

# Twisted Towers

Equipment Manufacturer



350-1429



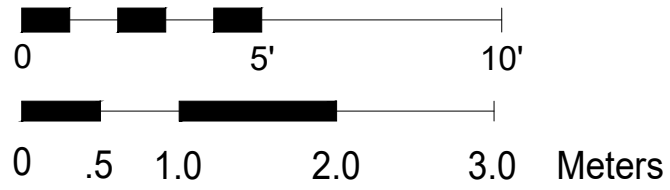
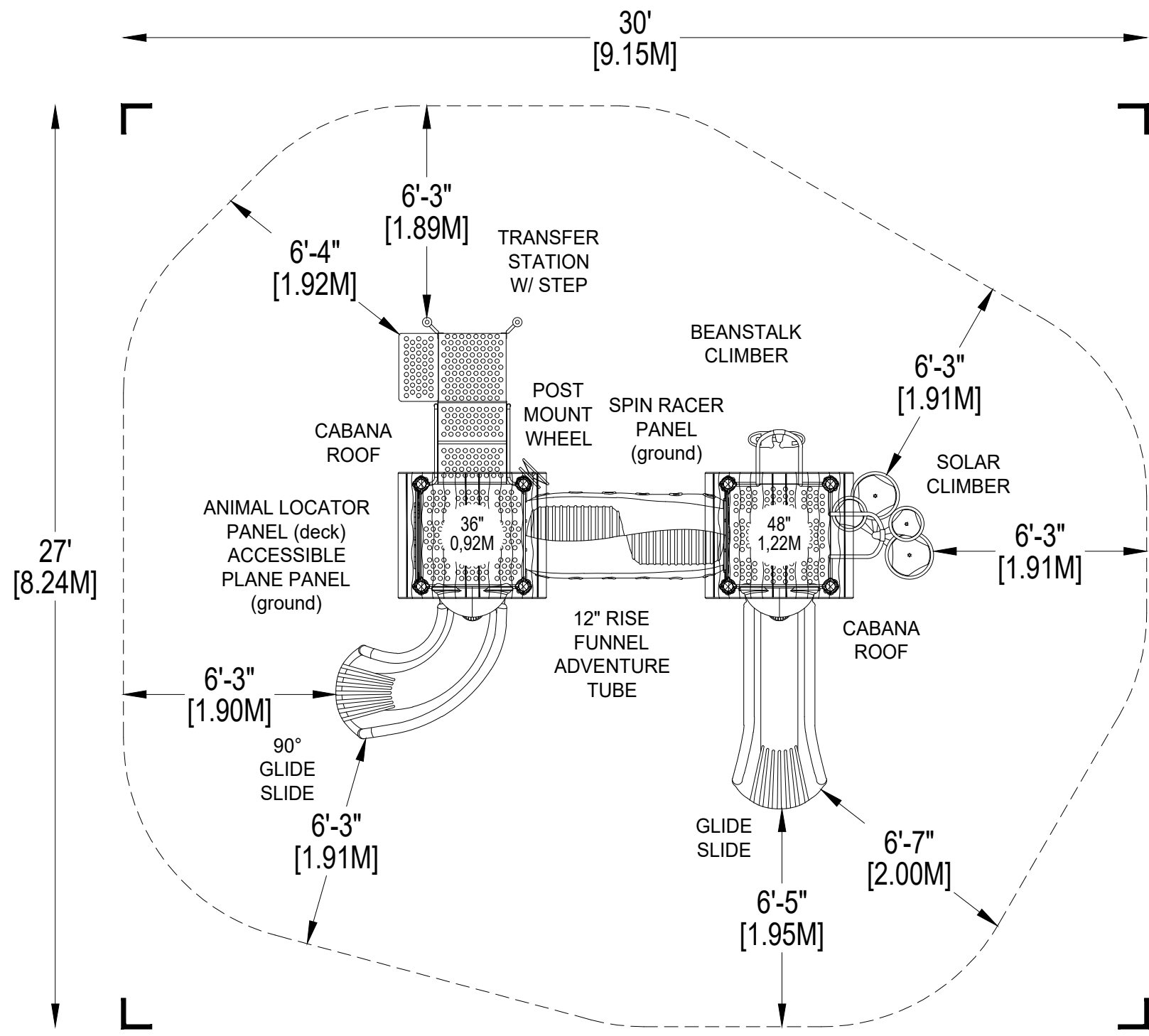
# Twisted Towers

