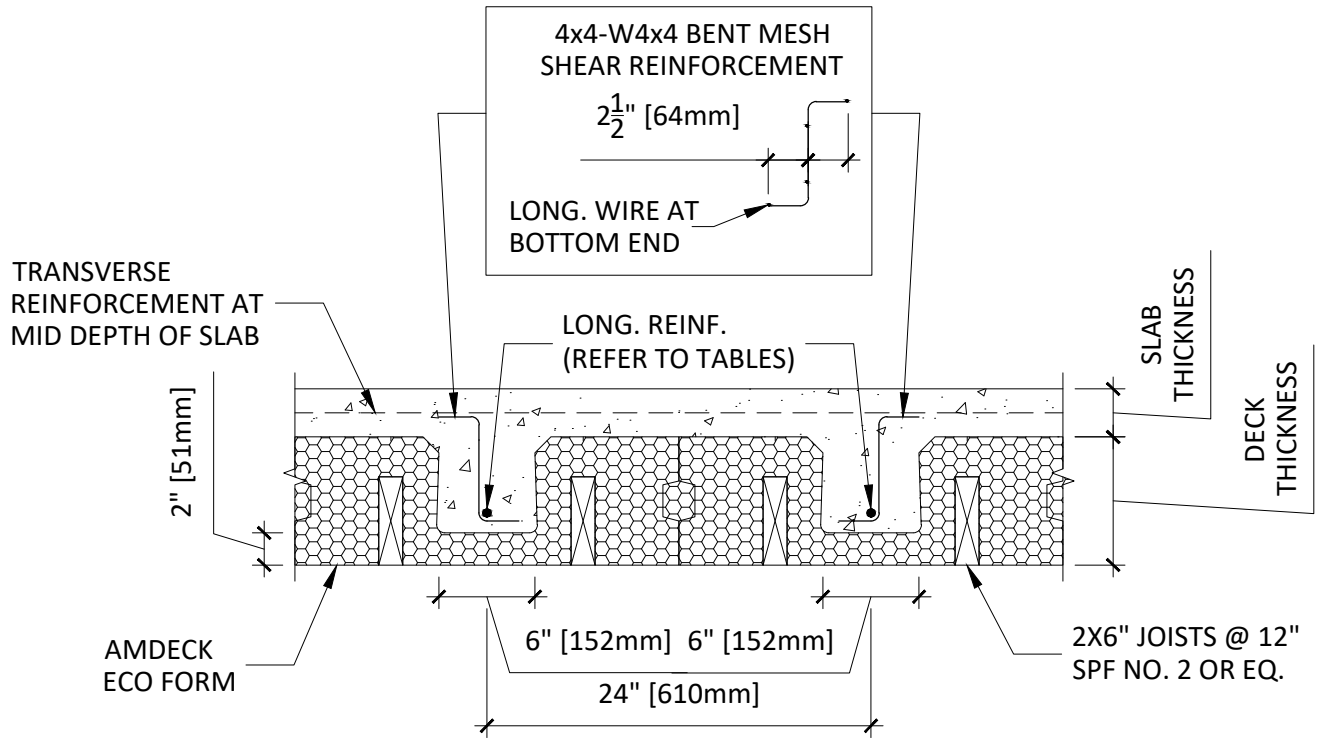


Diagram 6 - Mesh Shear Reinforcement

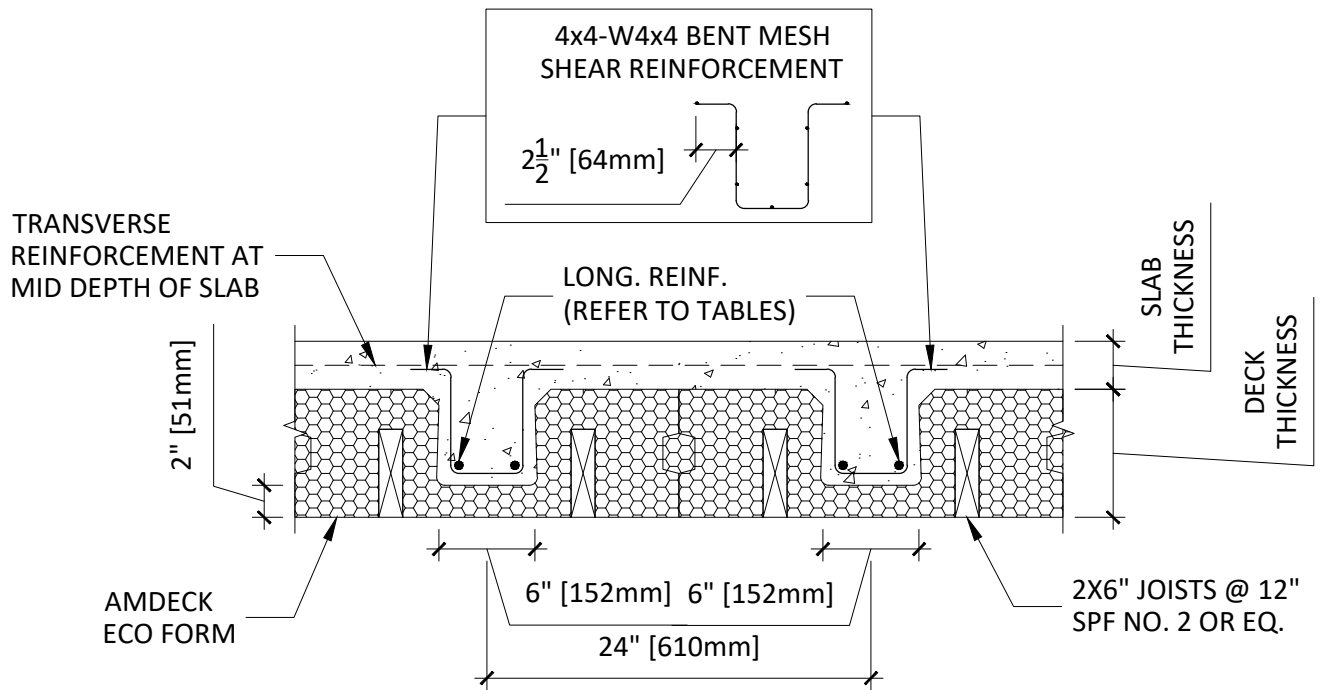


Diagram 7 - Double Bar with Mesh Shear Reinforcement



Table 1 - 8" (203mm) Amdeck Eco Canadian Minimum Required Reinforcement

psf (kPa)	Slab Thickness in (mm)																	
	2 (51)			2-1/2 (63)			3 (76)			3-1/2 (89)			4 (102)			4-1/2 (114)		
	Self Weight psf (kPa)			54 (2.58)			60 (2.87)			67 (3.20)			73 (3.49)			79 (3.78)		
<b>Dead Load</b>	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)
<b>Live Load</b>	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)
<b>Span ft (m)</b>	<b>Minimum Required Bottom Reinforcement</b>																	
≤8 ≤(2.44)	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M
9 (2.74)	1-10M	1-15M	1-15M	1-10M	1-10M	1-15M	1-10M	1-10M	1-15M	1-10M	1-10M	1-15M	1-10M	1-10M	1-15M	1-10M	1-10M	1-10M
10 (3.05)	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M
11 (3.35)	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M
12 (3.66)	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M
13 (3.96)	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M
14 (4.27)	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M
15 (4.57)	1-15M	1-20M	<b>2-15M</b>	1-15M	1-20M	<b>2-15M</b>	1-15M	1-20M	<b>2-15M</b>	1-15M	1-20M	<b>2-15M</b>	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M

<sup>1</sup> Materials used are concrete at 30 MPa and steel at 400 MPa. Dead and live loads are superimposed on the deck.  
<sup>2</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.  
<sup>3</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 6 or stirrup reinforcement as determined by an engineering professional  
<sup>4</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.  
<sup>5</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements. The above tabulated reinforcement requirements are for interior exposure.  
<sup>6</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.  
<sup>7</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.  
<sup>8</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.  
<sup>9</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.  
<sup>10</sup> Refer to diagrams 1 to 4 and diagram 6 for reinforcement details.

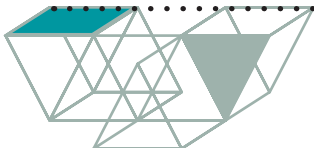


Table 1 - 8" (203mm) Amdeck Eco Canadian Minimum Required Reinforcement Cont.

psf (kPa)	Slab Thickness in (mm)																	
