

STAFF REPORT: 04-15-2020 MEETING

PREPARED BY: J. ROSS

APPLICATION NUMBER: 20-6703

ADDRESS: 4301 W. VERNOR/1130 CLARK (CLARK PARK)

HISTORIC DISTRICT: HUBBARD FARMS

APPLICANT: JOHN DERUITER/CITY OF DETROIT GSD

DATE OF COMPLETE APPLICATION: 03-20-2020

SCOPE: REHAB PARK

EXISTING CONDITIONS

Established in 1891, Clark Park contains 24 acres and is bounded by West Vernor, Scotten, Clark, and Lafayette Streets. According to an 1891 newspaper article, the park "...was the only tract of forest timber left in the city. The park was home to a variety of trees including oak, elm, hickory, ash, and hawthorn, measuring 60 feet tall...many being over 200 years old." Clark Park initially consisted of a series of winding gravel walkways with circular spaces of approximately 20' located at intersections. A large fountain was also originally located within the park. The park underwent its first major renovation in 1910 and has been altered a number of times since. Specifically, as per the Detroit Historic Designation Advisory Board, "...trees and foliage has been removed to create softball fields and playgrounds. Today, only a few trees remain..." at the park edges. A number of additional historic-age amenities remain within the park to include four early 20th-century buildings. Non-historic extant elements include playground equipment, courts, benches and tables, and a picnic shelter. More active uses, to include a recreation field; tennis court; playground; and ice rink are located at the southern half of the park while the walkways and more passive amenities including benches are situated at the park's northern half.

PROPOSAL

With the current application, the City of Detroit, General Services Department (GSD) is seeking this body's approval to rehabilitate the park, to include the following **as per the attached:**

Recreation Zone

- Replace the existing non-historic tennis court and fence with a new multi-use court zone. There will be 3 tennis courts, a basketball hoop, four square, and a futsal court. The court will be finished in reds, blues, and greens to reflect the colors found at the nearby brick buildings and the tree canopy.
- Replace the existing playground equipment and replace with new equipment
- Replace the existing non-historic benches and tables and replace with new metal tables and **custom wood benches**
- Replace the existing non-historic picnic shelter with a new shelter structure
- Remove **the existing community garden**, including fence

North/W. Vernor Edge Entrance

- Establish three entry plazas with ornamental gates and plantings at the northern park edge, each to include the following:
 - Approximately 4'-6"-high steel picket fencing with 5'-7/8" masonry, brick clad columns

- 12'-0"-high steel arch which reads "Clark Park." The arches will rest on 7'-6 ½" high masonry, brick clad columns
- Stained grey "decorative" concrete base
- Install **ornamental plantings** within the sidewalk
- Install custom wood seating at the central plaza

Scotten and I-75 Access Road

- Within the median, **along Scotten** install 60 new street trees and 40 trees along the **I75 Access Road**. The new trees will be hardwoods like elm, oak, and sweetgum. There will also be Arborvitae and Norway Spruce planted along I-75, as part of a vegetative buffer to shield the park from the expressway.

General Landscaping

- Remove 34 trees from the park. The trees to be removed include 32 Norway Maples, one Honey Locust, and one Crabapple Tree
- Install 100 new trees within the park. New trees will be elm, oak, sweetgum, and a mix of native perennials.

STAFF OBSERVATIONS AND RESEARCH

- It appears that the only historic-age element which is proposed for replacement is the metal spiral slide, which is located in the park's playground area. The applicant has stated that GSD is proposing to replace the existing playground equipment because it is "nearing the end of its functional life, and shows signs of deterioration and safety issues"/ the applicant must adhere to safety standards re: playground equipment in publically-owned parks. While the spiral slide proposed for replacement appears to be of historic age, it is staff's opinion that it does not "characterize" the park. Although the District's Elements of Design refers to the presence of playground equipment, the document does not specifically identify the slide itself as significant. Historic photos from the early 20th century do provide evidence that recreational equipment/recreational uses have existed at the site since the 1910s. It is staff opinion that the maintenance of "recreational uses" within the park in general is more significant than retaining the slide itself.
- The applicant has noted that a certified Arborist has recommended the removal of the Norway Maple trees because they are invasive and many are in poor condition
- The applicant has noted that the proposal has been vetted by the community. See the **attached which outlines** their community engagement process

ISSUES

- None

RECOMMENDATION

It is staff's opinion that the proposed project will not result in destruction of historic materials that characterize the property/park. HDC staff therefore recommends that the Commission issue a Certificate of Appropriateness for the work as proposed because it meets the Secretary of the Interior Standards for Rehabilitation. In particular, standards:

(6) Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

(9) New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.



Clark Park, ca. 1910

REPORT

CLARK PARK IMPROVEMENTS –

Scope of Work

Demolition and Removals

- Remove existing playground
- Remove concrete and asphalt from near existing playground and near Vernor.
- Remove community garden
- Remove existing picnic shelters
- Remove trees where necessary for maintenance reasons.

Concrete Walkways and Plazas

- Install walkways near playground
- Install walkways and plazas along Vernor

Vernor Streetscape and Park Entries

- Install planter beds along Vernor, where existing sidewalk currently is. New sidewalk will be set back into the park.
- Install perennial plantings in beds
- Install Ornamental fence and Gateway feature at corners and center

Playground

- Install custom Richter Spielgate playground climber
- Install poured in place rubber surfacing play mound
- Install Landscape Structures swings and accessible spinners. .
- Install tables, and custom benches
- Install new picnic shelter

Splash Pad

- Install custom splash pad built of water jets embedded in boulders and concrete.

Multi Sports Courts

- Remove existing tennis courts
- Replace with courts that will include: tennis, futsal, and basketball. (Same footprint as existing courts)

Fitness Area

- Remove existing tennis courts
- Replace in the same location with the same footprint courts that will include: tennis, futsal, and basketball.

Fitness Area

- Install *Most Dependable Fountains* Shower Station
- Install *Huntco* bike racks
- Install *Wabash Valley* picnic tables
- Install *Wabash Valley* sport court benches
- Install *Pilot Rock* hot coal bins
- Install *Legrand* solar charging stations
- Install custom benches
- Install custom timber stacked benches
- Install *Bow Wow Waste* commercial pet waste receptacle

Clark Park

SUMMER 2020 RENOVATIONS

HISTORIC DISTRICT COMMISSION
Spring 2020



**General Services
Department**

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PROJECT BACKGROUND

Clark Park has a rich history in the City of Detroit. As one of the oldest parks in the city, it has undergone many changes and continues to be a district defining greenspace in the Hubbard Farms Historic District.

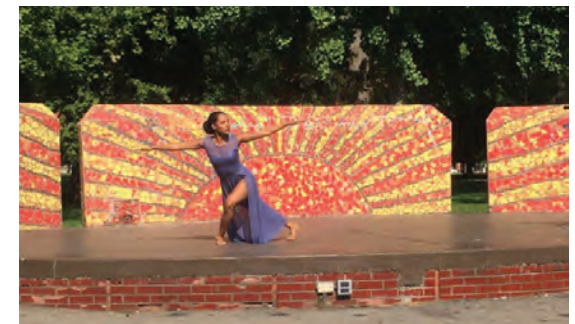
John Person Clark (1808-1888) was a wealthy Detroitier earning his fortune through fishing and dry dock. His will bequeathed one half of an undivided parcel to the City of Detroit for a park in 1888.

In fairness, he asked the City to offer his estate an agreeable price to purchase the remaining land to complete the park. His requirements were fair and simple: The existing beaver dam and hardwood trees be undisturbed, subject only to the actions of time. As well, the land be deeded as forever parkland for the pleasure of all.

130 years later, Clark Park is an active greenspace in Southwest Detroit with a strong neighborhood coalition behind it. It offers baseball and soccer fields, a playground, walking paths, picnic areas, shelters, public art and a winter hockey rink.

As part of the City wide Strategic Neighborhood Fund (SNF) initiative several parks around Detroit were chosen to undergo a master planning process, which will ultimately culminate in significant capitol investments. Clark Park is an SNF project, and over the last year the City of Detroit General Services Department has lead a community centered master planning and construction documentation process.

This document aims to describe this process and the forthcoming physical improvements to the park, while making the case for their suitability within the Hubbard Farms Historic District.



PROJECT NARRATIVE

The Strategic Neighborhood Fund initiative has allocated approximately \$2.3M for physical improvements to Clark Park. These funds will be used to update dilapidated park amenities.

The park is currently ran through a joint partnership between the General Services Department and the Clark Park Coalition. The General Services Department primarily handles maintenance and capital improvements, while the Clark Park Coalition handles programming, though there is overlap among duties. The City, Coalition, as well as the general community was throughly involved with the master planning process.

These improvements will primarily go to an updated streetscape along Vernor Hwy, a complete renovation of the existing playground, new site amenities, and work to preseve the tree canopy within the park. These improvements aim to align with the defining characteristics of the Hubbard Farms Historic District, described later in this document.

Clark Park is the main source of greensapce and recreation in the Hubbard Farms Histroic District, so the improvements to the park will impact the district as a whole. It is the intent that the improvements fit seamlessly into the surrounding district, while continuing to provide receration opportunities to the entire district and neighborhood.

There are several historic buildings within Clark Park which have also been targeted for improvements. These improvements will be submitted to the HDC under a different submittal package.

SUMMARY OF COMMUNITY ENGAGEMENT

This project relied heavily on the input from residents close to Clark Park, as well as the Clark Park Coalition. The General Services Department conducted several meetings to describe plans and generate community support.

Initial project Kick off - May 7th

Initial concept description - May 28th

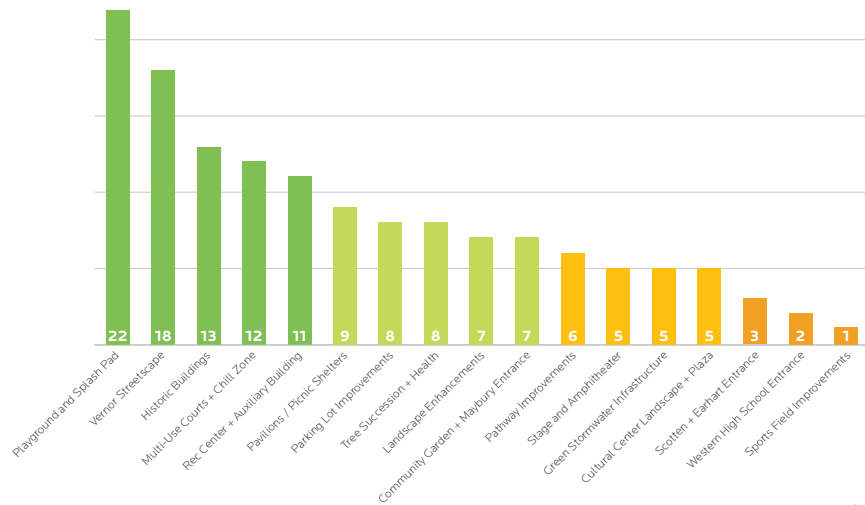
Several small group meetings held through out the summer of 2019

Master plan concept review open house - October 10th

Final plan and phasing plan review - November 14th.

All meetings were held at the Clark Park Rec Center.

COMMUNITY PRIORITIZATION



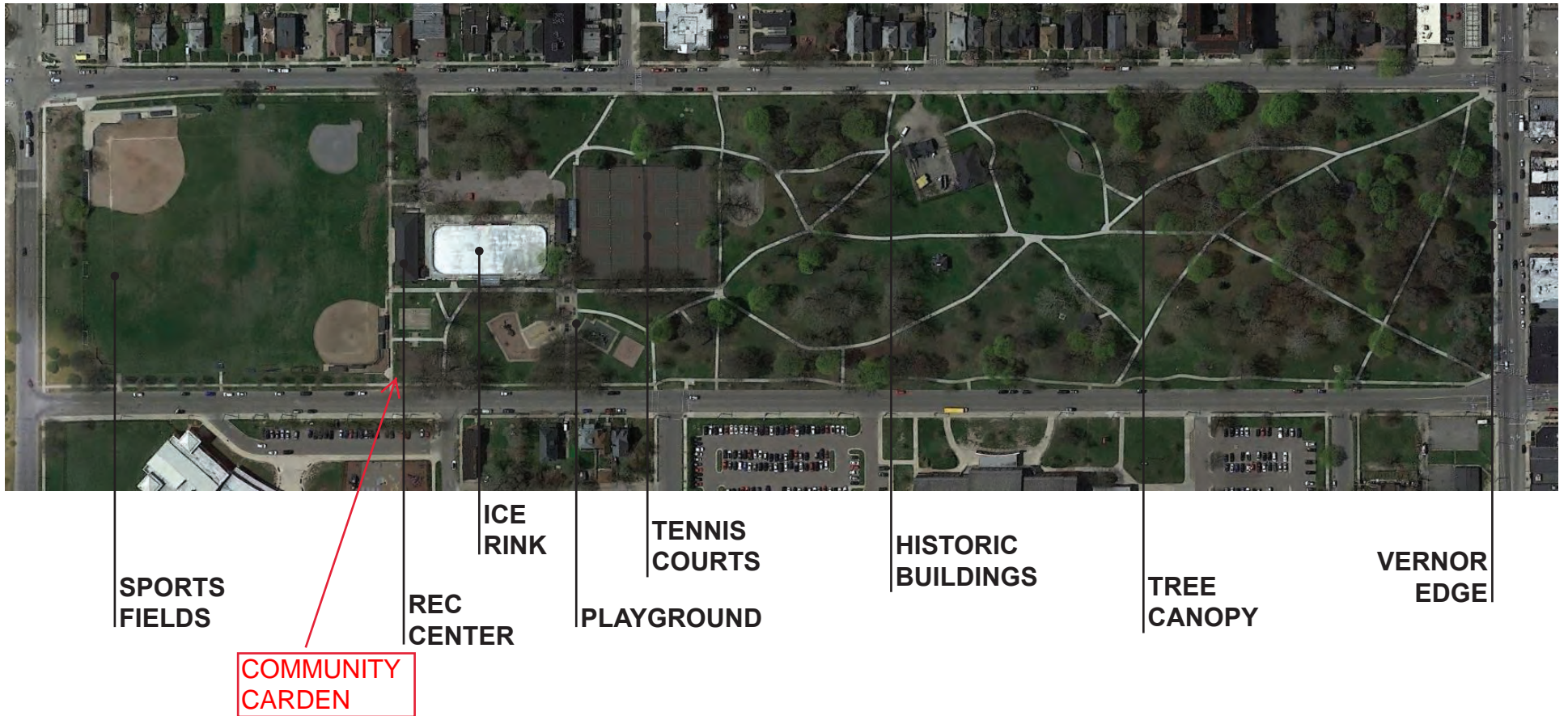
The graphic to the left displays the results of public voting held at the October 10th meeting. Participants were instructed to rank their priorities in terms of park improvements. Other community voting results can be presented if necessary .

EXISTING CONDITIONS



Aerial Image from 1949

EXISTING AMENITIES

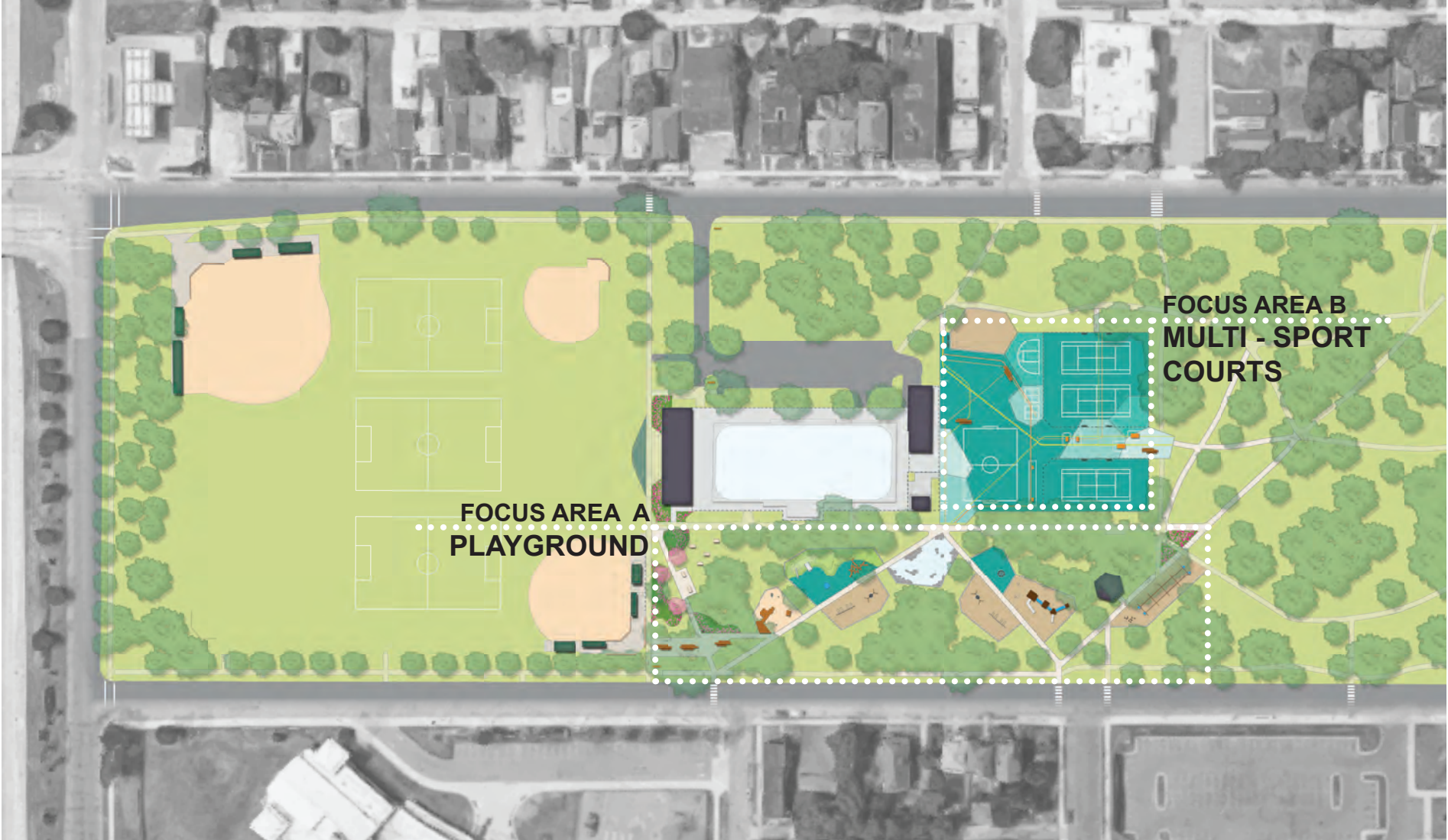


ELEMENTS OF DESIGN (EOD)

According to City ordinance Sec. 21-2-157 - Hubbard Farms Historic District, the following elements of design (EOD) are defined as for Hubbard Farms, with Clark Park being an important piece of the overall districts character. The 22 elements of design are listed below, although many of these apply moreso to the buildings in the park, which will be submitted under a different HDC Package. Breif descriptions are included as to how the elements of design influenced the design.

- (1) Height. Building improvements will be submitted under a different HDC package, however new playground equipment will not exceed any existing heights in the district. The highest piece of equipment is approximately 1.5 building stories in height.
- (2) Proportion of buildings' front facades. *Will be discussed in the building package to HDC at a later date.*
- (3) Proportion of openings within the facades. *Will be discussed in the building package to HDC at a later date.*
- (4) Rhythm of solids to voids in front facades. The regular and symmetrical voids found on classical precedents near the park has been replicated in the spacing of planter beds to be installed along Vernor. The angled design of the planters ties into the diagonal paths crossing the park, while the symmetry ties into the fairly symmetrical building fronts along Vernor.
- (5) Rhythm of spacing of buildings on street. Historically the structures in Clark Park have been set back well into the park, with sidewalk surrounding the park on all 4 sides. This updated plan does not deviate from this. The improvements along Vernor will improve the street sidewalk. with seating and other improvements set back into the park.
- (6) Rhythm of entrance and/or porch projections. *Will be discussed in the building package to HDC at a later date.*
- (7) Relationship of materials. Major elements throughout the district are wood and brick. These elements are picked up in several material choices in the new design. For example, brick pillars will be used at entrance gates along Vernor, and there will be wooden playground structures. Where metal playground structures are necessary, shades of red will be used to tie into the brick and wood colors in the district.
- (8) Relationship of textures. The juxtaposed textures of brick, wood, and stone found throughout the district are present in the new design of Clark Park. These are used throughout the park as accents, or pieces of play equipment.
- (9) Relationship of color. Natural brick colors like red, brown, and orange are present in the selection of playground equipment. Much of it will be wood, but where metal is necessary these colors are used. These colors also show up in the ground plane of the refurbished tennis courts, which will now serve multiple sports.
- (10) Relationship of architectural details. *Will be discussed in the building package to HDC at a later date.*
- (11) Relationship of roof shapes. *Will be discussed in the building package to HDC at a later date.*
- (12) Walls of continuity. *Will be discussed in the building package to HDC at a later date.*
- (13) Relationship of significant landscape features and surface treatment. Clark Park is address specifically in the ordinance as being graded for passive recreational use. This use will continue in the new design of the park. The tree canopy in the park is a crucial piece of the entire district, and work in this project will provide much needed maintenance.
- (14) Relationship of open space to structures. Clark Park is defined as the major open space in the district, and will continue to be so after these improvments. Great attention was paid to the design so that it does not decrease the amount of open space in the park.
- (15) Scale of facade and facade elements. *Will be discussed in the building package to HDC at a later date.*
- (16) Recreational expression of front elevations. *Will be discussed in the building package to HDC at a later date.*
- (17) Rhythm of building setbacks. As discussed earlier, the setbacks are usualy well within the property. The new improvements to the park do not deviate from this.
- (18) Relationship of lot coverages. The relationship of lot coverage at Clark Park will not be impacted.
- (19) Degree of complexity within the facade. *Will be discussed in the building package to HDC at a later date.*
- (20) Orientation, vistas, overviews. The vistas within the park will not be impacted by these improvements.
- (21) Symmetric or asymmetric appearance. *Will be discussed in the building package to HDC at a later date.*
- (22) General environmental character. The general environmental character of the entire Hubbard Farms district is very related to Clark Park itself. This has long been the recreation and natural center of the district. These improvements aim to highlight this natural beauty in a dense urban environment. The improvements for the most part leave the environment intact, and are simply replaceing exsisting built elements in the park.

