



**Hydro Extrusion USA, LLC (REDD Team)**  
**PREFABRICATED GENERAL CODE ALUMINUM STAIR SYSTEM**  
**SPECIFICATIONS**

(PLACE AN "X" IN THE BOX  NEXT TO ALL APPLICABLE ITEMS)

SCOPE OF WORK: PROVIDE PREFABRICATED ALUMINUM STAIR SYSTEMS

4, 5, 6, 7 Riser at 7" Rise

**PART 1 - SUBMITTALS**

- 1.1 Product literature with bid.
- 1.2 Warranty information with bid.
- 1.3 Drawings (if requested) upon receipt of purchase order.
- 1.4 Engineering: Provide sealed professional engineered drawings upon request.

**PART 2 - QUALITY ASSURANCE**

- 2.1 Manufacturer: Hydro Extrusion USA LLC (REDD Team), 125 Superior Drive Delhi, LA 71232. Call toll free: 1-800-779-5509. Fax 1-866-840-4566. Find our web site at <http://www.reddteam.com> or e-mail us at [del\\_reddteam.us@hydro.com](mailto:del_reddteam.us@hydro.com). Any alternate manufacturer must be approved prior to bid opening.
- 2.2 Stair and landing components shall be universal so that a stair system can be assembled for left, right, or perpendicular access.
- 2.3 Design of the aluminum members shall conform to the current edition of the Aluminum Association Specifications and Guidelines for Aluminum Structures.
- 2.4 Aluminum welding shall be in accordance with the ANSI/AWS D1.2-97 GMAW process shall be performed by experienced operators.
- 2.5 All exposed surfaces shall be smooth and free of sharp or jagged edges.
- 2.6 Warranty: Hydro Extrusion USA, LLC (REDD Team), warrants its products to be free from defects in material and workmanship for a period of (1) one year beginning at date of delivery of product. This warranty excludes any defects resulting from abnormal use in installation or service, accidental or intentional damage or any occurrences beyond the manufacturer's control.



**PART 3 - PRODUCTS**

- 3.1 **STAIRWAYS** (Always check local ordinances and building codes)
  - 3.1.1 Engineering
    - a. Stair treads and stringers shall be designed for a uniform live load of 100 pounds per square foot and a concentrated vertical load of 300 pounds over an area of 4 square inches.
  - 3.1.2 Materials
    - a. Stair treads, stringers, and risers shall be constructed using 6000 series aluminum alloy with 6061-T6 for primary structural components.
  - 3.1.3 Design
    - a. Stair treads shall be prefabricated in typical 4'-5" width. All treads have ADA compliant nosing.
    - b. Series 7" stairways shall be prefabricated to match a threshold height of:  
 28"  35"  42"  49"

### 3.2 **LANDINGS**

#### 3.2.1 Engineering

- a. Landings shall be designed for a uniform live load of 100 pounds per square foot and a concentrated vertical load of 300 pounds distributed uniformly over an area of 1 square foot.

#### 3.2.2 Materials

- a. Landings shall be constructed using 6000 series aluminum alloy with 6061-T6 for primary structural components.

#### 3.2.3 Design

- a. Landings shall be prefabricated in typical 5'-1 1/2" X 5'-1 1/2" sections.  
(Customer shall be responsible for compliance with his or her local ordinances and building codes.)
- c. Landings will be designed for variable heights.

### 3.3 **LEGS**

#### 3.3.1 Engineering

- a. The legs shall be designed to support the stair and landing sections. (See Uniform Live Load Specification 3.1.1.a & 3.2.1.a)

#### 3.3.2 Materials

- a. Legs shall be constructed using 6061-T6 aluminum alloy.
- b. All bolt hardware shall be stainless steel grade 304.

#### 3.3.3 Design

- a. The legs shall telescope to allow for various height adjustments.
- b. All legs shall be thru bolted using stainless steel bolts grade 304.
- c. All legs shall have 1/4" X 5" X 8" pads.

### 3.4 **LANDING RAILS AND STAIR RAILS**

#### 3.4.1 Engineering

- a. Handrails shall be designed to resist a concentrated load of 200 pounds applied at any point and in any direction at the top of the rail.
- b. Handrails shall be designed to resist a load of 50 pounds per linear foot applied in any direction at the top of the rail..

#### 3.4.2 Materials

- a. All landing rails and stair rails shall be aluminum construction alloy 6061-T6 & 6063-T5.

#### 3.4.3 Design

- a. Stair rail gripping surface shall be smooth and continuous.
- b. Stair hand rail shall be 34" high from the nose of the tread to top of the rail (measured perpendicularly from the tread nose).
- c. Stair top rail shall be 1 1/4" Sch. 40 aluminum pipe with a barrier system of: 4 inch spaced vertical pickets.
- d. Landing rails shall form a 42" high protective barrier such that a 4" sphere cannot pass through any opening in the landing rail.

### 3.5 **FINISHING**

#### 3.5.1 Landing rails and stair rails shall be:

- a. Mill finish

### 3.6 **DECKING**

#### 3.6.1 Decking shall be:

- a. Slip resistant perforated extruded aluminum self-mating deck.