



Deck Designer Specification Kit For  
**AZEK**

### Deck layout diagram



Top view without planks

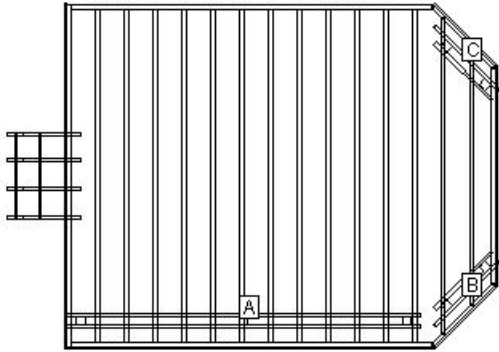


Bottom view with planks



Top view with planks

Permit Page: Level 1



**LOAD AND SUPPORT:**

Your deck will support a 41 PSF live load.  
Posts have 36" below ground support.

**DECK AND POST HEIGHT:**

You selected a height of 24" from the top of the decking to the ground level. The top of the deck support posts will therefore be 15" above ground level.

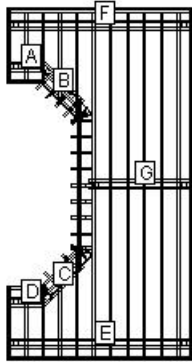
**Joists:**

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

**Stress Analysis: Level 1**

Joist Deflection	120
Joist Bending	51
Joist Shear	110
Joist Compression	110
Beam Deflection	1043
Beam Bending	148
Beam Shear	104
Post Stability	182

**Permit Page: Level 2**



**LOAD AND SUPPORT:**

Your deck will support a 43 PSF live load.  
Posts have 36" below ground support.

**DECK AND POST HEIGHT:**

You selected a height of 10" from the top of the decking to the ground level. The top of the deck support posts will therefore be 1" above ground level.

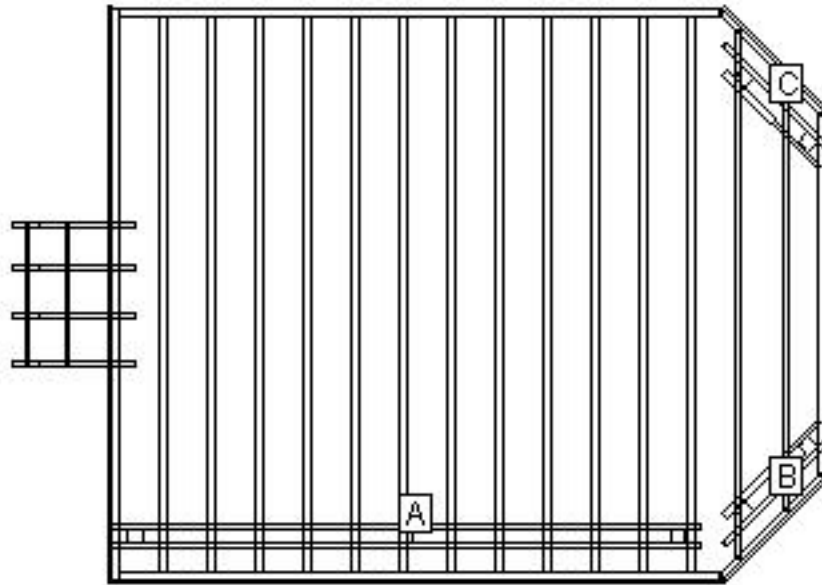
**Joists:**

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

**Stress Analysis: Level 2**

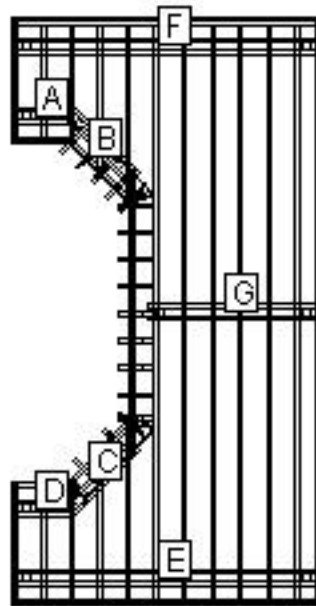
Joist Deflection	195
Joist Bending	71
Joist Shear	126
Joist Compression	126
Beam Deflection	123
Beam Bending	53
Beam Shear	56
Post Stability	211

