





Deck Designer Specification Kit For

# **TimberTech**





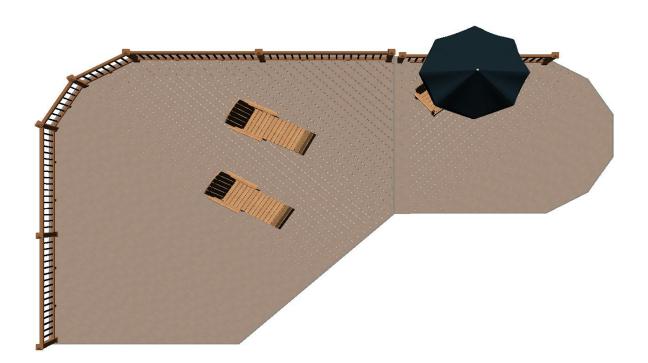
# **Deck layout diagram**





Top view without planks

Bottom view with planks

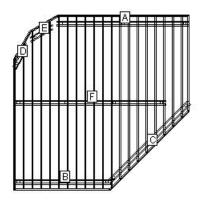


Top view with planks





Permit Page: Level 1



### **LOAD AND SUPPORT:**

Your deck will support a 40 PSF live load. Posts have 36" below ground support.

### **DECK AND POST HEIGHT:**

You selected a height of 36" from the top of the decking to the ground level. The top of the deck support posts will therefore be 27" above ground level.

### Joists:

Set joists on top of beams, 12"; center to center.

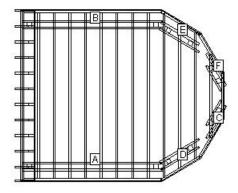
Stress Anavsis: Level 1

| Stress Anaysis: Level 1 |     |  |  |  |
|-------------------------|-----|--|--|--|
| Joist Deflection        | 120 |  |  |  |
| Joist Bending           | 50  |  |  |  |
| Joist Shear             | 109 |  |  |  |
| Joist Compression       | 109 |  |  |  |
| Beam Deflection         | 120 |  |  |  |
| Beam Bending            | 53  |  |  |  |
| Beam Shear              | 57  |  |  |  |
| Post Stability          | 131 |  |  |  |





Permit Page: Level 2



### **LOAD AND SUPPORT:**

Your deck will support a 65 PSF live load. Posts have 36" below ground support.

### **DECK AND POST HEIGHT:**

You selected a height of 22" from the top of the decking to the ground level. The top of the deck support posts will therefore be 13" above ground level.

### Joists:

Set joists on top of beams, 12"; center to center.

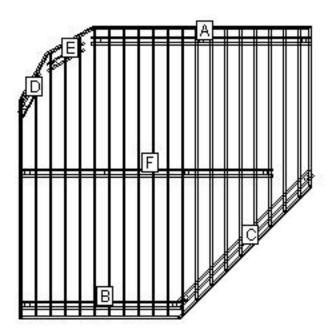
Stress Anavsis: Level 2

| Cti coc / tilaj   | JOID. ECVCI E |
|-------------------|---------------|
| Joist Deflection  | 243           |
| Joist Bending     | 82            |
| Joist Shear       | 134           |
| Joist Compression | 134           |
| Beam Deflection   | 289           |
| Beam Bending      | 83            |
| Beam Shear        | 75            |
| Post Stability    | 263           |





# **Beam Layout Level 1**

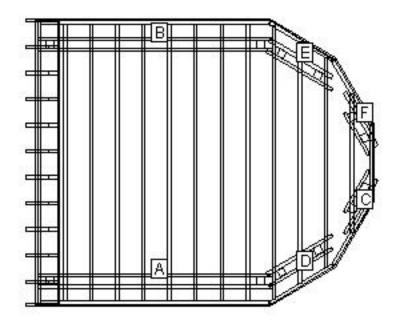


| BEAM LABEL | BEAM LENGTH | POST COUNT | POST SPACING |
|------------|-------------|------------|--------------|
| Α          | 15' 1/2"    | 3          | 7' 1/2"      |
| В          | 11' 1/4"    | 2          | 10' 1"       |
| С          | 12' 10"     | 3          | 5' 9 1/2"    |
| D          | 3'          | 2          | 1' 6 1/2"    |
| E          | 2' 10 3/4"  | 2          | 1' 9 1/4"    |
| F          | 17' 3"      | 4          | 5' 5 1/4"    |