Equipment Manufacturer



350-1429





\*PLAYGROUND SUPERVISION REQUIRED



PLAYWORLD SYSTEMS, INC.  
 1000 Buffalo Road  
 Lewisburg, PA  
 17837-9795 USA

EQUIPMENT SIZE:  
**17'6" x 14'5" x 12'4"**  
 5,33M x 4,39M x 3,76M

USE ZONE:  
**30'0" x 27'0"**  
 9,15M x 8,24M

AREA: **668 SqFt.** PERIMETER: **94 Ft.**  
 62,06 SqM. 28,65M

FALL HEIGHT:  
**4 Ft.**  
 1,22M

USER CAPACITY: **27** AGE GROUP: **2-5**

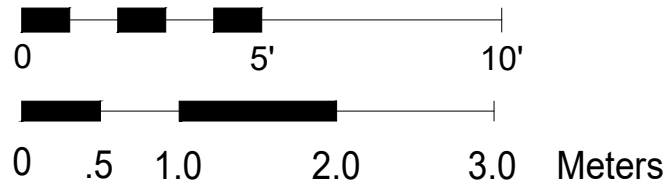
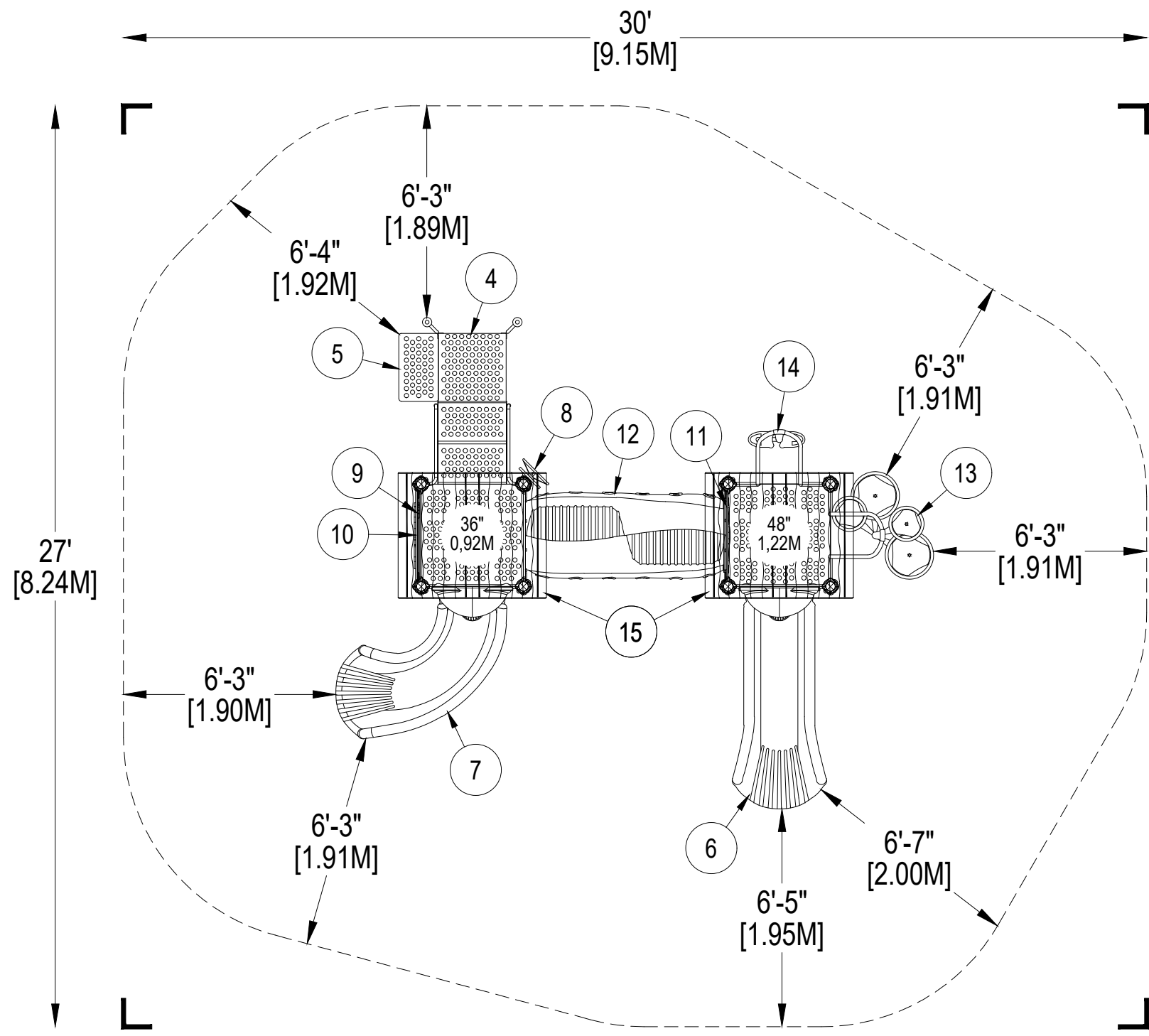
ADA SCHEDULE	Total Elevated Play Activities: 6		
	Total Ground-Level Play Activities: 2		
	Accessible Elevated Activities	Accessible Ground-Level Activities	Accessible Ground-Level Play Types
Required	3	2	2
Provided	6	2	2