PROPOSED SITE PLAN - SOUTHERN SECTION OF PARK



PROPOSED SITE PLAN - NORTHERN SECTION OF PARK



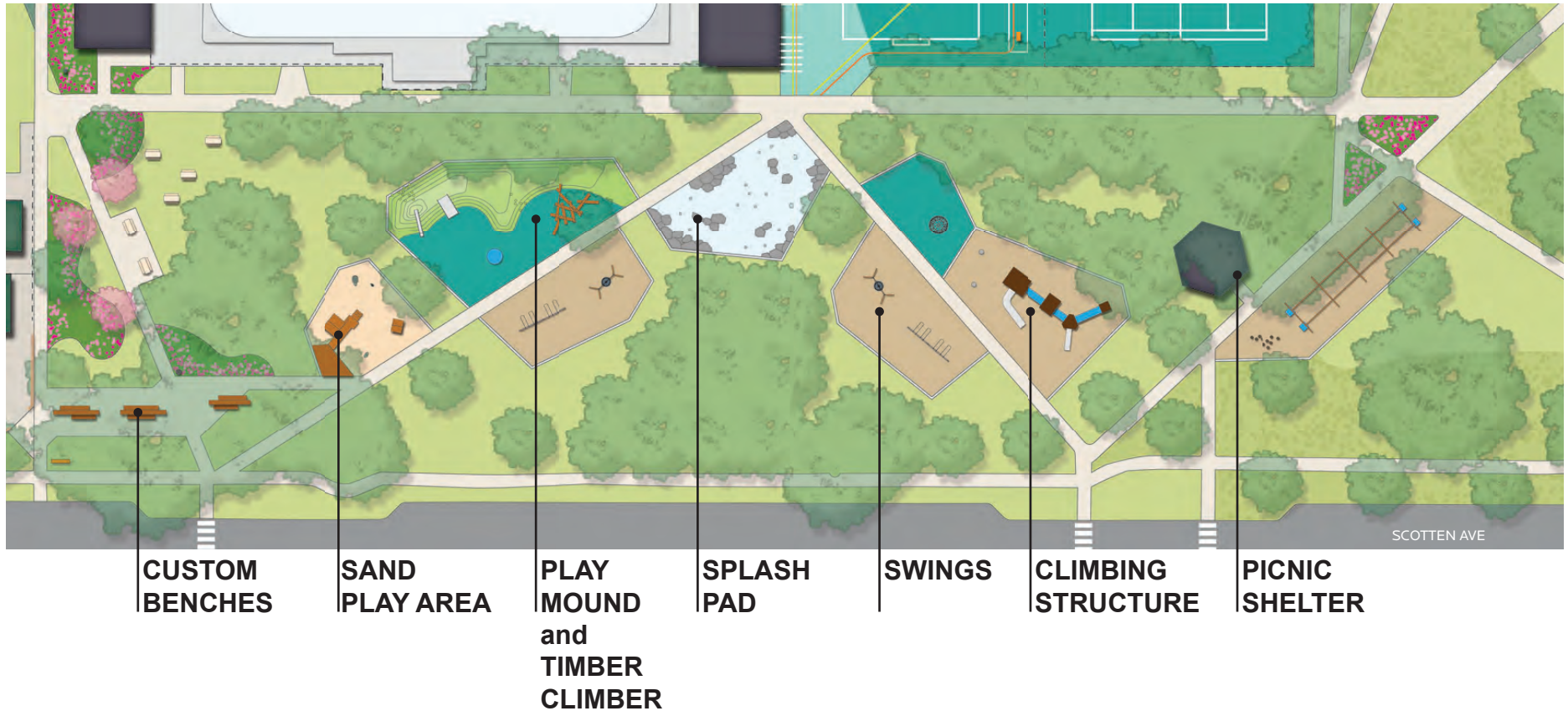
FOCUS AREA A - PLAYGROUND

Existing Conditions: Playground



The playground is approximately 15 years old. The slide is older, but the installation date is unknown - most likely installed sometime in the 1970's or 80's. The equipment is nearing the end of its functional life, and show signs of deterioration and safety issues. The pictured shelter was installed sometime in the late 1970's and has a deteriorating roof - the height of the roof is also approximately only 6.5', which creates uncomfortable conditions.

FOCUS AREA A - PLAYGROUND



The playground at Clark Park receives a lot of use, but is very out of date. This project will replace the entire playground with a modern application, while still fitting into the historic nature of Clark Park. The materials will be wood, rope, and metal. Metal colors will be shades of red. There will also be a large climbing mound made of poured in place rubber surfacing, which will be shades of green, which connect to the tree canopy in the park. There will be a splash pad made of boulders and grey concrete. The existing picnic shelter will be replaced with a similar model, as the current one is in a state of disrepair.

FOCUS AREA A - PROPOSED AMENITIES

Custom benches

Precedent image of custom bench.



Sand play area

Precedent image of play pieces at sand area.



Play components

“Global Motion” and
“Curva Spinner”



Play Mound

Precedent image of the type of mound which will be installed at Clark. The image shows yellow, green and red safety surfacing, but the installation at Clark will be primarily green, to match with the tree canopy.



Splash pad

Precedent image of splash pad. Will be made from water jets installed in boulders.



FOCUS AREA A - PROPOSED AMENITIES

Swings

Richter-Spielgate swings



Timber Climber

Precedent of timber climber



Climbing Structure

Precedent for custom structure

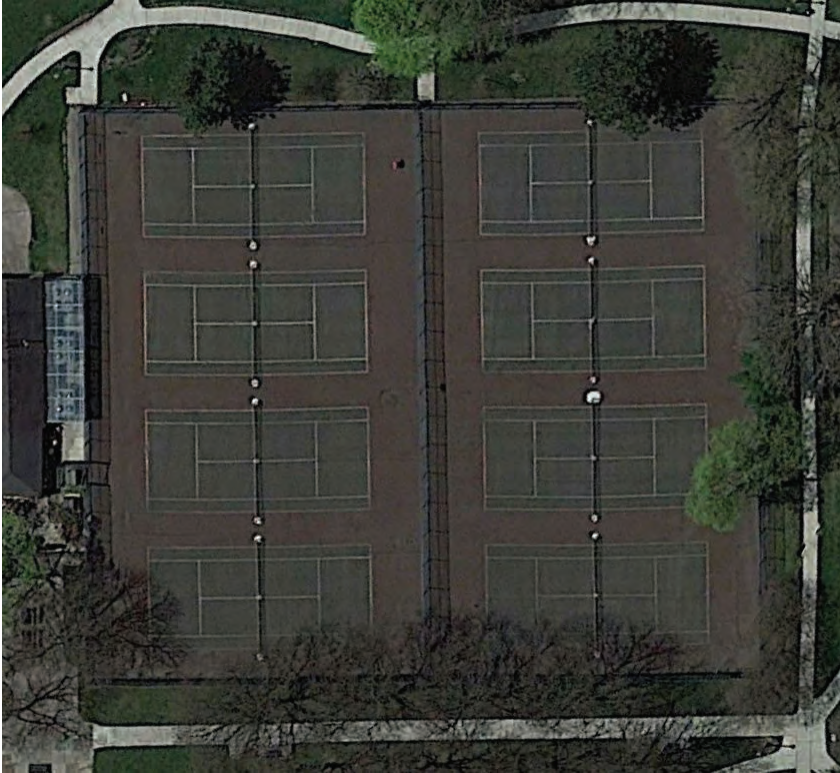


NOTE:

Cut sheets attached for playground equipment, as well as a new proposed pavilion to replace the existing structure.

FOCUS AREA B - MULTI - SPORTS COURTS

Existing Conditions: Tennis Courts

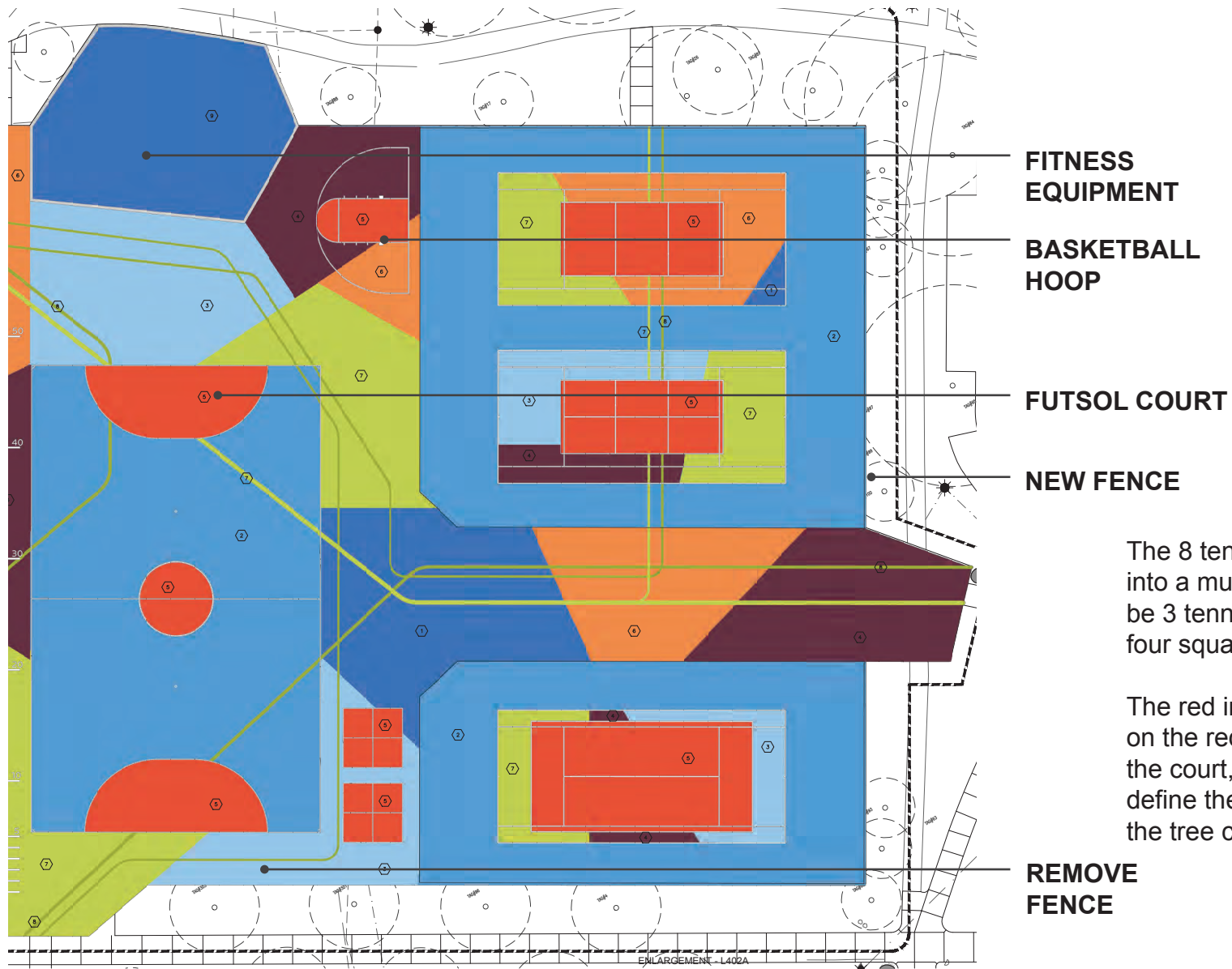


The tennis courts get a small amount of use, and all 8 courts are rarely (if ever) all used at the same time. The courts are uneven and have significant cracks. The fencing is also in poor condition.

The fencing creates a physical barrier between both sides of the park - this project will remove portions of the fence to create a pedestrian route through the park.



FOCUS AREA C- PLAYGROUND



The 8 tennis courts will be converted into a multi use court zone. There will be 3 tennis courts, a basketball hoop, four square, and a futsal court.

The red in the court colors picks up on the red brick buildings surrounding the court, while the blue and greens define the playing areas and relate to the tree canopy..

FOCUS AREA B- PROPOSED AMENITIES

Proposed: Fitness Equipment

Custom silver and black palette is city standard across parks to reduce maintenance fees and provide a modern look while adhering to neutral colors and black metal in the elements of design.



Proposed: Black Vinyl Chainlink Fence

10' tall



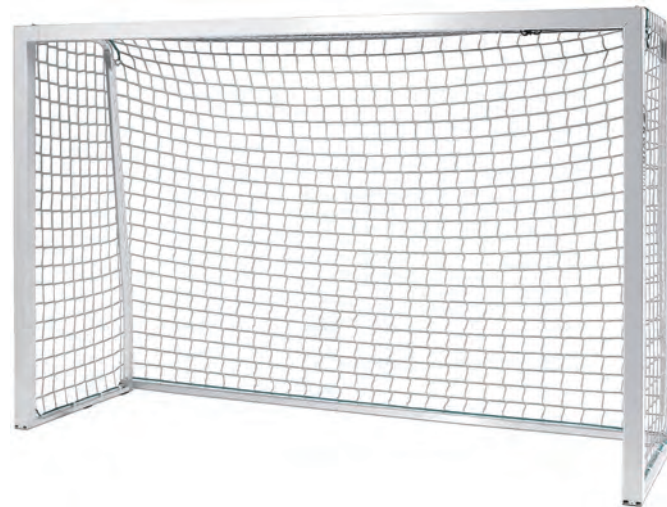
Basketball Hoop

Top of board 13' tall



Futsal Goal

6'7" h x 9'10" w



FOCUS AREA B- PROPOSED AMENITIES

REPORT

Proposed: Picnic Tables

Picnic tables will be near multi sports courts and the playground



Proposed: Grills

Grills will be near multi sports courts and the playground

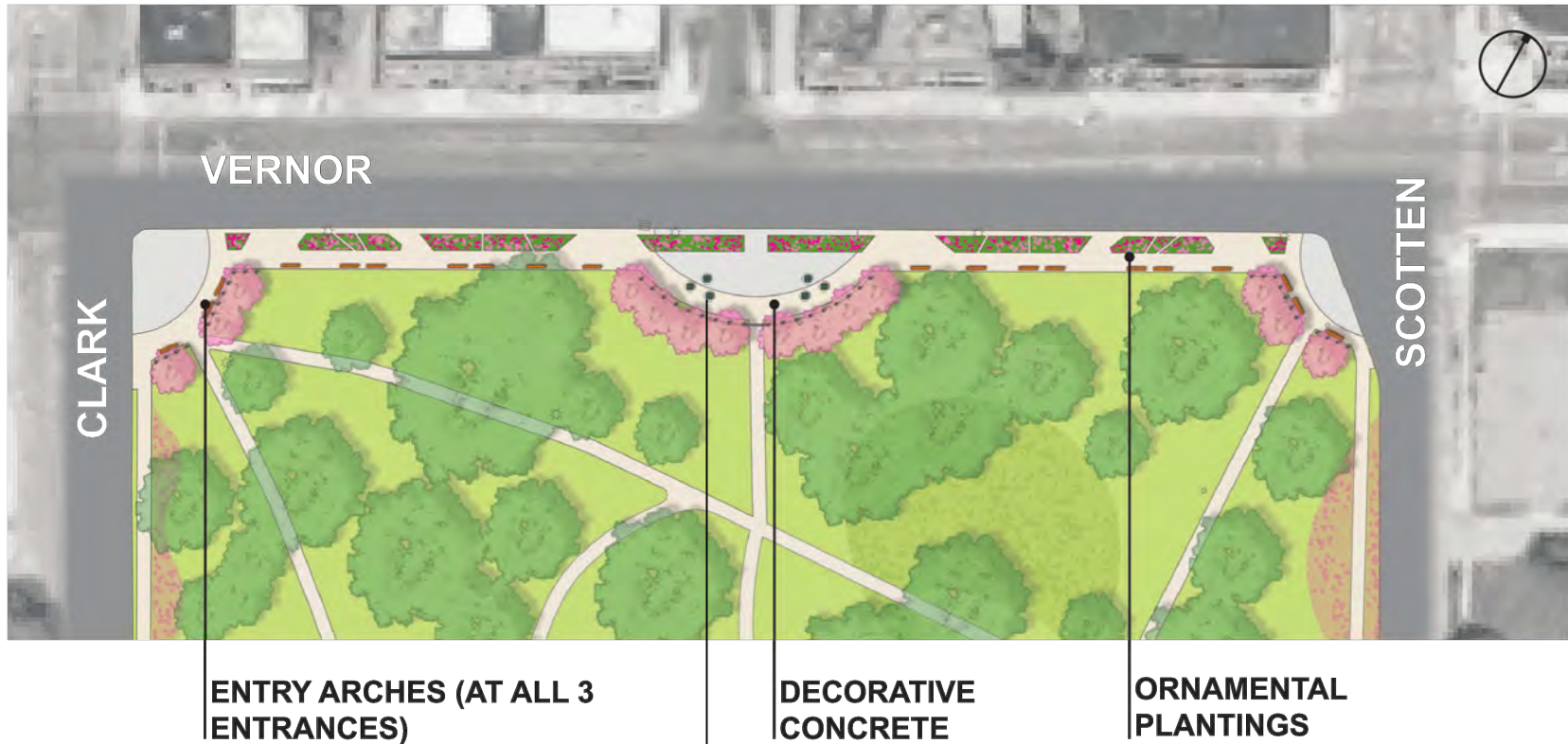


FOCUS AREA C- VERNOR EDGE

Existing Conditions



FOCUS AREA C - VERNOR EDGE



Note: these 6 dots represent cafe tables from a previous concept. They will not be installed with this GSD project. Cannot remove from drawing due to software limitations from the Covid19 shutdown

The redesigned edge for Clark Park will include landscaped beds from Clark to Scotten. This redesign will place the plantings close to the road, and set the sidewalk back further into the park. Small entry plazas will be added in the center and each corner allowing the community a gracious entry into the park. There will also be an ornamental gate with brick columns installed at each entrance.

FOCUS AREA C - PROPOSED AMENITIES



DEUTZIA GRACILIS 'DUNCAN'
CHARDONNAY PEARLS



HIBISCUS X 'STARRY STARRY
NIGHT'



HYDRANGEA PANICULATA
'LITTLE LAMB'



ROSA X 'AT LAST'
AT LAST



WEIGELA FLORIDA 'WINE &
ROSES'



ANEMONE X HYBRIDA
'HONORINE JOBERT'



ALLIUM 'GLOBEMASTER'



MOONSHINE YARROW



ASCLEPIAS TUBEROSA 'HELLO
YELLOW'



BRUNNERA MACROPHYLLA
'JACK FROST'



EUPATORIUM DUBIUM 'LITTLE
JOE'



SALVIA X SYLVESTRIS 'MAY
NIGHT'

CLARK PARK TREE CANOPY

The tree canopy at Clark Park is one of the most appreciated aspects of the park, and is the defining green space of the Hubbard Farms Historic District.

This project will perform preventative maintenance on trees throughout the park, as well as planting up to 100 new trees. During this design project, a certified arborist performed a tree survey and assessment to help inform decisions on the tree canopy.



- (32) INVASIVE / FAILING TREES DESIGNATED BY ARBORIST
- (2) NON-INVASIVE TREES IMPACTED BY PH I DESIGN
- (60) TREES ADDED THROUGH PH I DESIGN

In addition to the 60 new trees, GSD will be installing street trees in the right of way along Scotten and I-75 srv. drive.

This graphic maps the 34 trees which will be removed from the park. Of the trees to be removed from the park, 32 are invasive - primarily Norway Maple. Several trees will also be removed due to poor health/condition. One crab apple and one honey locust in fair condition will be removed due to design choices.

Many new trees will be added to the park, including elm, oak, sweetgum, and a mix of native perennials.

CLARK PARK COMMUNITY GARDEN REMOVAL

The community garden at Clark Park does not get a lot of use. There are some vegetables planted, but not many. It is also in a poor location as it does not get much direct sunlight.

The community is in favor of removing this. Also, in the long term master plan GSD identified better locations for a garden. If in the future the community decides they would like it again, we will reassess and bring that change back to HDC.



Garden in fenced in area



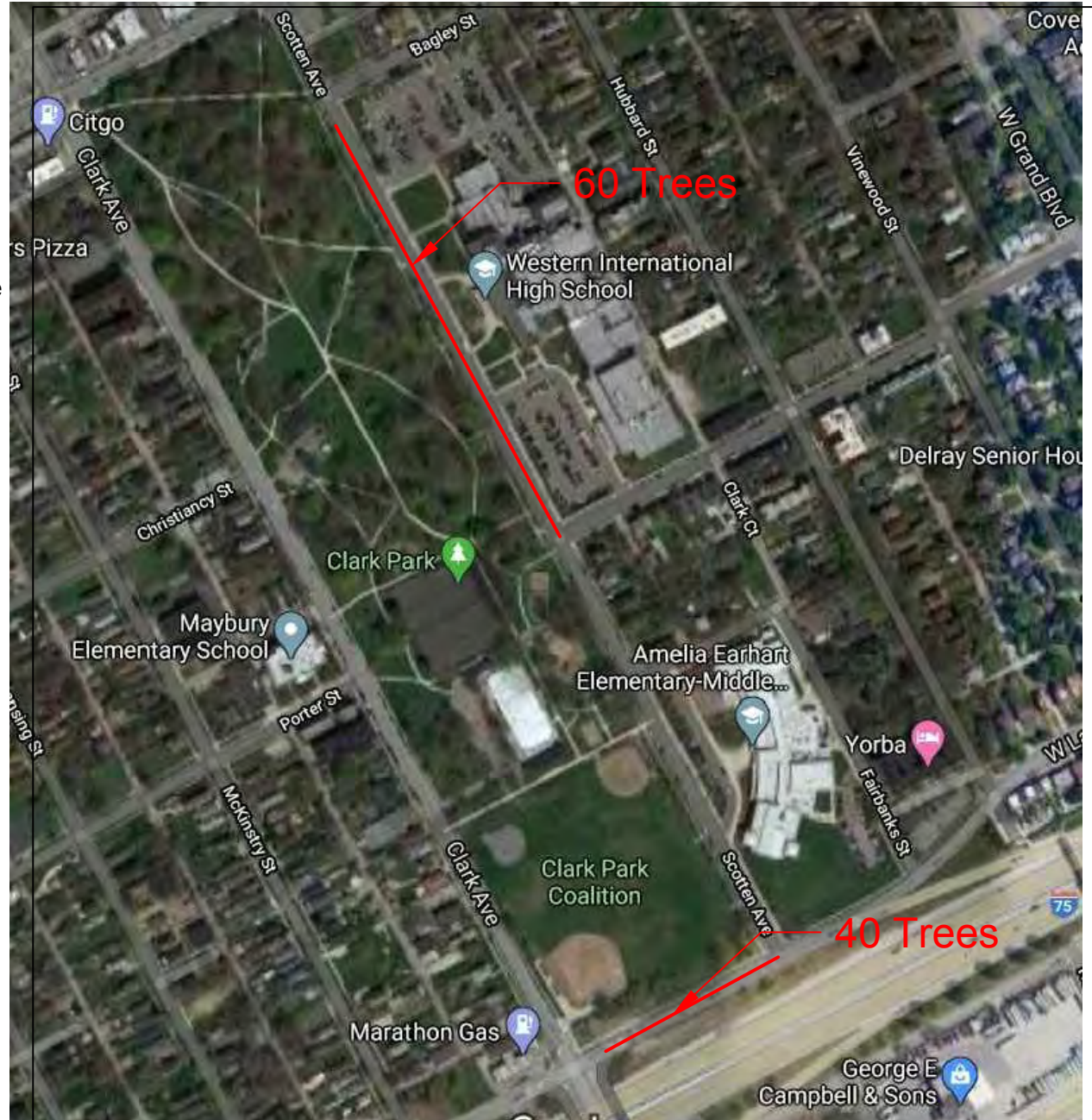
CLARK PARK STREET TREES

REPORT

As part of this overall improvement, GSD plans to install street trees in the median between the sidewalk and road, along Scotten and I-75.

These will be hardwoods like elm, oak, and sweetgum. There will also be Arborvitae and Norway Spruce planted along I-75, as part of a vegetative buffer to shield the park from the expressway.

