

Lesson 4

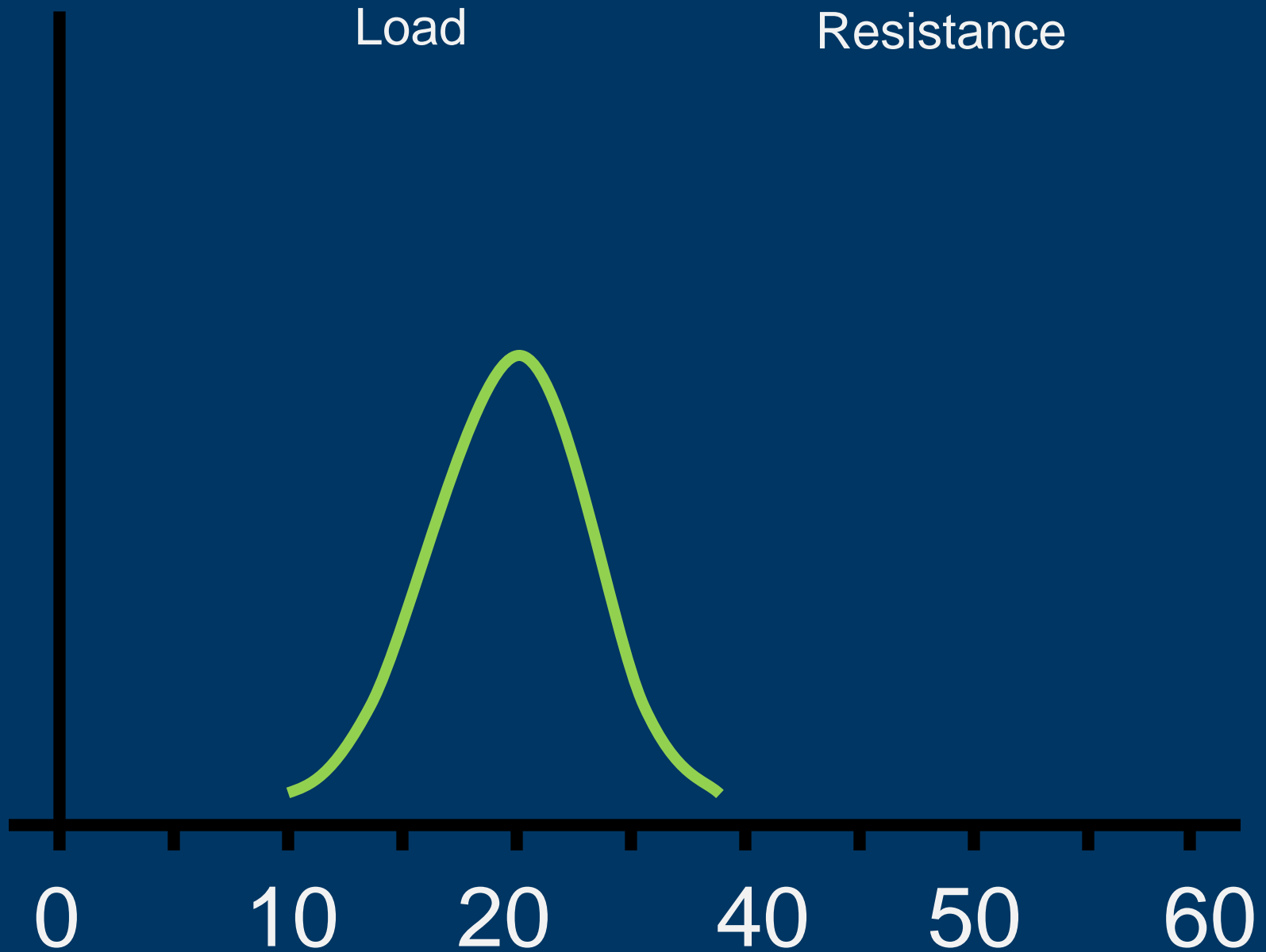
Structural Member Design

What is required?

What is a “designed” structural member?