- ✓ ASTM F1487-17
- ✓ CPSC #325



PROJECT NO: <b>350-1429D</b>	SCALE: <b>1/4"=1'-0"</b>
DRAWN BY: <b>M. MERTZ</b>	Paper Size <b>B</b>
DATE: <b>10-NOV-17</b>	

**TWISTED TOWERS**  
 CATALOG PRE-DESIGN



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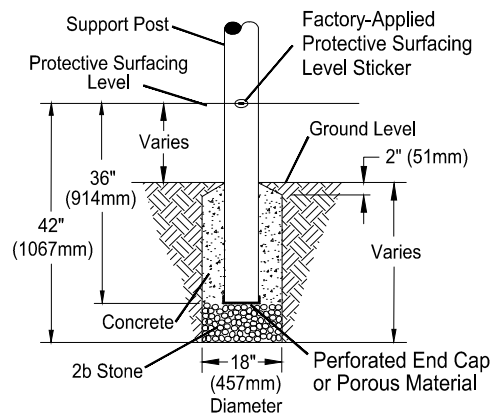


PROJECT NO: <b>350-1429D</b>	SCALE: <b>1/4"=1'-0"</b>
DRAWN BY: <b>M. MERTZ</b>	Paper Size <b>B</b>
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**TWISTED TOWERS**  
 CATALOG PRE-DESIGN