The red lines on the map show the locations of the tree plantings.



Cut Sheets and Scope of work attached.

CLARK PARK

SUMMER 2019 DESIGN



**General Services
Department**

model no:

SG324D, SG324P, SG325D, SG325P, SG327D,
SG327P, SG328D, SG328P, SG330D, SG330P,
SG331D, SG331P, SG336D, SG336P, SG337D,
SG337P, SG339D, SG339P, SG340D, SG340P,
SG342D, SG342P, SG343D, SG343P,



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505 E. Main Street
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maintenance:

Regular inspection and maintenance of all parts, and fasteners is necessary. Tighten all bolts and nuts. Inspect Tops, Seats, Legs, Braces and Fasteners periodically for wear or vandalism. Replace broken or worn parts immediately or take equipment out of service until repairs are made. Use genuine Wabash Valley replacement parts.

To restore plastisol coating to its luster after prolonged use, wash/rinse/dry and use Armor-All ® or similar quality vinyl protectant.

KEEP THIS ASSEMBLY/SPECIFICATION SHEET FOR FUTURE REFERENCE.

specifications:

NOTE: We reserve the right to change specifications without notice.

Heat fused poly-vinyl coating, finished on inner-metal structure, to an approximate 3/16" thickness. Framework assemblies are finished with powder coating; electrostatically applied and oven cured according to powder manufacturer's specifications. Fasteners are stainless steel to resist corrosion.

BENCH FRAME:

Main supports are constructed of 2 3/8" od x 12 gage structural steel tubing. Braces are 1" od x 15 gage structural steel tubing. Mounting brackets on legs are 1/4" x 2" steel flat bar or 10 gage sheet steel. Base plates are 1/4" plate steel.

SEATS:

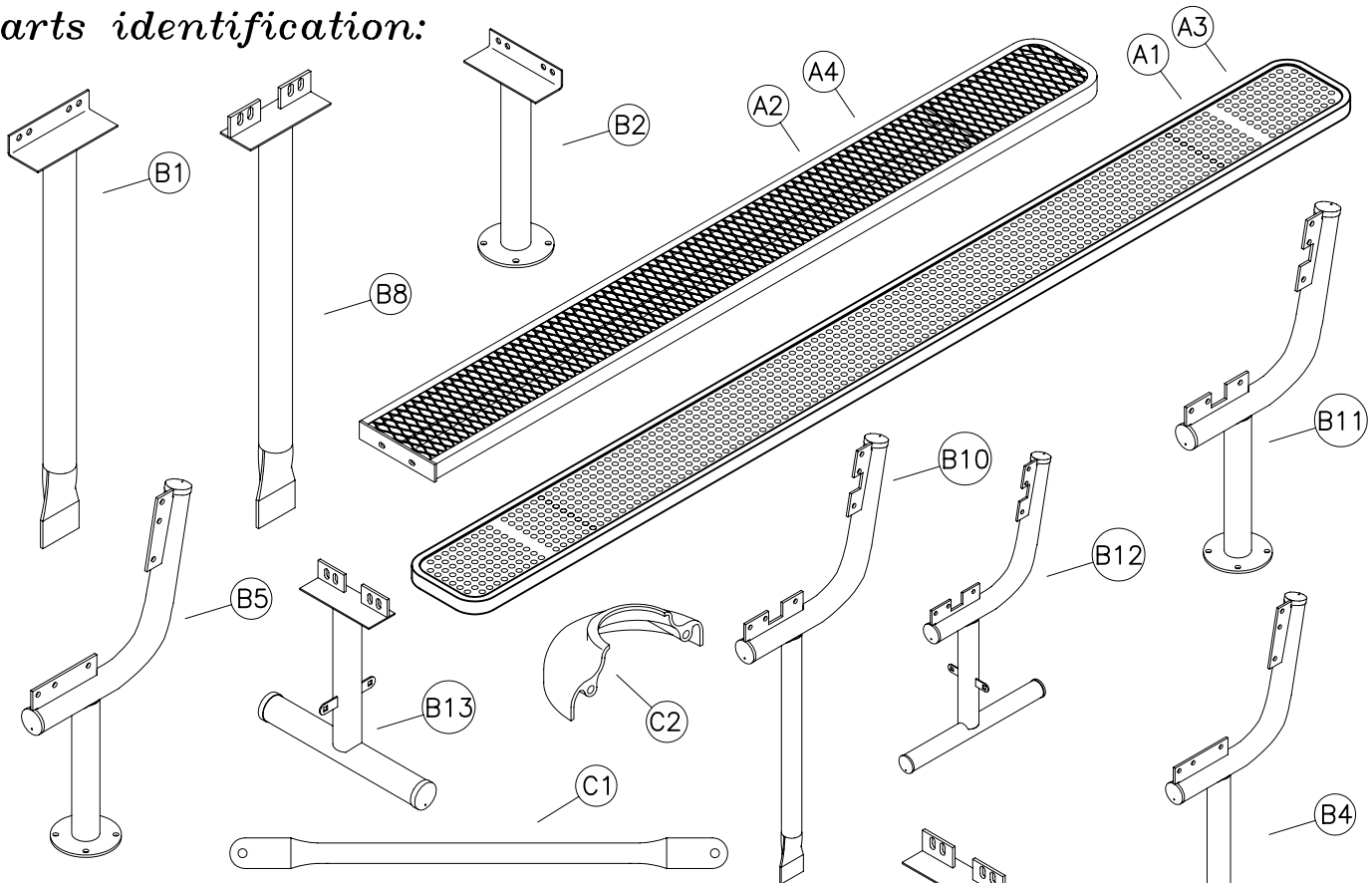
Seat and back uses 3/4" #9 expanded steel mesh and 12 gage sheet metal for perforated. Framing consists of die-formed 10 gage mitered angles 3/4" x 1 3/4". Center brace and mounting brackets are 1/4" x 1 1/2" steel flat bar.

GENERAL:

10' bench ground space requirements for inground and surface mount with out back is 10 3/8" x 120 3/8", inground and surface mount with back is 19 9/16" x 120 3/8". Portable with out back is 18 1/8" x 120 3/8", portable with back is 23 3/16" x 120 3/8". Seats are 10 3/8" wide x 120 3/8" long, 19" to top of seat and 31 3/4" to top of bench. Corner radius is 3" to the outside.

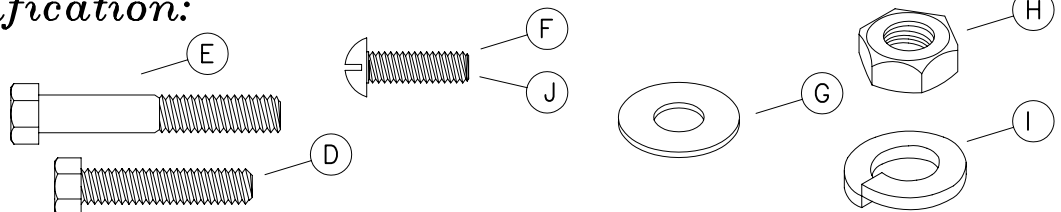
15' bench ground space requirements for inground and surface mount with out back is 10 3/8" x 180", inground and surface mount with back is 19 9/16" x 180". Portable with out back is 18 1/8" x 180", portable with back is 23 3/16" x 180". Seats are 10 3/8" wide x 180" long, 19" to top of seat and 31 3/4" to top of bench. Corner radius is 3" to the outside.

parts identification:



ITEM	PART#	DESCRIPTION	QTY
A1	7526R	10' EXPANDED METAL SEAT	1
A2	7528R	7 1/2' EXPANDED METAL SEAT	2
A3	7991	10' PERFORATED SEAT	1
A4	7993	7 1/2' PERFORATED SEAT	2
B1	7339	BENCH W/O BACK INGROUND LEG	2
B2	7340	BENCH W/O BACK MOUNT LEG	2
B3	7341	BENCH W/O BACK LEG	2
B4	7345	BENCH W/BACK INGROUND LEG	2
B5	7346	BENCH W/BACK SURFACE MOUNT LEG	2
B6	7347	BENCH W/BACK PORTABLE RIGHT LEG	1
B7	7348	BENCH W/BACK PORTABLE LEFT LEG	1
B8	7370	10' & 15' BENCH W/O BACK INGROUND CTR LEG	1
B9	7371	10' & 15' BENCH W/O BACK SURFACE MOUNT CTR LEG	1
B10	7373	10' & 15' BENCH W/BACK INGROUND CTR LEG	1
B11	7374	10' & 15' BENCH W/BACK SURFACE MOUNT CTR LEG	1
B12	7375	10' & 15' BENCH W/BACK PORTABLE CTR LEG	1
B13	7378	10' & 15' BENCH W/O BACK PORTABLE CTR LEG	1
C1	7388	PLAYER BRACE	4
C2	7120	MOUNTING PLATE COVERS (OPTIONAL)	3

hardware identification:



ASSEMBLY TOOLS REQUIRED

- 2 - 1/2" WRENCHES
- 1 - REGULAR TIP SCREWDRIVER
- 1 - 3' OR 6' LEVEL
- 1 - TAPE MEASURE

ITEMS INCLUDED IN HARDWARE PACKAGE #:

ITEM	PART#	DESCRIPTION	ITEMS INCLUDED IN HARDWARE PACKAGE #:											
			21011	21012	21013	21014	21016	21017	21016A	21069	21076	21077	21078	21101
QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	
D	17011	5/16-18 x 1 1/2" HEX BOLT - SS	6	10	8	4	2	2	0	4	8	2	0	0
E	17012	5/16-18 x 2" HEX HEAD BOLT - SS	0	0	0	0	2	4	2	0	0	4	2	0
F	17088	5/16-18 x 1" TRUSS HEAD MACHINE SCREW - SS	2	2	0	0	2	2	0	0	0	2	0	0
G	17028	3/8" FLAT WASHER - SS	16	24	16	8	12	16	4	8	16	16	4	0
H	17032	5/16-18 HEX FINISH NUT - SS	8	12	8	4	6	8	2	4	8	8	2	0
J	17052	1/4-20 x 1" MACHINE SCREW - SS	0	0	0	0	0	0	0	0	0	0	0	2
I	17050	5/16" SPLIT LOCK WASHER - SS	8	12	8	4	6	8	2	4	8	8	2	0

assembly procedures: IMPORTANT: Assemblers should be reasonably skilled in the assembly of commercial grade/heavy duty fabricated steel equipment.

To ensure proper assembly, it is suggested that you take adequate time to locate and identify each part. To prevent scratching of the finished pieces, we recommend this unit to be assembled on a clean, flat, solid, surface with a drop cloth, allowing plenty of working room. Also please read the instructions and study the sketches very carefully. A little extra time spent before assembly will be well worth it in performing a complete, proper assembly. Please note that all parts have been precut and pre-drilled.

During the assembly process leave all bolts and nuts "finger tight", until the entire unit is completely assembled. This allows room for movement to level or adjust all seats, tops, benches, framework and braces if necessary. After final adjustment and leveling, permanently tighten all nuts, bolts and fasteners.

76

PORTABLE WITH BACK

STEP 1

Invert the (A-) seat upside down on an elevated surface. Place edge of seat flush with surface. Attach both (B6) and (B7) right and left legs to the outer most part of the seat's mounting brackets, with the tab on each leg facing each other toward the center of the seat, see FIG. 1. Use two, per leg, (D) and (H) using two (G) and one (I) per (D). Attach (B12) center leg to the right side of seat's center mounting bracket, see FIG. 2. Use two (D) and (H) using two (G) and one (I) per (D). On 15' bench, join the (A2) or (A4) seats at squared ends. Attach (B12) center leg to the right side of seat's end mounting bracket. Note: Center leg has mounting brackets offset at approximately 1/2". Use two (E) and (H) using two (G) and one (I) per (E).

STEP 2

Attach one end of a (C1) brace to (B6) tab and one end of a brace to (B12) tab, see FIG. 1 and 2. Use one (F) and (H) using two (G) and one (I) per (F). Attach the opposite end of the afore mentioned braces to the center brace on the seat. Use one (D) and (H) using two (G) and one (I) per (D). Repeat STEP 2 for other end of seat with (B7) and (B12).

STEP 3

Rotate bench to the upright position. Attach the second seat (A-) to the outer most part of the bench's back mounting brackets, see FIG. 3. Use two, per each mounting bracket, (D) and (H) using two (G) and one (I) per (D).

FIG. 1

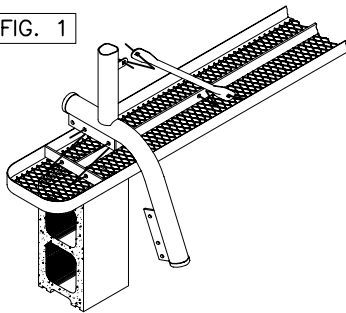


FIG. 2

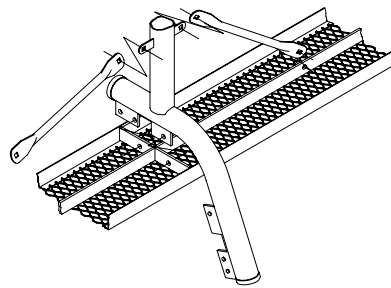
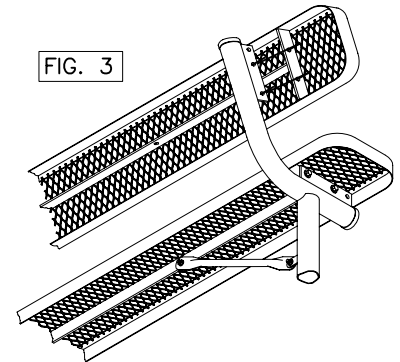


FIG. 3



PORTABLE WITH OUT BACK

STEP 1

Invert the (A-) seat upside down on a flat surface. Attach both (B3) legs to the outer most part of the seat's mounting brackets, with the tab on each leg facing each other toward the center of the seat, see FIG. 4. Use two, per leg, (D) and (H) using two (G) and one (I) per (D). Attach (B13) center leg to the right side of the seat's center mounting bracket, see FIG. 5. Use two (D) and (H) using two (G) and one (I), per (D). On 15' bench, join the (A2) or (A4) seats at squared ends. Attach (B13) center leg to the right side of seat's end mounting bracket. Note: Center leg has mounting brackets offset at approximately 1/2". Use two (E) and (H) using two (G) and one (I) per (E).

STEP 2

Attach one end of a (C1) brace to (B3) tab and one end of a brace to (B13) tab, see FIG. 4 and 5. Use one (F) and (H) using two (G) and one (I) per (F). Attach opposite end of the afore mentioned braces to the center brace on the seat. Use one (D) and (H) using two (G) and one (I) per (D). Repeat STEP 2 for other end of seat with (B3) and (B13).

STEP 3

Rotate bench to the upright position.

FIG. 4

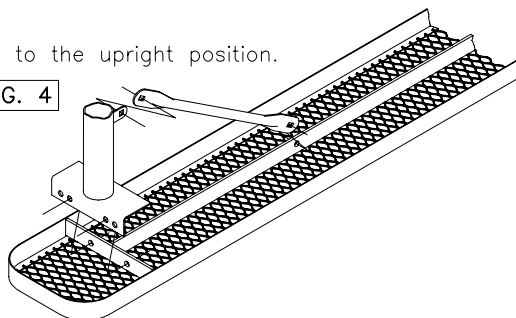
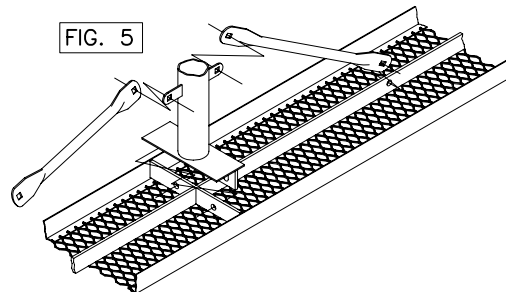
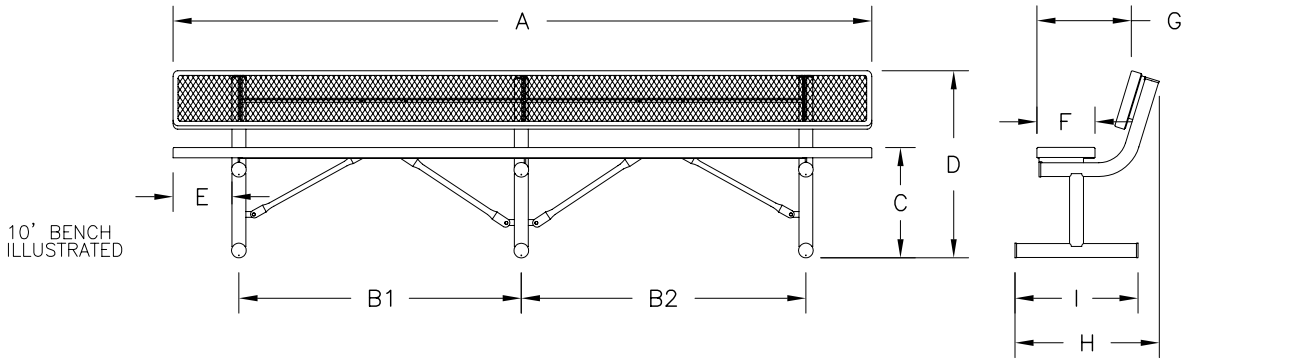


FIG. 5

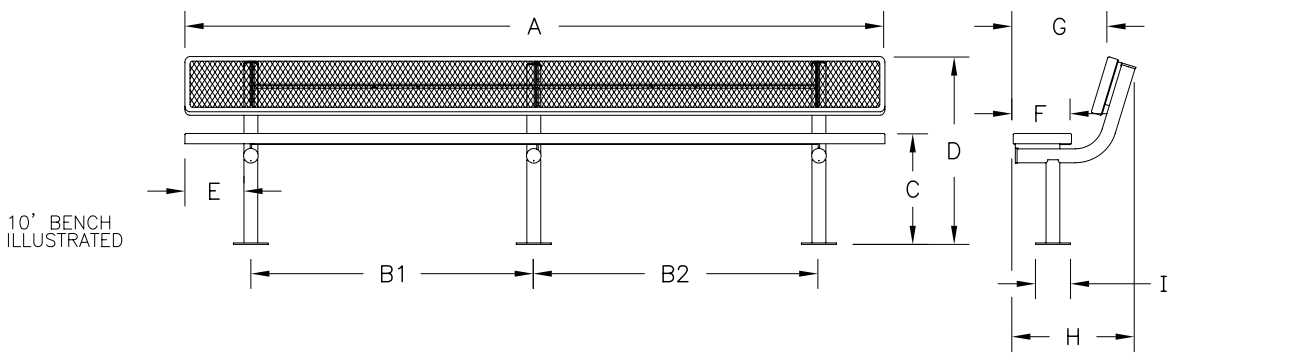


installation: WARNING: The proper installation for Wabash Valley products may depend upon many factors unique to the site, location, or use of a particular product. Consult with your contractor or other professional to determine your specific installation requirements.

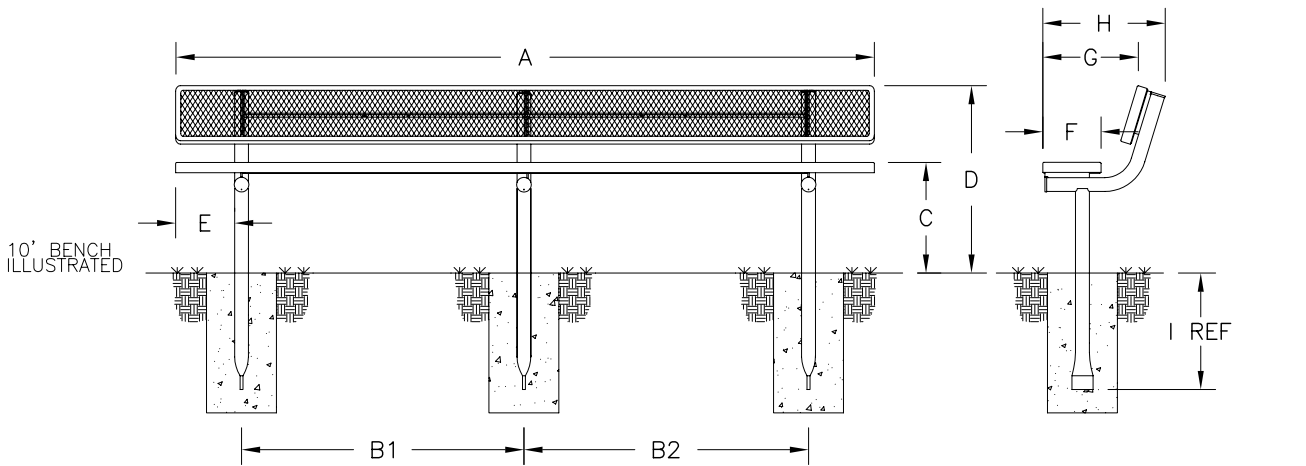
product dimensions:



PORTABLE	A	B1	B2	C	D	E	F	G	H	I
10' W/O BACK	120 3/8"	46 15/16"	47 3/8"	19"	-	11 7/8"	10 3/8"	-	-	18 1/8"
10' W/ BACK	120 3/8"	48 3/8"	48 3/4"	19"	31 3/4"	10 7/16"	10 3/8"	14 15/16"	23 3/16"	18 1/8"
15' W/O BACK	180"	73 3/8"	73"	19"	-	15 5/8"	10 3/8"	-	-	18 1/8"
15' W/ BACK	180"	74 3/4"	74 1/2"	19"	31 3/4"	14 3/16"	10 3/8"	14 15/16"	23 3/16"	18 1/8"



SURFACE	A	B1	B2	C	D	E	F	G	H	I
10' W/O BACK	120 3/8"	46 15/16"	47 3/8"	19 1/8"	-	11 7/8"	10 3/8"	-	-	6"
10' W/ BACK	120 3/8"	48 3/8"	48 3/4"	19 1/8"	31 7/8"	10 7/16"	10 3/8"	15"	19 9/16"	6"
15' W/O BACK	180"	73 3/8"	73"	19 1/8"	-	15 5/8"	10 3/8"	-	-	6"
15' W/ BACK	180"	74 3/4"	74 1/2"	19 1/8"	31 7/8"	14 3/16"	10 3/8"	15"	19 9/16"	6"



INGROUND	A	B1	B2	C	D	E	F	G	H	I
10' W/O BACK	120 3/8"	46 15/16"	47 3/8"	19"	-	11 7/8"	10 3/8"	-	-	18 1/8"
10' W/ BACK	120 3/8"	48 3/8"	48 3/4"	19"	31 3/4"	10 7/16"	10 3/8"	15"	19 9/16"	20 1/8"
15' W/O BACK	180"	73 3/8"	73"	19"	-	15 5/8"	10 3/8"	-	-	18 1/8"
15' W/ BACK	180"	74 3/4"	74 1/2"	19"	31 3/4"	14 3/16"	10 3/8"	15"	19 9/16"	20 1/8"

assembly procedures, cont'd:

SURFACE MOUNT WITH BACK

STEP 1

Invert the (A-) seat upside down on an elevated surface. Place edge of seat flush with surface. Attach both (B5) legs to the outer most part of the seat's mounting brackets, see FIG. 6. Use two, per leg, (D) and (H) using two (G) and one (I) per (D). Attach (B11) center leg to the right side of seat's center mounting bracket, see FIG. 7. Use two (D) and (H) using two (G) and one (I) per (D). On 15' bench, join the (A2) or (A4) seats at squared ends. Attach (B11) center leg to the right side of seat's end mounting bracket. Note: Center leg has mounting brackets offset approximately 1/2". Use two (E) and (H) using two (G) and one (I) per (E).