	2 (51)			2-1/2 (63)			3 (76)			3-1/2 (89)			4 (102)			4-1/2 (114)		
	Self Weight psf (kPa)			54 (2.58)			60 (2.87)			67 (3.20)			73 (3.49)			79 (3.78)		
Dead Load	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)
Live Load	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)
Span ft (m)	Minimum Required Bottom Reinforcement																	
16 (4.88)	1-20M	2-15M	<b>2-15M</b>	1-20M	2-15M	<b>2-15M</b>	1-20M	2-15M	<b>2-15M</b>	1-20M	2-15M	<b>2-15M</b>	1-20M	1-20M	<b>2-15M</b>	1-15M	1-20M	2-15M
17 (5.18)	1-20M	<b>2-15M</b>	<b>2-20M</b>	1-20M	<b>2-15M</b>	<b>2-20M</b>	1-20M	<b>2-15M</b>	<b>2-20M</b>	1-20M	<b>2-15M</b>	<b>2-15M</b>	1-20M	<b>2-15M</b>	<b>2-15M</b>	1-20M	2-15M	<b>2-15M</b>
18 (5.49)	1-20M	<b>2-20M</b>		1-20M	<b>2-20M</b>	<b>2-20M</b>	1-20M	<b>2-20M</b>	<b>2-20M</b>	1-20M	<b>2-15M</b>	<b>2-20M</b>	1-20M	<b>2-15M</b>	<b>2-20M</b>	1-20M	<b>2-15M</b>	<b>2-20M</b>
19 (5.79)	2-15M			2-15M	<b>2-20M</b>		2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	1-20M	<b>2-20M</b>	<b>2-20M</b>	1-20M	<b>2-15M</b>	<b>2-20M</b>
20 (6.10)	2-15M			2-15M			2-15M	<b>2-20M</b>		2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>
21 (6.40)				2-15M			2-15M			2-15M	<b>2-20M</b>		2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>
22 (6.71)							2-20M			2-20M			2-15M	<b>2-20M</b>	<b>2-25M<sup>9</sup></b>	2-15M	<b>2-20M</b>	<b>2-25M<sup>9</sup></b>
23 (7.01)										2-20M			2-20M	<b>2-25M<sup>9</sup></b>		2-20M	<b>2-25M<sup>9</sup></b>	<b>2-25M<sup>9</sup></b>

<sup>1</sup> Materials used are concrete at 30 MPa and steel at 400 MPa. Dead and live loads are superimposed on the deck.  
<sup>2</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.  
<sup>3</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 6 or stirrup reinforcement as determined by an engineering professional  
<sup>4</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.  
<sup>5</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements . The above tabulated reinforcement requirements are for interior exposure.  
<sup>6</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.  
<sup>7</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.  
<sup>8</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.  
<sup>9</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.  
<sup>10</sup> Refer to diagrams 1 to 4 and diagram 6 for reinforcement details.