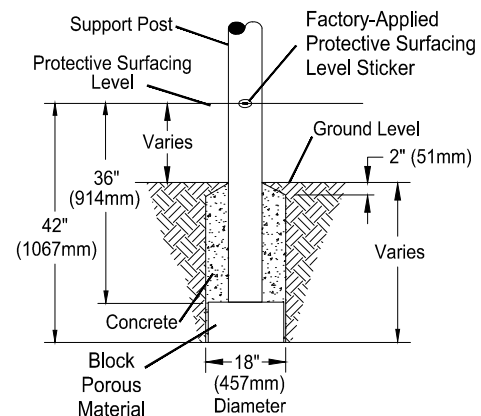
DETAIL 1

Support Post, Spiral Slide and RockBlocks Post Footing Detail



STONE OPTION

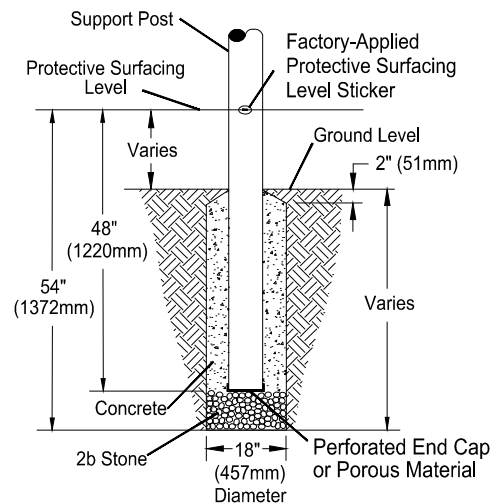
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BLOCK OPTION

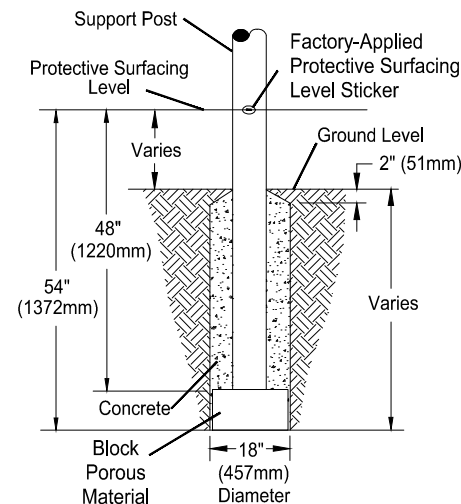
DETAIL 2

GroundZero, Cantilever and "T" Post Footing Detail



STONE OPTION

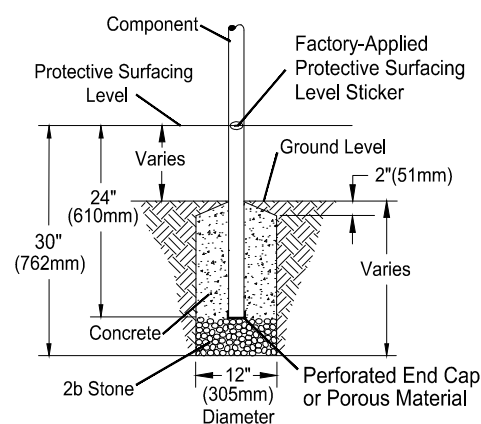
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BLOCK OPTION

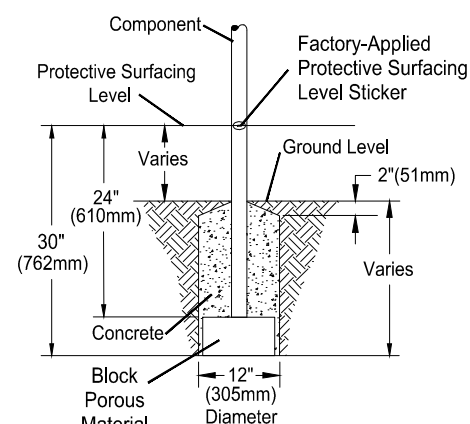
DETAIL 3

Component Footing Detail



STONE OPTION

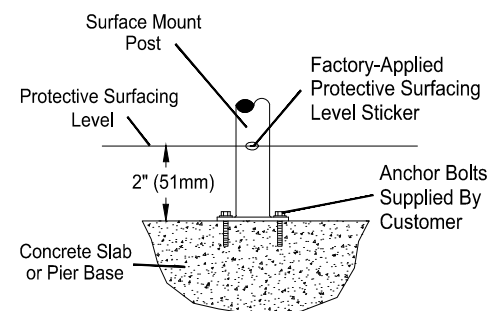
OR



BLOCK OPTION

DETAIL 4

Surface Mount Detail



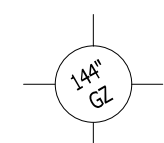
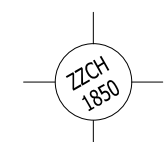
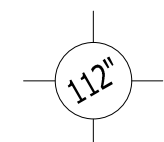
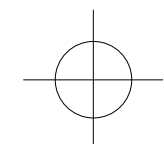
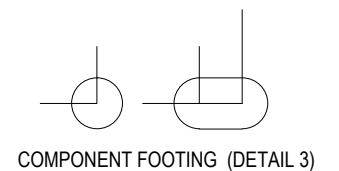
**INSTALLATION NOTES:**