STEP 2

Rotate bench to the upright position. Attach the second seat (A-) to the outer most part of the bench's back mounting brackets, see FIG. 8. Use two, per each mounting bracket, (D) and (H) using two (G) and one (I) per (D).

STEP 3

Prepare and place the foundations securement hardware in its chosen location. A detail description of where the hole locations should be placed is shown on page 4.

When the foundations securement hardware has been installed, place the unit in its new location and secure to the foundation.

If mounting plate covers (C2) are used place halves around legs and secure with 2 (J) screws, see FIG. 18. Draw to a snug fit being careful not to over tighten.

FIG. 6

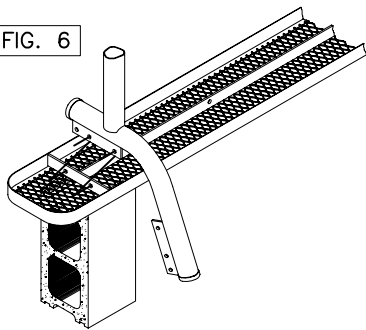


FIG. 7

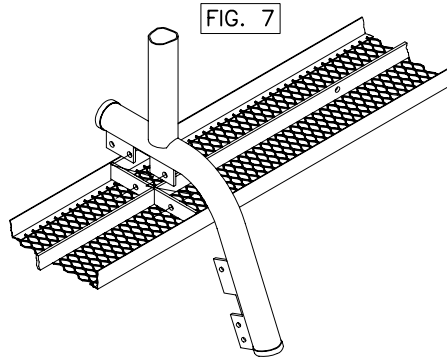
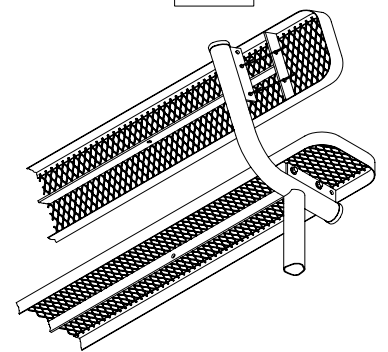


FIG. 8



SURFACE MOUNT WITH OUT BACK

STEP 1

Invert the (A-) seat upside down on a flat surface. Attach both (B2) legs to the outer most part of the seat's mounting brackets, see FIG. 9. Use two, per leg, (D) and (H) using two (G) and one (I) per (D). Attach (B9) center leg to the right side of the seat's center mounting bracket, see FIG. 10. Use two (D) and (H) using two (G) and one (I) per (D). On 15' bench, join the (A2) or (A4) seats at squared ends. Attach (B9) center leg to the right side of the seat's end mounting bracket. Note: Center leg has mounting brackets offset approximately 1/2". Use two (E) and (H) using two (G) and one (I) per (E).

STEP 2

Rotate bench to the upright position.

STEP 3

Prepare and place the foundations securement hardware in its chosen location. A detailed description of where the hole locations should be placed is shown on page 4.

When the foundations securement hardware has been installed, place the unit in its new location and secure to the foundation.

If mounting plate covers (C2) are used place halves around legs and secure with 2 (J) screws, see FIG. 18. Draw to a snug fit being careful not to over tighten.

FIG. 9

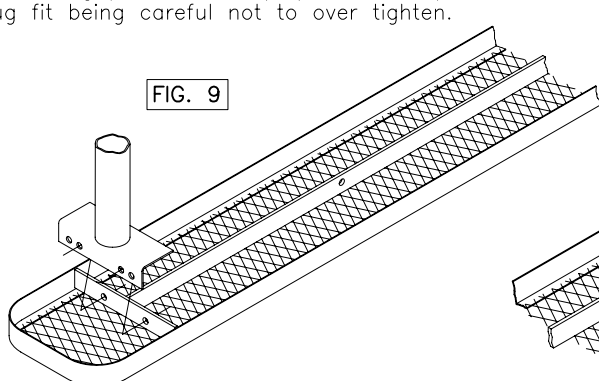


FIG. 10

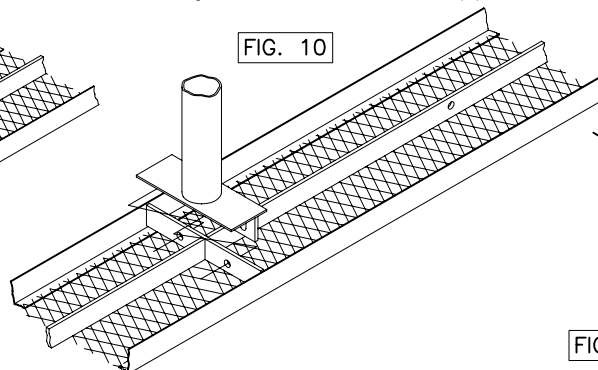
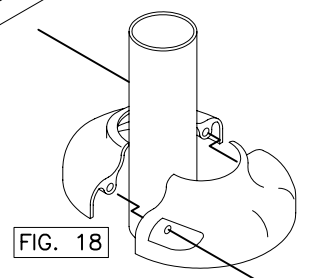


FIG. 18



assembly procedures, cont'd:

INGROUND WITH BACK

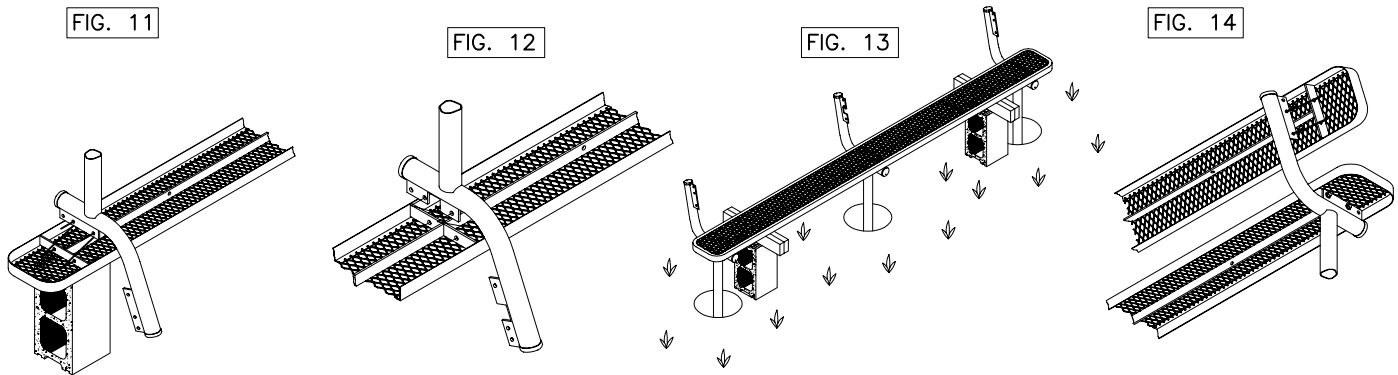
STEP 1
Invert the (A-) seat upside down on an elevated surface. Place edge of seat flush with surface. Attach both (B4) legs to the outer most part of the seat's mounting brackets, see FIG. 11. Use two, per leg, (D) and (H) using two (G) and one (I) per (D). Attach (B10) center leg to the right side of seat's center mounting bracket, see FIG. 12. NOTE: Center leg has mounting brackets offset approximately 1/2". Use two (D) or (E) and (H) using two (G) and one (I) per (E).

STEP 2
Prepare three foundation holes as shown in FIG. 13. The distance of the holes, center to center, are shown in a diagram on page 4. Reinvert the bench to it's top side up position and place the legs in the footing holes. Block the bench as shown in FIG. 13.

Before pouring concrete, make sure the bench is level horizontally as well as vertically and holds 19" to the top of the bench. Pour concrete to form the footings and let cure for 48 hours.

STEP 3
Attach the second bench (A1) or (A2) to the outer most part of the bench's back mounting bracket, see FIG. 14. Use two, per each side, (D) and (H) using two (G) and one (I) per each (D).

If mounting plate covers (C2) are used place halves around legs and secure with 2 (J) screws, see FIG. 18. Draw to a snug fit being careful not to over tighten.



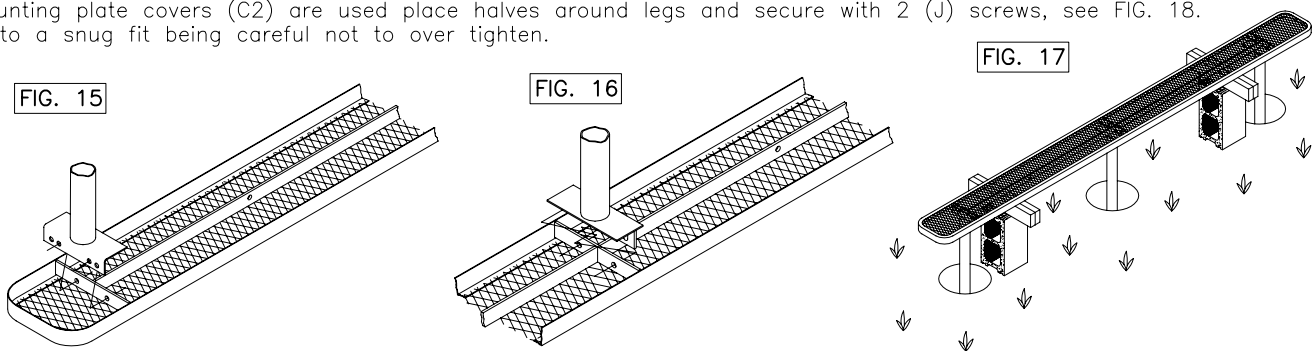
INGROUND WITH OUT BACK

STEP 1
Invert the (A-) seat upside down on a flat surface. Attach both (B1) legs to the outer most part of the seat's mounting brackets, see FIG. 15. Use two, per leg, (D) and (H) using two (G) and one (I) per (D). Attach (B8) center leg to the right side of the seat's center mounting bracket, see FIG. 16. Note: Center leg has mounting brackets offset approximately 1/2". Use two (D) or (E) and (H) using two (G) and one (I) per (E).

STEP 2
Prepare three foundation holes as shown in FIG. 17. The distance of the holes, center to center, are shown in a diagram on page 4. Reinvert the bench to it's top side up position and place the legs in the footing holes. Block the bench as shown in FIG. 17.

Before pouring concrete, make sure the bench is level horizontally as well as vertically and holds 19" to the top of the bench. Pour concrete to form the footings and let cure for 48 hours.

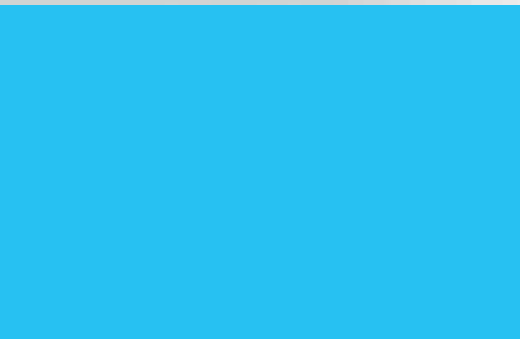
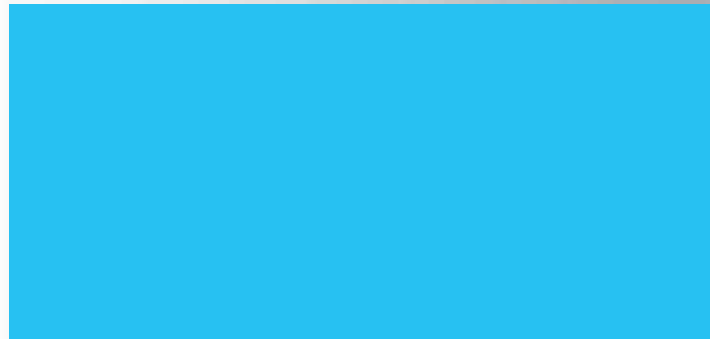
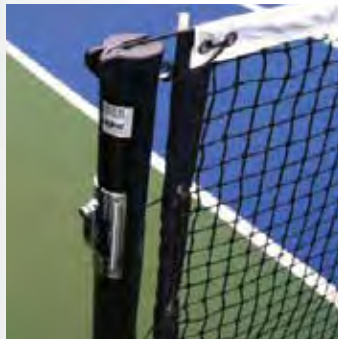
If mounting plate covers (C2) are used place halves around legs and secure with 2 (J) screws, see FIG. 18. Draw to a snug fit being careful not to over tighten.



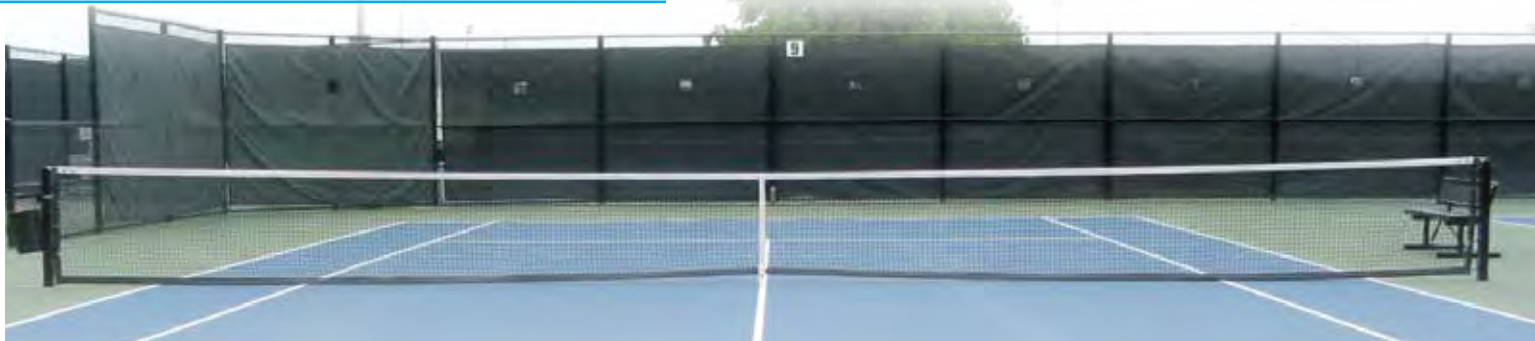


TENNIS POSTS & NETS

quality USA manufactured



Tennis Nets and Accessories



Consistent Quality

With Douglas® tennis nets, you get consistent, long-lasting performance. All Douglas® tennis nets meet USA requirements for official size -42' x 3'6". In addition, Douglas® nets carry a pro-rated warranty guaranteeing superior durability and longer net life. See for yourself why Douglas® nets are the brand of choice.

Netting

Netting is 1-3/4" square mesh braided solid core polyethylene unsurpassed for durability and weather resistance. Championship nets are made from 3.5mm with 325# break strength, Tournament and Recreation nets are made from 3.0mm with 285# break strength.

Headbands

Headbands are constructed using heavy-duty vinyl coated polyester or durable polyester webbing material that withstands the elements and won't shrink, rot or mold. Headbands are sewn to the netting with four rows of 32# white polyester thread -the heaviest in the industry.

Bottom & Side Pocket Tapes

Bottom and side pocket tapes are made of heavy-duty vinyl coated polyester and won't shrink, mildew or rot when exposed to the elements. Fiberglass dowels in the side pockets keep the net taut and attractive. Heavy duty brass grommets and lacing cord lets you pull the net snugly up to each post.

Cable

All Douglas® tennis nets come complete with a vinyl coated, 5/32" galvanized steel cable with break strength of 2300#. Both ends have double-swaged loops.



TN-45



TN-36T



TN-30



TN-28DM



TN-36DMT



TN-30DM

ITEM #	NET	HEADBAND		NETTING			WARRANTY
		MATERIAL	WEIGHT	SIZE	BREAK STRENGTH	TOP 6 ROWS DOUBLE MESH	
Professional Nets							
USA Manufactured by Douglas®							
20045	TN-45	Double thick 100% polyester	48 oz	3.5 mm	325 lb.	No	5 Year Warranty
20040	TN-40 (not pictured)	Vinyl Coated Polyester	36 oz.	3.5 mm	325 lb.	No	5 Year Warranty
Championship Nets							
30036T	TN-36 -tapered	Vinyl Coated Polyester, 2-ply	65 oz. (20 oz./sq. yd.)	3.5 mm	325 lb.	No	5 Year Warranty
30038TD	TN-36DMT -tapered	Vinyl Coated Polyester, 2-ply	65 oz. (20 oz./sq. yd.)	3.5 mm	325 lb.	Yes	5 Year Warranty
30060	TN-28DM	Durable Polyester Web	N/A	3.5 mm	325 lb.	Yes	5 Year Warranty
Tournament Nets							
30029	TN-30	Vinyl Coated Polyester	32 oz./sq. yd.	3.0 mm	285 lb.	No	4 Year Warranty
30030	TN-30DM -tapered	Vinyl Coated Polyester, 2-ply	65 oz. (20 oz./sq. yd.)	3.0 mm	285 lb.	Yes	4 Year Warranty

Specialty Tennis Nets

All specialty nets are made with 1-3/4" square mesh 3.0 polyethylene netting. Headband is made from vinyl coated polyester. Vinyl bottom tape and side pockets are polyester based. 4 Year warranty.

Singles Tennis Net (STN-30)
42" x 32'9"L (Item # 20305)

Paddle Tennis Nets (PTN-28)
32" x 21'10" (Item # 20008)

Platform Tennis Nets (PLTN-28)
36" x 23' (Item # 20009)



Bottom Taper (Item # 20062)

All tennis nets can be bottom fit by tapering the 42" end to 36" at center. This reduces the amount the net rubs on the court surface prolonging the life of the net.

Center Pipe Anchor

(Item # 63428)
1.9" OD Galvanized Steel



Adjustable Center Straps

All straps are made from heavy-duty 2" polyester white web, nickel plated web slides and snaps.

Velcro (Item # 20601)
Velcro adjustment, with swivel loop bolt snap

Classic (Item # 20603)
Non-slip reverse web slide with double ended snap

Deluxe (Item # 20600)
Non-slip reverse web slide with swivel loop bolt snap



Singles Stick (Item # 34753)

The portable Quik Stik tennis singles sticks keeps nets up to 42" regulation height. Sticks collapse down to 16" to easily fit into any tennis bag and stay collapsed with provided velcro strap. Sticks have a multi-purpose three-foot mark for placement at the center of the net for strap height. The stick can also be used as a measuring device in order to determine the correct placement on the net (3' from outside the singles court) by placing the top cable in the groove and rotating the stick vertically.



Custom Net Signs

(Item # 39997)
Court Net Signs are perfect for defining your courts and enhancing the look of your facility. Feature your logo and your colors, or those of sponsors and donors, for a totally unique look. Made of very durable and fade resistant Polystyrene surface substrates. Minimum order requirement of 12 signs; facilities typically attach (4) signs per net.

Replacement Accessories

Vinyl Replacement Headband Vinyl (HB-42V) (Item # 30040)
Heavy-duty 28 oz vinyl coated polyester. Eyelets spaced on 6" centers. Includes lacing cord.



Replacement Cable (RVC-47) (Item # 20647)
47' galvanized steel cable. 5/32" vinyl coated to 1/4" looped each end.



Replacement Snaps

Loop Snap (Item # 10601)
2" replacement loop snap

Double Snap (Item # 10604)
Double ended bolt replacement snap



Lacing Cord

(TNLC) (Item # 10338)
Tennis net lacing cord; 2 pieces of 4 mm white polyester braided cord 4' long and 2 pieces 3 mm braided polyethylene 15' long.

Cord 3mm (Item # 10337)
500' spool of 3 mm braided polyethylene



Douglas® Tennis Posts

○ Premier™ XS Posts

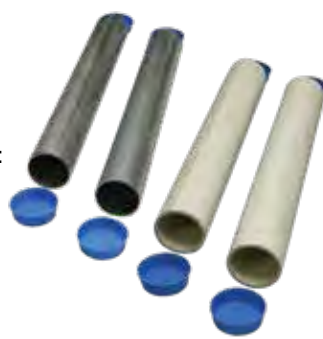
Plated Gears	Green (Item # 63032) Black (Item # 63034)
Stainless Steel Gears	Open Blue (Item # 63033) Green (Item # 63032SS) Black (Item # 63034SS)
Brass Gears	Green (Item # 63032BR) Black (Item # 63034BR)

2 7/8"

The Premier™ XS Series is the Cadillac of tennis posts; providing first-class looks and durability for both indoor and outdoor court applications.

These 2-7/8" OD round posts are constructed of 8-gauge steel. Posts feature Allied's® superior Flo-coat® galvanization process and are then finished in forest green, black or open tournament blue baked-on polyester powder coat to resist rust and increase durability. Integrated welded steel lacing rods are included for a professional net installation.

Posts are internally wound and feature a jam-free cable tensioning hardware system. Choose from plated steel, stainless steel or brass gears. Gear housings and caps are made of die-cast zinc. Gear function is 30:1 to ensure a smooth, easy operation. Flush mounted gear plate cover and removable handle are offered in chrome or brass finish.



Corresponding Ground Sleeves:

24" PVC Ground Sleeve
(GS-24PVC) (Item # 63164)

24" Aluminum Ground Sleeve
(GS-24RD) (Item # 63171)



Featuring
Allied's® Flo-coat®
A Superior
Galvanization
Process





○ Premier™ SQ
Green (item # 63053)
Black (item # 63054)



○ Premier™ RD
Green (Item # 63050)
Black (Item # 63051)

These popular posts provide classic good looks and durability for either indoor or outdoor court applications.

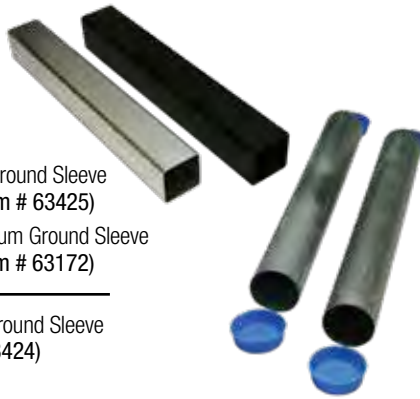
The Premier™ 3" OD round (RD) and 3" square (SQ) posts are constructed of heavy-duty 11-gauge steel. Posts are internally wound and feature a self-locking gear mechanism. Gears are constructed of plated steel and the small gear is case hardened. Gear housings and caps are made of cast aluminum alloy. Gear function is 30:1 to ensure a smooth, easy operation. Posts are finished in forest green or black baked-on polyester powder coat finish to resist rust and increase durability. Integrated welded steel lacing rods are included for a professional net installation. Flush mounted gear plate cover and removable handle are chrome plated.