# **Beam Layout Level 2**

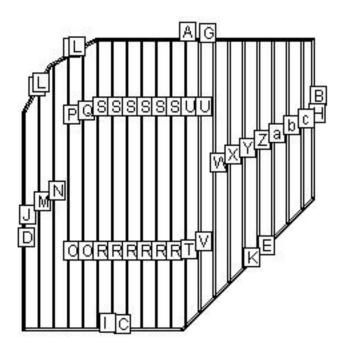


| BEAM LABEL | BEAM LENGTH | POST COUNT | POST SPACING |
|------------|-------------|------------|--------------|
| A          | 9' 1/2"     | 2          | 8' 1"        |
| В          | 9' 1/2"     | 2          | 8' 1"        |
| С          | 2' 4 3/4"   | 2          | 11 1/4"      |
| D          | 2' 9 1/4"   | 2          | 1' 7 3/4"    |
| E          | 2' 9 1/4"   | 2          | 1' 7 3/4"    |
| F          | 2' 4 3/4"   | 2          | 11 1/4"      |





**Materials Cut List: Level 1** 



| LABEL | NAME      | QTY | LENGTH     | BEVELS | LABEL | NAME           | QTY | LENGTH     | BEVELS |
|-------|-----------|-----|------------|--------|-------|----------------|-----|------------|--------|
| Α     | Cladding  | 1   | 15'        | 45, 15 | Р     | Internal Joist | 1   | 8' 8 3/4"  | 30, 0  |
| В     | Cladding  | 1   | 11'        | 23, 45 | Q     | Internal Joist | 1   | 9' 3 3/4"  | 30, 0  |
| С     | Cladding  | 1   | 11'        | 45, 23 | R     | Internal Joist | 6   | 9' 9 1/2"  | 0, 0   |
| D     | Cladding  | 1   | 15'        | 15, 45 | S     | Internal Joist | 6   | 9' 9 3/4"  | 0, 0   |
| Е     | Cladding  | 1   | 12' 8 3/4" | 23, 23 | Т     | Internal Joist | 1   | 9' 8"      | 0, 45  |
| F     | Cladding  | 2   | 3' 8"      | 15, 15 | U     | Internal Joist | 2   | 9' 9 1/2"  | 0, 45  |
| G     | Header    | 1   | 14' 9 1/2" | 0, 0   | V     | Internal Joist | 1   | 8' 8"      | 0, 45  |
| Н     | Rim Joist | 1   | 10' 11"    | 0, 0   | W     | Internal Joist | 1   | 17' 5 1/2" | 0, 45  |
| I     | Header    | 1   | 10' 9 1/4" | 0, 0   | Χ     | Internal Joist | 1   | 16' 5 1/2" | 0, 45  |
| J     | Rim Joist | 1   | 14' 11"    | 0, 0   | Υ     | Internal Joist | 1   | 15' 5 1/2" | 0, 45  |
| K     | Header    | 1   | 12' 8"     | 0, 0   | Z     | Internal Joist | 1   | 14' 5 1/2" | 0, 45  |
| L     | Header    | 2   | 3' 7 1/2"  | 0, 0   | а     | Internal Joist | 1   | 13' 5 1/2" | 0, 45  |