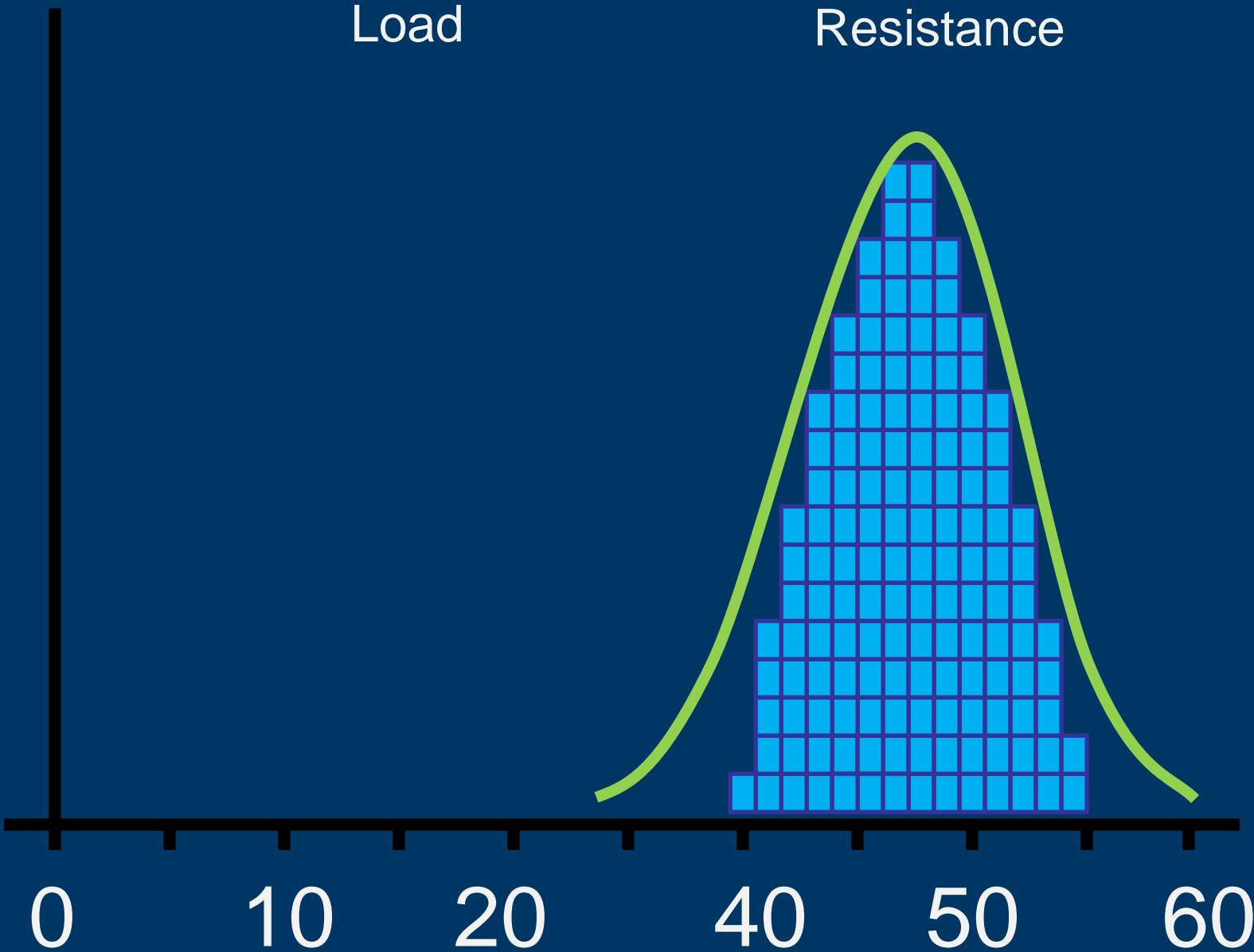
Lesson 4 - Load and Resistance Design



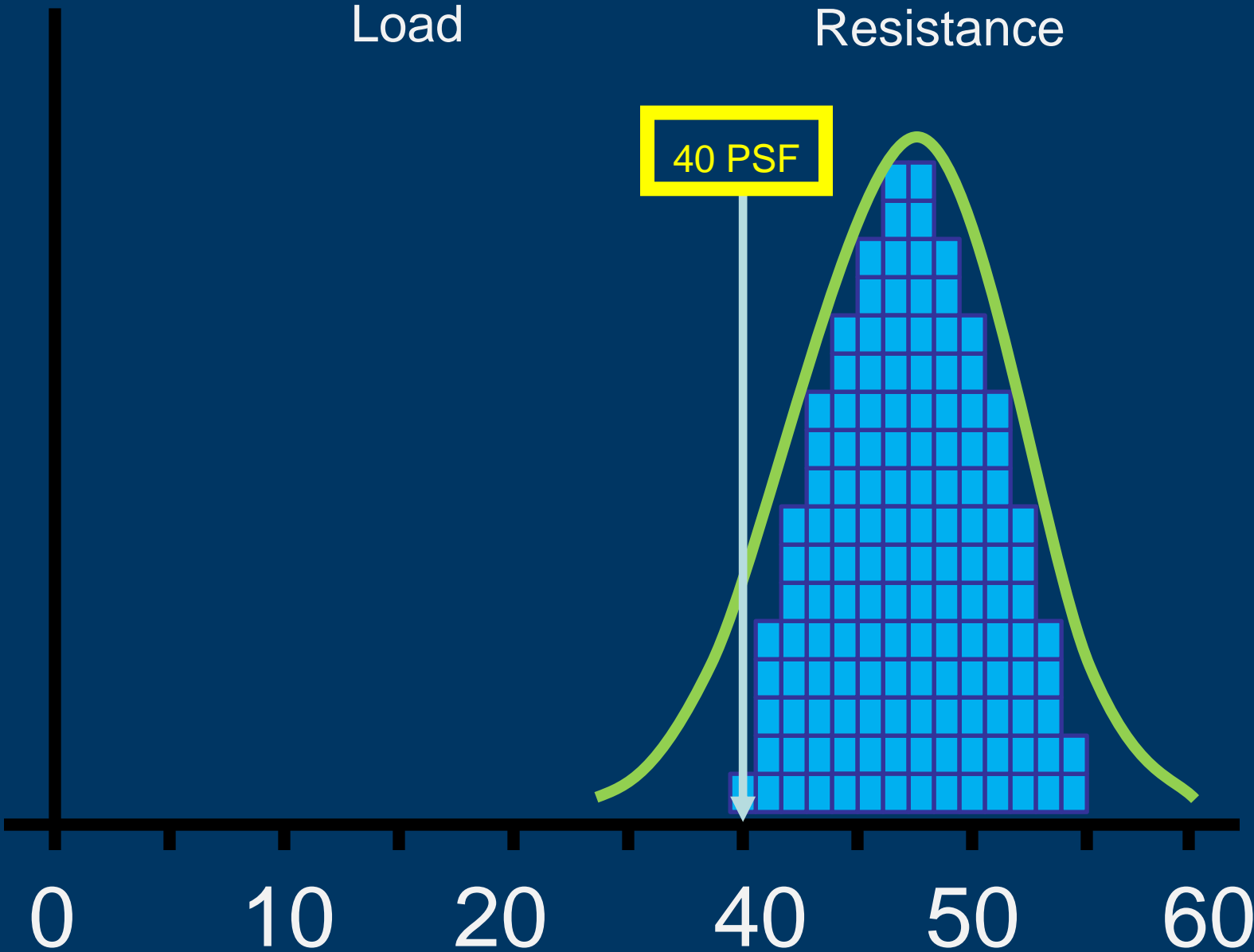
Lesson 4 - Load and Resistance Design



