



Deck Designer Specification Kit For
AZEK

Deck layout diagram



Top view without planks

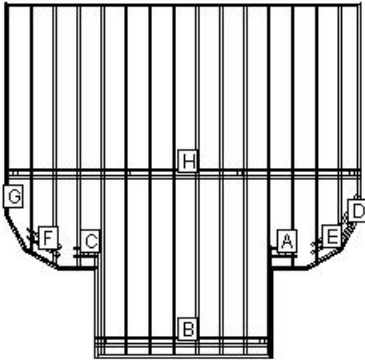


Bottom view with planks



Top view with planks

Permit Page: Level 1



LOAD AND SUPPORT:

Your deck will support a 45 PSF live load.
Posts have 36" below ground support.

DECK AND POST HEIGHT:

You selected a height of 144" from the top of the decking to the ground level. The top of the deck support posts will therefore be 135" above ground level.

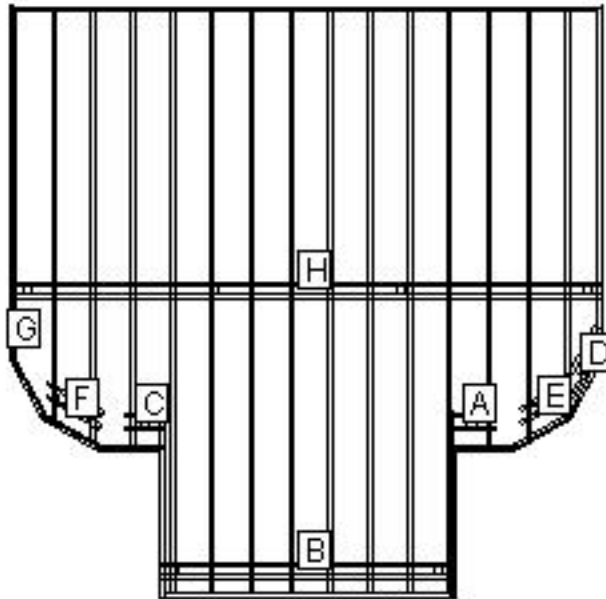
Joists:

Set joists on top of beams, 16"; center to center.

Stress Analysis: Level 1

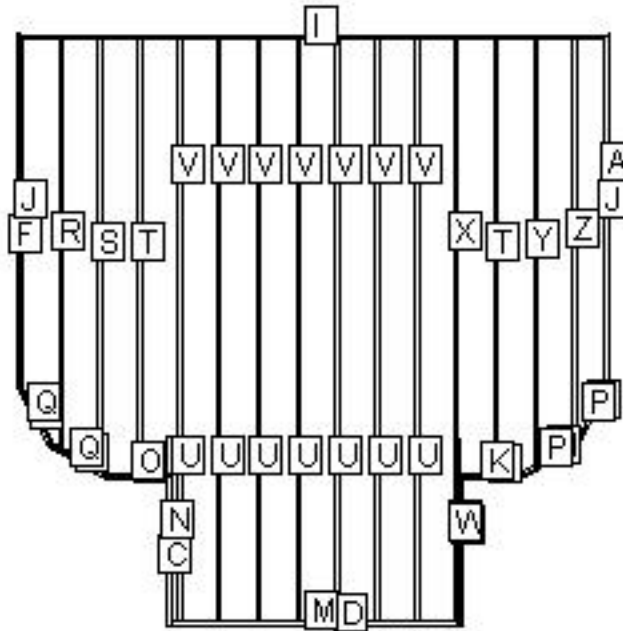
| | |
|-------------------|-----|
| Joist Deflection | 154 |
| Joist Bending | 55 |
| Joist Shear | 96 |
| Joist Compression | 96 |
| Beam Deflection | 193 |
| Beam Bending | 67 |
| Beam Shear | 60 |
| Post Stability | 109 |

Beam Layout Level 1



| BEAM LABEL | BEAM LENGTH | POST COUNT | POST SPACING |
|------------|-------------|------------|--------------|
| A | 1' 6 1/4" | 1 | 0 |
| B | 9' 10 1/4" | 2 | 8' 10 3/4" |
| C | 1' 4 1/2" | 1 | 0 |
| D | 2' 4 1/4" | 2 | 10 1/2" |
| E | 2' 1 1/4" | 2 | 11 3/4" |
| F | 2' 1/2" | 2 | 11" |
| G | 3 1/2" | 1 | 0 |
| H | 19' 10 1/4" | 4 | 6' 3 1/2" |