Corresponding
Ground Sleeves:

24" Square Steel Ground Sleeve
(GS-24SQ/ST) (Item # 63425)

24" Square Aluminum Ground Sleeve
(GS-24SQ/AL) (Item # 63172)

24", 3" OD Steel Ground Sleeve
(GS-24) (Item # 63424)



○ Douglas® PPS-SQ Heavy-Duty Portable Tennis Systems



42' Standard Tennis Court
42" h x 42' PPS-42SQ (Item # 63100)

Singles Tennis Courts:
42" h x 33' PPS-33SQ (Item # 63133)

Portable PPS-SQ systems are easy-to-assemble and offer the same long-lasting features as the classic Premier™ SQ tennis post. The 3" square tennis post is constructed from heavy-duty 11-gauge steel and are internally wound featuring a self-locking gear mechanism. Gears are constructed of plated steel and the small gear is case hardened. Gear housings and caps are made of cast aluminum alloy. Gear function is 30:1 to ensure a smooth, easy operation. Systems are finished with black baked-on polyester powder coat to resist rust and increase durability. Heavy-duty base frame is also constructed of 11-gauge 3" square steel and 3-1/2" square 3/16" heavy-wall steel. Net easily attaches with the top cable and to an eye-bolt on the base frame; no lacing rods are needed. Systems are complete with the 3.5mm TN-28 tennis net and a Velcro center strap. Flush mounted gear plate cover and removable handle are chrome plated. System is available in (2) sizes, 42' x 42" Standard Tennis and 33' x 42" Singles Tennis. Custom sizes are available up to 42' long and 42" high. The transporter features heavy-duty non-scurf swivel casters; (2) End and (1) Center caster assembly. Casters allow unit to pivot one end at a time for smoother transportability.

These portable systems raise the bar and are the gold standard when permanent installation is not desired for either indoor or outdoor court applications.



○ Sidewinder

- 2-7/8" 3-1/2"
- Green (Item # 63001) Green (Item # 63005)
- Black (Item # 63003) Black (Item # 63005B)



These recreational workhorse posts are designed for tough wear making them ideal for parks or school tennis courts.

These classic external wind posts are constructed of 8 gauge steel in either 2-7/8" or 3-1/2" OD. The posts, external gears and handle are finished in forest green or black baked-on polyester powder coat finish to resist rust and increase durability. Integrated welded steel lacing rods are included for a professional net installation. The aluminum deluxe reel offers a smooth adjusting operation with a side mounted removable handle.



Corresponding Ground Sleeves:
 24" PVC (GS-24PVC) (Item # 63164)
 24" Aluminum (GS-24RD) (Item # 63171)
 24" Steel (GS-24) (Item # 63174)



○ DTP-37

- Green (item # 63007)
- Black (item # 63008)



The dependable DTP-37 post is a sturdy design that has been a tennis court staple for decades.

These 3" OD posts are comprised of extra-heavy 7-gauge steel. Posts are internally wound and feature a self-locking gear mechanism. Gears are constructed of plated steel and the small gear is case hardened. Gear function is 30:1 to ensure a smooth, easy operation. The sleek gear housing and caps are made of cast aluminum alloy. Posts are finished in forest green or black baked-on polyester powder coat finish to resist rust and increase durability. Integrated welded steel lacing rods are included for a professional net installation. The side mounted removable handle is chrome plated.

Corresponding Ground Sleeves:
 24" Steel (GS-24) (Item # 63424)



The Finest Courts In America Use Douglas® - Don't Settle for Less!

Douglas® offers a wide variety of tennis posts to meet each customer's specific needs and applications. Douglas® has been the leading American manufacturer of tennis posts for over 50 years. Whatever the situation Douglas® has the perfect fit.

Compare Douglas® American Made Tennis Posts:

	OUTER DIAMETER	STEEL GAUGE	INTERNAL WIND	ALLIED® FLO-COAT®	COLOR OPTIONS	BRASS OPTION	LACING RODS	PICKLEBALL HEIGHT
Premier™ XS	2-7/8"	8 - gauge	✓	✓	Green, Black, Open Tournament Blue	✓	✓	✓
Premier™ RD	3"	11- gauge	✓	✗	Green, Black	✗	✓	✓
Premier™ SQ	3" Square	11- gauge	✓	✗	Green, Black	✗	✓	✗✓
DTP-37	3"	7- gauge	✓	✗	Green, Black	✗	✓	✗
Sidewinder 2-7/8	2-7/8"	8 - gauge	✗	✓	Green, Black	✗	✓	✓
Sidewinder 3-1/2	3-1/2"	8 - gauge	✗	✗	Green, Black	✗	✓	✗

✗✓ Premier SQ is available in Pickleball as a surface mount option

Ground Sleeves All ground sleeves are sold per pair

Round Ground Sleeves

24" long. PVC end plugs are included.

GS-24RD - 2-7/8" OD (Item # 63171)
Aluminum for all 2-7/8" OD round posts.

GS-24PVC - 2-7/8" OD (Item # 63164)
PVC for all 2-7/8" OD round posts.

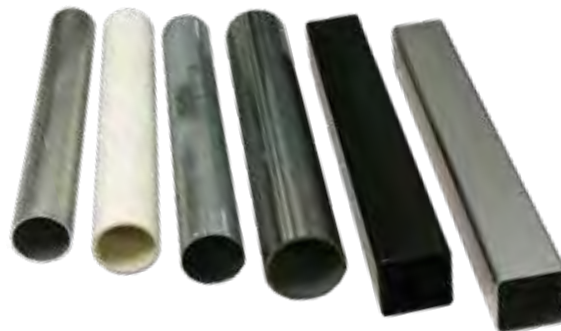
GS-24 3" (Item # 63424)
3-1/2" (Item # 63174)
Round steel for all 3" and 3-1/2" OD round posts. PVC end plugs are not included with 3-1/2" OD.

Square Ground Sleeves

24" long for Premier™ SQ posts.

GS-24SQ/ST (Item # 63425)
Steel construction

GS-24SQ/AL (Item # 63172)
Aluminum construction



Replacement Reels

Replacement reels for external wind tennis posts. All hardware is included and handles are removable. Finished with black or green powder coat finish.

E-Z Reel
Green (Item # 53420)
Black (Item # 53420B)
Aluminum construction with a smooth operation. Holes are set 4-1/2" apart on centers.



Deluxe Reel
Green (Item # 33435)
Black (Item # 33435B)
Aluminum construction with a smooth operation. Slotted to fit most posts.



Reel-1
Green (Item # 53432)
Black (Item # 53432B)
Heavy-duty steel construction with a smooth operation. Slotted to fit most posts.



Reel-SL
Green (Item # 63431)
Steel construction with a self-locking gear mechanism. Slotted to fit most posts.



Universal Replacement Caps

Baked on polyester powder coat finish

2-7/8" Green (Item # 53504)
Black (Item # 53504B)

3-1/2" Green (Item # 53505)
Black (Item # 53505B)

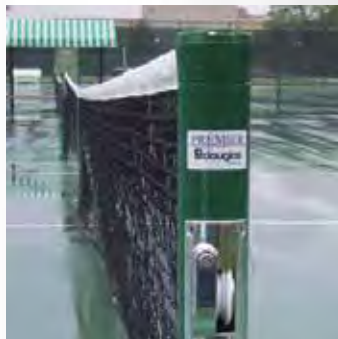
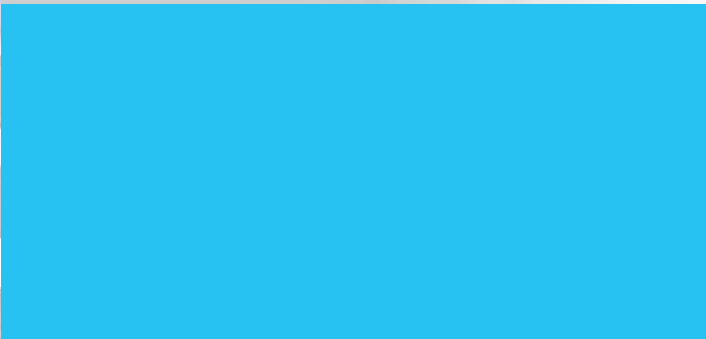


T-Plugs

Steel t-plugs to cover and fit into Douglas® ground sleeves. Finished with a baked on polyester powder coat finish.

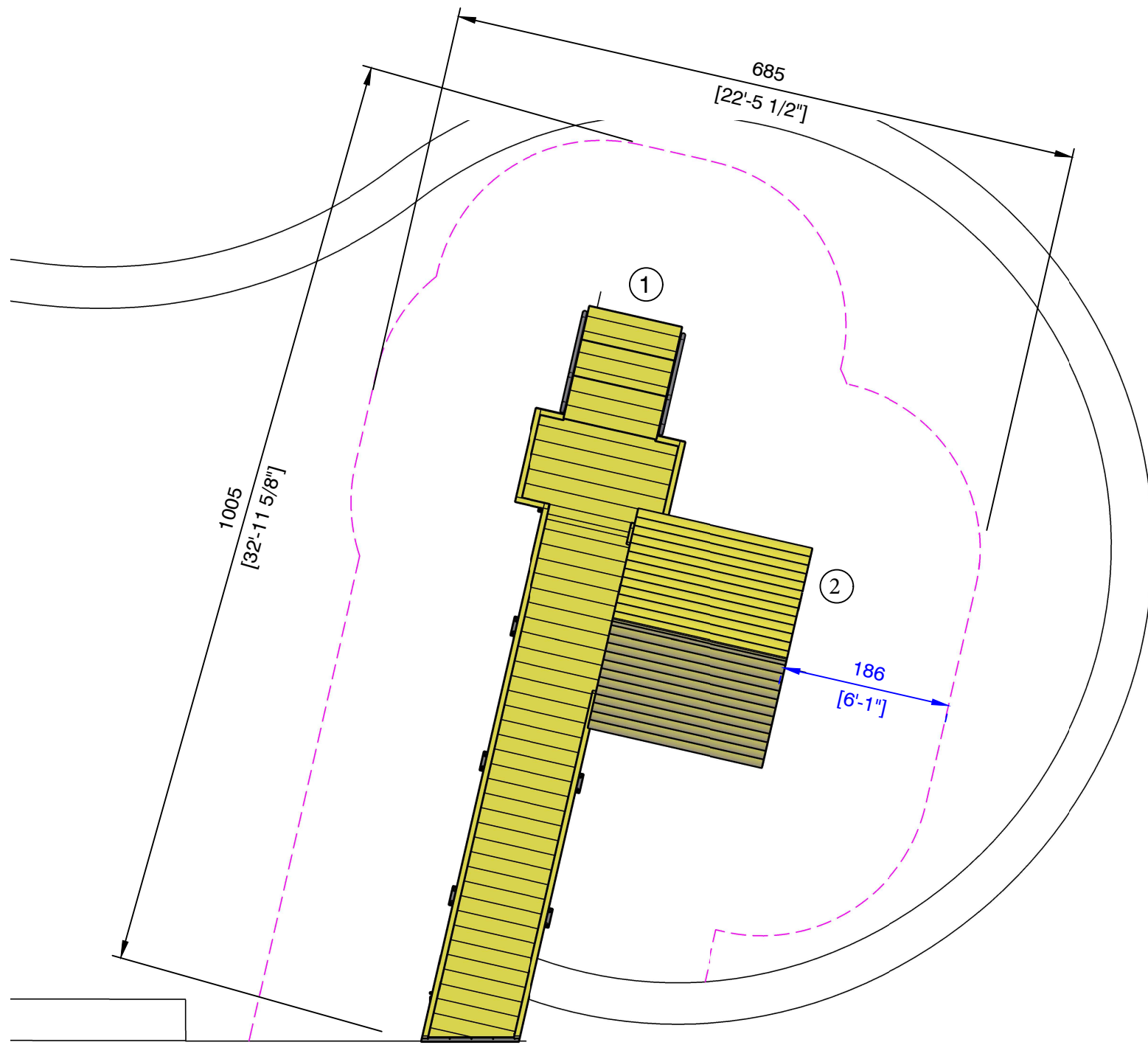
2-7/8" & 3" OD (Item # 63418)
3.5" OD (Item # 63419)
3" SQ (Item # 63420)
3.5" SQ (Item # 68155)





USA MANUFACTURER

1-800-553-8907
douglas-sports.com



This equipment design is in accordance with ASTM F1487

This equipment design is in accordance with CPSC Publication #325

General information for clients

The contractor is responsible for checking that all conditions necessary for configuration of the children's playground equipment are met (space requirements, available space, necessary ground elevation, existing ground elevation, etc.). This also includes supply lines (under and above ground) and consideration of any other possible constraints of the location. The client is to ensure on site that surfacing is constructed in compliance with US standards on free height of fall.


Legend

- ① 1.10100 Board Walk attached to concrete retaining wall with steel support. Turnaround for Wheelchairs and Transfer system (3 steps) down into sand. Transfer system is equipped with stainless steel handrails on both sides
- ② SAL4.10401 Big Timberhouse on stilts reduced height 12" (30,5cm), no transfer step

--- use zone acc. to ASTM 1487

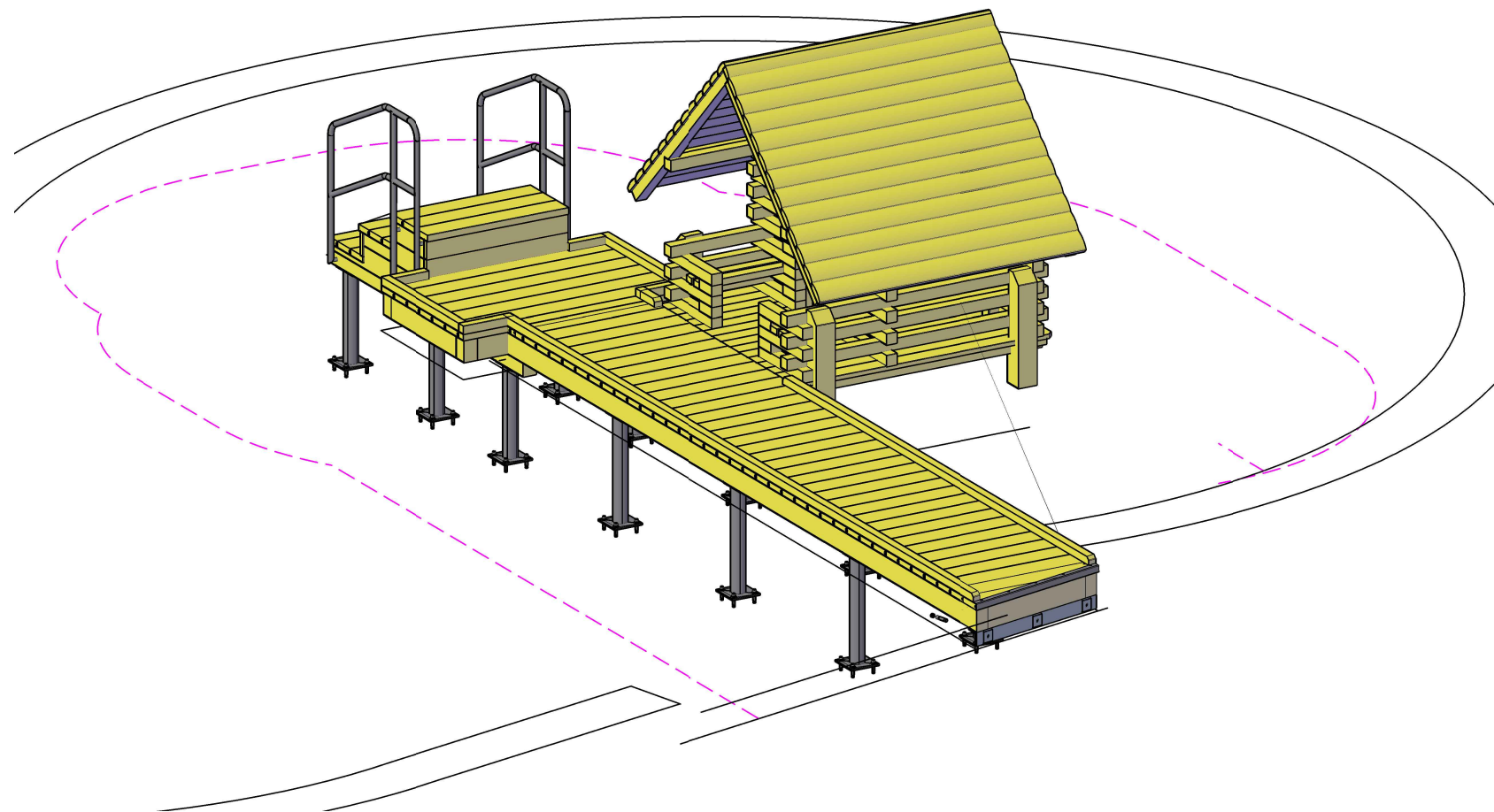
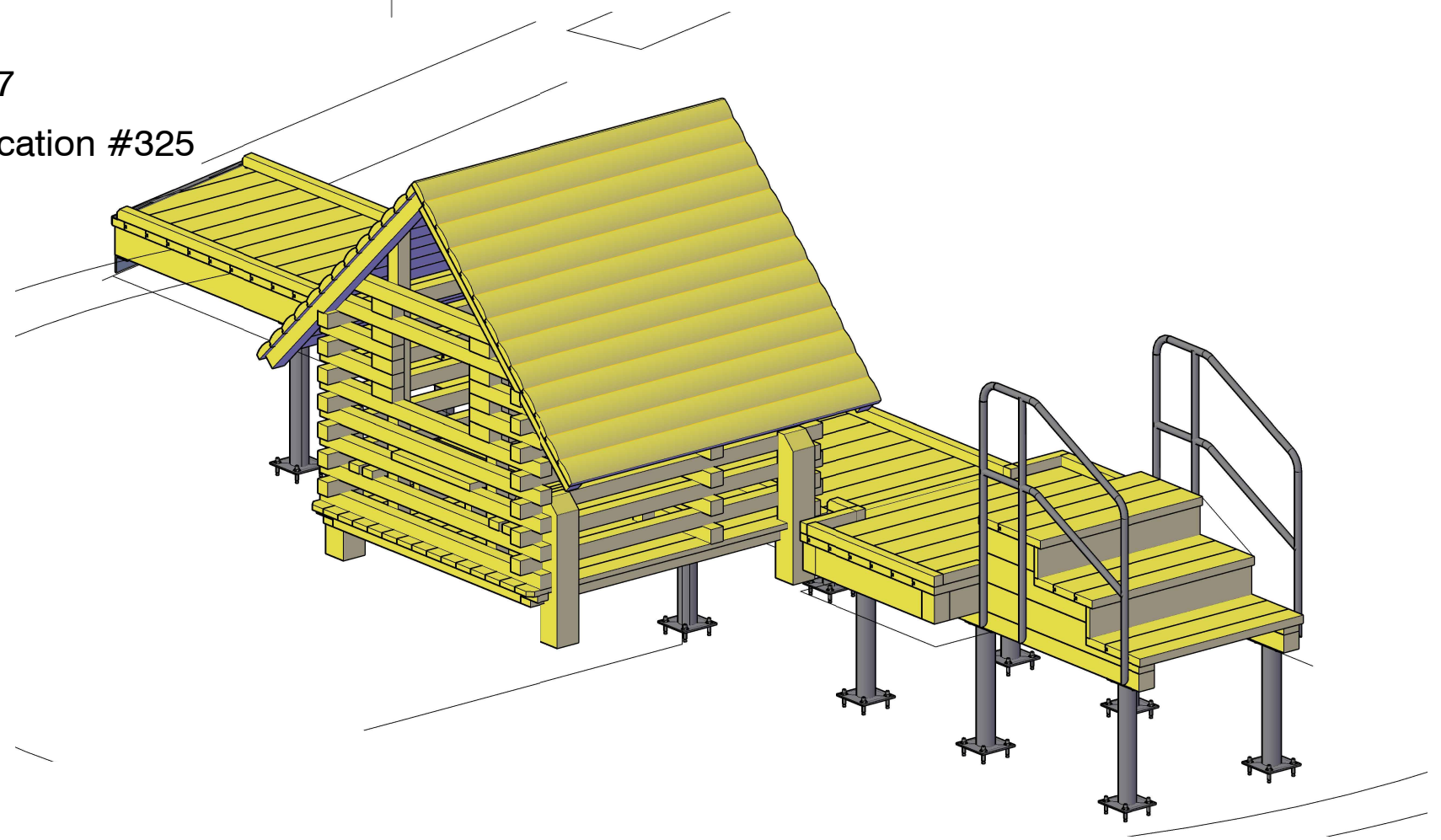
↔ safety distance

— site / equipment **NOT FOR CONSTRUCTION**

Building projekt	Clark Park		
Equipment	GERÄTEAUSSTATTUNG	Quotation/Order-No	AN221033
Customer	APE ----- 246 5th Ave, Suite 626 New York, New York 10001		
Equipment proposal	Richter Spielgeräte GmbH Simsseestraße 29 D-83112 Frasdorf +49 8052-17980	Scale Title Date Name	SCALE TITLE DATUM BEARBEITER
		Size	FORMAT
		Page	BLATTNUMM