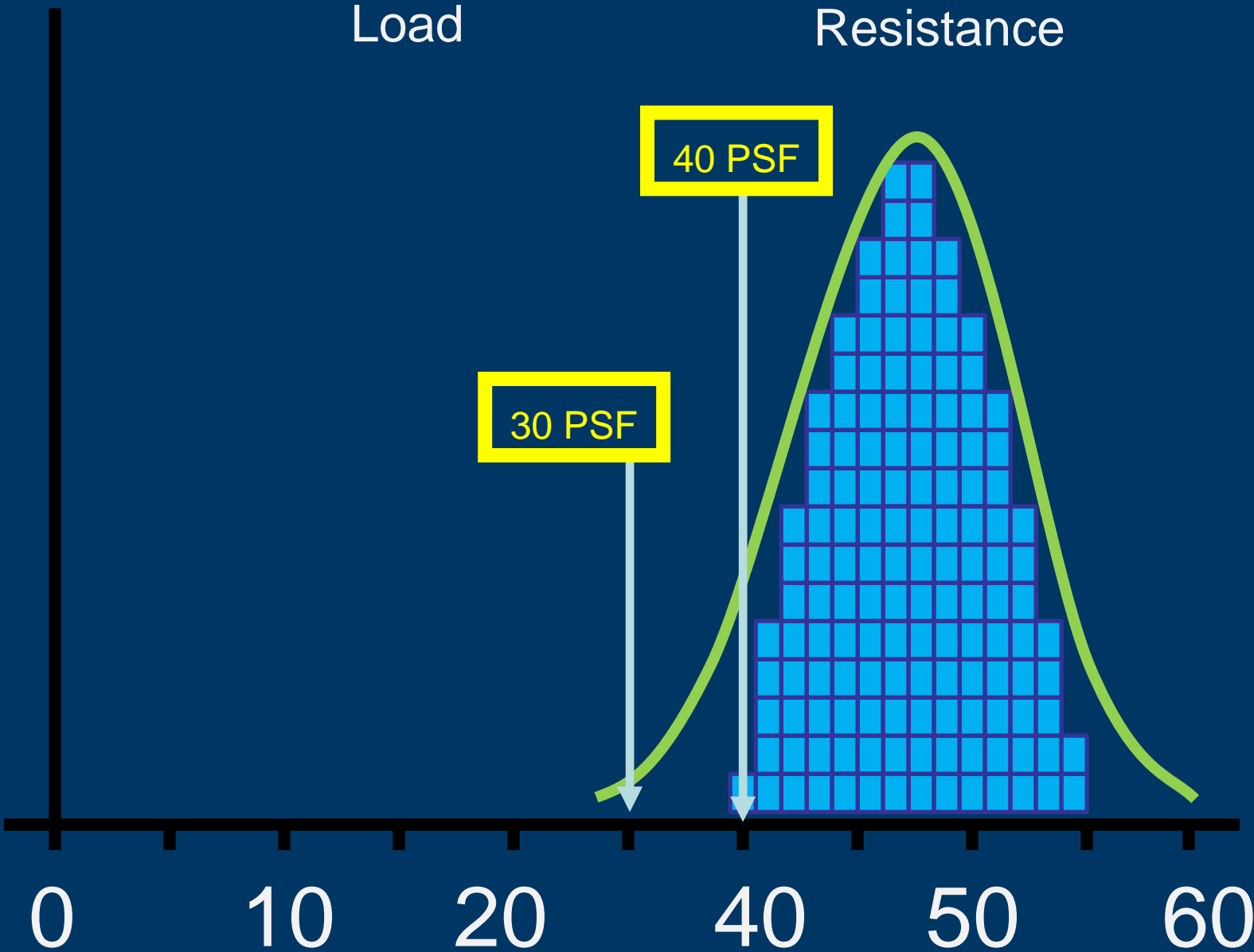
Lesson 4 - Load and Resistance Design



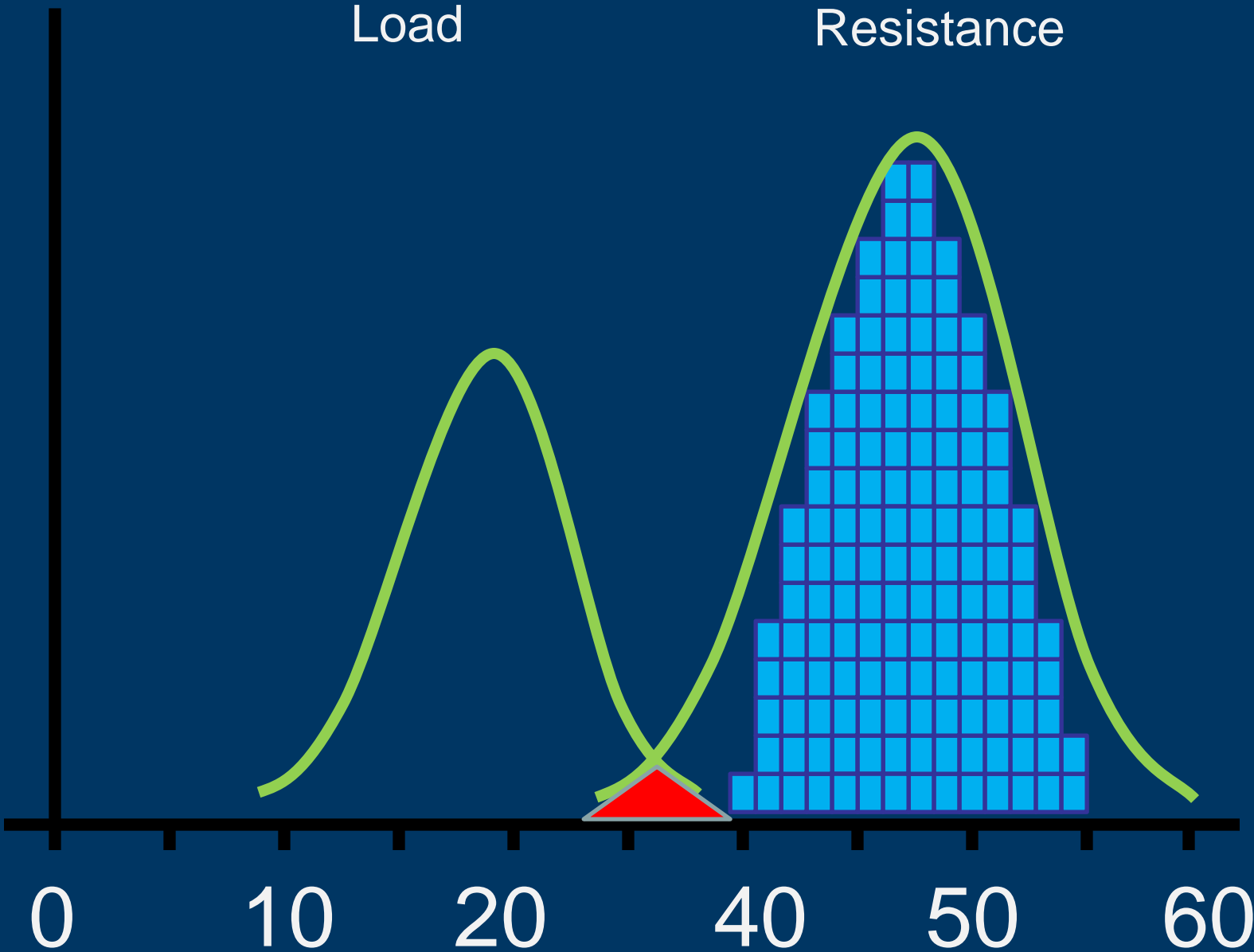
Lesson 4 - Load and Resistance Design



