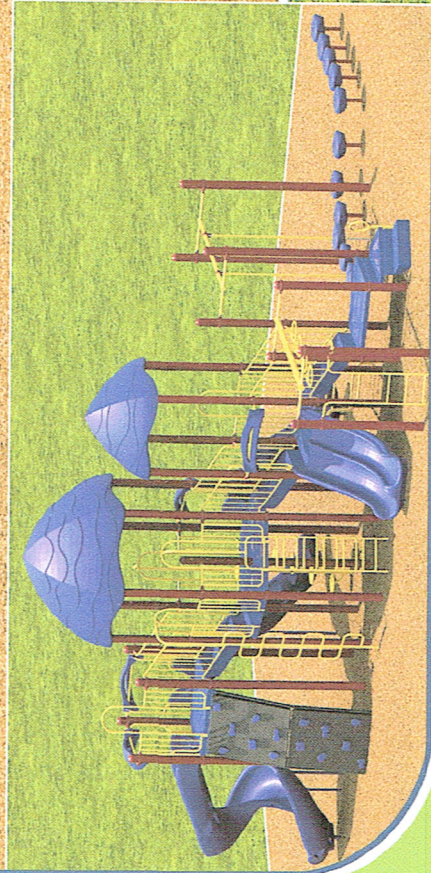


**Central Intermediate  
School**

Central, LA Schools

645-73077

**Bliss Products  
and Services, Inc.**  
(800) 248-2547  
[info@blissproducts.com](mailto:info@blissproducts.com)



**play&park  
structures**  
A PLAYCORE COMPANY

1-800-727-1907  
[www.playandpark.com](http://www.playandpark.com)



Central Intermediate School

Bliss Products and Services

This play equipment is recommended for children ages 5-12

Minimum Area Required:  
Per Site

Scale: 1/8" = 1'-0"  
This drawing can be scaled only when in an 11" x 17" format