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

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### DECK DESIGNER

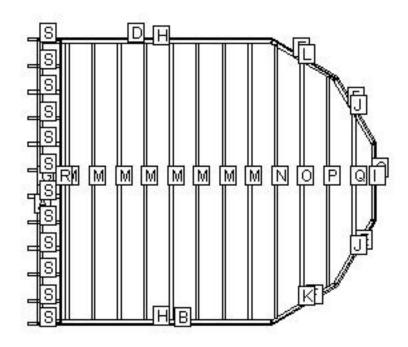
| LABEL | . NAME         | QTY | LENGTH      | BEVELS | LABEL | NAME           | QTY | LENGTH     | BEVELS |
|-------|----------------|-----|-------------|--------|-------|----------------|-----|------------|--------|
| М     | Internal Joist | 1   | 16' 5 3/4"  | 60, 0  | b     | Internal Joist | 1   | 12' 5 1/2" | 0, 45  |
| N     | Internal Joist | 1   | 17' 11 1/2" | 30, 0  | С     | Internal Joist | 1   | 11' 5 1/2" | 0, 45  |
| 0     | Internal Joist | 2   | 9' 9 1/2"   | 30, 0  |       |                |     |            |        |

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





## **Materials Cut List: Level 2**



| LABEL | NAME      | QTY | LENGTH      | BEVELS | LABEL | NAME           | QTY | LENGTH     | BEVELS |
|-------|-----------|-----|-------------|--------|-------|----------------|-----|------------|--------|
| Α     | Cladding  | 1   | 11'         | 45, 45 | K     | Header         | 1   | 2' 10 1/2" | 0, 0   |
| В     | Cladding  | 1   | 9'          | 45, 15 | L     | Header         | 1   | 2' 10 1/2" | 0, 0   |
| С     | Cladding  | 1   | 3'          | 15, 15 | М     | Internal Joist | 8   | 10' 7 1/4" | 0, 0   |
| D     | Cladding  | 1   | 9'          | 15, 45 | N     | Internal Joist | 1   | 10' 5 1/2" | 31, 31 |
| Е     | Cladding  | 2   | 2' 11"      | 14, 15 | 0     | Internal Joist | 1   | 9' 3"      | 31, 31 |
| F     | Cladding  | 2   | 2' 11"      | 15, 14 | Р     | Internal Joist | 1   | 8' 1/2"    | 31, 31 |
| G     | Rim Joist | 1   | 10' 10 1/4" | 0, 0   | Q     | Internal Joist | 1   | 5' 4"      | 59, 59 |
| Н     | Header    | 2   | 8' 9 1/2"   | 0, 0   | R     | Riser          | 1   | 11'        | 0, 0   |
| I     | Rim Joist | 1   | 2' 11 1/2"  | 0, 0   | S     | Stringer       | 12  | 1' 1 1/4"  | 0, 0   |
| J     | Header    | 2   | 2' 10 1/2"  | 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  | <b>WOOD TYPE</b> |
|-----------------|-----|--|------------------|
| Rim Joist       | 6   | 2X8X16 Treated   | TREATED          |
| Internal Joist  | 7   | 2X8X18 Treated   | TREATED          |
| Internal Joist  | 21  | 2X8X10 Treated   | TREATED          |
| Internal Joist  | 4   | 2X8X14 Treated   | TREATED          |
| Beam            | 3   | 2X10X16 Treated  | TREATED          |
| Beam            | 3   | 2X10X12 Treated  | TREATED          |
| Beam            | 2   | 2X10X14 Treated  | TREATED          |
| Beam            | 2   | 2X10X18 Treated  | TREATED          |
| Railing Post    | 1   | 4X4X8 Treated  | TREATED          |
| Railing Post    | 1   | 4X4X18 Treated   | TREATED          |
| Railing Section | 6   | TimberTech 8' RadianceRail Custom Rail Pack -<br>Mountain Cedar - 8'                           | TIMBERTECH       |
| Railing Section | 6   | TT/AZEK 31" Round Aluminum Baluster - Black - 31"  | TIMBERTECH       |
| Cladding        | 11  | TimberTechEarthwood Evolutions® Terrain Collection Fascia Board, 12" wide - Stone Ash - 12'    | TIMBERTECH       |
| Decking         | 35  | TimberTech Earthwood Evolutions® Terrain Collection Deck Plank, Grooved - Sandy Birch - 16'    | TIMBERTECH       |
| Decking         | 26  | TimberTech Earthwood Evolutions® Terrain Collection Deck Plank, Grooved - Sandy Birch - 20'    | TIMBERTECH       |
| Internal Joist  | 11  | 2X8X12 Treated   | TREATED          |
| Post            | 8   | 4X4X8 Treated  | TREATED          |
| Beam            | 4   | 2X10X10 Treated  | TREATED          |
| Railing Post    | 1   | 4X4X12 Treated   | TREATED          |
| Decking         | 5   | TimberTech Earthwood Evolutions® Terrain Collection Deck Plank, Grooved - Sandy Birch - 12'    | TIMBERTECH       |
| Beam            | 1   | 2X10X8 Treated   | TREATED          |
| Riser           | 1   | TimberTech Earthwood Evolutions® Terrain Collection Riser Board, 7 1/4" wide - Stone Ash - 12' | TIMBERTECH       |