### Beam Layout Level 1



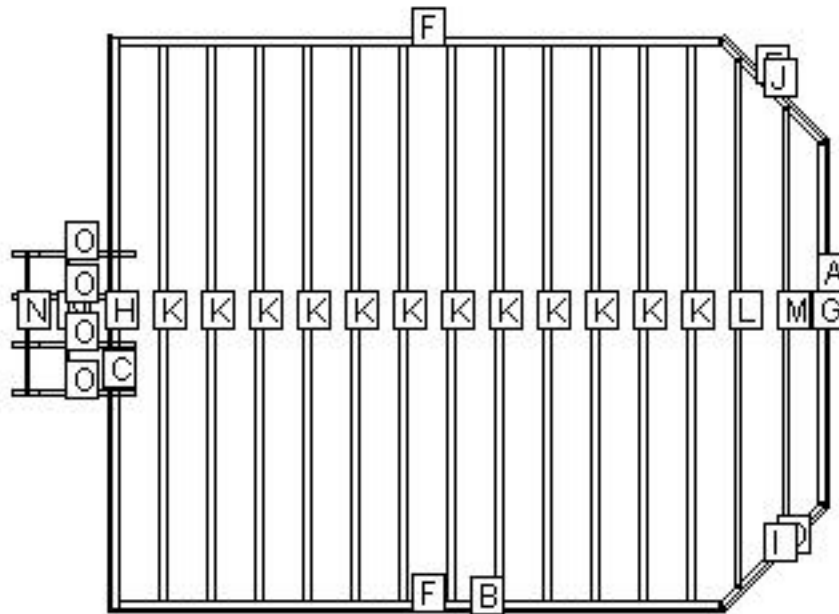
BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	12' 3"	3	5' 7 3/4"
B	3' 2"	2	1' 11"
C	3' 2"	2	1' 11"

### Beam Layout Level 2



BEAM LABEL	BEAM LENGTH	POST COUNT	POST SPACING
A	2' 1"	2	1' 1 1/2"
B	3' 3"	2	2'
C	3' 3"	2	2'
D	2' 1"	2	1' 1 1/2"
E	10' 10 1/4"	2	9' 10 3/4"
F	10' 10 1/4"	2	9' 10 3/4"
G	6' 1 1/4"	2	5' 1 3/4"

