

# TITAN™

## Code Compliant Modular Access System

### TECHNICAL SPECIFICATIONS



Manufactured in the USA

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## OVERVIEW

SCOPE OF WORK: PROVIDE PREFABRICATED MODULAR ALUMINUM ACCESS RAMPS AND STEPS

### 1. SUBMITTALS

- 1.1 Product Literature must be submitted with bid.
- 1.2 Warranty must be submitted with bid.
- 1.3 Shop Drawings: Include detailed shop drawings upon receipt of purchase order.
- 1.4 Engineering: Provide sealed professional engineering drawings or empirical independent test results upon request.

### 2. QUALITY ASSURANCE

- 2.1 Manufacturer: EZ-ACCESS, a division of Homecare Products, Inc., 700 MILWAUKEE AVE. N, ALGONA, WA 98001-7408. Toll free: (800) 258-8503 or Fax (877) 877-6671. Website: [www.ezaccess.com](http://www.ezaccess.com). Any alternate manufacturer must be approved prior to bid opening.
- 2.2 All components shall be universal as well as reusable. Components shall be easy to disassemble and reassemble so that a ramp system can be relocated and assembled into many different configurations.
- 2.3 Design of all aluminum members shall conform to the 2018 edition of the International Building Codes (IBC).
- 2.4 All exposed surfaces shall be smooth and free of sharp or jagged edges.
- 2.5 All components shall have a mill finish.
- 2.6 All fasteners shall be corrosion resistant.
- 2.7 Warranty: EZ-ACCESS, a division of Homecare Products, Inc., warrants its products to be free from defects in manufacturing material and workmanship for a period of three years beginning at date of delivery of product. This warranty excludes any defects resulting from abnormal use in installation, service, accidental or intentional damage or any occurrences beyond the manufacturer's control.

### 3. PRODUCTS

#### 3.1 RAMP SECTIONS

##### 3.1.1 Engineering

- 3.1.1.1 Ramp Sections shall be designed for a minimum uniform live load of 100 pounds per square foot and a concentrated vertical load of 300 pounds.
- 3.1.1.2 Aluminum structural design shall conform to the aluminum association specifications and guidelines for aluminum structures.

##### 3.1.2 Materials

- 3.1.2.1 Ramp Sections shall be constructed using 6000 series aluminum alloy with 6061-T6 or 6005-T5 being used for structural components.

##### 3.1.3 Design

- 3.1.3.1 Ramp sections shall be prefabricated in 2', 3', 4', 5' and 6' lengths in addition to a special 6' starter ramp section.
- 3.1.3.2 All ramp sections shall be designed for a 1:12 slope when assembled.
- 3.1.3.3 Ramp walking surface shall be 48" or 54" clear width and have a 4" tall (minimum) curb.
- 3.1.3.4 The walking surface of the ramp shall be continuous, without gaps, and shall be approximately 1-1/4" x 6" self-mating aluminum deck with extruded slip resistant surface.

## 3.2 LANDINGS/PLATFORMS

### 3.2.1 Engineering

- 3.2.1.1 Landings/platforms shall be designed for a minimum uniform live load of 100 pounds per square foot and a concentrated static vertical load of 300 pounds.

### 3.2.2 Materials

- 3.2.2.1 Landings/platforms shall be constructed of 6000 series aluminum alloy with 6061-T6 or 6005-T5 for primary structural components.

### 3.2.3 Design

- 3.2.3.1 Landings/platforms shall be prefabricated in typical 65-1/2" square, 77-1/2" square, 65-1/2" x 77-1/2" rectangular or 65-1/2" x 89-1/2" rectangular sections.
- 3.2.3.2 Landings/platforms shall be designed for variable heights.
- 3.2.3.3 The walking surface of the landing/platform shall be continuous, without gaps, and shall be comprised of approximately 1-1/4" x 6" high self-mating aluminum deck with extruded slip resistant surface.

## 3.3 STEPS

### 3.3.1 Engineering

- 3.3.1.1 Step Systems shall be designed for a minimum uniform live load of 100 pounds per square foot and a concentrated vertical load of 300 pounds over an area of 4 square inches.

### 3.3.2 Materials

- 3.3.2.1 Step Systems shall be constructed using 6000 series aluminum alloy with 6061-T6 or 6005-T5 being used for primary structural components.