- 1) Paved surfaces, such as asphalt and concrete, are not acceptable for use under your structure.
- 2) It is the consumer's responsibility to check with local utilities prior to excavating footings for any underground utility lines that may exist within the installation area.
- 3) It is the consumer's responsibility to check local soil conditions and drainage within the site area. Inquire with local contractors for appropriate recommendations.
- 4) If the structure is to be installed across uneven terrain, maintain the support post mark for protective surfacing level at the lowest grade. Adjust other footings accordingly.
- 5) The base of footings must be below frost lines.
- 6) Do not encase the bottom of support posts in concrete. Place all posts directly on packed stone.
- 7) Assemble the entire structure before pouring concrete unless specifically instructed to do so in the individual component installation instructions.
- 8) Read completely the installation instructions provided with your structure prior to beginning construction.

**SITE NOTES:**

- 1) The site plan provided must be checked against the actual site area to ensure that placement of your structure meets required clearances.
- 2) The dimensions labeled are for location of footing holes, not exact placement of equipment. Assemble, plumb, and level equipment before pouring concrete.
- 3) There must be a minimum distance of 6' (1830mm) between any obstacle, sidewalk, etc., and your structure.
- 4) Slides must have a use zone that extends out from the lower exit section of the slide a distance that is at least 6' (1830mm) or equal to the vertical distance from the highest point of the sliding surface to the top of the protective surfacing, whichever is greater. The slide use zone should not extend greater than 8' (2438mm) from the end of the lower exit section.
- 5) The complete area, including the space under and around the equipment, must be covered with an impact attenuating material. See the 1997 publication, "Handbook for Public Playground Safety", published by the U.S. Consumer Product Safety Commission, for guidelines and recommendations on the type and depth of surfacing material. For a copy of the "Handbook for Public Playground Safety", write to: **U.S. Consumer Product Safety Commission**, Office of Information and Public Affairs, Washington, D.C. 20207
- 6) Supervise children as they play.