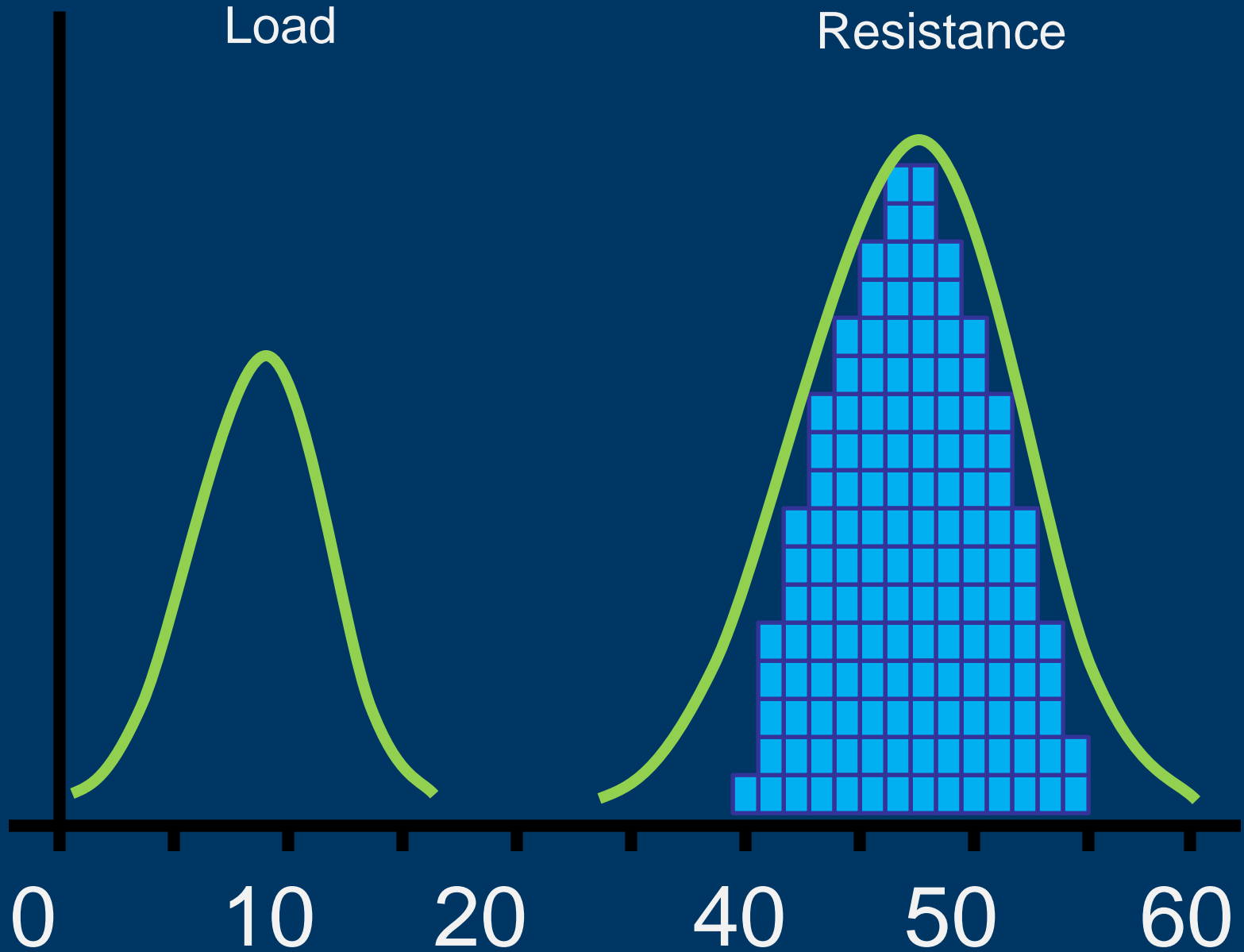
Lesson 4 - Load and Resistance Design



Lesson 4 - Load and Resistance Design



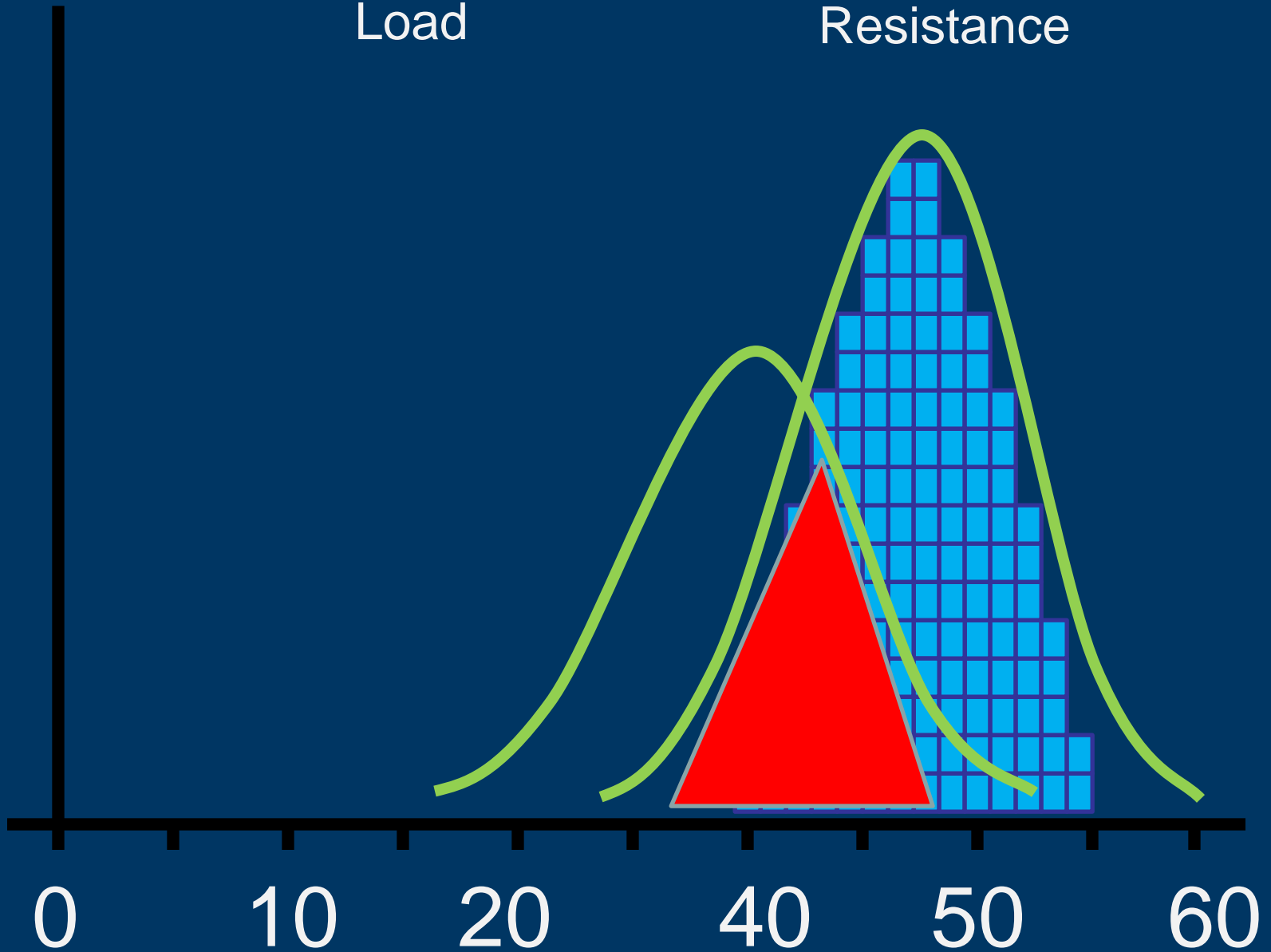
Over-Designed



Under-Designed

Load

Resistance



New Design – “The Team”

1. Owner

2. Architect

10 %

3. Engineers

1 %

4. Contractor

100 %

- Building
Official



New Design – “The Team”

1. Owner

2. A & E Firm

10 %

3. Contractor

100 %

- Building
Official



New Design – “The Team”

1. Owner
2. Full Service
Contractor,
Architects,
Engineer

100 %

- Building
Official



New Design – “The Team”

1. Owner =
Full Service
Contractor,
Architects,
Engineers

200 %

- Building
Official



New Design – “The Team”