### 3.3.3 Design

- 3.3.3.1 Step risers shall be between 7" maximum and 4" minimum (6" typical) high and shall be closed.
- 3.3.3.2 Step treads shall be 11" minimum deep x 48" minimum wide between handrails, 53-3/4" between siderails.
- 3.3.3.3 The walking surface of the step shall be without gaps and shall be composed of self-mating aluminum treads and riser closures with an extruded slip resistant surface.

## 3.4 LEGS

### 3.4.1 Engineering

- 3.4.1.1 The legs shall be designed to support the ramp and landing/platform sections (see sections 3.1.1.1 and 3.2.1.1).

### 3.4.2 Materials

- 3.4.2.1 Legs shall be all aluminum construction alloy 6061-T6 or 6005-T5.

### 3.4.3 Design

- 3.4.3.1 The legs shall allow for height and slope adjustments. Legs shall be designed so that they will be perpendicular to the ground and vertical loads are transmitted axially through them, regardless of slope.
- 3.4.3.2 All legs shall have through bolted polymer 7-3/8" x 7-3/8" feet.

### 3.5 GUARDS AND HANDRAILS

#### 3.5.1 Engineering

- 3.5.1.1 Guards and handrails shall be designed to resist a single concentrated load of 200 pounds applied at any point and in any direction at the top of the guardrail or handrail and to transfer this load through the supports to the structure.
- 3.5.1.2 Guards and Handrails shall be designed and constructed to resist a load of 50 pounds per linear foot applied horizontally at the required guardrail height and a simultaneous load of 100 pounds per linear foot applied vertically downward at the top of the guardrail. Note: The loading of 3.5.1.1, 3.5.1.2 and 3.5.1.3 shall not be applied simultaneously.
- 3.5.1.3 Guard infill (pickets, balusters, etc.) shall be designed and constructed to resist a 50-pound horizontal load applied over a one square foot area at any point in the system.

#### 3.5.2 Materials

- 3.5.2.1 All guards, handrails, and handrail brackets shall be aluminum construction alloy 6061-T6 or 6005-T5.

#### 3.5.3 Design

- 3.5.3.1 Handrail gripping surface shall be smooth and continuous throughout ramp sections, steps, and landings/platforms, returning to a guard or wall that is not more than 1/4" from the end of the handrail termination.
- 3.5.3.2 The handrail shall be 1-1/2" diameter tubing. The top of the handrail shall be 36" above the walking surface. The height of the handrail above the finish surface "shall be uniform, not less than 34" (864 mm) and not more than 38" (965 mm)."
- 3.5.3.3 Optional child handrail shall be 1-1/2 "diameter tubing. The top of the child handrail shall be 25" above the walking surface.
- 3.5.3.4 Guards shall form a protective barrier of 42" high, minimum. Guards shall be designed such that a 4" sphere cannot pass through any opening.

# DIMENSIONAL SPECIFICATIONS

Unless otherwise specified, weights are expressed in pounds; lengths and widths in inches.

## Ramps

	48" WIDE RAMPS					54" WIDE RAMPS				
	2' RAMP	3' RAMP	4' RAMP	5' RAMP	6' RAMP	2' RAMP	3' RAMP	4' RAMP	5' RAMP	6' RAMP
Made with Aircraft Grade Aluminum	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Slip Resistant Walking Surface	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Weight (lbs.)	28.5	41.3	54.1	66.9	79.8	31.2	45.3	59.3	73.4	87.5
Usable Dimensions	2' x 48"	3' x 48"	4' x 48"	5' x 48"	6' x 48"	2' x 54"	3' x 54"	4' x 54"	5' x 54"	6' x 54"
Weight Capacity	Minimum uniform live load of 100 psf and a concentrated vertical load of 300					Minimum uniform live load of 100 psf and a concentrated vertical load of 300				
Handrail Pair Weight (lbs.)	2.5	3.3	4.2	5.1	6	2.5	3.3	4.2	5.1	6
Handrail w/ Child Handrail Pair Weight (lbs.)	5	6.6	8.4	10.2	12	5	6.6	8.4	10.2	12
Two-Line Rail Pair Weight (lbs.)	20.2	22.5	24.7	26.9	29.1	20.2	22.5	24.7	26.9	29.1
Guard Pair Weight (lbs.)	23.3	28.2	33.1	37	41.9	23.3	28.2	33.1	37	41.9
Frame (Top Rail) Height <sup>1</sup>	42"	42"	42"	42"	42"	42"	42"	42"	42"	42"
Frame Midrail Height <sup>1</sup>	21-1/2"	21-1/2"	21-1/2"	21-1/2"	21-1/2"	21-1/2"	21-1/2"	21-1/2"	21-1/2"	21-1/2"
Width to Outside of Frame	52-3/16"	52-3/16"	52-3/16"	52-3/16"	52-3/16"	58-3/16"	58-3/16"	58-3/16"	58-3/16"	58-3/16"
Width to Outside of Support Feet	53-3/16"	53-3/16"	53-3/16"	53-3/16"	53-3/16"	59-3/16"	59-3/16"	59-3/16"	59-3/16"	59-3/16"
Side Rail Curb Height	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"
Handrail Height <sup>1</sup>	36"	36"	36"	36"	36"	36"	36"	36"	36"	36"
Child Handrail Height <sup>1</sup>	25"	25"	25"	25"	25"	25"	25"	25"	25"	25"
Handrail Diameter	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"