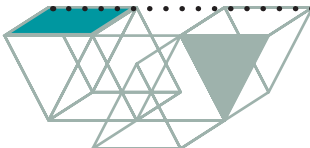


Table 2 - 8" (203mm) Amdeck Eco US Minimum Required Reinforcement

psf (kPa)	Slab Thickness in (mm)																	
	2 (51)			2-1/2 (63)			3 (76)			3-1/2 (89)			4 (102)			4-1/2 (114)		
	Self Weight psf (kPa)																	
Span ft (m)	Minimum Required Bottom Reinforcement																	
≤9 (≤2.74)	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4
10 (3.05)	1-#4	1-#4	1-#5	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4
11 (3.35)	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#4	1-#5	1-#4	1-#4	1-#5	1-#4	1-#4	1-#5	1-#4	1-#4	1-#5
12 (3.66)	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5
13 (3.96)	1-#4	1-#5	1-#6	1-#4	1-#5	1-#6	1-#4	1-#5	1-#6	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5
14 (4.27)	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#5	1-#6	1-#5	1-#5	1-#6
15 (4.57)	1-#5	1-#6	<b>2-#5</b>	1-#5	1-#6	<b>2-#5</b>	1-#5	1-#6	<b>1-#6</b>	1-#5	1-#6	<b>1-#6</b>	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6
16 (4.88)	1-#5	2-#5	<b>2-#5</b>	1-#5	1-#6	<b>2-#5</b>	1-#5	1-#6	<b>2-#5</b>	1-#5	1-#6	<b>2-#5</b>	1-#5	1-#6	<b>2-#5</b>	1-#5	1-#6	2-#5

<sup>1</sup> Materials used are concrete at 30 MPa and steel at 400 MPa. Dead and live loads are superimposed on the deck.

<sup>2</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.

<sup>3</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 6 or stirrup reinforcement as determined by an engineering professional

<sup>4</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.

<sup>5</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements . The above tabulated reinforcement requirements are for interior exposure.

<sup>6</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.

<sup>7</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.

<sup>8</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.

<sup>9</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.

<sup>10</sup> Refer to diagrams 1 to 4 and diagram 6 for reinforcement details.





Table 2 - 8" (203mm) Amdeck Eco US Minimum Required Reinforcement Cont.

psf (kPa)	Slab Thickness in (mm)																	
	2 (51)			2-1/2 (63)			3 (76)			3-1/2 (89)			4 (102)			4-1/2 (114)		
	Self Weight psf (kPa)																	
	48 (2.29)			54 (2.58)			60 (2.87)			67 (3.20)			73 (3.49)			79 (3.78)		
Dead Load	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)
Live Load	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)
Span ft (m)	Minimum Required Bottom Reinforcement																	
17 (5.18)	1-#6	<b>2-#5</b>	<b>2-#5</b>	1-#6	<b>2-#5</b>	<b>2-#5</b>	1-#6	<b>2-#5</b>	<b>2-#5</b>	1-#6	<b>2-#5</b>	<b>2-#5</b>	1-#6	<b>2-#5</b>	<b>2-#5</b>	1-#6	<b>2-#5</b>	<b>2-#5</b>
18 (5.49)	1-#6	<b>2-#5</b>		1-#6	<b>2-#5</b>	<b>2-#6</b>	1-#6	<b>2-#5</b>	<b>2-#5</b>	1-#6	<b>2-#5</b>	<b>2-#5</b>	1-#6	<b>2-#5</b>	<b>2-#5</b>	1-#6	<b>2-#5</b>	<b>2-#5</b>
19 (5.79)	1-#6			1-#6	<b>2-#5</b>		1-#6	<b>2-#5</b>	<b>2-#6</b>	1-#6	<b>2-#5</b>	<b>2-#6</b>	1-#6	<b>2-#5</b>	<b>2-#6</b>	1-#6	<b>2-#5</b>	<b>2-#6</b>
20 (6.10)	2-#5			2-#5			2-#5	<b>2-#6</b>		2-#5	<b>2-#6</b>	<b>2-#6</b>	2-#5	<b>2-#6</b>	<b>2-#6</b>	2-#5	<b>2-#5</b>	<b>2-#6</b>
21 (6.40)				2-#5			2-#5			2-#5	<b>2-#6</b>		2-#5	<b>2-#6</b>	<b>2-#6</b>	2-#5	<b>2-#6</b>	<b>2-#6</b>
22 (6.71)							2-#5			2-#5			2-#5	<b>2-#6</b>	<b>2-#6</b>	2-#5	<b>2-#6</b>	<b>2-#6</b>
23 (7.01)										2-#5			2-#5	<b>2-#6</b>		2-#5	<b>2-#6</b>	<b>2-#7<sup>9</sup></b>

<sup>1</sup> Materials used are concrete at 30 MPa and steel at 400 MPa. Dead and live loads are superimposed on the deck.  
<sup>2</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.  
<sup>3</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 6 or stirrup reinforcement as determined by an engineering professional  
<sup>4</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.  
<sup>5</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements . The above tabulated reinforcement requirements are for interior exposure.  
<sup>6</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.  
<sup>7</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.  
<sup>8</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.  
<sup>9</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.  
<sup>10</sup> Refer to diagrams 1 to 4 and diagram 6 for reinforcement details.



