

## Deck layout diagram



Top view with planks

## Permit Page: Level 1



## 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 96 " from the top of the decking to the ground level. The top of the deck support posts will therefore be 87" above ground level.

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

Stress Anaysis: Level 1

| Joist Deflection | 140 |
| :--- | :--- |
| Joist Bending | 56 |
| Joist Shear | 114 |
| Joist Compression | 114 |
| Beam Deflection | 133 |
| Beam Bending | 53 |
| Beam Shear | 55 |
| Post Stability | 204 |

## Permit Page: Level 2



## LOAD AND SUPPORT:

Your deck will support a 98 PSF live load.
Posts have 36 " below ground support.

## DECK AND POST HEIGHT:

You selected a height of 89 " from the top of the decking to the ground level. The top of the deck support posts will therefore be 80 " above ground level.

## Joists:

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

Stress Anaysis: Level 2

| Joist Deflection | 4327 |
| :--- | :--- |
| Joist Bending | 455 |
| Joist Shear | 332 |
| Joist Compression | 332 |
| Beam Deflection | 1298 |
| Beam Bending | 162 |
| Beam Shear | 108 |
| Post Stability | 185 |

## Beam Layout Level 1



BEAM LABEL
A
B
C
D
E
F
G
H
I

BEAM LENGTH
11' 1/2"
8' 2 1/2"
1' 8"
2' 4 1/4"
2' 4 1/4"
1' 8"
2' 4 1/4"
1' 7"
10' 6"

POST COUNT
3
2
1
2
2
1
2
1
2

POST SPACING
5' 1/2"
7' 3 "
0
10 1/2"
10 1/2"
0
10 1/2"
0
9' 6 1/2"

Page 5

## Beam Layout Level 2


BEAM LABEL
A
B
C
D
E
F

BEAM LENGTH
6' 1 1/2"
12' 3 1/4"
11' 6 1/4"
6' 10 1/4"
6' 10 1/4"
4' 1/4"

POST COUNT
2
3
3

2
2
2

POST SPACING
5' ${ }^{\prime \prime}$
5' 8"
5' 3 1/4"
5' 10 3/4"
5' 10 3/4"
3' 3/4"

## Materials Cut List: Level 1



| LABEL | NAME | QTY | LENGTH | BEVELS | LABEL | NAME | QTY | LENGTH | BEVELS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | Cladding | 1 | 11' | 45, 15 | J | Header | 3 | 2'2" | 0, 0 |
| B | Cladding | 1 | 11' | 15, 45 | K | Header | 3 | 2' 2" | 0, 0 |
| C | Cladding | 2 | 8' | 15, 15 | L | Internal Joist | 1 | 11' $51 / 4{ }^{\prime \prime}$ | 61, 61 |
| D | Cladding | 3 | 2' 2 1/2" | 16, 15 | M | Internal Joist | 1 | 12 ' 7 /4" | 29, 29 |
| E | Cladding | 3 | 2' 2 1/2" | 15, 16 | N | Internal Joist | 8 | $13^{\prime} 71 / 4{ }^{\prime \prime}$ | 0, 0 |
| F | Header | 1 | 10' 9 1/2" | 0, 0 | O | Internal Joist | 1 | 13' $61 / 2^{\prime \prime}$ | 0,29 |
| G | Rim Joist | 1 | 10' 11" | 0, 0 | P | Internal Joist | 1 | 12' 11 1/2" | 0,29 |
| H | Header | 1 | 7' 11 1/2" | 0, 0 | Q | Internal Joist | 1 | 12' 1/2" | 0,61 |
| I | Rim Joist | 1 | 7' 11 1/2" | 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 | 3 | $7{ }^{\prime}$ | 45, 45 | L | Internal Joist | 6 | $6^{\prime} 71 / 4 "$ | 0, 0 |
| B | Cladding | 1 | 6'1" | 45, 45 | M | Internal Joist | 12 | 14' 1/4" | 0, 0 |
| C | Cladding | 1 | 7' 6" | 45, 45 | N | Cladding | 2 | 6' $41 / 4$ " | 45, 45 |
| D | Cladding | 1 | 12'5" | 45, 45 | O | Header | 2 | 6' $71 / 4$ " | 0, 0 |
| E | Cladding | 1 | 14'5" | 45, 45 | P | Rim Joist | 2 | $6^{\prime} 21 / 2^{\prime \prime}$ | 0, 0 |
| F | Rim Joist | 1 | 6' 10 1/4" | 0, 0 | Q | Internal Joist | 6 | 5' 11 1/2" | 0, 0 |
| G | Header | 1 | $6 '$ | 0, 0 | R | Riser | 8 | 4'1/4" | 0, 0 |
| H | Rim Joist | 1 | 8' 8 3/4" | 0, 0 | S | Stringer | 5 | 8' 4 3/4" | 0, 0 |
| I | Header | 1 | $12^{\prime} 1 / 4 "$ | 0, 0 | T | Riser | 2 | $7{ }^{7}$ | 0, 0 |
| J | Rim Joist | 1 | 14' 3 1/4" | 0, 0 | U | Stringer | 8 | 2' 3 1/2" | 0, 0 |
| K | Header | 1 | 18' 1/4" | 0, 0 |  |  |  |  |  |