Additional tread options are available; please call 1-800-258-8503 for details.

Weights and dimensions are approximate and subject to change.

<sup>1</sup> Nominal Height

## **Platforms/Landings**

	5' x 5'	5' x 6'	5' x 6'	6' x 6'	5' x 7'	5' x 7'
Made with Aircraft Grade Aluminum	✓	✓	✓	✓	✓	✓
Slip Resistant Walking Surface	✓	✓	✓	✓	✓	✓
Landing/Platform Weight w/o Rail (lbs.)	91.8	92.2	92.2	108.9	104.2	104.2
Landing/Platform w/Two-Line Rail (lbs.)	109.2	111.3	125.3	128	125.1	139.1
Landing/Platform w/Guards (lbs.)	111.7	133.8	164.3	150.5	150.2	180.7
Frame (Top Rail) Height <sup>1</sup>	42"	42"	42"	42"	42"	42"
Frame Midrail Height <sup>1</sup>	22"	22"	22"	22"	22"	22"
Weight Capacity	Minimum uniform live load of 100 psf and a concentrated vertical load of 300					
Useable Dimensions	60" x 60"	60" x 72"	60" x 72"	72" x 72"	60" x 84"	60" x 84"
Outer Dimensions	65.5" x 65.5"	65.5" x 77.5"	65.5" x 77.5"	77.5" x 77.5"	65.5" x 89.5"	65.5" x 89.5"
Width to Outside of Support Feet	65.75" x 65.75"	65.75" x 77.75"	65.75" x 77.75"	77.75" x 77.75"	65.75" x 89.75"	65.75" x 89.75"
Minimum Landing/Platform Height (w/o Support Legs) <sup>1</sup>	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"	5-1/2"

## **Transition Plates (Optional)**

	48" RAMP	54" RAMP
Made with Aircraft Grade Aluminum	✓	✓
Slip Resistant Walking Surface	✓	✓
Length	6"	6"
Width	35-3/8"	41-3/8"