Drawn By:  
Chris Yates  
Date:  
7/11/13  
Drawing Name:  
645-73077

**play&park structures**  
401 Chestnut St., Ste. 310  
Chattanooga, TN 37402  
800-727-1907 / www.playandpark.com

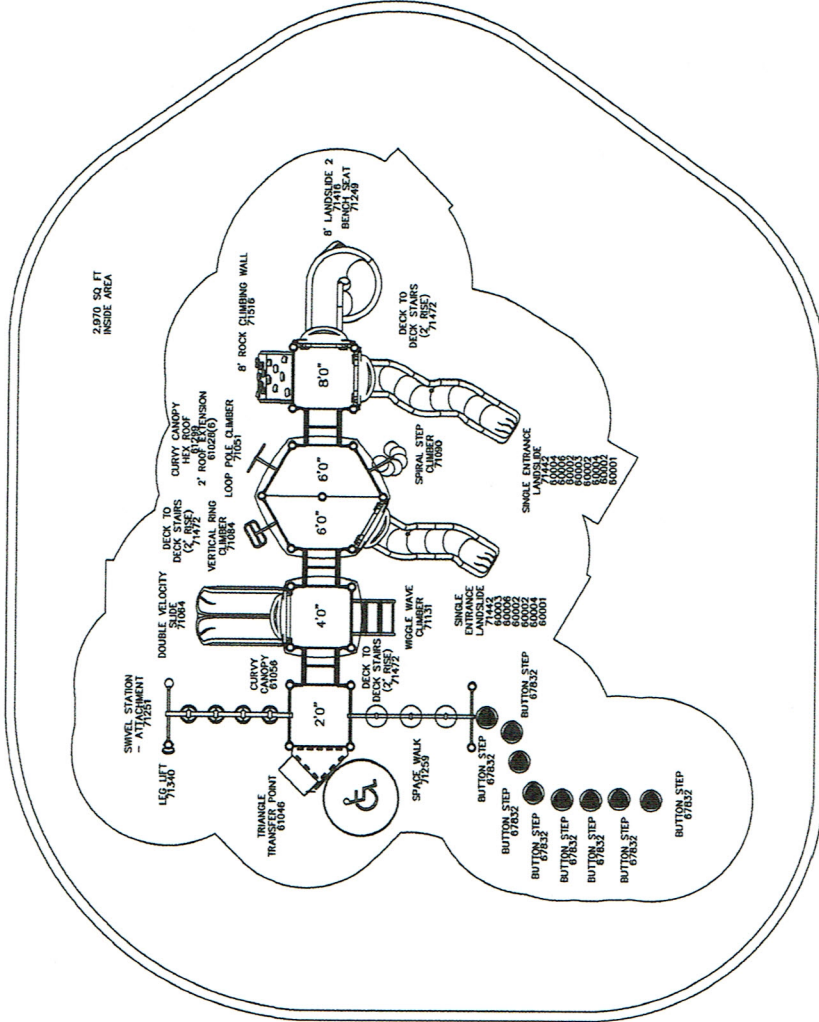


Total Play Components  
Elevated Play Components Accessible by Ramp  
Elevated Play Components Accessible by Transfer  
Accessible Ground Level Components Shown  
Different Types of Ground Level Components

21  
11  
0  
11  
10  
3

Req. 0  
Req. 6  
Req. 4  
Req. 3

User Capacity  
40-50  
Critical Fall Height  
8'-0"



It is the manufacturer's opinion that the structure shown herein complies with current ADA standards concerning accessibility if used with proper accessible surfacing and together with other necessary ground level play equipment. **IMPORTANT:** Never install play equipment over hard, unresilient surfaces such as asphalt, concrete, or compacted earth. It is the owner's responsibility to ensure the "minimum area required" contains an appropriate amount of resilient material to cushion accidental falls.

Central Intermediate School  
645-73077

7/11/2013

## **Park Play Specifications**

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### **General System Specifications:**

Manufacturer shall offer the following warranties on the materials and components of its system:

- Lifetime limited warranty on support posts (uprights)
- 15-Year limited warranty on punched steel decks, pipes, rails, loops and rungs
- 15-Year limited warranty on rotationally molded polyethylene components
- Lifetime limited warranty on all hardware

Manufacturer shall be ISO 9001/2000 certified

Manufacturer shall show IPEMA certification of compliance for each component that the product conforms with the requirements of ASTM F1487-01.

### **Freestanding Other**

#### **Button Step**

**BUTTON STEP:** The Button Step shall be rotational molded from polyethylene. The polyethylene shall be linear low-density material with UV-stabilized color and an anti-static compound additive. All rotational molded products shall meet or exceed the following specifications: ASTM D-1248, type 2, class A and Federal specification LP-390C, type 1, class M, grade 2, category 3; Density (ASTM D-155); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790); Heat Distortion (ASTM-648); Low Temperature Impact (ARM-STD).

**MOUNTING POST:** Shall be an all welded assembly fabricated of 2.375" O.D. galvanized steel tubing with a wall thickness of .095" and 12 gauge (.109") hot rolled flat steel that is formed. This assembly shall have a powder coat finish.

**PLUG:** Shall be fabricated of black butyl rubber with a durometer of 60.

**HARDWARE:** All nuts, bolts, screws, inserts, and lock washers used in the assembly of all play equipment, shall be stainless steel, yellow dichromate plated steel, blue-coat plated steel, mechanically galvanized or powder coated/yellow dichromate plated steel. All primary fasteners shall be 300 series stainless steel. Fasteners with yellow dichromate treatment have an electro deposited, 99.9% pure zinc substrate applied from a specially formulated solution sealed with a yellow dichromate top coat designed to work in conjunction with the zinc plating. Yellow dichromate has a 320% longer life to white corrosion and 275% longer to red corrosion than does hot-dip galvanizing.

## **SuperMax Specifications**

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### **General System Specifications:**

SuperMax features 5" O.D. uprights with a high-strength aluminum alloy clamp fastening system finished with a polyester powder-coat. All uprights shall receive factory installed aluminum post caps and will ship with labels for manufacturer identification.



All decks and components shall connect using the aluminum alloy clamping system. All climbing attachments shall include a 15" wide deck entry archway to control deck access to one child at a time and help prevent inadvertent falls.

Manufacturer shall offer the following warranties on the materials and components of its system:

- Lifetime limited warranty on support posts (uprights)
- 15-Year limited warranty on punched steel decks, pipes, rails, loops and rungs
- 15-Year limited warranty on rotationally molded polyethylene components
- Lifetime limited warranty on all hardware

Manufacturer shall be ISO 9001/2000 certified

Manufacturer shall show IPEMA certification of compliance for each component that the product conforms with the requirements of ASTM F1487-01.