This equipment design is in accordance with ASTM F1487

This equipment design is in accordance with CPSC Publication #325



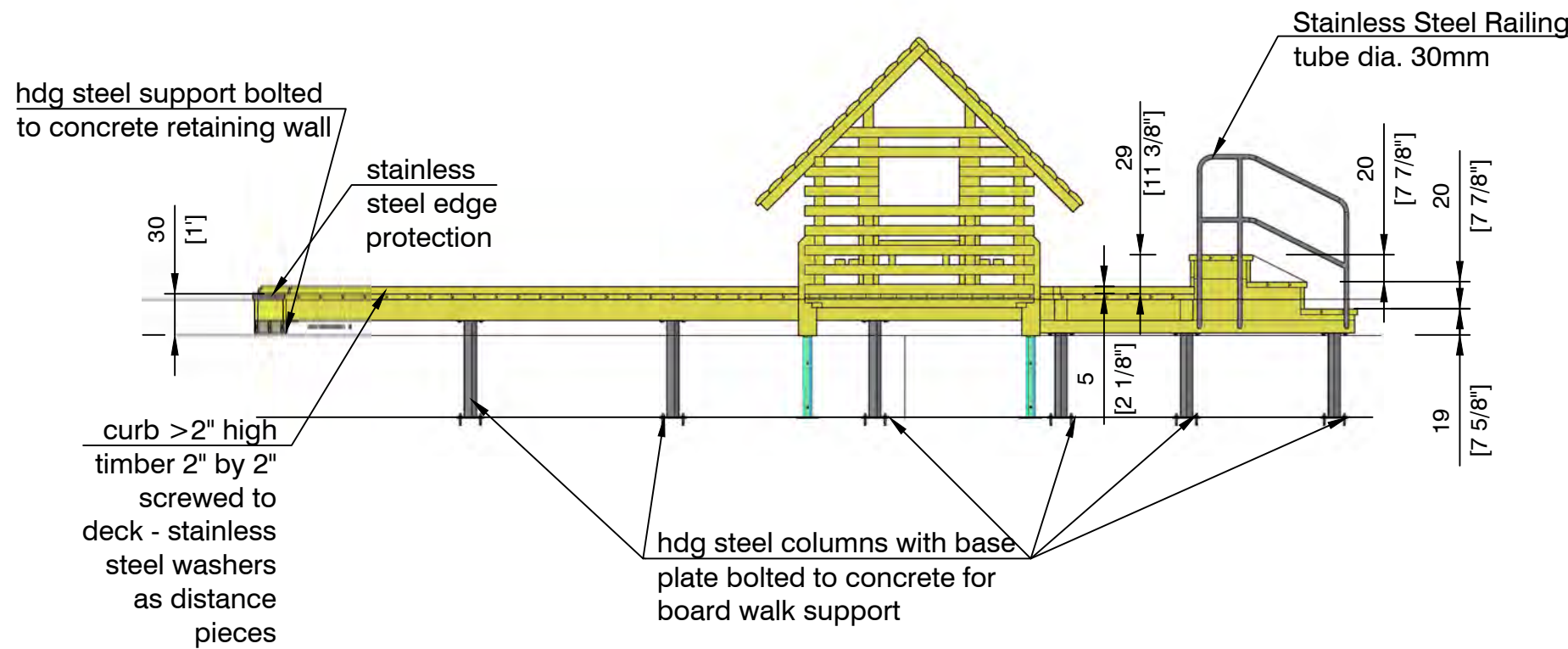
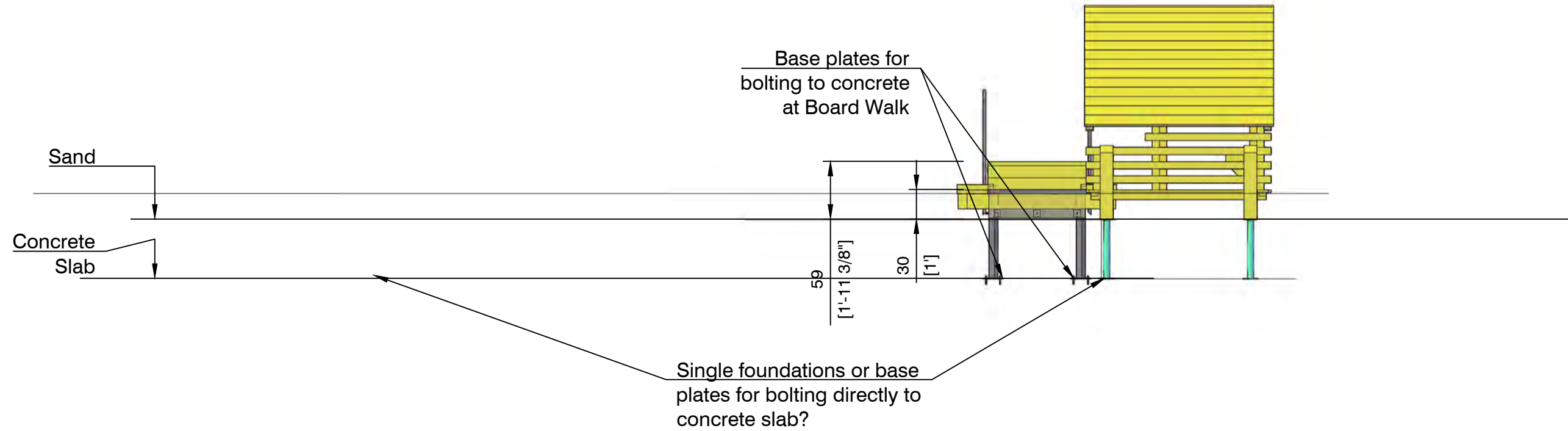
NOT FOR CONSTRUCTION

Building projekt	Clark Park		
Equipment	GERÄTEAUSSTATTUNG	Quotation/Order-No	AN221033
Customer	APE ---- ---- 246 5th Ave, Suite 626 New York, New York 10001		
Equipment proposal	Richter Spielgeräte GmbH Simsseestraße 29 D-83112 Frasdorf +49 8052-17980	Scale Title Date Name	SCALE TITLE DATUM BEARBEITER
		Size	FORMAT
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This equipment design is in accordance with ASTM F1487

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NOT FOR CONSTRUCTION

Building projekt	Clark Park		
Equipment	GERÄTEAUSSTATTUNG	Quotation/Order-No	AN221033
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Equipment proposal	Richter Spielgeräte GmbH Simssestraße 29 D-83112 Frasdorf +49 8052-17980	Scale Title Date Name	SCALE TITLE DATUM BEARBEITER
		Size	FORMAT
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General information for clients

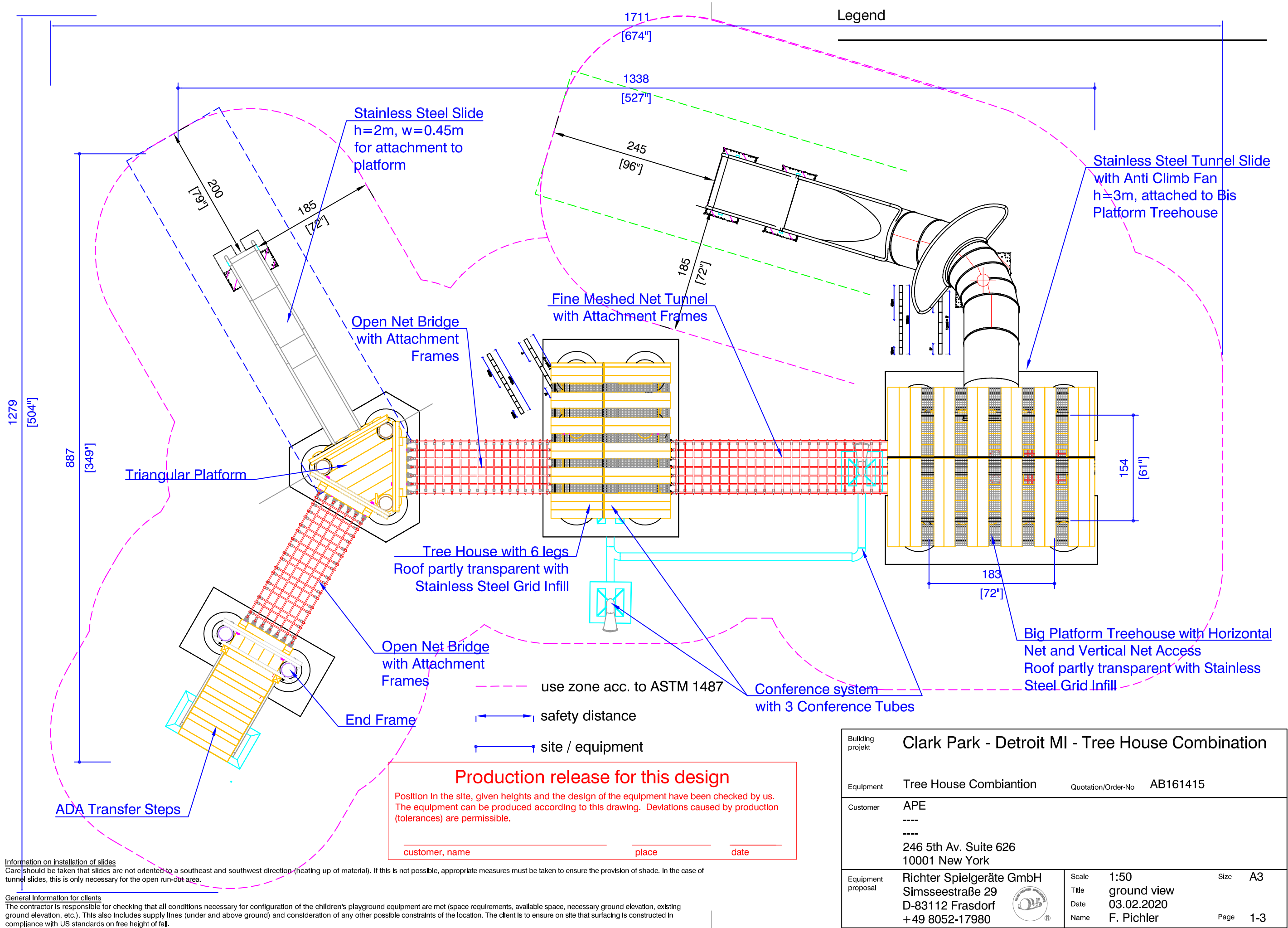
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Clark Park – Phase 1A
Detroit, MI
Project No. 2018183.00

Hamilton Anderson Associates
Issue for Bid
03-09-2020

APPENDIX B

CUSTOM TREE HOUSE STRUCTURE
TECHNICAL DOCUMENTS



Legend

1711 [674"]
 1338 [527"]
 245 [96"]
 185 [72"]
 185 [72"]
 200 [79"]
 185 [72"]
 887 [349"]
 1279 [504"]
 154 [61"]
 183 [72"]
 154 [61"]
 183 [72"]

Stainless Steel Slide
 h=2m, w=0.45m
 for attachment to platform

Stainless Steel Tunnel Slide
 with Anti Climb Fan
 h=3m, attached to Bis
 Platform Treehouse

Open Net Bridge
 with Attachment
 Frames

Open Net Bridge
 with Attachment
 Frames

End Frame

Triangular Platform

Tree House with 6 legs
 Roof partly transparent with
 Stainless Steel Grid Infill

Fine Meshed Net Tunnel
 with Attachment
 Frames

Big Platform Treehouse with Horizontal
 Net and Vertical Net Access
 Roof partly transparent with Stainless
 Steel Grid Infill

Conference system
 with 3 Conference
 Tubes

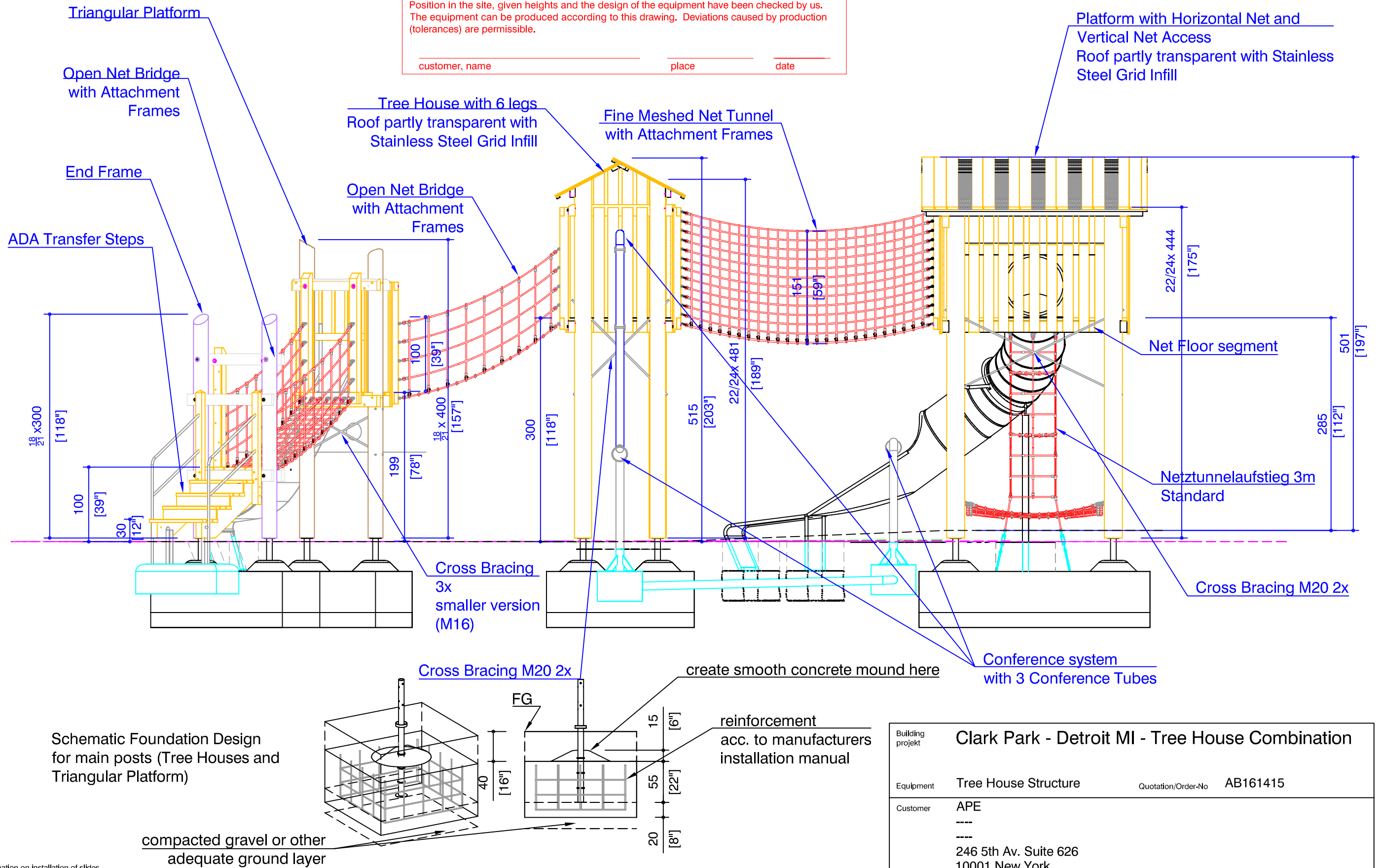
ADA Transfer Steps

Building projekt	Clark Park - Detroit MI - Tree House Combination		
Equipment	Tree House Combianion	Quotation/Order-No	AB161415
Customer	APE ---- 246 5th Av. Suite 626 10001 New York		
Equipment proposal	Richter Spielgeräte GmbH Simsseestraße 29 D-83112 Frasdorf +49 8052-17980	Scale Title Date Name	Size A3 Page 1-3

Production release for this design

Position in the site, given heights and the design of the equipment have been checked by us. The equipment can be produced according to this drawing. Deviations caused by production (tolerances) are permissible.

customer, name _____ place _____ date _____

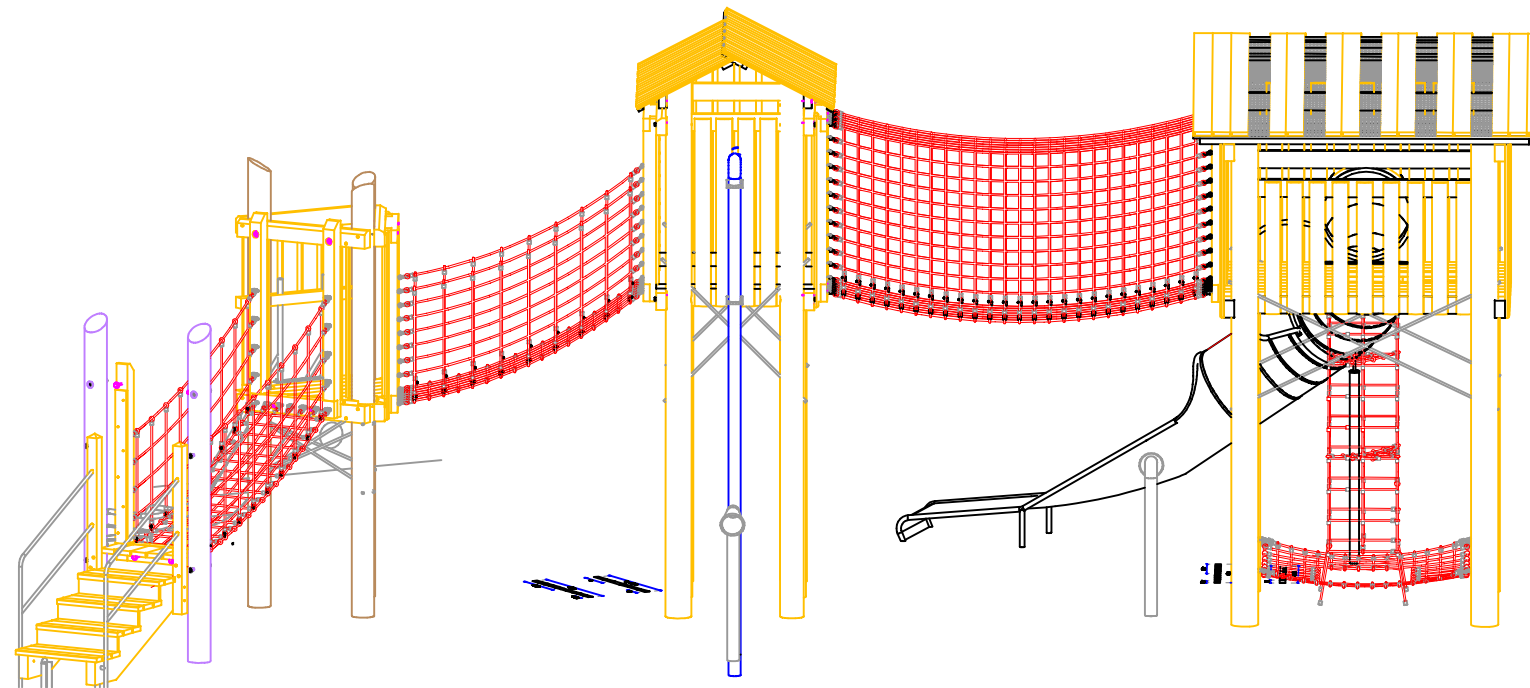


Schematic Foundation Design for main posts (Tree Houses and Triangular Platform)

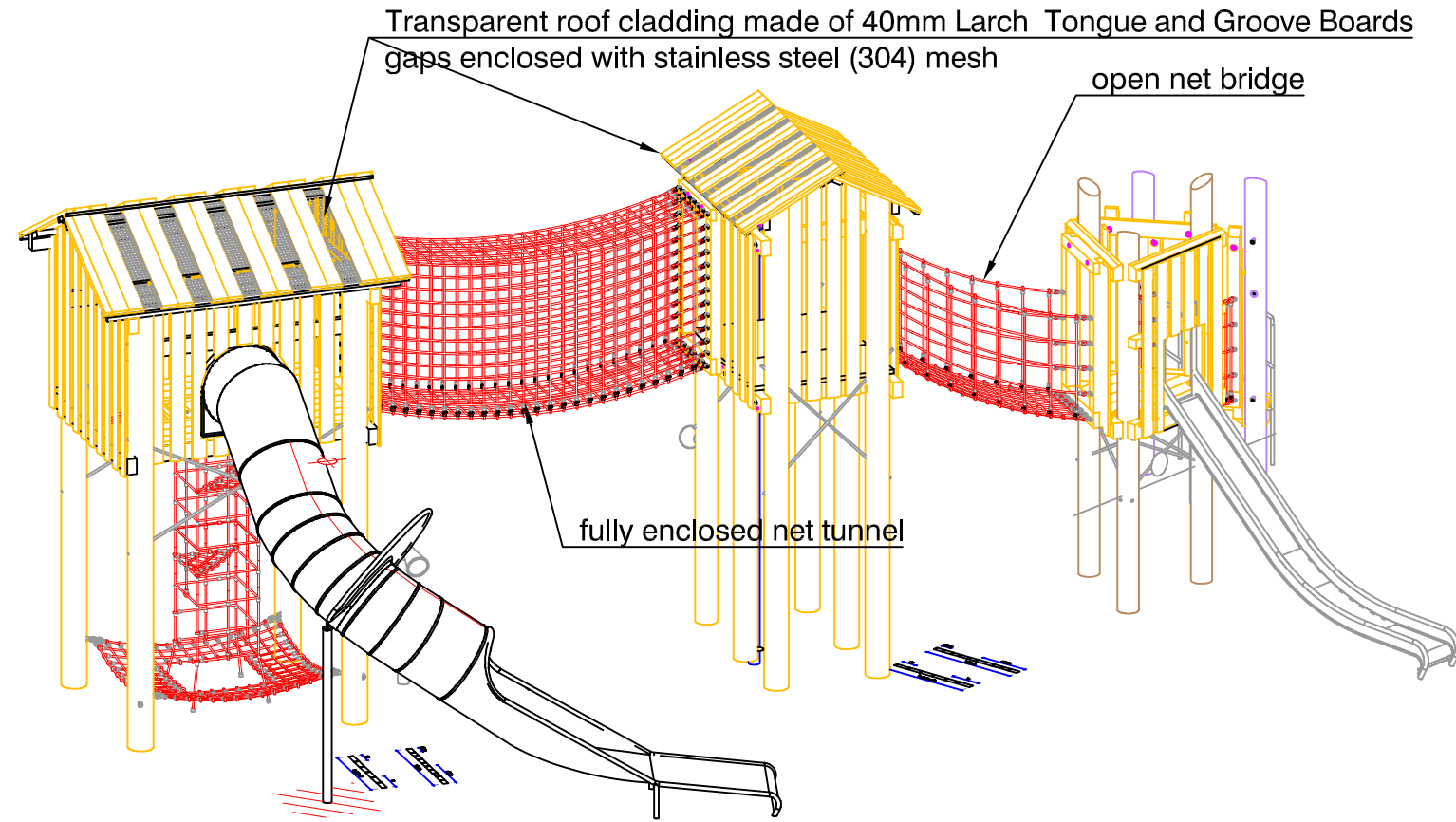
Information on installation of slides
 Care should be taken that slides are not oriented to a southeast and southwest direction (heating up of material). If this is not possible, appropriate measures must be taken to ensure the provision of shade. In the case of tunnel slides, this is only necessary for the open run-out area.

General Information for clients
 The contractor is responsible for checking that all conditions necessary for configuration of the children's playground equipment are met (space requirements, available space, necessary ground elevation, existing ground elevation, etc.). This also includes supply lines (under and above ground) and consideration of any other possible constraints of the location. The client is to ensure on site that surfacing is constructed in compliance with US standards on free height of fall.

Building projekt	Clark Park - Detroit MI - Tree House Combination		
Equipment	Tree House Structure	Quotation/Order-No	AB161415
Customer	APE --- 246 5th Av. Suite 626 10001 New York		
Equipment proposal	Richter Spielgeräte GmbH Simssestraße 29 D-83112 Frasdorf + 49 8052-17980	Scale Title Date Name	1:50 Side Elevation 03.02.2020 F. Pichler
		Size	A3
		Page	2-3



2nd layer
1st layer



incl. Slides:
3.68000 Tunnel Slide T300 I
A3.63420 h=2m w=0.45m for attachment to platform

Production release for this design

Position in the site, given heights and the design of the equipment have been checked by us. The equipment can be produced according to this drawing. Deviations caused by production (tolerances) are permissible.

customer, name place date

Building projekt	Clark Park - Detroit MI - Tree House Combination		
Equipment	Tree House Structure	Quotation/Order-No	AB161415
Customer	APE --- 246 5th Av. Suite 626 10001 New York		
Equipment proposal	Richter Spielgeräte GmbH Simsseestraße 29 D-83112 Frasdorf + 49 8052-17980	Scale Title Date Name	not to scale perspectives 03.02.2020 F. Pichler
		Size	A3
		Page	3-3

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INSTALLATION AND OWNER'S INSTRUCTIONS



Signature Series Internal Jack Adjustable Height Goal System

- MVP
- Captain

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Goal Specifications	3
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Ground Anchor Installation	4
Pole Assembly	5
Extension Arm Attachments	6
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Goal Alignment	8
Rim Attachment	9
Height Indicator Adjustment	10
Ready to Play	11
Warranties.....	Back Cover



888-USA-GOAL
goalsetter.com

Safety Instructions

Owner must ensure that all installers and players know and comply with these rules for safe assembly, installation, operation and use of the system. Proper and complete assembly, use and supervision is essential for proper operation of the product and to reduce the risk of accident or injury. **DO NOT ATTEMPT TO ASSEMBLE AND INSTALL THIS PRODUCT WITHOUT FOLLOWING THE INSTRUCTIONS CAREFULLY.**

⚠ WARNING

1. Failure to follow these instructions may result in death, serious injury and/or property damage and will void the warranty. Do not install or use this product unless the instructions within this manual have been carefully read and understood.
2. Locate your goal away from potential dangers, including walls, trip hazards, high-traffic areas or where a vehicle might come into contact with goal post, backboard or rim.
To avoid severe injury or death, do not locate goal under power lines that may come into contact with the goal as it is raised.
3. Two or three people in good physical condition and capable of lifting at least 90-100 lbs. (40-45 kg) each are recommended for safe installation and assembly.

