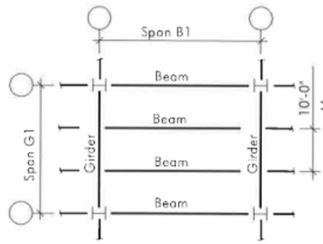


Tables A to A45

Design Criteria

- Dead load includes system self weight (slab + steel)
- Superimposed dead load = 25 psf (partitions + MEP)
- Loads are uniformly distributed over bay area
- 3/4 in. lightweight concrete topping
- 2 in. composite metal decking
- 50 ksi steel yield
- 3 ksi concrete strength
- 2-hour fire rating

Floor Diagram



| Table A, Beam Sizes | | | | | | | | |
|---------------------|--------------------|---------|---------|---------|---------|---------|---------|----------------|
| Live Load, psf | Beam Span: B1 (ft) | | | | | | | Classification |
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
| 50 | W10 | W10-W12 | W12-W14 | W14-W16 | W16-W18 | W18-W21 | W18-W21 | Office |
| 100 | W10 | W10-W12 | W12-W14 | W14-W16 | W16-W18 | W18-W21 | W18-W21 | Assembly |
| 150 | W10 | W10-W12 | W12-W16 | W14-W16 | W16-W18 | W18-W21 | W21-W24 | Storage |

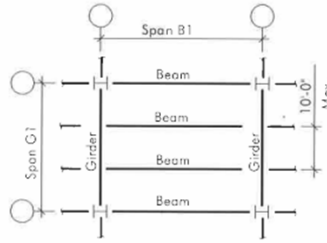
| Table A, Girder Sizes | | | | | | | | | |
|-----------------------|----------------------|--------------------|---------|---------|---------|---------|---------|---------|----------------|
| Live Load, psf | Girder Span, G1 (ft) | Beam Span, B1 (ft) | | | | | | | Classification |
| | | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
| 50 | 15 | W10-W12 | W10-W12 | W10-W12 | W12-W14 | W12-W14 | W12-W16 | W12-W16 | Office |
| | | W10-W12 | W10-W12 | W10-W12 | W12-W14 | W12-W14 | W12-W16 | W12-W16 | Assembly |
| | | W10-W12 | W10-W12 | W12-W14 | W12-W16 | W12-W16 | W12-W16 | W14-W18 | Storage |
| 100 | 20 | | W12-W14 | W14-W16 | W14-W16 | W14-W16 | W14-W18 | W16-W18 | Office |
| | | | W12-W14 | W14-W16 | W14-W16 | W14-W18 | W16-W18 | W16-W21 | Assembly |
| | | | W12-W16 | W14-W18 | W16-W18 | W16-W21 | W16-W21 | W18-W24 | Storage |
| 150 | 25 | | | W16-W18 | W16-W18 | W16-W21 | W18-W21 | W18-W24 | Office |
| | | | | W16-W18 | W16-W18 | W16-W21 | W18-W21 | W18-W24 | Assembly |
| | | | | W16-W21 | W16-W21 | W18-W24 | W18-W24 | W21-W24 | Storage |
| 50 | 30 | | | | W18-W24 | W18-W24 | W21-W24 | W21-W24 | Office |
| | | | | | W18-W24 | W18-W24 | W21-W24 | W21-W24 | Assembly |
| | | | | | W21-W24 | W21-W24 | W21-W27 | W24-W30 | Storage |
| 100 | 35 | | | | | W21-W24 | W24 | W24-W27 | Office |
| | | | | | | W21-W27 | W24-W30 | W24-W30 | Assembly |
| | | | | | | W24-W30 | W24-W30 | W27-W33 | Storage |
| 150 | 40 | | | | | | W24-W30 | W24-W30 | Office |
| | | | | | | | W24-W30 | W27-W33 | Assembly |
| | | | | | | | W30-W36 | W30-W40 | Storage |
| 50 | 45 | | | | | | | W27-W30 | Office |
| | | | | | | | | W30-W36 | Assembly |
| | | | | | | | | W30-W40 | Storage |

Tables B to B45

Design Criteria

- Dead load includes system self weight (slab + steel)
- Superimposed dead load = 25 psf (partitions + MEP)
- Loads are uniformly distributed over bay area
- 4½ in. normal weight concrete topping
- 2 in. composite metal decking
- 50 ksi steel yield
- 3 ksi concrete strength
- 2-hour fire rating