## **General Specifications of Materials**

### **Clamps**

All clamps are cast of high-strength 356 aluminum. All clamps are 1-3/4" wide with a minimum wall thickness of 3/8", and are powder-coated to match the post color. Each casting is precision-drilled to receive a 1/4" x 1-3/4" zinc-plated steel hinge pin. The hinging design facilitates installation and ensures a snug fit between clamp and post. Each clamp is secured in place using a 1/4" x 3/4" aluminum drive rivet to prevent slippage or rotation on the post. Fasteners for clamps are stainless steel 3/8" x 1-1/2" special tamper-resistant pinned bolt with locking patch, and a heavy hex nut, which fits in a recess, cast into the clamp. The pinned head requires a special tool for fastening (provided with each structure), thus ensuring vandal-resistance.

All clamps receiving rungs are drilled and tapped to receive a 3/8" x 3/8" stainless steel cone-point set screw with locking patch, which prevents the rungs from turning or being pulled out. The 1-5/16" O.D. rungs terminate inside the clamp, thereby eliminating the need for end caps. The aluminum alloy used in the casting of clamps shall meet the following mechanical properties:

Ultimate Tensile Strength - 45,000 psi  
Yield Strength - 26,000 psi  
Shear Strength - 40,000 psi  
Elongation - 8 %

### **Rotationally Molded Plastics**

All Rotationally Molded Products are manufactured from linear low-density polyethylene UV-stabilized color and an anti-static compound additive. The tensile strength of this material is to be 2500 PSI as defined by ASTM D638. The typical wall thickness will be .250" (1/4"). All rotationally molded products shall meet or exceed the following specifications: ASTM D-1248, type 2, class A and Federal specification LP-390C, type 1, class M, grade 2, category 3; Density (ASTM D- 1505); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790); Heat Distortion (ASTM-648); Low Temperature Impact (ARM-STD). All solid plastic panels are manufactured from high-density polyethylene. All solid plastic panels shall meet or exceed the following specifications: Density (ASTM D- 1505); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790).

### **Polyester Powder-Coating Process**

Powder-coat shall be an electrostatically applied custom formula of TGIC polyester powder. All components will be free of sharp edges and excess weld spatter and shall be cleaned in a six stage bath system with an iron phosphate wash, as a rust inhibitor, and a



sealer to prevent flash rusting before coating. The coating shall have a super tough finish with maximum exterior durability and will have superior adhesion characteristics. Typical characteristics are: 3.0 - 5.0 mil thickness and oven cured between 375 to 425 degrees Fahrenheit. Pencil Hardness H (ASTM D-3363), Impact (ASTM D-2794-69), Wedge Bend (ASTM D-522-68), Adhesion (Cross Hatch ASTM D-3359 & Knife Scratch ASTM D-2197), Environmental (Stain Resistance ASTM D-1308, Humidity ASTM D 2247 - 87, Salt Spray ASTM B-117 & Fadometer 300 hrs with no loss of gloss), Oven-bake Stability 100% at 400 degrees Fahrenheit.

#### Hardware

All nuts, bolts, and washers, with exceptions noted, shall be 3/8" diameter 18-8 stainless steel in varying lengths, with a vandal-resistant hex-pinned head configuration and factory-applied locking patch. When allowed a 72-hour cure time, the locking patch will prevent the bolt from loosening without at least 4 times the installation torque. Play & Park Structures will supply the special tool required to turn vandal-resistant hardware with each shipment. 1/2" diameter Ramp and Arch Bridge connecting hardware shall be Grade 5 zinc-plated, and 3/8" Clatter Bridge security bolts shall be Grade 8 hardened and zinc-plated.