- If using a ladder during assembly, use extreme caution. Follow all warnings and cautions on the ladder carefully.
- Installation and assembly of this product will require lifting and bending that may result in injury to anyone not accustomed to this type of activity.
- Before digging for the ground anchor, check for underground power, gas, telephone, water and other utility lines. Failure to do so could result in serious injury. See 811 One Call Warning box on this page for more information or call your local utility company.
- If an auger or post hole digger is used, be sure you read and follow all instructions, warnings and cautions for such equipment.
- Ensure there are no overhead power lines within a 20 ft. (7 m) radius of the goal location.
- Climate, corrosion or misuse could result in system failure.
- Keep organic material away from the pole base. Dirt, grass, litter etc. could cause corrosion or deterioration.
- Only use parts provided with your Goalsetter® basketball goal system or replacement parts provided by Goalsetter Systems, Inc. Use of other parts (a) may cause the goal system to fail, (b) could result in death, serious injury or property damage, and (c) will void the warranty.
- With rim set at 6'-0" playing height, the minimum operational height is 5'-4" (1.625 m) to the bottom of the backboard.
- **DO NOT CLIMB THE POLE OR HANG on the rim or any part of the goal system.** This includes the backboard, support braces and net. The product is not designed for such use and property damage or personal injuries such as cuts, broken bones, nerve, spinal cord or brain injury or death could occur.
- Use caution when performing dunking activities with this product.
- During play keep players' faces away from the backboard, rim and net or serious injury could result.
- Players must wear a mouth guard to avoid dental injuries.
- Do not wear jewelry (rings, watches, necklaces, etc.) or other loose objects that could become tangled in the net or injure another player.

⚠ WARNING

Before digging for the ground anchor, contact your local One-Call system (dial 811) in your area.



Know what's below.
Call before you dig.
1-888-258-0808

Utility Markings

Color	Definition
Red	Electric
Yellow	Gas, Oil, Petroleum
Orange	Communication, Phone, TV
Blue	Potable Water, Irrigation
Green/Brown	Sewer
White	Proposed Dig

- Before each use, check the goal system for loose hardware, excessive wear and signs of corrosion. Repair the system before use.
- **NEVER** play on damaged equipment.
- When adjusting the height of the rim:
 - Keep hands and fingers away from moving parts.
 - DO NOT allow children to adjust the system height.
 - DO NOT OVERCRANK OR OVER-ADJUST the rim height above 10 ft. or below 6 ft.
- Check the goal system frequently for signs of corrosion. Remove surface rust and loose paint completely, and repaint with exterior enamel paint. If rust or corrosion has penetrated or pitted any components of the goal, DO NOT allow play and repair or replace parts immediately.
- DO NOT use the goal system to lift or hoist anything.
- Use caution when using this goal system. Most injuries are caused by misuse and/or not following these instructions.

IMPORTANT

Enclosed underneath the protective sheeting on your backboard is a warranty registration card. **YOU MUST FILL OUT AND MAIL IN THIS CARD IN ORDER TO HAVE A VALID WARRANTY.** You may also fill out a warranty registration online at www.goalsetter.com.

Retain this manual for future reference of operation, maintenance and parts information.

The information in this manual is based on the latest information available at the time of publication. Your goal may have product improvements and options not yet contained in this manual. Goalsetter Systems, Inc. reserves the right to make changes at any time without notice or obligation.

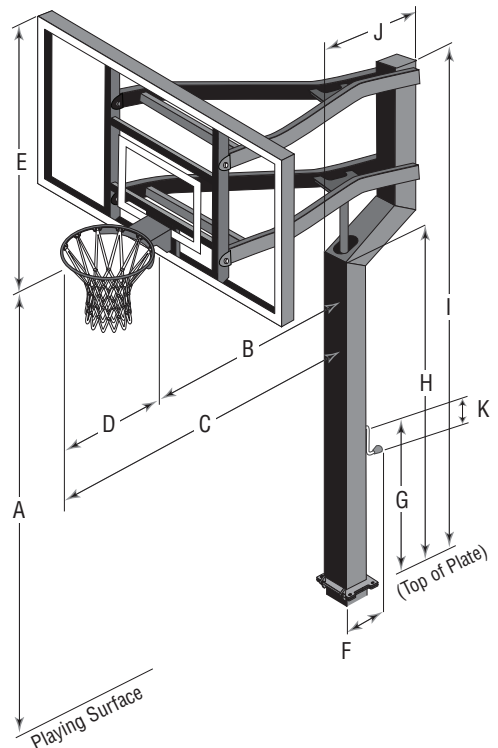
Contact the manufacturer if technical assistance is required.

Additional copies of these instructions are available from:

Goalsetter Systems, Inc.
1-888-USA-GOAL
goalsetter.com

Goal Specifications

	MVP	Captain
Pole Size:	6"x6"	6"x6"
Backboard Size:	42"x72"	38"x60"
Weight w/Acrylic:	525 lbs.	510 lbs.
Weight w/Glass:	585 lbs.	560 lbs.
(A) Height Range:	6'-10'	6'-10'
(B) Extension Distance:	at 10'	51"
	at 8'	54"
	at 6'	48"
(C) Maximum Overhang:	79"	79"
(D) Distance Rim to Backboard:	25"	25"
(E) Distance Rim to Top of Goal:	33 3/4"	29 3/4"
(F) Crank Distance:	11 1/2"	11 1/2"
(G) Crank Height:	36 1/2"	36 1/2"
(H) Offset Height:	7'-0"	7'-0"
(I) Pole Height:	10'-5"	10'-5"
(J) Offset Distance:	21"	21"
(K) Crank Turn Radius	8"	8"



Determine Installation Location

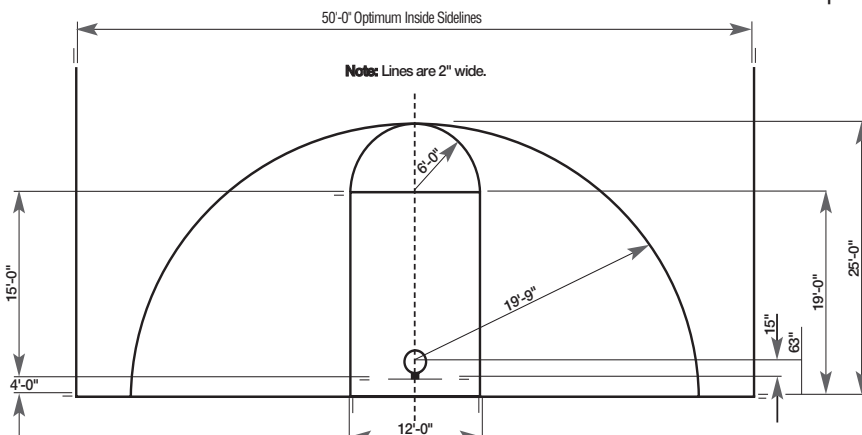
Consider the following to determine where to install your Goalsetter® Basketball Goal:

- When extended, will backboard overhang obstruct driveway or other important space? Maximum overhang: 79" (2 m) from the front of the pole to the front of the rim.
- Is there room so vehicles backing out of driveway do not strike backboard or rim?
- Will court markings be used?
- How much playing surface is needed?
- How much playing surface will be under the backboard? (Having the edge of the playing surface directly underneath the backboard can result in trip hazards and unpredictable ball action following a shot. Try to have as much playing surface as possible behind the backboard.)
- Other functions of playing surface (driveway, playground, etc.)

- Will the goal be at least 20 ft. (7 m) from any overhead power lines? (No overhead power lines should be within a 20 ft. (7 m) radius of the goal.)
- Will the ground anchor for the goal avoid underground power, gas, telephone, water and other utility lines? (See 811 One Call Warning box on page 2 for more information or call your local utility company.)

Required Tools and Materials:

- Spade
- Shovel
- Tape Measure
- Level
- Hoe
- Water
- Rubber Mallet
- Steel Punch
- Stepladder
- Wheelbarrow
- Cement Trowel
- Stir Rod
- Auger/Post Hole Digger (optional)
- 10-14, 60 lb Bags of Dry Concrete Mix (or 1/4-1/3 yard of ready mix concrete)
- 1/2" Drive Torque Wrench
- Phillips Screwdriver
- 9/16" & 3/4" Wrenches and Sockets



Court Markings

(Reference Only):

Regulation Court Lengths
 High School: 84'
 College & Professional: 94'

Ground Anchor Installation

Step 1: Locate and unpack a 6" ground anchor (G2660).

Remove plastic plugs from bolt holes and ensure the threads are in good condition. **REPLACE THE PLUGS** – they will keep concrete and debris from the bolt holes during installation. Leave the hinge pin in place as well.

Step 2: Determine hole location. When installed, the edge of the ground anchor must be a minimum of 6" (15.2 cm) away from the playing surface. Follow One Call or your utility's recommendations as to how close you may dig to a marked utility.

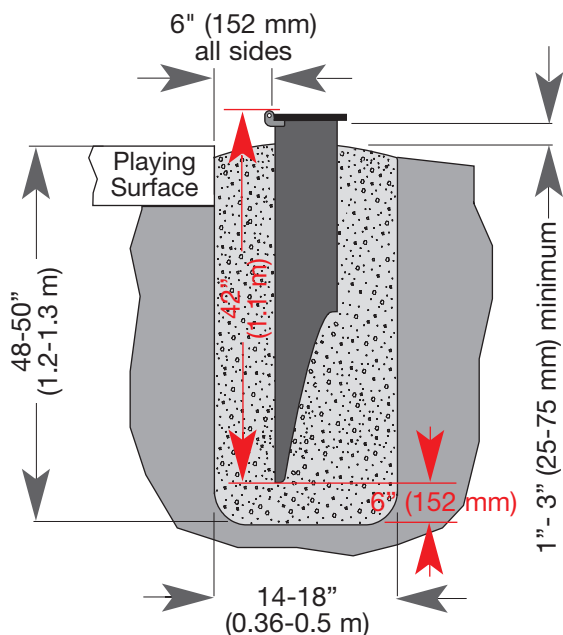
IMPORTANT

You **MUST** dig the anchor hole at least 48" (1.2 m) deep.

WARNING

Before digging for the ground anchor, check for underground power, gas, telephone, water and other utility lines. Failure to do so could result in serious injury. See 811 One Call Warning box on page 2 for more information or call your local utility company.

Step 3: Dig hole 48" to 50" (1.2 m – 1.3 m) deep and 18" (0.5 m) in diameter using a spade, shovel, auger or post hole digger.

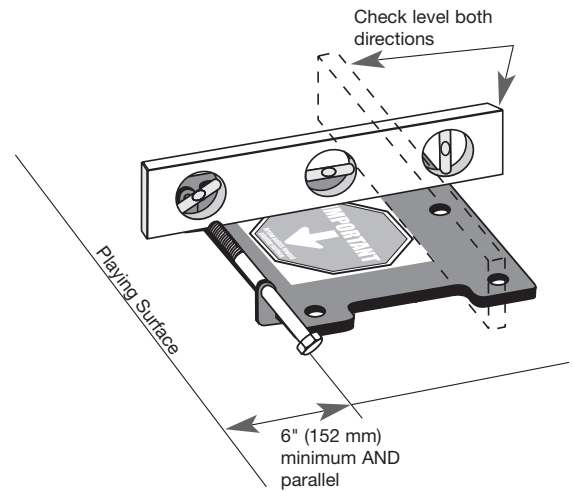


TIME OUT TIP: If you plan on mixing concrete in stages, work quickly to minimize time between batches.

Step 4: Mix concrete. Put cement in wheelbarrow. Add the amount of water recommended on the bag, and mix with hoe.

Step 5: Begin adding concrete into hole until concrete is approximately 28"- 30" (.7 m – .8 m) deep.

TIME OUT TIP: The arrow on the decal **MUST** be pointing toward the playing surface.



Step 6: Position 6" ground anchor (G2660) in center of hole with hinge side toward and parallel with playing surface. Using a level, ensure the anchor is level front-to-back and left-to-right. All edges of the ground anchor must be 6" (15.2 cm) away from all sides of hole and the top of the ground anchor within a range of 1"- 3" (25-75 mm) above the level of the playing surface.

TIME OUT TIP: As you add concrete, occasionally insert a stir rod (such as a broomstick) into three or four places in the concrete and plunge up and down to help eliminate air bubbles.

Step 7: Continue adding concrete until concrete is within 1"- 1.5" (25-38 mm) of anchor plate bottom, or level with the landscape – whichever comes first. Slope top of concrete away from pole with trowel to create a smooth surface.

IMPORTANT

- Periodically re-check the level of the anchor plate in both directions as you add more concrete.
- Slope the top of the concrete fill away from the ground anchor in all directions to shed moisture away.

TIME OUT TIP: If you must adjust the height, be sure to re-check level and that the anchor is parallel with playing surface!

Step 8: If needed, adjust anchor plate height. The top of the ground anchor should be within a range of 1"- 3" (25-75 mm) above playing surface. Be sure to re-check level.



Pole Assembly

IMPORTANT

- Allow 48 hours for concrete to cure before beginning.
- Check to see that no concrete or debris obstructs threads in ground anchor bolt holes by threading anchor bolts in and out.

Step 1: Remove five plastic plugs from threaded holes in ground anchor. Also remove hinge pin and hex nut and place near anchor plate. (These will be used in Step 3.)

⌚ TIME OUT TIP: To protect pole finish, place square packing pad (included in pole box) on the ground at the bottom of pole and at the “neck” where pole offset begins. Remove once pole is held by installation clip.

Step 2: Unpack pole and jack. The jack is already assembled inside the pole.

Step 3: Align pole hinge with anchor plate hinge, then insert hinge pin and hand tighten hex nut.

Step 4: Lift pole to approximately 30° and attach installation clip to ground anchor and pole to maintain the installation angle.

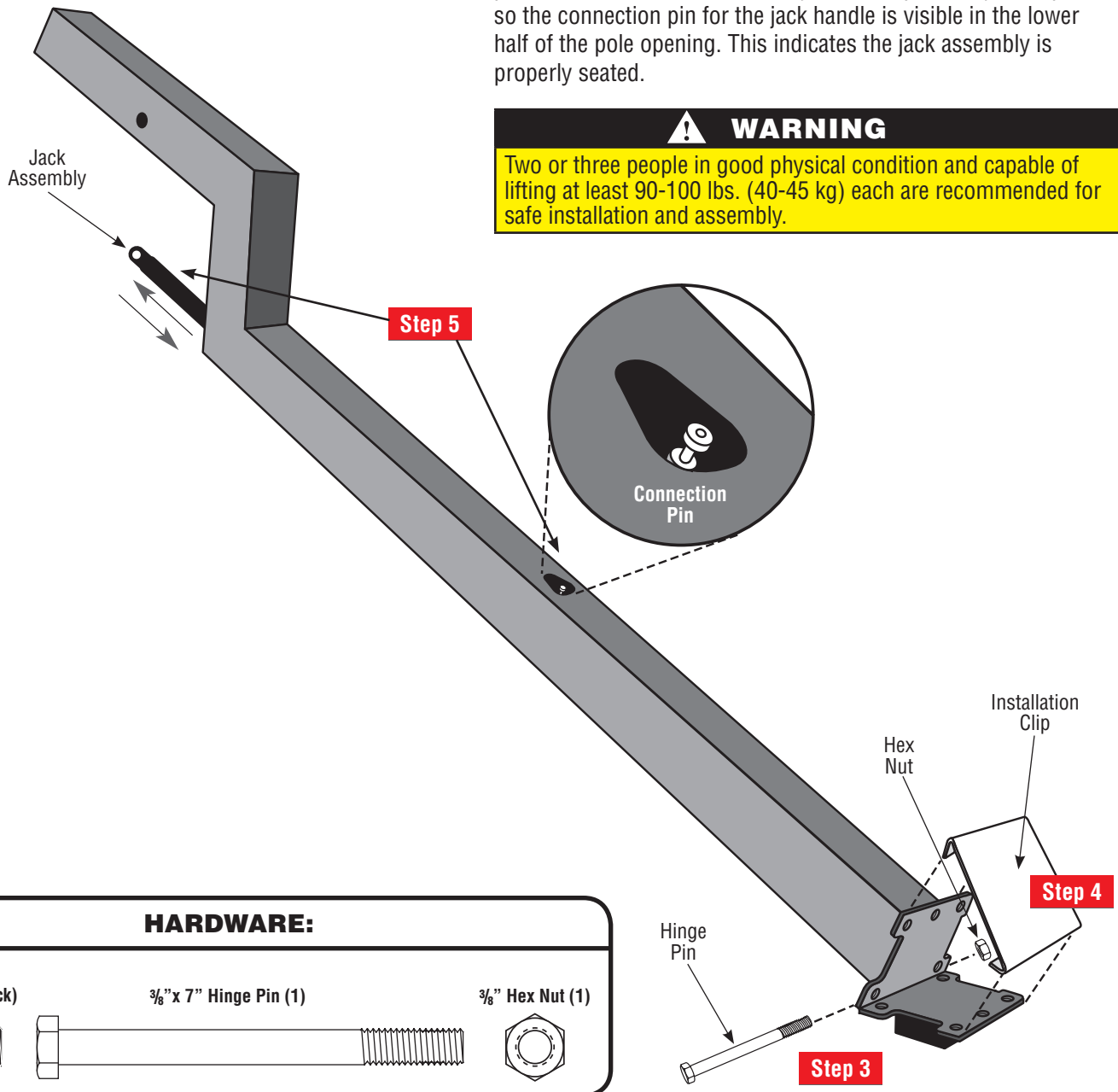
IMPORTANT

The installation clip **MUST** remain in place until pole is raised in Goal Alignment, page 8.

Step 5: Pull jack assembly out slightly, remove packing and protective materials from end of jack and reposition jack in pole so the connection pin for the jack handle is visible in the lower half of the pole opening. This indicates the jack assembly is properly seated.

⚠ WARNING

Two or three people in good physical condition and capable of lifting at least 90-100 lbs. (40-45 kg) each are recommended for safe installation and assembly.

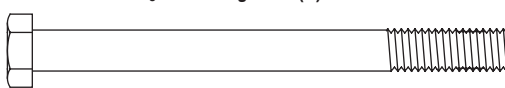


HARDWARE:

$\frac{1}{2} \times 1\frac{1}{4}$ "
Anchor Bolt (1-black)

$\frac{3}{8}$ " x 7" Hinge Pin (1)

$\frac{3}{8}$ " Hex Nut (1)



Extension Arm Attachments

WARNING

Two or three people in good physical condition and capable of lifting at least 90-100 lbs. (40-45 kg) each are recommended for safe installation and assembly.

TIME OUT TIP: The lower extension arm says "Best in Basketball" and the upper extension arm says "Goalsetter.com".

Step 1: Unpack extension arms. Position lower extension arm with jack mount clevis toward pole offset. Align lower extension arm pivot holes with lower holes in pole.

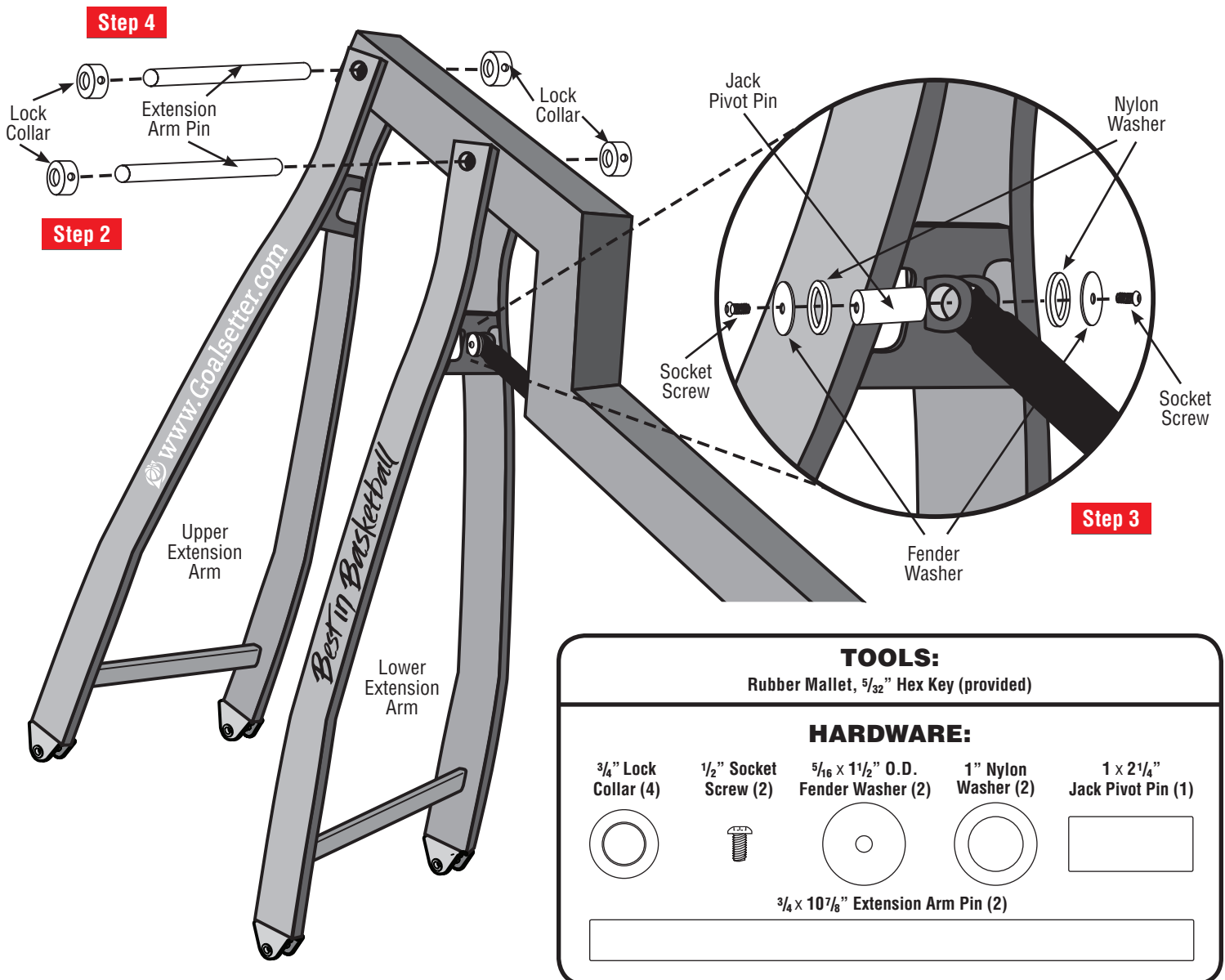
Step 2: Attach lower extension arm pivot holes with lower bushing on pole using the following: one extension arm pin and two lock collars. Tighten with $\frac{5}{32}$ " hex key (provided) so the bushings on extension arm meet the bushing on the pole. Do not over-tighten.