Floor Diagram



| Table B, Beam Sizes | | | | | | | | |
|---------------------|--------------------|-----|---------|---------|---------|---------|---------|----------------|
| Live Load, psf | Beam Span: B1 (ft) | | | | | | | Classification |
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
| 50 | W10 | W12 | W14-W16 | W16-W18 | W18-W21 | W18-W21 | W21-W24 | Office |
| 100 | W10-W12 | W12 | W14-W16 | W16-W18 | W18-W21 | W18-W21 | W21-W24 | Assembly |
| 150 | W10-W12 | W12 | W14-W16 | W16-W18 | W18-W21 | W18-W21 | W21-W24 | Storage |

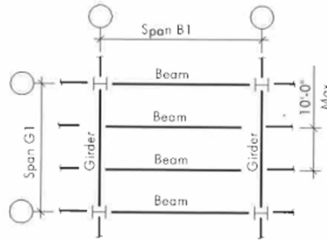
| Table B, Girder Sizes | | | | | | | | | |
|-----------------------|----------------------|--------------------|---------|---------|---------|---------|---------|---------|----------------|
| Live Load, psf | Girder Span, G1 (ft) | Beam Span, B1 (ft) | | | | | | | Classification |
| | | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
| 50 | 15 | W10-W12 | W10-W12 | W12-W14 | W12-W14 | W12-W16 | W12-W16 | W14-W16 | Office |
| | | W10-W12 | W10-W12 | W12-W14 | W12-W14 | W12-W16 | W12-W16 | W14-W16 | Assembly |
| | | W10-W12 | W12 | W12-W14 | W12-W16 | W12-W16 | W12-W16 | W14-W18 | Storage |
| 50 | 20 | | W14-W16 | W14-W16 | W14-W18 | W16-W18 | W16-W18 | W16-W21 | Office |
| | | | W14-W16 | W14-W16 | W14-W18 | W16-W18 | W16-W18 | W16-W21 | Assembly |
| | | | W14-W16 | W14-W18 | W14-W18 | W16-W21 | W16-W21 | W18-W24 | Storage |
| 50 | 25 | | | W16-W21 | W18-W21 | W18-W24 | W18-W24 | W21-W24 | Office |
| | | | | W16-W21 | W18-W21 | W18-W24 | W18-W24 | W21-W24 | Assembly |
| | | | | W16-W21 | W18-W21 | W18-W24 | W18-W24 | W21-W24 | Storage |
| 50 | 30 | | | | W21-W24 | W21-W24 | W21-W24 | W24 | Office |
| | | | | | W21-W24 | W21-W24 | W21-W24 | W24 | Assembly |
| | | | | | W21-W24 | W21-W24 | W21-W27 | W24-W30 | Storage |
| 50 | 35 | | | | | W24-W27 | W24-W27 | W24-W30 | Office |
| | | | | | | W24-W27 | W24-W30 | W24-W30 | Assembly |
| | | | | | | W24-W30 | W24-W30 | W27-W33 | Storage |
| 50 | 40 | | | | | | W24-W30 | W27-W30 | Office |
| | | | | | | | W24-W30 | W27-W33 | Assembly |
| | | | | | | | W30-W36 | W30-W40 | Storage |
| 50 | 45 | | | | | | | W30-W33 | Office |
| | | | | | | | | W30-W36 | Assembly |
| | | | | | | | | W30-W40 | Storage |

Tables C to C45

Design Criteria

- Dead load includes system self weight (slab + steel)
- Superimposed dead load = 25 psf (partitions + MEP)
- Loads are uniformly distributed over bay area
- 4¼ in. lightweight concrete topping
- 2 in. composite metal decking
- 50 ksi steel yield
- 3 ksi concrete strength
- 3-hour fire rating

Floor Diagram



| Table C, Beam Sizes | | | | | | | | |
|---------------------|--------------------|-----|---------|-----|---------|---------|---------|----------------|
| Live Load, psf | Beam Span: B1 (ft) | | | | | | | Classification |
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
| 50 | W10 | W12 | W12-W14 | W16 | W16-W18 | W18-W21 | W21-W24 | Office |
| 100 | W10 | W12 | W12-W14 | W16 | W16-W18 | W18-W21 | W21-W24 | Assembly |
| 150 | W10-W12 | W12 | W12-W16 | W16 | W16-W18 | W18-W21 | W21-W24 | Storage |