#### Plastisol Coating

All metal deck platforms, steps, bridge planks, ramps, kickplates, and chains are plastisol-coated. Each part is chemically washed and completely submerged in a special heat-activated primer and allowed to dry. Parts are then pre-heated and immersed in liquid poly-vinyl-chloride (plastisol). The PVC coating shall have a typical thickness of .080" to .120", and a hardness of Shore A 83 +/-5 normal durometer range. This material is classed as "Self Extinguishing", meets or exceeds automotive specifications NVSS302, and contains ultraviolet inhibitors to help prolong the life of the coating. Standard color is brown, with optional colors available. The following characteristics apply:

Tensile Strength - 2,800 psi

Elongation - 290 %

Tear Strength - 420 lbs/in

#### Uprights, Aluminum

The posts shall be 5" outside diameter tubing with an 1/8" minimum wall thickness. The material shall be extruded from 6005-T5 seamless aluminum alloy conforming to ASTM-B-221. Minimum yield strength shall be 35,000 psi and minimum tensile strength shall be 38,000 psi. All upright posts shall be coated with a custom formula TGIC polyester powder coating in conformance with the specifications outlined herein.

#### Entry Archway

Entry Archway shall be fabricated from 1-5/16" O.D. x .083" (14 gauge) wall galvanized steel tubing with vertical rungs fabricated from 1-1/16" O.D. x 15 gauge (.075" thick) galvanized steel tubing. L-Fitting is fabricated from 3/16" thick stainless steel for attachment to clamp. The Entry Archway shall be an all-welded assembly and shall be coated after fabrication with a custom formula of TGIC polyester powder coating.

#### SuperMax Clamp

Clamp Ring and Adapters are die cast from an A380 high-strength aluminum alloy with a baked-on polyester powder-coat finish.

## HDPE Components

#### HDPE Panels



Panels shall be precision cut from a single solid sheet of .750" thick UV-stabilized extruded high-density polyethylene with colors molded in. The material will have a density of 60 lbs/ft<sup>3</sup> and a tensile strength of 4400 PSI (30 Mpa) as determined per procedure C of ASTM D1928. All edges shall have radiuses and all corners rounded for safe play.

#### **Bench Seat**

SEAT PANEL shall be made from 0.75" thick (solid) high density, UV-stabilized and color impregnated polyethylene.

SEAT SUPPORT BEAM is fabricated from 1-5/8" (14 gauge) galvanized tubing with 3/16" thick hot-rolled steel plates for attachment to seat. Half clamps are formed of 3/16" thick hot-rolled steel. Seat support beam is an all-welded assembly and shall be coated after fabrication with a custom formula of TGIC polyester powder coating.

### **Metal Components**

#### **Loop Pole**

Vertical Pole Barrier is fabricated from 1-5/16" O.D. , 1-5/8" O.D. galvanized steel tubing, and galvanized tabs, and all welded. The entire barrier is coated after fabrication with a baked on polyester powder-coat finish. Loop Pole consists of a straight 1-5/8" O.D. galvanized steel tube with a 1-5/16" reduced end fitting for insertion into Vertical Pole Barrier overhead extension. Loops are fabricated from a 1-5/16" O.D. tube bent to form 12" loops and welded to the center pole.

#### **Spiral Step Climber**

Vertical Pole Barrier is fabricated from 1 5/16" O.D. and 1 5/8" O.D. galvanized steel tubing, with galvanized tabs, and all welds are stainless steel. The entire Barrier is coated after fabrication with a baked on polyester powder-coated finish. Spiral Step Climber Pole consists of 1 5/8" O.D. galvanized steel tube and 1 5/8" O.D. galvanized steel tube with a 1 5/16" reduced end fitting for insertion into Vertical Pole Barrier overhead extension. All parts are welded with stainless steel and receive a baked-on polyester powder-coated finish after fabrication. Panel is cut from a solid sheet of high-density .850" thick extruded polyethylene with color molded in and UV-stabilized.

#### **Vertical Ring Climber**

Vertical Ring Climber Frame is fabricated from 1-5/16" O.D. galvanized steel tube with a bake on polyester powder-coat finish after fabrication.

Vertical Pole Barrier is fabricated from 1-5/16" O.D. x .083" (14 gauge) wall galvanized steel tubing with interior vertical members fabricated of 1-1/16" O.D. x .075" (15 gauge) wall galvanized steel tubing. The Pole Barrier is a welded assembly and receives a baked-on powder coat finish.