Table 3 - 10" (254mm) Amdeck Eco Canadian Minimum Required Reinforcement

psf (kPa)	Slab Thickness in (mm)																	
	2 (51)			2-1/2 (63)			3 (76)			3-1/2 (89)			4 (102)			4-1/2 (114)		
	Self Weight psf (kPa)			60 (2.87)			66 (3.16)			73 (3.49)			79 (3.78)			85 (4.06)		
Dead Load	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)
Live Load	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)
Span ft (m)	Minimum Required Bottom Reinforcement																	
≤9 (2.74)	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M	1-10M
10 (3.05)	1-10M	1-10M	1-15M	1-10M	1-10M	1-15M	1-10M	1-10M	1-15M	1-10M	1-10M	1-15M	1-10M	1-10M	1-15M	1-10M	1-10M	1-15M
11 (3.35)	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M
12 (3.66)	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M	1-10M	1-15M	1-15M
13 (3.96)	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M
14 (4.27)	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M
15 (4.57)	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M
16 (4.88)	1-15M	1-20M	2-15M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M
17 (5.18)	1-15M	2-15M	2-15M	1-15M	1-20M	2-15M	1-15M	1-20M	2-15M	1-15M	1-20M	2-15M	1-15M	1-20M	2-15M	1-15M	1-20M	2-15M

<sup>1</sup> Materials used are concrete at 30 MPa and steel at 400 MPa. Dead and live loads are superimposed on the deck.  
<sup>2</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.  
<sup>3</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 6 or stirrup reinforcement as determined by an engineering professional  
<sup>4</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.  
<sup>5</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements. The above tabulated reinforcement requirements are for interior exposure.  
<sup>6</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.  
<sup>7</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.  
<sup>8</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.  
<sup>9</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.  
<sup>10</sup> Refer to diagrams 1 to 4 and diagram 6 for reinforcement details.



Table 3 - 10" (254mm) Amdeck Eco Canadian Minimum Required Reinforcement Cont.

psf (kPa)	Slab Thickness in (mm)																	
	2 (51)			2-1/2 (63)			3 (76)			3-1/2 (89)			4 (102)			4-1/2 (114)		
	Self Weight psf (kPa)			60 (2.87)			66 (3.16)			73 (3.49)			79 (3.78)			85 (4.06)		
Dead Load	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)
Live Load	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)
Span ft (m)	Minimum Required Bottom Reinforcement																	
18 (5.49)	1-20M	2-15M	<b>2-15M</b>	1-20M	2-15M	<b>2-15M</b>	1-20M	2-15M	2-15M	1-20M	2-15M	2-15M	1-20M	2-15M	2-15M	1-20M	2-15M	2-15M
19 (5.79)	1-20M	<b>2-15M</b>	<b>2-20M</b>	1-20M	2-15M	<b>2-20M</b>	1-20M	2-15M	<b>2-20M</b>	1-20M	2-15M	<b>2-15M</b>	1-20M	2-15M	<b>2-15M</b>	1-20M	2-15M	<b>2-15M</b>
20 (6.10)	1-20M	<b>2-20M</b>	<b>2-20M</b>	1-20M	<b>2-20M</b>	<b>2-20M</b>	1-20M	<b>2-15M</b>	<b>2-20M</b>	1-20M	2-15M	<b>2-20M</b>	1-20M	2-15M	<b>2-20M</b>	1-20M	2-15M	<b>2-20M</b>
21 (6.40)	2-15M	<b>2-20M</b>		2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>
22 (6.71)	2-15M			2-15M	<b>2-20M</b>		2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>
23 (7.01)	2-15M			2-15M			2-15M	<b>2-20M</b>		2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>
24 (7.31)	2-20M			2-20M			2-20M			2-20M	<b>2-20M</b>		2-20M	<b>2-20M</b>	<b>2-25M<sup>9</sup></b>	2-15M	<b>2-20M</b>	<b>2-25M<sup>9</sup></b>
25 (7.62)				2-20M			2-20M			2-20M			2-20M	<b>2-25M<sup>9</sup></b>		2-20M	<b>2-25M<sup>9</sup></b>	<b>2-25M<sup>9</sup></b>

<sup>1</sup> Materials used are concrete at 30 MPa and steel at 400 MPa. Dead and live loads are superimposed on the deck.  
<sup>2</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.  
<sup>3</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 6 or stirrup reinforcement as determined by an engineering professional  
<sup>4</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.  
<sup>5</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements . The above tabulated reinforcement requirements are for interior exposure.  
<sup>6</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.  
<sup>7</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.  
<sup>8</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.  
<sup>9</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.  
<sup>10</sup> Refer to diagrams 1 to 4 and diagram 6 for reinforcement details.



Table 4 - 10" (254mm) Amdeck Eco US Minimum Required Reinforcement

psf (kPa)	Slab Thickness in (mm)																	
	2 (51)			2-1/2 (63)			3 (76)			3-1/2 (89)			4 (102)			4-1/2 (114)		
	Self Weight psf (kPa)			60 (2.87)			66 (3.16)			73 (3.49)			79 (3.78)			85 (4.06)		
<b>Dead Load</b>	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)
<b>Live Load</b>	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)
<b>Span ft (m)</b>	<b>Minimum Required Bottom Reinforcement</b>																	
≤11 ≤(3.35)	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4
12 (3.66)	1-#4	1-#4	1-#5	1-#4	1-#4	1-#5	1-#4	1-#4	1-#5	1-#4	1-#4	1-#5	1-#4	1-#4	1-#5	1-#4	1-#4	1-#5
13 (3.96)	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5
14 (4.27)	1-#4	1-#5	1-#6	1-#4	1-#5	1-#6	1-#4	1-#5	1-#6	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5
15 (4.57)	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#5	1-#6	1-#5	1-#5	1-#6	1-#5	1-#5	1-#6
16 (4.88)	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6
17 (5.18)	1-#5	1-#6	2-#5	1-#5	1-#6	2-#5	1-#5	1-#6	2-#5	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6
18 (5.49)	1-#5	2-#5	2-#5	1-#5	2-#5	2-#5	1-#5	2-#5	2-#5	1-#5	1-#6	2-#5	1-#5	1-#6	2-#5	1-#5	1-#6	2-#5

<sup>1</sup> Materials used are concrete at 30 MPa and steel at 400 MPa. Dead and live loads are superimposed on the deck.