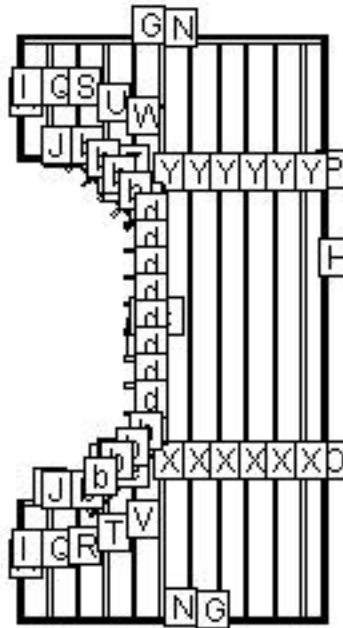
Materials Cut List: Level 1



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
A	Cladding	1	7' 8"	23, 23	I	Header	1	3'	0, 0
B	Cladding	1	12' 10"	45, 23	J	Header	1	3'	0, 0
C	Cladding	1	12'	45, 45	K	Internal Joist	12	11' 7 1/4"	0, 0
D	Cladding	1	3' 1"	23, 23	L	Internal Joist	1	10' 11 1/2"	45, 45
E	Cladding	1	3' 1"	23, 23	M	Internal Joist	1	8' 11 1/2"	45, 45
F	Header	2	12' 7 1/4"	0, 0	N	Riser	2	3'	0, 0
G	Rim Joist	1	7' 7 1/4"	0, 0	O	Pre Cut Stringer	4	2' 6"	0, 0
H	Rim Joist	1	11' 10 1/4"	0, 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
A	Cladding	2	4' 5"	45, 45	Q	Internal Joist	2	4' 1/4"	0, 0
B	Cladding	1	2' 1/4"	45, 23	R	Internal Joist	1	4' 1 3/4"	0, 0
C	Cladding	1	3' 1 1/2"	23, 23	S	Internal Joist	1	4' 1 3/4"	0, 0
D	Cladding	1	7' 8 3/4"	23, 23	T	Internal Joist	1	5' 1 3/4"	45, 0
E	Cladding	1	3' 1 1/2"	23, 23	U	Internal Joist	1	5' 1 3/4"	0, 45
F	Cladding	1	2' 1/4"	23, 45	V	Internal Joist	1	6' 1 3/4"	45, 0
G	Cladding	2	11'	45, 45	W	Internal Joist	1	6' 1 3/4"	0, 45
H	Cladding	1	20' 10"	45, 45	X	Internal Joist	6	10' 3 1/2"	0, 0
I	Rim Joist	2	4' 3 1/4"	0, 0	Y	Internal Joist	6	10' 1 3/4"	0, 0
J	Header	2	1' 10"	0, 0	Z	Riser	1	3' 5 1/4"	23, 0
K	Header	1	3' 1 1/2"	0, 0	a	Stringer	2	1' 2"	0, 0
L	Rim Joist	1	10' 2 1/4"	0, 0	b	Stringer	10	1' 1 1/4"	0, 0

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



LABEL	NAME	QTY	LENGTH	BEVELS	LABEL	NAME	QTY	LENGTH	BEVELS
M	Header	1	3' 1 1/2"	0, 0	c	Riser	1	8' 5"	23, 23
N	Header	2	10' 7 1/4"	0, 0	d	Stringer	9	1' 1 1/4"	0, 0
O	Rim Joist	1	10' 5 1/4"	0, 0	e	Riser	1	3' 5 1/4"	0, 23
P	Rim Joist	1	10' 3"	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
Beam	3	2X10X14 Treated	TREATED
Pre Cut Stringer	4	3-Step Treated Stair Stringer	TREATED
Railing Post	1	4X4X12 Treated	TREATED
Railing Post	1	4X4X18 Treated	TREATED
Railing Section	2	AZEK 6' Premier Custom Rail Pack - Slate Gray - 6'	AZEK
Railing Section	2	AZEK 8' Premier Custom Rail Pack - Slate Gray - 8'	AZEK
Baluster	4	TT/AZEK CableRail 36" Intermediate Baluster [1 9-hole baluster, 1 intermediate base plate, 1 #10x2" pan head screw, 3 #10x1" flat head screws] - Silver	AZEK
Cladding	11	AZEK Terra Collection Rim Joist Covers/Fasica - Tahoe® - 12'	AZEK
Decking	9	AZEK Harvest Collection® Deck Plank, Square Shouldered - Kona® - 12'	AZEK
Decking	44	AZEK Harvest Collection® Deck Plank, Square Shouldered - Kona® - 16'	AZEK
Decking	4	AZEK Harvest Collection® Deck Plank, Square Shouldered - Kona® - 20'	AZEK
Header	4	2X8X16 Treated	TREATED
Rim Joist	6	2X8X8 Treated	TREATED
Rim Joist	28	2X8X12 Treated	TREATED
Internal Joist	1	2X8X10 Treated	TREATED
Post	3	4X4X8 Treated	TREATED
Riser	3	AZEK Terra Collection Rim Joist Covers/Fasica - Tahoe® - 12'	AZEK
Railing Section	1	TT/AZEK CableRail 36" Stair Intermediate Baluster [1 angled 9-hole baluster, 1 intermediate base plate, 1 #10x2" pan head screw, 3 #10x1 flat head screws] - Silver	TIMBERTECH
Beam	4	2X10X12 Treated	TREATED
Beam	3	2X10X8 Treated	TREATED
Header	3	2X8X18 Treated	TREATED
Internal Joist	1	2X8X14 Treated	TREATED
Beam	1	2X10X18 Treated	TREATED