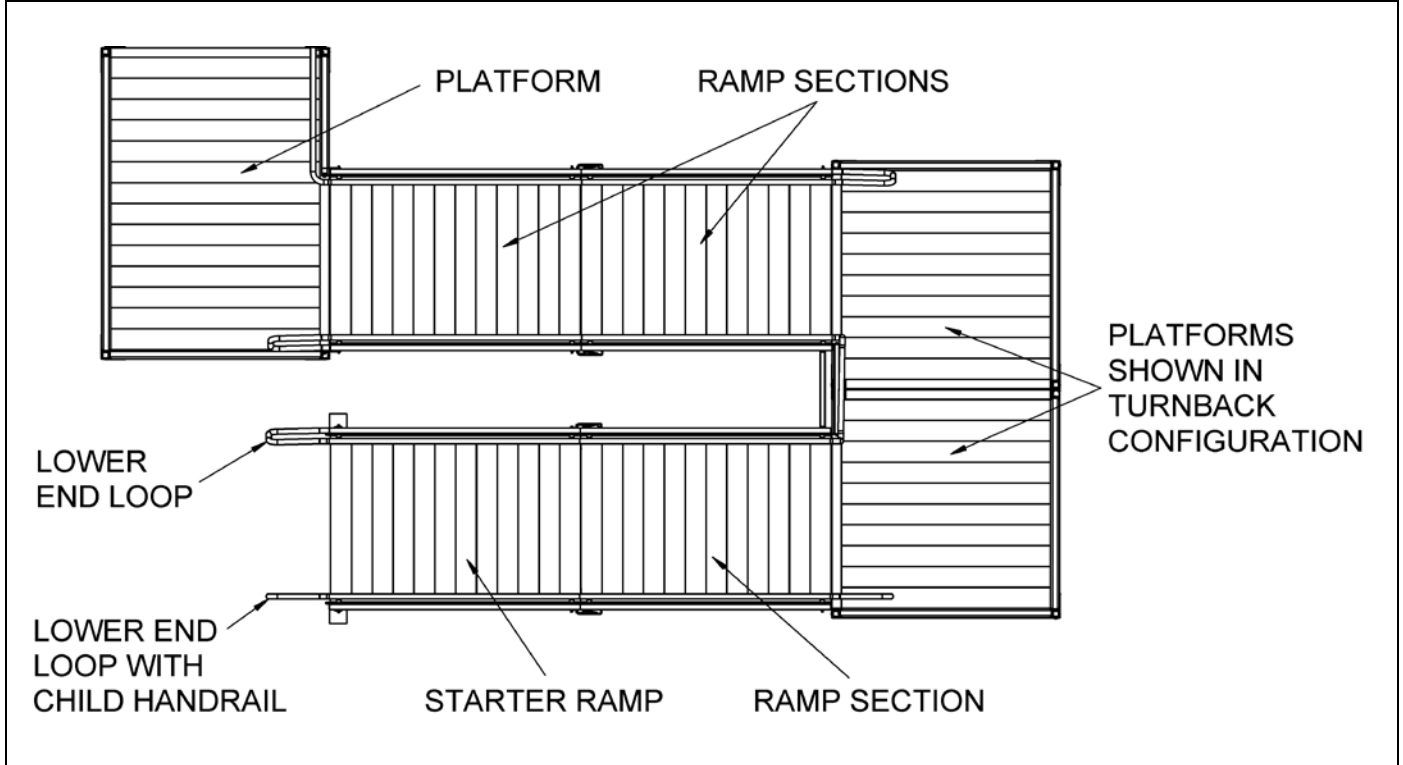
*Additional tread options are available; please call 1-800-258-8503 for details.*