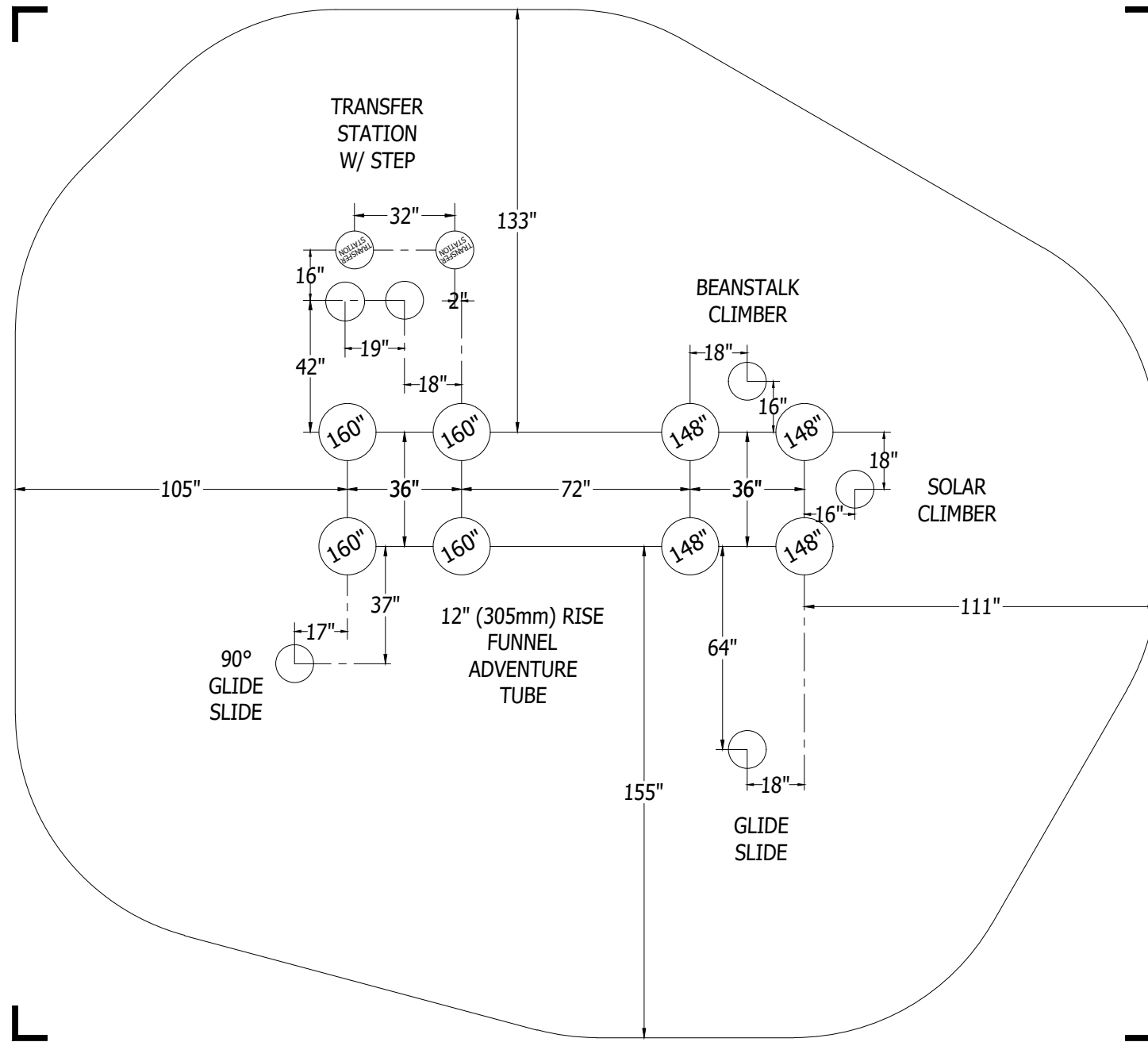
**FOOTING LEGEND**



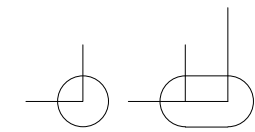
FOOTING DETAIL	SCALE: NOT TO SCALE
DRAWN BY: TECH SALES	Paper Size <b>B</b>
DATE: 28-JUNE-13	



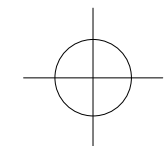
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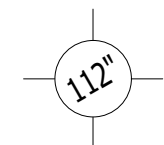
FOOTING LEGEND



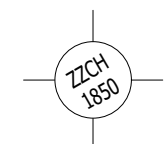
COMPONENT FOOTING (DETAIL 3)



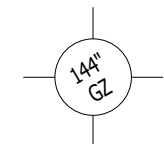
SPIRAL SLIDE CENTER POST FOOTING (DETAIL 1)



SUPPORT POST FOOTING (DETAIL 1 or 4)  
 (112" INDICATES POST LENGTH)



CANTILEVER, "T" POST, AND COMPONENT POST FOOTING (DETAIL 2)  
 (ZZCH1850 INDICATES PART NUMBER)



GROUND ZERO POST FOOTING (DETAIL 2)  
 (144" INDICATES POST LENGTH)