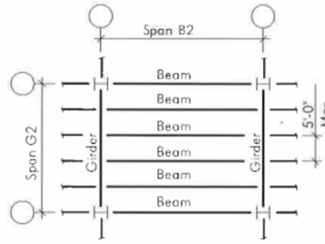
| Table C, Girder Sizes | | | | | | | | | |
|-----------------------|----------------------|--------------------|---------|---------|---------|---------|---------|---------|----------------|
| Live Load, psf | Girder Span, G1 (ft) | Beam Span, B1 (ft) | | | | | | | Classification |
| | | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
| 50 | 15 | W10-W12 | W10-W12 | W12 | W12-W14 | W12-W16 | W12-W16 | W12-W16 | Office |
| | | W10-W12 | W10-W12 | W12 | W12-W14 | W12-W16 | W12-W16 | W12-W16 | Assembly |
| | | W10-W12 | W10-W12 | W12-W14 | W12-W14 | W12-W16 | W12-W16 | W12-W18 | Storage |
| 100 | 20 | | W12-W16 | W14-W16 | W14-W16 | W14-W18 | W16-W18 | W16-W18 | Office |
| | | | W12-W16 | W14-W16 | W14-W16 | W14-W18 | W16-W18 | W16-W18 | Assembly |
| | | | W12-W16 | W14-W16 | W14-W18 | W16-W18 | W16-W21 | W16-W21 | Storage |
| 150 | 25 | | | W16-W18 | W16-W21 | W18-W21 | W18-W24 | W18-W24 | Office |
| | | | | W16-W18 | W16-W21 | W18-W21 | W18-W24 | W18-W24 | Assembly |
| | | | | W16-W18 | W16-W21 | W18-W24 | W18-W24 | W18-W24 | Storage |
| 50 | 30 | | | | W18-W24 | W21-W24 | W21-W24 | W21-W24 | Office |
| | | | | | W18-W24 | W21-W24 | W21-W24 | W21-W24 | Assembly |
| | | | | | W18-W24 | W21-W24 | W21-W27 | W24-W27 | Storage |
| 100 | 35 | | | | | W21-W24 | W24-W27 | W24-W27 | Office |
| | | | | | | W21-W27 | W24-W27 | W24-W30 | Assembly |
| | | | | | | W24-W30 | W24-W30 | W27-W33 | Storage |
| 150 | 40 | | | | | | W24-W30 | W24-W30 | Office |
| | | | | | | | W24-W30 | W24-W33 | Assembly |
| | | | | | | | W27-W33 | W30-W40 | Storage |
| 50 | 45 | | | | | | | W27-W33 | Office |
| | | | | | | | | W27-W36 | Assembly |
| | | | | | | | | W30-W40 | Storage |

Tables D to D45

Design Criteria

- Dead load includes system self weight (slab + steel)
- Superimposed dead load = 20 psf (roofing systems + MEP)
- Loads are uniformly distributed over bay area
- 1½ in. metal roof decking
- 50 ksi steel yield

Floor Diagram



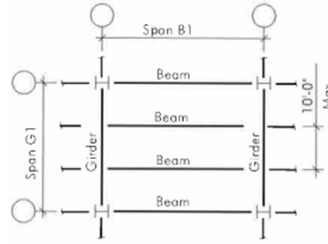
| Table D, Beam Sizes | | | | | | | |
|---------------------|--------------------|-----|-----|---------|---------|---------|---------|
| Live Load, psf | Beam Span: B2 (ft) | | | | | | |
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| 20 | W10 | W10 | W10 | W10-W12 | W12 | W12-W14 | W14-W16 |
| 30 | W10 | W10 | W12 | W12 | W12-W14 | W14-W16 | W16 |
| 40 | W10 | W10 | W12 | W12-W14 | W14-W16 | W16 | W16-W18 |