Materials Cut List: Level 1



| LABEL | NAME | QTY | LENGTH | BEVELS | LABEL | NAME | QTY | LENGTH | BEVELS |
|-------|-----------|-----|------------|--------|-------|----------------|-----|------------|--------|
| A | Cladding | 1 | 12' | 15, 45 | N | Rim Joist | 1 | 6' 3 3/4" | 0, 0 |
| B | Cladding | 1 | 2' 1" | 45, 15 | O | Header | 1 | 2' 2 1/4" | 0, 0 |
| C | Cladding | 2 | 5' 1" | 45, 45 | P | Header | 2 | 2' 2" | 0, 0 |
| D | Cladding | 1 | 10' | 45, 45 | Q | Header | 2 | 2' 2" | 0, 0 |
| E | Cladding | 1 | 2' 1" | 15, 45 | R | Internal Joist | 1 | 13' 9" | 0, 29 |
| F | Cladding | 1 | 12' | 45, 15 | S | Internal Joist | 1 | 14' 6" | 0, 29 |
| G | Cladding | 2 | 2' 2 1/2" | 16, 15 | T | Internal Joist | 2 | 14' 7 1/4" | 0, 0 |
| H | Cladding | 2 | 2' 2 1/2" | 15, 16 | U | Internal Joist | 7 | 10' 2 1/2" | 0, 0 |
| I | Header | 1 | 19' 7 1/4" | 0, 0 | V | Internal Joist | 7 | 9' 4 3/4" | 0, 0 |
| J | Rim Joist | 2 | 11' 11" | 0, 0 | W | Internal Joist | 1 | 5' 9 1/2" | 0, 0 |
| K | Header | 1 | 2' 2 1/4" | 0, 0 | X | Internal Joist | 1 | 13' 9 3/4" | 0, 0 |
| L | Rim Joist | 1 | 6' 2 3/4" | 0, 0 | Y | Internal Joist | 1 | 14' 4 1/4" | 0, 29 |

Cut Angles: L=Left, R=Right, F=Front, S=Side

| LABEL NAME | | QTY | LENGTH | BEVELS | LABEL NAME | | QTY | LENGTH | BEVELS |
|------------|--------|-----|-----------|--------|------------|----------------|-----|--------|--------|
| M | Header | 1 | 9' 7 1/4" | 0, 0 | Z | Internal Joist | 1 | 13' 7" | 0, 0 |

Cut Angles: L=Left, R=Right, F=Front, S=Side

Component Descriptions

These recommendations are for railing with a 4" gap from deck surface to the bottom of the bottom rail. Always refer to your local building codes to determine if other requirements must be met. Canadian requirements may vary.

TimberTech RadianceRail and AZEK Black and White rail sections are available in 10 ft. sections. See your local TimberTech or AZEK Dealer for more information.

Lumber Materials

| COMPONENT | QTY | DESCRIPTION | WOOD TYPE |
|-----------------|-----|---|-----------|
| Rim Joist | 9 | 2X8X12 Cedar | CEDAR |
| Internal Joist | 4 | 2X8X14 Cedar | CEDAR |
| Internal Joist | 4 | 2X8X16 Cedar | CEDAR |
| Internal Joist | 7 | 2X8X10 Cedar | CEDAR |
| Internal Joist | 3 | 2X8X8 Cedar | CEDAR |
| Beam | 2 | 2X10X10 Cedar | CEDAR |
| Beam | 3 | 2X10X8 Cedar | CEDAR |
| Beam | 2 | 2X10X14 Cedar | CEDAR |
| Railing Post | 3 | 4X4X18 Cedar | CEDAR |
| Railing Section | 3 | AZEK 6' Premier Rail Pack - Kona® - 6' | AZEK |
| Railing Section | 5 | AZEK 8' Premier Rail Pack - Kona® - 8' | AZEK |
| Railing Section | 8 | TT/AZEK 31" Square Composite Baluster - Slate Gray - 31" | AZEK |
| Cladding | 6 | AZEK Terra Collection Rim Joist Covers/Fasica - Tahoe® - 12' | AZEK |
| Decking | 11 | AZEK Arbor Collection® Deck Plank, Square Shouldered - Hazelwood® - 12' | AZEK |
| Decking | 1 | AZEK Arbor Collection® Deck Plank, Square Shouldered - Hazelwood® - 16' | AZEK |
| Decking | 31 | AZEK Arbor Collection® Deck Plank, Square Shouldered - Hazelwood® - 20' | AZEK |
| Header | 2 | 2X8X18 Cedar | CEDAR |
| Beam | 1 | 2X10X18 Cedar | CEDAR |
| Post | 15 | 4X4X12 Cedar | CEDAR |