**TWISTED TOWERS**  
 CATALOG PRE-DESIGN

PROJECT NO:  
**350-1429D**

SCALE:  
**1/4"=1'-0"**

DRAWN BY:  
**M. MERTZ**

Paper Size

DATE:  
**10-NOV-17**

**B**

\*PLAYGROUND SUPERVISION REQUIRED

# Twisted Towers

Design Number: 350-1429D - Bill Of Material

Ref. No.	Part No.	Description	Quantity
<b>Posts</b>			
1	ZZCH0039	3.5in OD x 148in STEEL POST W/O CAP	4
2	ZZCH0049	3.5in OD x 160in STEEL POST W/O CAP	4
<b>Decks &amp; Kick Plates</b>			
3	ZZCH0616	SQUARE COATED DECK ASSEMBLY	2
<b>ADA Items</b>			
4	ZZCH2006	TRANSFER STATION (36in DECK)	1
5	ZZUN2019	APPROACH STEP FOR TRANSFER STATION	1
<b>Slides</b>			
6	ZZCH3126	GLIDE SLIDE (48in DECK)	1
7	ZZCH3129	90 DEGREE GLIDE SLIDE (36in DECK)	1
<b>Activity Panels</b>			
8	ZZCH4290	POST MOUNTED STEERING WHEEL	1
9	ZZCH4328	ANIMAL LOCATOR PANEL	1
10	ZZCH4399	ACCESSIBLE PLANE PANEL	1
11	ZZCH4538	SPIN RACER PANEL (GROUND LEVEL)	1
<b>Crawl Tubes</b>			
12	ZZCH5638	FUNNEL ADVENTURE TUBE 1ft RISE	1
<b>Climbers</b>			
13	ZZCH7658	SOLAR CLIMBER (48in & 42in DECK)	1
14	ZZCH8110	BEANSTALK CLIMBER (48in DECK)	1
<b>Roofs &amp; Arches</b>			
15	ZZCH9846	CABANA ROOF	2
<b>Additional Tool &amp; Maintenance Kits</b>			
16	ZZCHGUID	CHALLENGER GUIDELINES	1
17	ZZUN9910	SURFACING WARNING LABEL KIT	1
18	ZZUN9930	PIPE SYSTEMS MAINTENANCE KIT W/ AEROSOL	1

# Twisted Towers

Design Number: 350-1429D - Compliance and Technical Data

Reference Document: ASTM F1487

Ref. No.	Part No.	Qty.	Description	Unit ASTM Status	Total Weight (lbs)	Pre-Consumer Recycled Content (lbs)	Post-Consumer Content (lbs)	CO2e Footprint (kgs)	Users	Install Hours	Concrete (Yds3)	Active Play Events
1	ZZCH0039	4	3.5in OD x 148in STEEL POST W/O CAP	Certified	184.84			235	0	4.00	0.50	0
2	ZZCH0049	4	3.5in OD x 160in STEEL POST W/O CAP	Certified	199.64			254	0	4.00	0.50	0
3	ZZCH0616	2	SQUARE COATED DECK ASSEMBLY	Certified	109.72			348	6	2.00	0.00	0
4	ZZCH2006	1	TRANSFER STATION (36in DECK)	Certified	145.80			308	2	2.00	0.09	0
5	ZZUN2019	1	APPROACH STEP FOR TRANSFER STATION	Certified	35.83			72	1	1.00	0.04	0
6	ZZCH3126	1	GLIDE SLIDE (48in DECK)	Certified	119.73			492	2	2.00	0.03	1
7	ZZCH3129	1	90 DEGREE GLIDE SLIDE (36in DECK)	Certified	96.73			418	2	2.00	0.03	1
8	ZZCH4290	1	POST MOUNTED STEERING WHEEL	Certified	7.83			44	1	0.25	0.00	1
9	ZZCH4328	1	ANIMAL LOCATOR PANEL	Certified	47.77			329	1	0.50	0.00	1
10	ZZCH4399	1	ACCESSIBLE PLANE PANEL	Certified	22.67			212	1	0.50	0.00	1
11	ZZCH4538	1	SPIN RACER PANEL (GROUND LEVEL)	Certified	47.14			414	3	1.00	0.00	1
12	ZZCH5638	1	FUNNEL ADVENTURE TUBE 1ft RISE	Certified	138.56			992	4	3.00	0.00	1
13	ZZCH7658	1	SOLAR CLIMBER (48in & 42in DECK)	Certified	91.33			265	2	1.50	0.03	1
14	ZZCH8110	1	BEANSTALK CLIMBER (48in DECK)	Certified	77.27			323	2	1.50	0.03	1
15	ZZCH9846	2	CABANA ROOF	Certified	152.10			779	0	1.00	0.00	0
16	ZZCHGUID	1	CHALLENGER GUIDELINES	N/A	0.00			1	0	0.25	0.00	0
17	ZZUN9910	1	SURFACING WARNING LABEL KIT	Certified	0.05			1	0	0.25	0.00	0
18	ZZUN9930	1	PIPE SYSTEMS MAINTENANCE KIT W/ AEROSOL	N/A				90				
<b>Totals:</b>					<b>1,477.01</b>	<b>188</b>	<b>308</b>	<b>5,574</b>	<b>27</b>	<b>26.75</b>	<b>1.25</b>	<b>9</b>
					<b>664.65 Kg</b>	<b>85 Kg</b>	<b>139 Kg</b>	<b>6 Metric Tons</b>			<b>0.95 m3</b>	