| Table D, Girder Sizes | | | | | | | | |
|-----------------------|--------------------|----|-----|---------|---------|---------|---------|---------|
| Live Load, psf | Beam Span, B2 (ft) | | | | | | | |
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
| Girder Span, G2 (ft) | 15 | 20 | W10 | W10 | W10-W12 | W10-W12 | W10-W12 | W12 |
| | | 30 | W10 | W10-W12 | W10-W12 | W10-W12 | W10-W12 | W12-W14 |
| | | 40 | W10 | W10-W12 | W10-W12 | W10-W12 | W12-W14 | W12-W14 |
| | 20 | 20 | | W10-W12 | W10-W12 | W12-W14 | W12-W14 | W12-W16 |
| | | 30 | | W12-W14 | W12-W14 | W12-W16 | W12-W16 | W14-W16 |
| | | 40 | | W12-W14 | W12-W14 | W12-W16 | W14-W16 | W14-W18 |
| | 25 | 20 | | | W12-W16 | W12-W16 | W14-W16 | W14-W18 |
| | | 30 | | | W14-W16 | W16-W18 | W14-W18 | W16-W18 |
| | | 40 | | | W16-W18 | W16-W18 | W16-W18 | W16-W21 |
| | 30 | 20 | | | | W16-W18 | W16-W18 | W16-W21 |
| | | 30 | | | | W16-W18 | W16-W21 | W18-W21 |
| | | 40 | | | | W18-W21 | W18-W24 | W18-W24 |
| 35 | 20 | | | | | W16-W21 | W18-W21 | |
| | 30 | | | | | W18-W24 | W21-W24 | |
| | 40 | | | | | W21-W24 | W21-W24 | |
| 40 | 20 | | | | | | W21-W24 | |
| | 30 | | | | | | W21-W24 | |
| | 40 | | | | | | W24-W27 | |
| 45 | 20 | | | | | | W24-W27 | |
| | 30 | | | | | | W24-W30 | |
| | 40 | | | | | | W24-W30 | |

Table E to E45

Design Criteria

- Dead Load includes system self weight (slab + steel)
- Superimposed dead load = 25 psf (partitions + MEP)
- Loads are uniformly distributed over bay area
- 2 1/2 in. lightweight concrete topping
- 3 in. composite metal decking
- 50 ksi steel yield
- 3 ksi concrete strength
- 1 hour fire rating



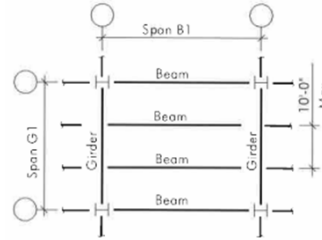
| Table E, Beam Sizes | | | | | | | | |
|---------------------|--------------------|---------|---------|---------|---------|---------|---------|----------------|
| Live Load, psf | Beam Span: B1 (ft) | | | | | | | Classification |
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
| 50 | W10 | W10-W12 | W12-W14 | W14-W16 | W16-W18 | W18-W21 | W18-W21 | Office |
| 100 | W10 | W10-W12 | W12-W14 | W14-W16 | W16-W18 | W18-W21 | W18-W21 | Assembly |
| 150 | W10 | W10-W12 | W12-W16 | W14-W16 | W16-W18 | W18-W21 | W21-W24 | Storage |

| Table E, Girder Sizes | | | | | | | | | |
|-----------------------|----------------------|--------------------|---------|---------|---------|---------|---------|---------|----------------|
| Live Load, psf | Girder Span, G1 (ft) | Beam Span, B1 (ft) | | | | | | | Classification |
| | | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
| 50 | 15 | W12 | W10-W12 | W10-W12 | W12-W14 | W12-W14 | W12-W16 | W12-W16 | Office |
| | | W12 | W10-W12 | W10-W12 | W12-W14 | W12-W14 | W12-W16 | W12-W16 | Assembly |
| | | W10-W12 | W10-W12 | W12-W14 | W12-W16 | W12-W16 | W12-W18 | W14-W18 | Storage |
| 100 | 20 | | W12-W14 | W14-W16 | W14-W16 | W14-W16 | W14-W18 | W16-W18 | Office |
| | | | W12-W14 | W14-W16 | W14-W16 | W14-W18 | W16-W18 | W16-W21 | Assembly |
| | | | W12-W16 | W14-W18 | W16-W18 | W16-W21 | W16-W21 | W18-W24 | Storage |
| 150 | 25 | | | W16-W18 | W16-W18 | W16-W21 | W18-W21 | W18-W24 | Office |
| | | | | W16-W18 | W16-W18 | W16-W21 | W18-W21 | W18-W24 | Assembly |
| | | | | W16-W21 | W16-W21 | W18-W24 | W18-W24 | W21-W24 | Storage |
| 50 | 30 | | | | W18-W24 | W18-W24 | W21-W24 | W21-W24 | Office |
| | | | | | W18-W24 | W18-W24 | W21-W24 | W21-W24 | Assembly |
| | | | | | W21-W24 | W21-W24 | W24-W27 | W24-W30 | Storage |
| 100 | 35 | | | | | W21-W24 | W21-W24 | W24-W27 | Office |
| | | | | | | W21-W27 | W24-W30 | W24-W30 | Assembly |
| | | | | | | W24-W30 | W24-W30 | W27-W33 | Storage |
| 150 | 40 | | | | | | W24-W27 | W24-W30 | Office |
| | | | | | | | W24-W30 | W27-W33 | Assembly |
| | | | | | | | W30-W36 | W30-W40 | Storage |
| 50 | 45 | | | | | | | W27-W30 | Office |
| | | | | | | | | W30-W36 | Assembly |
| | | | | | | | | W30-W40 | Storage |