To find an AZEK Dealer or Contractor in your area, please go to www.azek.com

Other Materials

| Qty | Description |
|-----|--|
| 1 | 1 LB. 10D X1 1/2" Nail |
| 4 | 1 LB. 10D Hot-Dip Galvanized Nail |
| 24 | 2x8-10" Triple Zinc Joist Hanger JUS28-TZ |
| 8 | 5" Triple Zinc Angle Clip MP5-TZ |
| 4 | 7" Triple Zinc Angle Clip AC7-TZ |
| 2 | 5" Triple Zinc Angle Clip MP5-TZ |
| 2 | THR128-HDG Threaded Rod |
| 4 | DTB-TZ Deck Tie Bracket |
| 2 | 1LB. 8D Galvanized Common Nail |
| 2 | 1 LB. 1-1/2" Joist Hanger Nail |
| 37 | Triple Zinc Rafter Tie RT7-TZ |
| 15 | Anchor Bolt AB128 |
| 15 | 4X4 Triple Zinc Deck Post Anchor PA44E-TZ |
| 24 | 80 L.B. Basic Concrete Mix |
| 2 | 10 LB. Basic Concrete Mix |
| 12 | 8" X 48" Concrete Form Tube |
| 240 | 1/2 Galvanized Flat Washer |
| 5 | 1/2 Galvanized Hex Nut |
| 120 | 1/2 X 8" Galvanized Carriage Bolt |
| 30 | 4X4 Triple Zinc Deck Post Tie SDPT7-TZ |
| 1 | 1 LB. 8X3" Philips Head Stainless Deck Screws |
| 15 | AZEK 5 1/2" Post Skirt - Kona® |
| 60 | 3/8 Galvanized Hex Nut |
| 120 | 3/8 Galvanized Flat Washer |
| 60 | 3/8 X 8" Galvanized Carriage Bolt |
| 15 | AZEK 5 1/2" Pyramid Cap - Kona® |
| 15 | AZEK 5.5" x 5.5" Post Sleeve - Kona® - 39" |
| 8 | TT/AZEK LED In Deck Light (8 Packs of 4 per Unit) - Architectural Bronze |
| 1 | TT/AZEK Decklites Dimmer |
| 1 | TT/AZEK 100' wire 16/2 |
| 1 | TT/AZEK Transformer - 12 Volt 150 W |
| 8 | 2 Pieces of Joist Material Nailed to Each Joist Splice |
| 3 | AZEK Cortex - 100 LF Arbor Collection® - Hazelwood |
| 40 | 1/2 X 6" Galvanized Lag Screw |

LEGAL DISCLAIMER: The suggested design is a construction guide and is **NOT** a finished building plan. It is your responsibility to verify its accuracy, completeness, suitability for your particular site conditions, and compliance with local building codes and practices. Please consult your local building codes for requirements for deck lighting, railing, and stairs.

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You are responsible for ensuring that all measurements are correct. Due to the size, shape, location or other considerations, your design may require supporting structures, such as knee braces and bridging between joists and posts and are not included on the materials list and other information provided. YOU ARE RESPONSIBLE FOR ENSURING THAT YOUR DESIGN IS SAFE AND STRUCTURALLY SOUND FOR ITS SIZE, LOCATION AND ANTICIPATED USE. You are also responsible for verifying that the design and any substitutions or modifications you make meet all local building codes and regulations.

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