<sup>2</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.

<sup>3</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 6 or stirrup reinforcement as determined by an engineering professional

<sup>4</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.

<sup>5</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements. The above tabulated reinforcement requirements are for interior exposure.

<sup>6</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.

<sup>7</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.

<sup>8</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.

<sup>9</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.

<sup>10</sup> Refer to diagrams 1 to 4 and diagram 6 for reinforcement details.



Table 4 - 10" (254mm) Amdeck Eco US Minimum Required Reinforcement Cont.

psf (kPa)	Slab Thickness in (mm)																	
	2 (51)			2-1/2 (63)			3 (76)			3-1/2 (89)			4 (102)			4-1/2 (114)		
	Self Weight psf (kPa)			60 (2.87)			66 (3.16)			73 (3.49)			79 (3.78)			85 (4.06)		
<b>Dead Load</b>	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)
<b>Live Load</b>	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)
<b>Span ft (m)</b>	<b>Minimum Required Bottom Reinforcement</b>																	
19 (5.79)	1-#6	<b>2-#5</b>	<b>2-#5</b>	1-#6	2-#5	<b>2-#5</b>	1-#6	2-#5	<b>2-#5</b>	1-#6	2-#5	<b>2-#5</b>	1-#6	2-#5	<b>2-#5</b>	1-#6	2-#5	<b>2-#5</b>
20 (6.10)	1-#6	<b>2-#5</b>	<b>2-#6</b>	1-#6	2-#5	<b>2-#6</b>	1-#6	2-#5	<b>2-#6</b>	1-#6	2-#5	<b>2-#5</b>	1-#6	2-#5	<b>2-#5</b>	1-#6	2-#5	<b>2-#5</b>
21 (6.40)	1-#6	<b>2-#6</b>		1-#6	2-#6	<b>2-#6</b>	1-#6	2-#6	<b>2-#6</b>	1-#6	2-#5	<b>2-#6</b>	1-#6	2-#5	<b>2-#6</b>	1-#6	2-#5	<b>2-#6</b>
22 (6.71)	2-#5			2-#5	2-#6		2-#5	2-#6	<b>2-#6</b>	2-#5	2-#6	<b>2-#6</b>	2-#5	2-#6	<b>2-#6</b>	2-#5	2-#6	<b>2-#6</b>
23 (7.01)	2-#5			2-#5			2-#5	2-#6		2-#5	2-#6	<b>2-#6</b>	2-#5	2-#6	<b>2-#6</b>	2-#5	2-#6	<b>2-#6</b>
24 (7.31)	2-#5			2-#5			2-#5			2-#5	2-#6		2-#5	2-#6	<b>2-#6</b>	2-#5	2-#6	<b>2-#6</b>
25 (7.62)				2-#5			2-#5			2-#5			2-#5	2-#6		2-#5	2-#6	<b>2-#7<sup>9</sup></b>

<sup>1</sup> Materials used are concrete at 30 MPa and steel at 400 MPa. Dead and live loads are superimposed on the deck.  
<sup>2</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.  
<sup>3</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 6 or stirrup reinforcement as determined by an engineering professional  
<sup>4</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.  
<sup>5</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements . The above tabulated reinforcement requirements are for interior exposure.  
<sup>6</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.  
<sup>7</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.  
<sup>8</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.  
<sup>9</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.  
<sup>10</sup> Refer to diagrams 1 to 4 and diagram 6 for reinforcement details.



Table 5 - 12" (305mm) Amdeck Eco Canadian Minimum Required Reinforcement

psf (kPa)	Slab Thickness in (mm)																	
	2 (51)			2-1/2 (63)			3 (76)			3-1/2 (89)			4 (102)			4-1/2 (114)		
	Self Weight psf (kPa)			66 (3.16)			73 (3.49)			79 (3.78)			85 (4.06)			91 (4.35)		
Dead Load	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)
Live Load	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)
Span ft (m)	Minimum Required Bottom Reinforcement																	
≤14 ≤(4.27)	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M	1-15M
15 (4.57)	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M	1-15M	1-15M	1-20M
16 (4.88)	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M
17 (5.18)	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M	1-15M	1-20M	1-20M
18 (5.49)	1-15M	1-20M	2-15M	1-15M	1-20M	2-15M	1-15M	1-20M	2-15M	1-15M	1-20M	2-15M	1-15M	1-20M	2-15M	1-15M	1-20M	2-15M
19 (5.79)	1-20M	2-15M	2-15M	1-20M	2-15M	2-15M	1-20M	2-15M	2-15M	1-20M	2-15M	2-15M	1-20M	2-15M	2-15M	1-20M	1-20M	2-15M
20 (6.10)	1-20M	2-15M	<b>2-15M</b>	1-20M	2-15M	2-15M	1-20M	2-15M	2-15M	1-20M	2-15M	2-15M	1-20M	2-15M	2-15M	1-20M	2-15M	2-15M
21 (6.40)	1-20M	2-15M	<b>2-20M</b>	1-20M	2-15M	<b>2-20M</b>	1-20M	2-15M	<b>2-20M</b>	1-20M	2-15M	<b>2-20M</b>	1-20M	2-15M	<b>2-20M</b>	1-20M	2-15M	<b>2-20M</b>
22 (6.71)	1-20M	2-20M	<b>2-20M</b>	1-20M	2-20M	<b>2-20M</b>	1-20M	2-20M	<b>2-20M</b>	1-20M	2-20M	<b>2-20M</b>	1-20M	2-20M	<b>2-20M</b>	1-20M	2-15M	<b>2-20M</b>

<sup>1</sup> Materials used are concrete at 30 MPa and steel at 400 MPa. Dead and live loads are superimposed on the deck.  
<sup>2</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.  
<sup>3</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 6 or stirrup reinforcement as determined by an engineering professional  
<sup>4</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.  
<sup>5</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements . The above tabulated reinforcement requirements are for interior exposure.  
<sup>6</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.  
<sup>7</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.  
<sup>8</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.  
<sup>9</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.  
<sup>10</sup> Refer to diagrams 1 to 4 and diagram 6 for reinforcement details.