# Twisted Towers

Design Number: 350-1429D - Compliance and Technical Data

Reference Document: ASTM F1487

Ref. No.	Part No.	Qty.	Description	Unit ASTM Status	Total Weight (lbs)	Pre-Consumer Recycled Content (lbs)	Post-Consumer Content (lbs)	CO2e Footprint (kgs)	Users	Install Hours	Concrete (Yds3)	Active Play Events
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## ASTM F1487

The lay-out for this custom playscape, design number 350-1429D, has been configured to meet the requirements of the ASTM F1487 standard. In addition, each of the above components listed as "Certified" have been tested and are IPEMA certified. Components listed as "Not Applicable" do not fall within the scope of the ASTM F1487 standard and have not been tested. IPEMA certification can be verified on the IPEMA website, [www.ipema.org](http://www.ipema.org). In the interest of playground safety, IPEMA provides a Third Party Certification Service which validates compliance.

## 2010 ADA Standards for Accessible Design

The lay-out was also designed to meet the 2010 Standards published 15-Sep-2010, by the Department of Justice when installed over a properly maintained surfacing material that is in compliance with ASTM F1951 "Accessibility of Surface Systems Under and Around Playground Equipment" as well as ASTM F1292, "Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment", appropriate for the fall height of the structure.

## Installation Times

Installation times are based on one experienced installer. A crew of three experienced individuals can perform the installation within the given time, each member working 1/3 of the given hours. [Eg. Installation Time = 30 hours. For a crew of three, each member will work 10 hours on the installation for a total of 30 hours on the project.]

## Carbon Footprint

The CO2e (carbon footprint given in Kilograms and Metric Tons) listed above is a measure of the environmental impact this play structure represents from harvesting raw materials to the time it leaves our shipping dock. Playworld Systems nurtures a total corporate culture that is focused on eliminating carbon producing processes and products, reducing our use of precious raw materials, reusing materials whenever possible and recycling materials at every opportunity. Playworld Systems elected to adopt the Publicly Available Specification; PAS 2050 as published by the British Standards Institute and sponsored by Defra and the Carbon Trust. The PAS 2050 has gained international acceptance as a specification that measures the greenhouse gas emissions in services and goods throughout their entire life cycle.

## Pre-Consumer Recycle Content

A measurement, in pounds, that qualifies the amount of material that was captured as waste and diverted from landfill during an initial manufacturing process and is being redirected to a separate manufacturing process to become a different product. E.g. 100% of our Aluminum Tubing is made from captured waste material during the manufacturing process of extruded Aluminum products such as rods, flat bars and H-channels.

## Post-Consumer Recycle Content

A measurement, in pounds, that qualifies the amount of material that was once another product that has completed its lifecycle and has been diverted from a landfill as a solid waste through recycling and is now being used in a Playworld Systems' product. E.g. \*\*20% to 40% of the steel in our steel tubing and sheet steel have been diverted from landfills. Automobiles are scrapped and recyclable steel is purchased by the steel mill that produces our raw product.

\*\* The amount of Post-Consumer recycled steel fluctuates daily based on the availability of the recycled steel.