*Weights and dimensions are approximate and subject to change.*

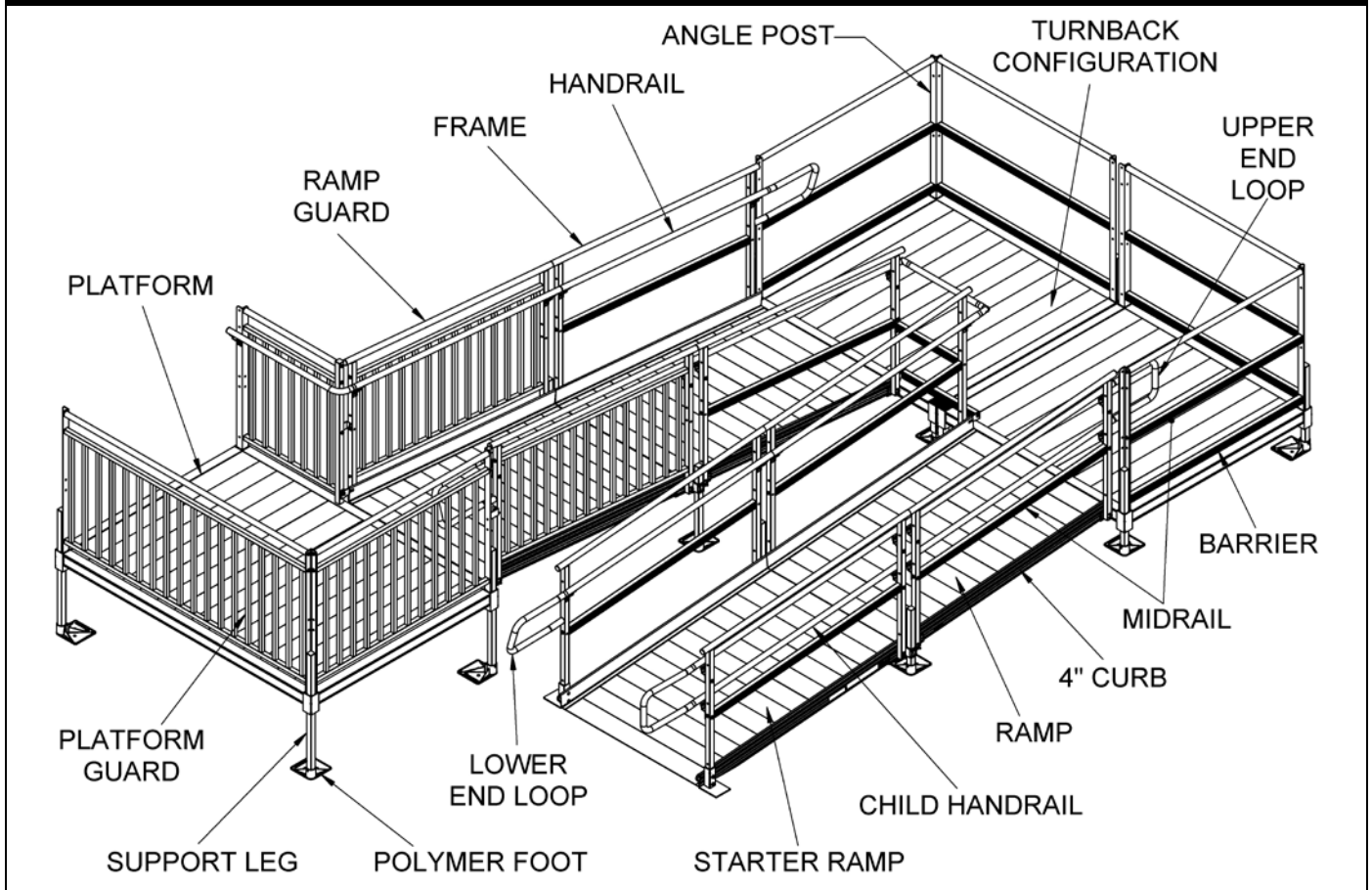
<sup>1</sup> Nominal Height

# RAMP & LANDING/PLATFORM

## Plan View

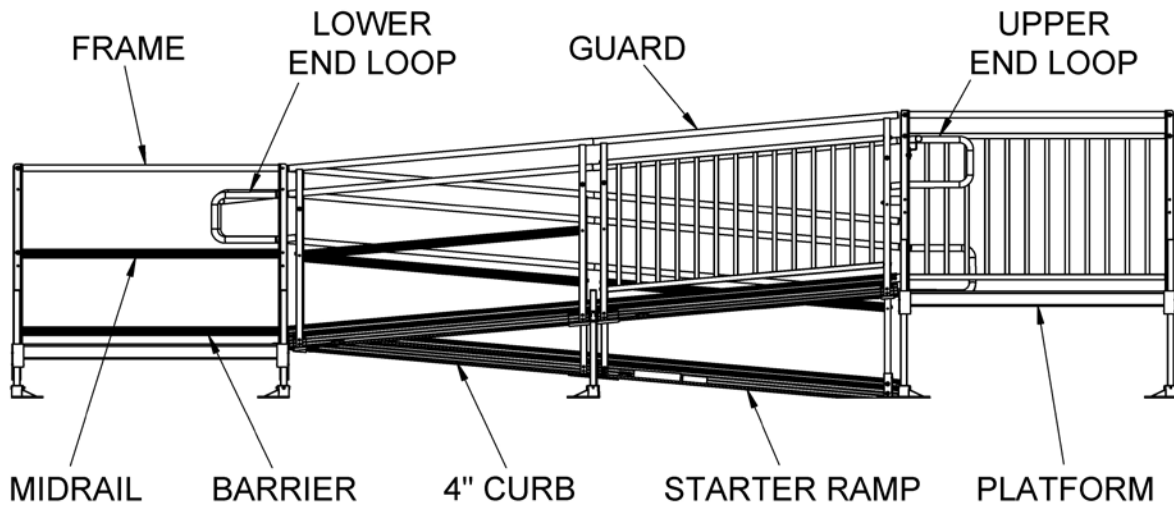


## Isometric View



# RAMP & LANDING/PLATFORM (CONT'D).

## Elevation View



## POLYMER FOOT

### Isometric View