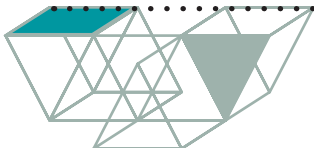


Table 5 - 12" (305mm) Amdeck Eco Canadian Minimum Required Reinforcement Cont.

psf (kPa)	Slab Thickness in (mm)																	
	2 (51)			2-1/2 (63)			3 (76)			3-1/2 (89)			4 (102)			4-1/2 (114)		
	Self Weight psf (kPa)			66 (3.16)			73 (3.49)			79 (3.78)			85 (4.06)			91 (4.35)		
Dead Load	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)
Live Load	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)
Span ft (m)	Minimum Required Bottom Reinforcement																	
23 (7.01)	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>
24 (7.31)	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>
25 (7.62)	2-15M	<b>2-20M</b>		2-15M	<b>2-20M</b>	<b>2-25M<sup>9</sup></b>	2-15M	<b>2-20M</b>	<b>2-25M<sup>9</sup></b>	2-15M	<b>2-20M</b>	<b>2-25M<sup>9</sup></b>	2-15M	<b>2-20M</b>	<b>2-20M</b>	2-15M	<b>2-20M</b>	<b>2-20M</b>
26 (3.66)	2-20M			2-20M	<b>2-20M</b>		2-20M	<b>2-20M</b>		2-20M	<b>2-20M</b>	<b>2-25M<sup>9</sup></b>	2-20M	<b>2-20M</b>	<b>2-25M<sup>9</sup></b>	2-20M	<b>2-20M</b>	<b>2-25M<sup>9</sup></b>
27 (3.96)	2-20M			2-20M			2-20M			2-20M	<b>2-25M<sup>9</sup></b>		2-20M	<b>2-25M<sup>9</sup></b>	<b>2-25M<sup>9</sup></b>	2-20M	<b>2-25M<sup>9</sup></b>	<b>2-25M<sup>9</sup></b>
28 (4.27)				2-20M			2-20M			2-20M	<b>2-25M<sup>9</sup></b>		2-20M	<b>2-25M<sup>9</sup></b>		2-20M	<b>2-25M<sup>9</sup></b>	<b>2-25M<sup>9</sup></b>
29 (8.84)							2-20M			2-20M			2-20M	<b>2-25M<sup>9</sup></b>		2-20M	<b>2-25M<sup>9</sup></b>	
30 (9.14)										2-20M			2-20M			2-20M	<b>2-25M<sup>9</sup></b>	

<sup>1</sup> Materials used are concrete at 30 MPa and steel at 400 MPa. Dead and live loads are superimposed on the deck.  
<sup>2</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.  
<sup>3</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 6 or stirrup reinforcement as determined by an engineering professional  
<sup>4</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.  
<sup>5</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements . The above tabulated reinforcement requirements are for interior exposure.  
<sup>6</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.  
<sup>7</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.  
<sup>8</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.  
<sup>9</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.  
<sup>10</sup> Refer to diagrams 1 to 4 and diagram 6 for reinforcement details.



Table 6 - 12" (305mm) Amdeck Eco US Minimum Required Reinforcement

psf (kPa)	Slab Thickness in (mm)																	
	2 (51)			2-1/2 (63)			3 (76)			3-1/2 (89)			4 (102)			4-1/2 (114)		
	Self Weight psf (kPa)			66 (3.16)			73 (3.49)			79 (3.78)			85 (4.06)			91 (4.35)		
Dead Load	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)
Live Load	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)
Span ft (m)	Minimum Required Bottom Reinforcement																	
≤12 ≤(3.66)	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4	1-#4
13 (3.96)	1-#4	1-#4	1-#5	1-#4	1-#4	1-#5	1-#4	1-#4	1-#5	1-#4	1-#4	1-#5	1-#4	1-#4	1-#5	1-#4	1-#4	1-#5
14 (4.27)	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5
15 (4.57)	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5	1-#4	1-#5	1-#5
16 (4.88)	1-#5	1-#5	1-#6	1-#5	1-#5	1-#6	1-#5	1-#5	1-#6	1-#5	1-#5	1-#6	1-#5	1-#5	1-#6	1-#5	1-#5	1-#6
17 (5.18)	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6
18 (5.49)	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6	1-#5	1-#6	1-#6
19 (5.79)	1-#5	1-#6	2-#5	1-#5	1-#6	2-#5	1-#5	1-#6	2-#5	1-#5	1-#6	2-#5	1-#5	1-#6	2-#5	1-#5	1-#6	2-#5
20 (6.10)	1-#6	2-#5	2-#5	1-#6	2-#5	2-#5	1-#6	2-#5	2-#5	1-#6	2-#5	2-#5	1-#6	2-#5	2-#5	1-#6	2-#5	2-#5
21 (6.40)	1-#6	2-#5	2-#5	1-#6	2-#5	2-#5	1-#6	2-#5	2-#5	1-#6	2-#5	2-#5	1-#6	2-#5	2-#5	1-#6	2-#5	2-#5

<sup>1</sup> Materials used are concrete at 30 MPa and steel at 400 MPa. Dead and live loads are superimposed on the deck.  
<sup>2</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.  
<sup>3</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 6 or stirrup reinforcement as determined by an engineering professional  
<sup>4</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.  
<sup>5</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements. The above tabulated reinforcement requirements are for interior exposure.  
<sup>6</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.  
<sup>7</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.  
<sup>8</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.  
<sup>9</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.  
<sup>10</sup> Refer to diagrams 1 to 4 and diagram 6 for reinforcement details.