#### **Wiggle Wave**

Wiggle Wave Climber is one-piece all welded using 1-7/8" O.D. 13-gauge galvanized steel tubing for the side rails and 1/4" thick yellow zinc-coated steel attachment plate. Rungs are made from 1-5/16" O.D. 14-gauge galvanized steel tubing. The Wiggle Wave climber receives a baked-on powder coat finish. Arch Barrier is fabricated from 1-5/16" O.D. x .083" (14 gauge) wall galvanized steel tubing with interior vertical members fabricated of 1-1/16" O.D. x .075" (15 gauge) wall galvanized steel tubing. The Arch Barrier is a welded assembly and receives a baked-on powder coat finish.



#### Swivel Station

Horizontal Beam is made of 3-1/2" O.D. 13-gauge galvanized steel tubing and 1-5/16" O.D. 14-gauge galvanized steel tubing. All welding is steel. Play-Wheels consist of 3/4" O.D. tubing, spokes are made of 1/2" rod and reinforced with a 1/8" steel plates, free turning with a grease impregnated bronzed bushing press-fit into the shaft to provide smooth turning. 3-1/2" Steel Wide Half-Clamps are formed from a 3/16" thick steel plate. All parts are polyester powder-coated finished after fabrication.

#### Rotomolded Components

##### Curvy Canopy

Roof shall be a single piece rotationally molded from an extremely durable low-density polyethylene with ultraviolet (UV) light stabilizers and color molded in. This material complies with ASTM-D-1248, Type 2, Class A, and Federal Specification LP-390C, Type 1, Class M, Grade 2, Category 3, and has a minimum 3/16" wall thickness.

##### Double Slides - Roto-Molded

Slide foot buck is fabricated from 2 3/8" O.D. galvanized steel tubing and 12 gauge stainless steel plate. Cross Bar is fabricated from 1 5/16" O.D. 14-gauge galvanized tubing. Barrier assembly is fabricated from 1 5/16" O.D. 14-gauge galvanized tubing and 1 1/4" O.D. galvanized end cap. Collar Plate is fabricated from 1/8" sheet steel and 2 1/8" O.D. steel collar. All metal parts shall be coated with a custom formula TGIC polyester powder coating. Slide sections and Visor Hood shall be rotationally molded from an extremely durable double-walled low density polyethylene with (UV) light stabilizers and color molded in. This material complies with ASTM-D-1248, Type 2, Class A, and Federal specification LP-390C, Type 1, Class M, Grade 2, Category 3, and has a minimum 1/4" wall thickness (3/16" for Visor Hood). Steel inserts are molded in to receive fastening bolts. Slide side rails are a minimum 12" high from the inside slide surface, and slide bed-way is designed to have a 20" minimum width.

##### Avalanche & Landslide Slides

Slide footbuck is fabricated from 1 5/16" O.D. 14-gauge galvanized steel tubing and 1/4" steel plate. Slide supports are fabricated from 1 5/8" O.D. 14-gauge galvanized steel tubing. Cross Bar is fabricated from 1 5/16" O.D. 14-gauge galvanized tubing. Handhold assembly is fabricated from 1 5/16" O.D. 14-gauge galvanized tubing and 3/16" steel mounting tab. Vertical rung assembly is fabricated from 1 5/16" O.D. 14-gauge galvanized tubing and 1/8" steel mounting tab. Collar Plate is fabricated from 1/8" sheet steel and 2 1/8" O.D. steel collar. Deck Center Support is fabricated from 2 3/8" O.D. 13-gauge galvanized steel tubing. Support Rung is fabricated from 1 5/16" O.D. 14-gauge galvanized tubing with 3/8" crimped insert. All metal parts receive a baked-on polyester powder-coat finish after fabrication.

Slide Sections, Entrance Section and Visor Hood shall be rotationally molded from an extremely durable double-walled low density polyethylene with (UV) light stabilizers and color molded in. This material complies with STM-D-1248, Type 2, Class A, and Federal specification LP-390C, Type 1, Class M, Grade 2, Category 3, and has a minimum 1/4" wall thickness (3/16" for Visor Hood). Steel inserts are molded in to receive fastening bolts. Slide side rails are a minimum 12" high from the inside slide surface, and slide bed-way is designed to have a 20" minimum width.