Cut Angles: L=Left, R=Right, F=Front, $\mathrm{S}=$ 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 |
| :---: | :---: | :---: | :---: |
| Internal Joist | 3 | 2X8X12 Treated | TREATED |
| Internal Joist | 17 | 2X8X14 Treated | TREATED |
| Beam | 6 | 2X10X12 Treated | TREATED |
| Beam | 3 | 2X10X10 Treated | TREATED |
| Railing Post | 1 | 4X4X8 Treated | TREATED |
| Railing Post | 5 | 4X4X18 Treated | TREATED |
| Railing Section | 8 | TimberTech 6' RadianceRail Custom Rail Pack - Slate Gray - $6^{\prime}$ | TIMBERTECH |
| Railing Section | 7 | TimberTech 8' RadianceRail Custom Rail Pack - Slate Gray - $\mathbf{8}^{\prime}$ | TIMBERTECH |
| Railing Section | 11 | TT/AZEK 31" Round Aluminum Baluster - Black - 31" | TIMBERTECH |
| Cladding | 14 | TimberTechEarthwood Evolutions® Terrain Collection Fascia Board, 12" wide - Sandy Birch - 12' | TIMBERTECH |
| Decking | 57 | TimberTech Earthwood Evolutions® Legacy Deck Plank, Grooved - Pecan - 16' | TIMBERTECH |
| Decking | 11 | TimberTech Earthwood Evolutions® Legacy Deck Plank, Grooved - Pecan - 20' | TIMBERTECH |
| Header | 4 | 2X8X8 Treated | TREATED |
| Header | 7 | 2X8X18 Treated | TREATED |
| Post | 28 | 4X4X8 Treated | TREATED |
| Beam | 7 | 2X10X8 Treated | TREATED |
| Beam | 1 | 2X10X18 Treated | TREATED |
| Internal Joist | 14 | 2X8X16 Treated | TREATED |
| Beam | 2 | 2X10X14 Treated | TREATED |
| Railing Post | 1 | 4X4X14 Treated | TREATED |
| Decking | 3 | TimberTech Earthwood Evolutions® Legacy Deck Plank, Grooved - Pecan - 12' | TIMBERTECH |
| Riser | 5 | TimberTech Earthwood Evolutions® Terrain Collection Riser Board, 7 1/4" wide - Sandy Birch - 12' | TIMBERTECH |
| Stringer | 1 | 2X8X10 Treated | TREATED |
| Railing Section | 4 | TT/AZEK 31" Round Aluminum Stair Baluster - Black $31 "$ | TIMBERTECH |

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

## Other Materials

## Qty

12

## Description

5" Triple Zinc Angle Clip MP5-TZ
1 LB. 10D Hot-Dip Galvanized Nail
1 LB. 10D X1 1/2" Nail
2×8-10" Triple Zinc Joist Hanger JUS28-TZ
7" Triple Zinc Angle Clip AC7-TZ
5" Triple Zinc Angle Clip MP5-TZ
1LB. 8D Galvanized Common Nail
1 LB. 1-1/2" Joist Hanger Nail
Triple Zinc Rafter Tie RT7-TZ
Anchor Bolt AB128
4X4 Triple Zinc Deck Post Anchor PA44E-TZ
80 L.B. Basic Concrete Mix
60 L.B. Basic Concrete Mix
10 LB. Basic Concrete Mix
8" X 48" Concrete Form Tube
1/2 Galvanized Flat Washer
1/2 Galvanized Hex Nut
1/2 X 8" Galvanized Carriage Bolt
4X4 Triple Zinc Deck Post Tie SDPT7-TZ
1 LB. 8X3" Philips Head Stainless Deck Screws
TimberTech 5" Post Skirt - Slate Gray
3/8 Galvanized Hex Nut
3/8 Galvanized Flat Washer
3/8 X 8" Galvanized Carriage Bolt
TimberTech 5" x 5" Post Sleeve - Slate Gray - 42"
TimberTech 5" LED Post Cap Light
TimberTech 5" Post Cap - Slate Gray
TT/AZEK Wire Guide - 60 Packs of 12 ea.
TT/AZEK 100' wire 16/2
TT/AZEK Decklites Dimmer
TT/AZEK Transformer - 12 Volt 150 W
TimberTech TOPLoc Fascia Bit
TimberTech TOPLoc Fascia Pack Cedar - Cedar
TimberTech CONCEALoc Hidden Fastener - Unit = 8 retail cartons @ 100 sq.ft. coverage each (175 CONCEALoc fasteners, 184 Screws and drive bit) - Brown
1/2 X 6" Galvanized Lag Screw
5 LB. 10D Hot-Dip Galvanized Nail
THR128-HDG Threaded Rod
DTB-TZ Deck Tie Bracket

| Qty | Description |
| :--- | :--- |
| 1 | 40 LB. Basic Concrete Mix |
| 13 | 7" Triple Zinc Angle Clip AC7-TZ |
| 25 | TT/AZEK LED Riser Light - Architectural Bronze |
| 1 | TimberTech TOPLoc 100 Sq. Ft. Pack Teak - Teak |

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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