Table 6 - 12" (305mm) Amdeck Eco US Minimum Required Reinforcement Cont.

psf (kPa)	Slab Thickness in (mm)																			
	2 (51)			2-1/2 (63)			3 (76)			3-1/2 (89)			4 (102)			4-1/2 (114)				
	Self Weight psf (kPa)			60 (2.87)			66 (3.16)			73 (3.49)			79 (3.78)			85 (4.06)			91 (4.35)	
<b>Dead Load</b>	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)	10 (0.4)	15 (0.7)	15 (0.7)		
<b>Live Load</b>	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)	40 (1.9)	80 (3.8)	100 (4.8)		
<b>Span ft (m)</b>	<b>Minimum Required Bottom Reinforcement</b>																			
22 (6.71)	1-#6	2-#5	2-#6	1-#6	2-#5	2-#6	1-#6	2-#5	2-#6	1-#6	2-#5	2-#6	1-#6	2-#5	2-#6	1-#6	2-#5	2-#6		
23 (7.01)	1-#6	2-#6	2-#6	1-#6	2-#6	2-#6	1-#6	2-#5	2-#6	1-#6	2-#5	2-#6	1-#6	2-#5	2-#6	1-#6	2-#5	2-#6		
24 (7.31)	2-#5	2-#6	2-#6	2-#5	2-#6	2-#6	2-#5	2-#6	2-#6	2-#5	2-#6	2-#6	2-#5	2-#6	2-#6	2-#5	2-#6	2-#6		
25 (7.62)	2-#5	2-#6		2-#5	2-#6	2-#6	2-#5	2-#6	2-#6	2-#5	2-#6	2-#6	2-#5	2-#6	2-#6	2-#5	2-#6	2-#6		
26 (3.66)	2-#5			2-#5	2-#6		2-#5	2-#6		2-#5	2-#6	2-#7 <sup>9</sup>	2-#5	2-#6	2-#7 <sup>9</sup>	2-#5	2-#6	2-#6		
27 (3.96)	2-#5			2-#5			2-#5			2-#5	2-#6		2-#5	2-#6	2-#7 <sup>9</sup>	2-#5	2-#6	2-#7 <sup>9</sup>		
28 (4.27)				2-#6			2-#6			2-#6	2-#7 <sup>9</sup>		2-#6	2-#7 <sup>9</sup>		2-#6	2-#7 <sup>9</sup>	2-#7 <sup>9</sup>		
29 (8.84)							2-#6			2-#6			2-#6	2-#7 <sup>9</sup>		2-#6	2-#7 <sup>9</sup>			
30 (9.14)										2-#6			2-#6			2-#6	2-#7 <sup>9</sup>			

<sup>1</sup> Materials used are concrete at 30 MPa and steel at 400 MPa. Dead and live loads are superimposed on the deck.  
<sup>2</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.  
<sup>3</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 6 or stirrup reinforcement as determined by an engineering professional  
<sup>4</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.  
<sup>5</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements. The above tabulated reinforcement requirements are for interior exposure.  
<sup>6</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.  
<sup>7</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.  
<sup>8</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.  
<sup>9</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.  
<sup>10</sup> Refer to diagrams 1 to 4 and diagram 6 for reinforcement details.



Table 7 - Two Car Garage Canadian Minimum Required Reinforcement

Slab Thickness in (mm)	Self Weight psf (kPa)	Minimum Required Bottom Reinforcement											Minimum Shear Reinforcement	
		Span ft (m)												
		20 (6.10)	21 (6.40)	22 (6.71)	23 (7.01)	24 (7.31)	25 (7.62)	26 (3.66)	27 (8.23)	28 (8.53)	29 (8.84)	30 (9.14)		
<b>8" (203mm) Amdeck Eco</b>														
3 (76)	60 (2.87)	<b>2-20M</b>										W4 (Wire) @ 4" (102mm)		
3-1/2 (89)	67 (3.20)	<b>2-20M</b>	<b>2-25M<sup>11</sup></b>									W4 (Wire) @ 4" (102mm)		
4 (102)	73 (3.49)	<b>2-20M</b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>								W4 (Wire) @ 4" (102mm)		
4-1/2 (114)	79 (3.78)	<b>2-20M</b>	<b>2-20M</b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>						W4 (Wire) @ 4" (102mm)			
<b>10" (254mm) Amdeck Eco</b>														
3 (76)	66 (3.16)	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>					W4 (Wire) @ 5.5" (140mm)		
3-1/2 (89)	73 (3.49)	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>				W4 (Wire) @ 5.5" (140mm)			
4 (102)	79 (3.78)	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>			W4 (Wire) @ 5.5" (140mm)			
4-1/2 (114)	85 (4.06)	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>		W4 (Wire) @ 5.5" (140mm)			
<b>12" (305mm) Amdeck Eco</b>														
3 (76)	73 (3.49)	<b>2-15M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>		W4 (Wire) @ 7" (178mm)		
3-1/2 (89)	79 (3.78)	<b>2-15M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>		W4 (Wire) @ 7" (178mm)	
4 (102)	85 (4.06)	<b>2-15M</b>	<b>2-15M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	W4 (Wire) @ 7" (178mm)
4-1/2 (114)	91 (4.35)	<b>2-15M</b>	<b>2-15M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-20M</b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	<b>2-25M<sup>11</sup></b>	W4 (Wire) @ 7" (178mm)

<sup>1</sup> Superimposed loads for all span configurations are 10 psf (0.48 kPa) for dead load and 50 psf (2.39 kPa) for live loads.  
<sup>2</sup> Superimposed loads include: (i) a concentrated load of 4,000lb (1814kg) considered to be acting anywhere on the floor; or (ii) a 2,000lb (907kg) wheel load per tire.  
<sup>3</sup> Materials used are concrete at 30 MPa and steel at 400 MPa.  
<sup>4</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.  
<sup>5</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 7 or stirrup reinforcement as determined by an engineering professional.  
<sup>6</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.  
<sup>7</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements. The above tabulated reinforcement requirements are for interior exposure.  
<sup>8</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.  
<sup>9</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.  
<sup>10</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.  
<sup>11</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.  
<sup>12</sup> Refer to diagrams 5 and 7 for reinforcement details.