Half Flat Cap is an all-welded assembly fabricated from 1/4" and 1/8" thick Hot Rolled Steel. Half Flat Cap shall be coated after fabrication with an oven cured matte finish polyvinyl chloride (PVC) coating with a minimum coating thickness of .080". The PVC coating shall have a hardness of Shore A 83 +/-5 normal durometer range. This material is classed as "Self Extinguishing", meets or exceeds automotive specifications NVSS302, and contains ultraviolet inhibitors to help prolong the life of the coating.

##### Tunnel Slides

Foot Buck will be made from 1.315" O.D. 14-gauge galvanized steel tubing welded to 11-gauge steel plate and coated with a baked on polyester powder-coated finish.



The Crawl Tunnel Panel, and Exit Section shall be a double wall, one-piece construction of color impregnated rotationally molded linear low-density polyethylene with a 1/4" nominal wall thickness. Tubes shall be rotationally molded from an extremely durable low density polyethylene with (UV) light stabilizers and color molded in. The Rotationally molded products shall meet or exceed the following specifications: ASTM D-1248, type 2, class A and Federal specifications LP-390C type 1, class M, grade 2, category 3; Density (ASTM D-1505); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790); Heat Distortion (ASTM-648); Low Temperature Impact (ARM-STD).

#### Curvy Hex Roof

Roof shall be a single piece rotationally molded from an extremely durable low-density polyethylene with ultraviolet (UV) light stabilizers and color molded in. This material complies with ASTM-D-1248, Type 2, Class A, and Federal Specification LP-390C, Type 1, Class M, Grade 2, Category 3, and has a minimum 3/16" wall thickness.

### Deck Components

#### Deck Platforms

Metal decks shall be a one-piece construction and shall be designed to maintain a full 48" on center post spacing. Metal decks shall be fabricated from 11 gauge hot rolled steel which shall be punched, formed, and reinforced with welded in place 2-1/2" x 11 ga. steel strips. Decks shall include a pattern of equally spaced slots on each side to provide a flush mounting of play events that attach to the deck, as well as the design of more than one adjacent deck at the same height. Each deck shall have welded at the corner underside a threaded 3/8" stud for attachment to the post's Deck Clamps. This fastening technique eliminates the need for hardware protruding through the deck surface, thereby eliminating the possibility of an entanglement hazard and presenting a clean and smooth deck surface. Entire deck assembly, after fabrication, shall be dipped in a textured skid-resistant poly-vinyl-chloride (plastisol) coating to a minimum thickness of .080".

#### Transfer Station (Triangle)

The Platform and Step shall each be made from 12 gauge punched steel with a protective p&o finish. The Platform and Step shall each be a one-piece welded assembly finished with the matte PVC coating. The step shall have a minimum of 355 square inches of area per step and shall descend in increments of 8" or less, as specified by the Americans with Disabilities Act (ADA). Handhold and Platform Supports shall be fabricated from 1 5/16" O.D. x .083" (14 gauge) wall galvanized steel tubing, and 1 1/4" (14 gauge) pipe cap. Handhold and platform supports shall be all-welded assemblies and shall be coated with a custom formula of TGIC polyester powder.

#### Space Walk

Button Step: Shall be rotational molded from polyethylene. The polyethylene shall be linear low-density material with UV-stabilized color and an anti-static compound additive. All rotational molded products shall meet or exceed the following specifications: ASTM D-1248, type 2, class A and Federal specification LP-390C, type 1, class M, grade 2, category 3; Density (ASTM D-155); Brittleness Temperature (ASTM D-746); Tensile Values (ASTM D-638); Flexural Modulus (ASTM D-790); Heat Distortion (ASTM-648); Low Temperature Impact (ARM-STD).

Top Frame: Shall be an all welded assembly fabricated of 2.375" O.D. galvanized steel tubing (.095" wall thickness) and 1.66" O.D. galvanized steel tubing (.083" wall thickness). This assembly shall have a powder coat finish.

Hanger Weldment: Shall be an all welded assembly fabricated of 1.315" O.D. galvanized steel tubing (.083" wall thickness), a formed 12 gauge (.109") hot rolled flat steel plate, a 1/4" x 2" Stainless Steel Flat tab and a 1.063" O.D. cold rolled steel clevis. This assembly shall have a powder coat finish.

Attachment Pipe: Shall be fabricated of a 1.029" O.D. galvanized steel tubing (.072" wall thickness) smashed on both ends. This assembly shall have a powder coat finish.



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