1. Owner

1. Owner

1. Owner

1. Owner =

2. Architect

2. A & E Firm

2. Full Service

Full Service

10 %

10 %

Contractor,

Contractor,

3. Engineers

Architects,

Architects,

1 %

Engineer

Engineers

4. Contractor

3. Contractor

100 %

200 %

100 %

100 %

- Building Official

- Building Official

- Building Official

- Building Official



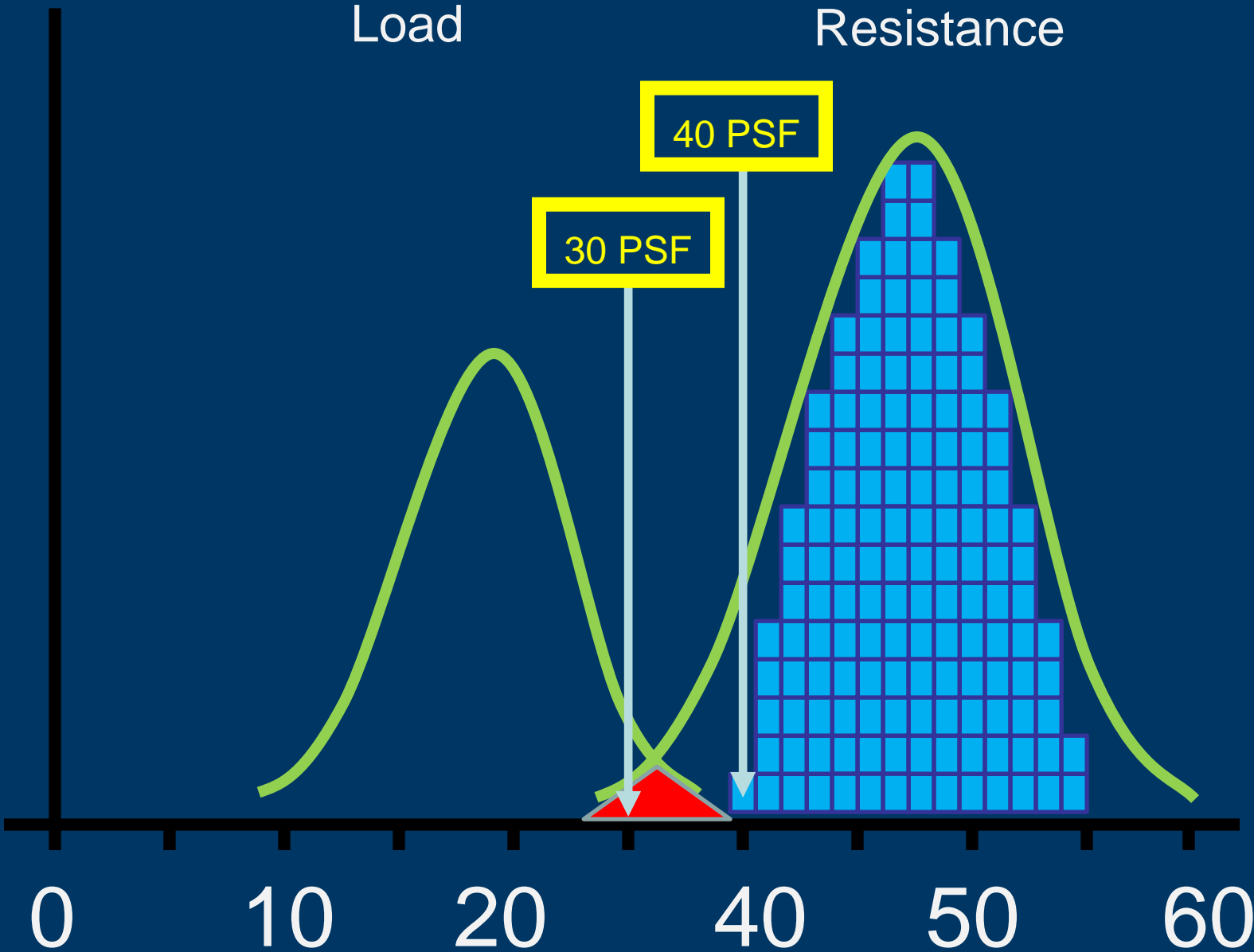
Bad Quotes

“ Anyone can design and build a building...

we make it just stand up. ”



Lesson 4 - Load and Resistance Design



Lesson 4 - Load and Resistance Design