Table 8 - Two Car Garage US Minimum Required Reinforcement

Slab Thickness in (mm)	Self Weight psf (kPa)	Minimum Required Bottom Reinforcement											Minimum Shear Reinforcement	
		Span ft (m)												
		20 (6.10)	21 (6.40)	22 (6.71)	23 (7.01)	24 (7.31)	25 (7.62)	26 (3.66)	27 (8.23)	28 (8.53)	29 (8.84)	30 (9.14)		
<b>8" (203mm) Amdeck Eco</b>														
3 (76)	60 (2.87)	<b>2-#6</b>												W4 (Wire) @ 4" (102mm)
3-1/2 (89)	67 (3.20)	<b>2-#6</b>	<b>2-#6</b>											W4 (Wire) @ 4" (102mm)
4 (102)	73 (3.49)	<b>2-#6</b>	<b>2-#6</b>	<b>2-#7<sup>11</sup></b>										W4 (Wire) @ 4" (102mm)
4-1/2 (114)	79 (3.78)	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#7<sup>11</sup></b>									W4 (Wire) @ 4" (102mm)
<b>10" (254mm) Amdeck Eco</b>														
3 (76)	66 (3.16)	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>11</sup></b>							W4 (Wire) @ 5" (127mm)
3-1/2 (89)	73 (3.49)	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>11</sup></b>							W4 (Wire) @ 5" (127mm)
4 (102)	79 (3.78)	<b>2-#5</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>11</sup></b>						W4 (Wire) @ 5" (127mm)
4-1/2 (114)	85 (4.06)	<b>2-#5</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>11</sup></b>					W4 (Wire) @ 5" (127mm)
<b>12" (305mm) Amdeck Eco</b>														
3 (76)	73 (3.49)	<b>2-#5</b>	<b>2-#5</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>11</sup></b>				W4 (Wire) @ 6" (152mm)
3-1/2 (89)	79 (3.78)	<b>2-#5</b>	<b>2-#5</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>11</sup></b>			W4 (Wire) @ 6" (152mm)
4 (102)	85 (4.06)	<b>2-#5</b>	<b>2-#5</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>9</sup></b>	<b>2-#7<sup>11</sup></b>		W4 (Wire) @ 6" (152mm)
4-1/2 (114)	91 (4.35)	<b>2-#5</b>	<b>2-#5</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#6</b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>11</sup></b>	<b>2-#7<sup>11</sup></b>		W4 (Wire) @ 6" (152mm)

<sup>1</sup> Superimposed loads for all span configurations are 10 psf (0.48 kPa) for dead load and 50 psf (2.39 kPa) for live loads.  
<sup>2</sup> Superimposed loads include: (i) a concentrated load of 4,000lb (1814kg) considered to be acting anywhere on the floor; or (ii) a 2,000lb (907kg) wheel load per tire.  
<sup>3</sup> Materials used are concrete at 30 MPa and steel at 400 MPa.  
<sup>4</sup> Final reinforcement for deck spans shall be checked against site conditions and project design requirements and shall be the sole responsibility of the engineer of record.  
<sup>5</sup> Bolded text in table above indicate that shear reinforcement is required. Use mesh reinforcement as per Diagram 7 or stirrup reinforcement as determined by an engineering professional.  
<sup>6</sup> The above tabulated values are for single-span condition only. Continuous deck spans over supports will necessitate design of top reinforcement by an engineering professional.  
<sup>7</sup> CSA Standard A23.3 exposure conditions for concrete cover requirements. The above tabulated reinforcement requirements are for interior exposure.  
<sup>8</sup> Where concentrated loads are present on the floor, the slab and rib strength capacity shall be checked by an engineering professional against such conditions.  
<sup>9</sup> Maximum unshored spans of Amdeck Eco forms shall not exceed 4' (1.2m) during construction.  
<sup>10</sup> The above tabulated spans shall be calculated based on the center-to-center spacing of supports, unless otherwise determined and detailed by an engineering professional.  
<sup>11</sup> Spacing of bars and concrete cover requirements shall be checked by an engineering professional.  
<sup>12</sup> Refer to diagrams 5 and 7 for reinforcement details.





Alleguard's Amdeck Eco is a high quality, innovative floor and roof system designed for low rise residential applications. Competitive pricing, extensive product distribution and excellent technical support are combined to provide our clients with a simplified approach to a superior finished product.

#### Disclaimer

Information contained in this document is provided as a guideline only, without any warranty of any kind, either expressed or implied, including, but not limited to, the implied warranties of merchantability, fitness for a particular purpose, and freedom of infringement.

This document provides basic reinforcement design for Amdeck Eco and is intended to serve as a guideline only and should not be used for construction unless reviewed and approved by an engineering professional. Amdeck Eco is sold throughout several geographical areas with varying building code requirements. Local building codes are subject to periodic changes and interpretations. In all cases, any installation of Amdeck Eco must be done in accordance with the applicable building codes.

#### Technical Support

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