To find an AZEK and/or TimberTech Dealer or Contractor in your area, please go to [www.azek.com](http://www.azek.com)

### Other Materials

Qty	Description
3	TT/AZEK CableRail 100' Stainless Steel Cable - Stainless - 100'
4	1 LB. 10D X1 1/2" Nail
7	1 LB. 10D Hot-Dip Galvanized Nail
47	2x8-10" Triple Zinc Joist Hanger JUS28-TZ
1	1LB. 16D Galvanized Common Nail
5	2x6-8" Triple Zinc Left Skewed Joist Hanger SKH26L-TZ
4	2x6-8" Triple Zinc Right Skewed Joist Hanger SKH26R-TZ
4	5" Triple Zinc Angle Clip MP5-TZ
8	7" Triple Zinc Angle Clip AC7-TZ
2	THR128-HDG Threaded Rod
4	DTB-TZ Deck Tie Bracket
4	1LB. 8D Galvanized Common Nail
3	1 LB. 1-1/2" Joist Hanger Nail
61	Triple Zinc Rafter Tie RT7-TZ
21	Anchor Bolt AB128
21	4X4 Triple Zinc Deck Post Anchor PA44E-TZ
33	80 L.B. Basic Concrete Mix
4	10 LB. Basic Concrete Mix
16	8" X 48" Concrete Form Tube
336	1/2 Galvanized Flat Washer
7	1/2 Galvanized Hex Nut
168	1/2 X 8" Galvanized Carriage Bolt
25	7" Triple Zinc Angle Clip AC7-TZ
16	4X4 Triple Zinc Deck Post Tie SDPT7-TZ
1	1 LB. 8X3" Philips Head Stainless Deck Screws
8	AZEK 5 1/2" Post Skirt - Slate Gray
32	3/8 Galvanized Hex Nut
64	3/8 Galvanized Flat Washer
32	3/8 X 8" Galvanized Carriage Bolt
8	AZEK 5 1/2" Pyramid Cap - Slate Gray
8	AZEK 5.5" x 5.5" Post Sleeve - Slate Gray - 39"
1	TT/AZEK CableRail Cable Cutters
1	TT/AZEK CableRail Accessory Kit [Quick-Connect release tool, lacing needle, hanger bolt installation tool] -
7	TT/AZEK CableRail 36" Hardware Kit [9 Quick-Connect fittings, 9 Quick Connect Swivel fittings, 18 hanger bolts, 9 lock nuts] - Stainless
1	TT/AZEK Decklites Dimmer
1	TT/AZEK Wire Guide - 60 Packs of 12 ea.
2	TT/AZEK 100' wire 16/2

<b>Qty</b>	<b>Description</b>
7	TT/AZEK LED Accent Light - Architectural Bronze
1	TT/AZEK Transformer - 12 Volt 150 W
4	TT/AZEK LED In Deck Light (8 Packs of 4 per Unit) - Architectural Bronze
1	TT/AZEK CableRail Protector Sleeves [Pack of 20] - Stainless
4	AZEK Cortex - 100 LF Harvest Collection® - Kona
26	1/2 X 6" Galvanized Lag Screw
1	40 LB. Basic Concrete Mix
7	2 Pieces of Joist Material Nailed to Each Joist Splice

**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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