Table F to F45

Design Criteria

- Dead Load includes system self weight (slab + steel)
- Superimposed dead load = 25 psf (partitions + MEP)
- Loads are uniformly distributed over bay area
- 4 1/2 in. normal weight concrete topping
- 3 in. composite metal decking
- 50 ksi steel yield
- 3 ksi concrete strength
- 2 hour fire rating



| Table F, Beam Sizes | | | | | | | | |
|---------------------|--------------------|-----|---------|---------|---------|---------|---------|----------------|
| Live Load, psf | Beam Span: B1 (ft) | | | | | | | Classification |
| | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
| 50 | W10-W12 | W12 | W14-W16 | W16-W18 | W18-W21 | W18-W24 | W21-W24 | Office |
| 100 | W10-W12 | W12 | W14-W16 | W16-W18 | W18-W21 | W18-W24 | W21-W24 | Assembly |
| 150 | W10-W12 | W12 | W14-W16 | W16-W18 | W18-W21 | W18-W24 | W21-W24 | Storage |

| Table F, Girder Sizes | | | | | | | | | |
|-----------------------|----------------------|--------------------|---------|---------|---------|---------|---------|---------|----------------|
| Live Load, psf | Girder Span, G1 (ft) | Beam Span, B1 (ft) | | | | | | | Classification |
| | | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
| 50 | 15 | W10-W12 | W10-W12 | W12-W14 | W12-W16 | W12-W16 | W12-W16 | W14-W16 | Office |
| | | W10-W12 | W10-W12 | W12-W14 | W12-W16 | W12-W16 | W12-W16 | W14-W16 | Assembly |
| | | W10-W12 | W12 | W12-W14 | W12-W16 | W12-W16 | W12-W16 | W14-W18 | Storage |
| 50 | 20 | | W14-W16 | W14-W16 | W14-W18 | W16-W18 | W16-W21 | W16-W21 | Office |
| | | | W14-W16 | W14-W16 | W14-W18 | W16-W18 | W16-W21 | W16-W21 | Assembly |
| | | | W14-W16 | W14-W16 | W14-W18 | W16-W18 | W16-W21 | W16-W21 | Storage |
| 50 | 25 | | | W16-W21 | W18-W21 | W18-W24 | W18-W24 | W21-W24 | Office |
| | | | | W16-W21 | W18-W21 | W18-W24 | W18-W24 | W21-W24 | Assembly |
| | | | | W16-W21 | W18-W21 | W18-W24 | W18-W24 | W21-W24 | Storage |
| 50 | 30 | | | | W21-W24 | W21-W24 | W24 | W24-W27 | Office |
| | | | | | W21-W24 | W21-W24 | W24 | W24-W27 | Assembly |
| | | | | | W21-W24 | W21-W24 | W24-W27 | W24-W30 | Storage |
| 50 | 35 | | | | | W24-W27 | W24-W30 | W24-W30 | Office |
| | | | | | | W24-W27 | W24-W30 | W24-W30 | Assembly |
| | | | | | | W24-W30 | W24-W30 | W27-W33 | Storage |
| 50 | 40 | | | | | | W24-W30 | W27-W30 | Office |
| | | | | | | | W24-W30 | W27-W33 | Assembly |
| | | | | | | | W27-W36 | W30-W40 | Storage |
| 50 | 45 | | | | | | | W30-W33 | Office |
| | | | | | | | | W30-W36 | Assembly |
| | | | | | | | | W30-W40 | Storage |