To find an AZEK and/or TimberTech Dealer or Contractor in your area, please go to www.timbertech.com





## **Other Materials**

| Qty | Description   |
|-----|---|
| 3   | 1 LB. 10D X1 1/2" Nail  |
| 7   | 1 LB. 10D Hot-Dip Galvanized Nail   |
| 43  | 2x8-10" Triple Zinc Joist Hanger JUS28-TZ   |
| 22  | 5" Triple Zinc Angle Clip MP5-TZ  |
| 1   | 1LB. 16D Galvanized Common Nail   |
| 8   | 2x6-8" Triple Zinc Left Skewed Joist Hanger SKH26L-TZ   |
| 4   | 7" Triple Zinc Angle Clip AC7-TZ  |
| 4   | 5" Triple Zinc Angle Clip MP5-TZ  |
| 4   | 1LB. 8D Galvanized Common Nail  |
| 4   | 1 LB. 1-1/2" Joist Hanger Nail  |
| 86  | Triple Zinc Rafter Tie RT7-TZ   |
| 28  | Anchor Bolt AB128   |
| 28  | 4X4 Triple Zinc Deck Post Anchor PA44E-TZ   |
| 44  | 80 L.B. Basic Concrete Mix  |
| 1   | 60 L.B. Basic Concrete Mix  |
| 1   | 10 LB. Basic Concrete Mix   |
| 21  | 8" X 48" Concrete Form Tube   |
| 448 | 1/2 Galvanized Flat Washer  |
| 9   | 1/2 Galvanized Hex Nut  |
| 224 | 1/2 X 8" Galvanized Carriage Bolt   |
| 20  | 4X4 Triple Zinc Deck Post Tie SDPT7-TZ  |
| 1   | 1 LB. 8X3" Philips Head Stainless Deck Screws   |
| 10  | TimberTech 5" Post Skirt - Mountain Cedar   |
| 40  | 3/8 Galvanized Hex Nut  |
| 80  | 3/8 Galvanized Flat Washer  |
| 40  | 3/8 X 8" Galvanized Carriage Bolt   |
| 10  | TimberTech 5" x 5" Post Sleeve - Mountain Cedar - 42"   |
| 10  | TimberTech 5" LED Post Cap Light  |
| 10  | TimberTech 5" Post Cap - Mountain Cedar   |
| 1   | TT/AZEK Wire Guide - 60 Packs of 12 ea.   |
| 1   | TT/AZEK 100' wire 16/2  |
| 1   | TT/AZEK Decklites Dimmer  |
| 1   | TT/AZEK Transformer - 12 Volt 150 W   |
| 10  | 2 Pieces of Joist Material Nailed to Each Joist Splice  |
| 2   | TimberTech TOPLoc Fascia Pack Stone Ash - Stone Ash   |
| 5   | TimberTech CONCEALoc Hidden Fastener - Unit = 8 retail cartons @ 100 sq.ft. coverage each (175 CONCEALoc fasteners, 184 Screws and drive bit) - Brown |
| 1   | 40 LB. Basic Concrete Mix   |
| 12  | 7" Triple Zinc Angle Clip AC7-TZ  |





Qty Description

1 TimberTech TOPLoc 100 Sq. Ft. Pack Cedar - Cedar

**DECK DESIGNER** 







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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