TIME OUT TIP: You may have to adjust jack to align jack pin holes with holes in the lower extension arms. A rubber mallet may be needed to drive pins into holes.

Step 3: Attach upper mount of jack to lower extension arm using the following: one jack pivot pin, two nylon washers, two fender washers and two socket screws. Tighten with $\frac{5}{32}$ " hex key (provided). **NOTE: DO NOT** over-tighten. Snug tighten only.

Step 4: Attach upper extension arm pivot holes with upper bushing on pole following the same hardware and procedure as in Step 2.

Step 5: Remove protective material from extension arms.



Backboard Attachment

WARNING

Two or three people in good physical condition and capable of lifting at least 90-100 lbs. (40-45 kg) each are recommended for safe installation and assembly.

IMPORTANT

The installation clip **MUST** be in place to maintain the proper installation angle.

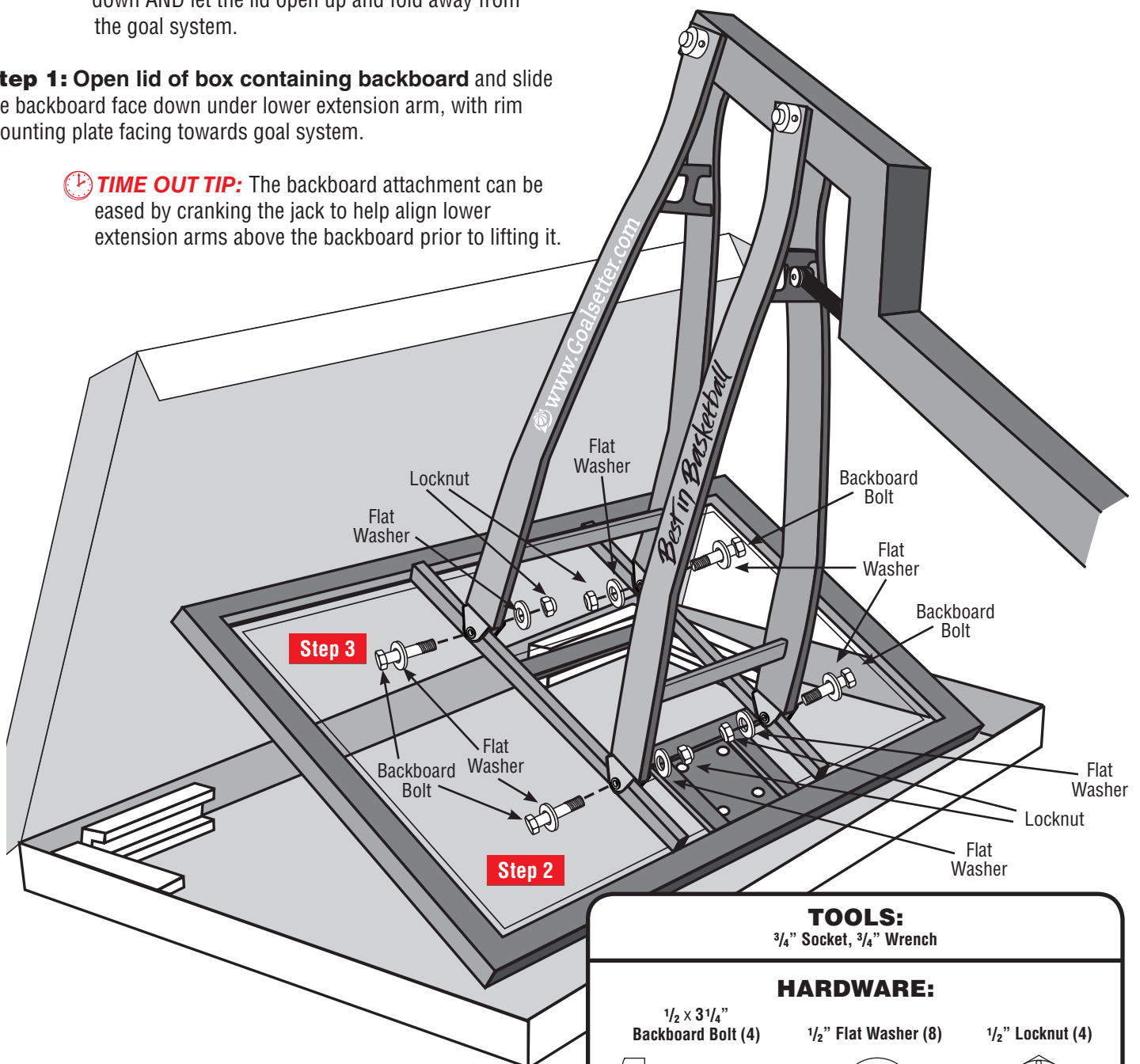
TIME OUT TIP: Lay the unopened box upside down AND let the lid open up and fold away from the goal system.

Step 1: Open lid of box containing backboard and slide the backboard face down under lower extension arm, with rim mounting plate facing towards goal system.

TIME OUT TIP: The backboard attachment can be eased by cranking the jack to help align lower extension arms above the backboard prior to lifting it.

Step 2: Carefully lift the bottom of the backboard to align lower backboard holes with lower extension arm holes. Using ratchet and wrench, attach backboard to arm using the following hardware: two backboard bolts, four flat washers and two locknuts. **NOTE:** This is a pivot point! **DO NOT** over-tighten. Snug tighten only.

Step 3: Lift top of backboard to align upper holes with upper extension arm holes using the same hardware and procedure as in Step 2.



TOOLS:

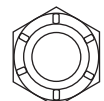
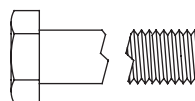
$\frac{3}{4}$ " Socket, $\frac{3}{4}$ " Wrench

HARDWARE:

$\frac{1}{2} \times 3\frac{1}{4}$ "
Backboard Bolt (4)

$\frac{1}{2}$ " Flat Washer (8)

$\frac{1}{2}$ " Locknut (4)



Goal Alignment

⚠ WARNING

For safe assembly, do the following:

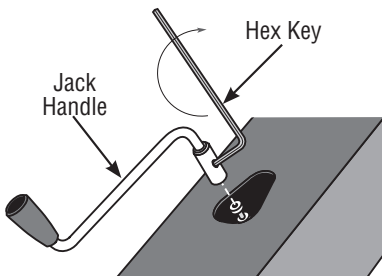
- Use two or three people to raise goal assembly and hold it in a vertical position. Two or three people in good physical condition and capable of lifting at least 90-100 lbs. (40-45 kg) each are recommended for safe installation and assembly.
- **DO NOT** adjust height of backboard or attach rim until pole is raised and appropriately bolted.
- Correct sequence of hardware installation **MUST** be followed during assembly.

To avoid injury, keep fingers and toes away from the ground plate while raising the goal assembly to the vertical position.

⌚ TIME OUT TIP: Set screws are included in bag with jack handle; open cautiously to avoid loss of screws. For ease of installation, start set screws in jack handle before inserting jack handle.

Step 1: Insert jack handle through access hole and slide onto shaft.

Step 2: Attach handle to shaft using both set screws; tighten with $\frac{5}{64}$ " hex key (provided.)

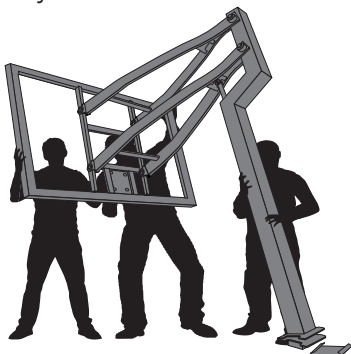


Step 3: Remove banding and edge protection from backboard. Peel back TOP 1/3 of protective sheeting from the backboard. This will allow you to reach the sheeting once the goal has been raised, yet protects the surface of the backboard during installation.

Step 4: Locate five anchor bolts. Prepare them for use by having lock washers slipped on and placed near ground anchor.

Step 5: Using at least two people, carefully push up on backboard to raise goal assembly to vertical position. The installation clip will fall away. Save installation clip for future disassembly.

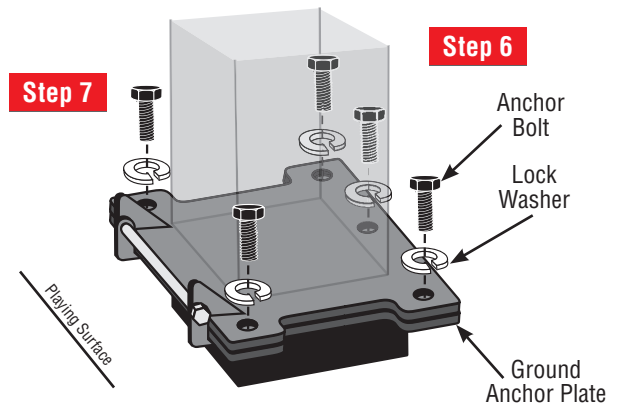
Step 5



Step 6: Fasten pole to threaded ground anchor plate by installing and hand tightening the three rear anchor bolts with lock washers.

Step 7: Fasten pole to threaded ground anchor plate by installing and hand tightening the two front anchor bolts with lock washers.

⌚ TIME OUT TIP: Install rear three anchor bolts first and then the front two anchor bolts.



Step 8: Snug tighten the five anchor bolts, then check goal assembly with a level and inspect visually to determine if it is parallel and plumb to the playing surface.

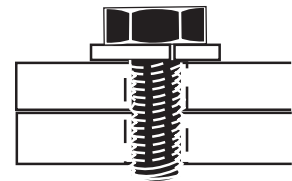
Step 9: If adjustments are necessary, slightly loosen bolts to rotate goal.

Step 10: Fully tighten five bolts using a $\frac{3}{4}$ " socket with a torque wrench. The torque wrench is to be set at 75 ft/lb on dry threads and 55 ft/lb on lubricated threads. **NOTE:** The anchor plate is threaded, so there is no need to use nuts on bolts.

IMPORTANT

The bolts must pass all the way through the ground anchor plate. If they do not pass through the ground anchor plate when fully tightened, **STOP** installation, contact Goalsetter Systems, Inc. and **DO NOT** allow play.

End of anchor bolt should extend $\frac{1}{8}$ " below anchor plate.



TOOLS:

$\frac{3}{4}$ " Socket, $\frac{1}{2}$ " Drive Torque Wrench, Level, $\frac{5}{64}$ " Hex Key (provided)

HARDWARE:

8-32 Set Screw (2)



$\frac{1}{2} \times 1\frac{1}{4}$ " Anchor Bolt (5-black)



$\frac{1}{2}$ " Lock Washer (5)



Rim Attachment

NOTE: Use all steps of the following instructions to install a reflex rim. To install a static rim, follow all steps *except* Steps 2 and 6.

⌚ TIME OUT TIP: Your warranty card is located behind protective sheeting. You **MUST** fill out and return this card to activate your warranty.

Step 1: Unpack rim. Remove any remaining cardboard edge protectors and protective sheeting from backboard.

IMPORTANT

- Four bushings are factory installed on the backboard. If loose, make sure to have them seated properly when tightening rim bolts. If missing, contact Goalsetter or dealer. **DO NOT install rim without bushings. If the bushings are not in place, glass backboards can shatter and acrylic backboards can crack!**
- Correct sequence of hardware installation **MUST** be followed during assembly.

Step 2: If not already removed, remove cover plate screws and cover plate from rim assembly.

Step 3: Starting with the top two mounting holes, loosely attach rim to backboard following the hardware sequence as shown in the illustration below. Snug tighten hardware - a $\frac{9}{16}$ " open-end wrench may be necessary.

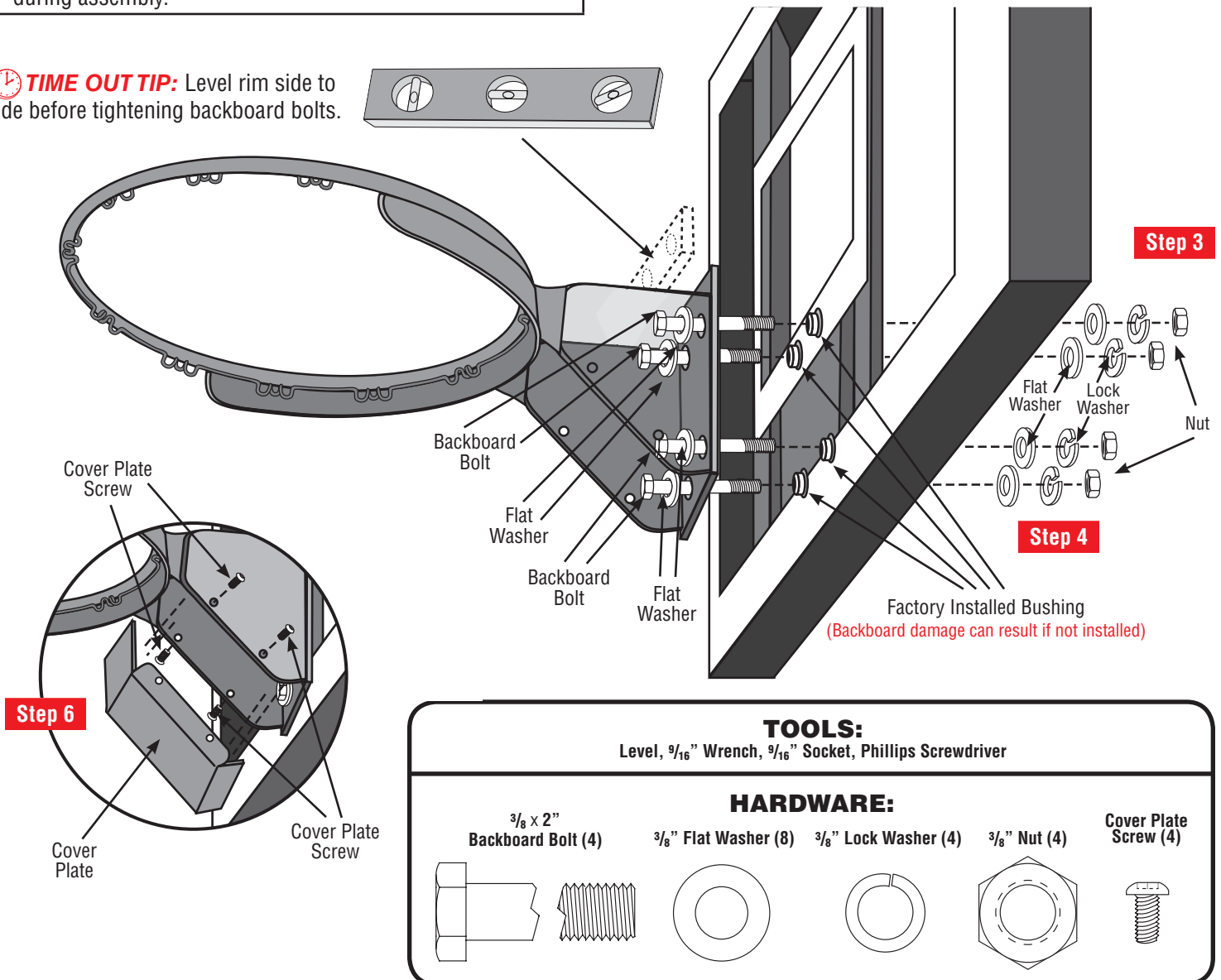
Step 4: Repeat hardware sequence outlined in Step 3 for lower rim mounting holes.

Step 5: Level rim side to side and then fully tighten hardware.

Step 6: Position cover plate and attach with cover plate screws.

Step 7: Attach net to rim.

⌚ TIME OUT TIP: Level rim side to side before tightening backboard bolts.



Height Indicator Adjustment

Step 1: Using a tape measure to ensure accuracy, turn the jack handle until the rim is 6' above the playing surface.

Step 2: Insert height decal with printed number '6' through indicator hole in pole and attach to internal height indicator plate in center of hole.

Step 3: Repeat steps for 6½', 7', 7½', 8', 8½', 9', 9½', and 10' rim heights; attach appropriate numbered decal.

Step 4: Install plastic grommet into indicator hole.

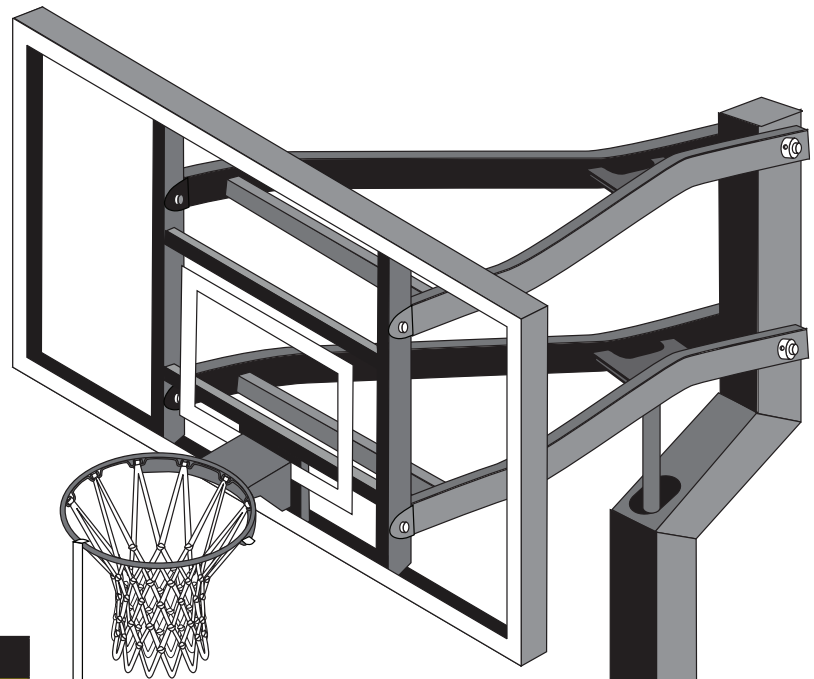
Step 5: Attach DOWN/UP decal to pole above crank handle hole. ("DOWN" will be on the left side)

WARNING

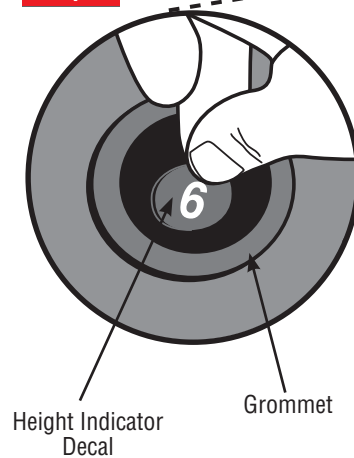
To avoid possible damage to the height adjustment mechanism:

- Do not adjust the rim height above 10 ft.
- Do not adjust the rim height below 6 ft.

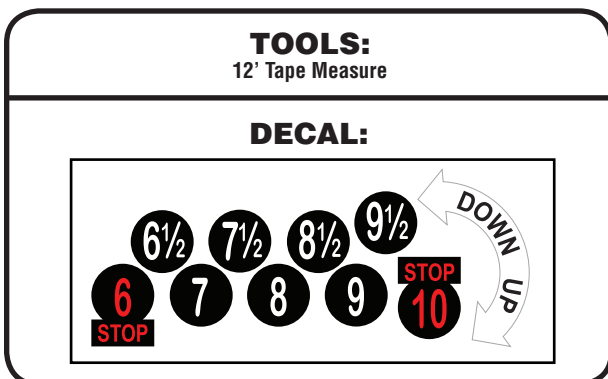
Failure to do so could result in voiding the lifetime warranty.



Step 2

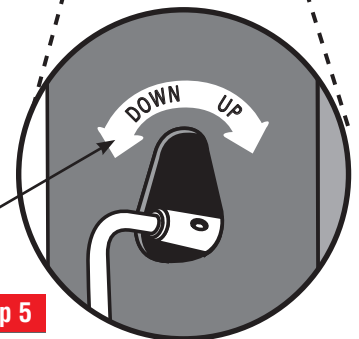


Step 1



Down/Up Decal

Step 5



Ready to Play

Operation

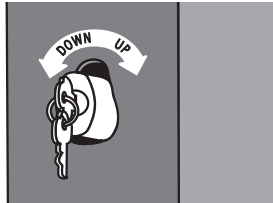
Crank – Turn clockwise for goal to go up, turn counter clockwise for goal to go down.

⚠ WARNING

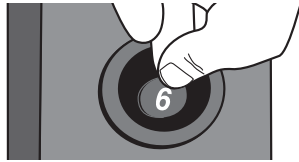
DO NOT raise above 10 ft. or lower below 6 ft.



Pinlock (option; order through Goalsetter Systems, Inc. or your Goalsetter Dealer) Remove handle and push lock onto jack handle shaft. Use key to remove.



Height Indicator indicates goal height from 6' to 10'.



Maintenance

The life of your basketball goal system depends on many variables. The climate, exposure to corrosives such as salt, organic materials, pesticides, or herbicides, and excessive use or misuse can all contribute to failure of the goal system, which may cause property damage or personal injury. Before each use, check the goal system for loose hardware, excessive wear, abuse, or vandalism or signs of rust or corrosion.

For safety reasons, and to prolong the life of your basketball system, you must take the following preventative measures:

- Check all nuts and bolts. Inspect the threads and replace if necessary. If any are loose, tighten them.
- Check all parts for excessive wear and tear. If necessary, replace any parts that have been worn or damaged through usage.
- Check all sections of the goal system for visible rust or chipped or cracked paint, and if present, repair appropriately. See Paint Touch-Up on this page.

IF RUST OR CORROSION HAS PENETRATED ANY COMPONENT, DO NOT ALLOW PLAY ON THE GOAL AND REPLACE PARTS IMMEDIATELY.

- Contact Goalsetter Systems, Inc. for replacement parts. Only use parts provided by Goalsetter Systems, Inc. Use of other parts (a) may cause the goal system to fail, (b) could result in death, serious injury or property damage, and (c) will void the warranty.
- Inspect the Warning Sticker on the pole. If it is ripped, faded, or illegible, contact Goalsetter Systems, Inc. to request a replacement Warning Sticker.

Cleaning

The exterior finish of your Goalsetter® goal is designed for outdoor environments and should only require periodic cleaning and inspection for imperfections that could develop over time.

When cleaning is necessary, Goalsetter Systems, Inc. recommends using water and a mild dish detergent applied with a soft, non-abrasive cloth.

IMPORTANT

DO NOT use abrasive cleaners to clean the goal. Damage to the finish may result.

Paint Touch-Up

Goalsetter Systems, Inc. uses a two-part acrylic-enamel paint on the goals. With periodic inspection and service when needed, the high-gloss finish is designed to last for many years. A small bottle of black paint with brush is provided in the hardware kit for touch up of imperfections as they develop. If more touch up is required, please contact Goalsetter Systems, Inc. or your local Goalsetter Dealer.



Lubrication

The jack is pre-lubricated. As with any mechanical component, periodic inspection and service is required. Goalsetter Systems, Inc. recommends applying lubrication each spring and fall to keep a smooth operation of the height actuator. Failure to do so could result in jack failure and not be covered under warranty. There are two lubrication service points provided.

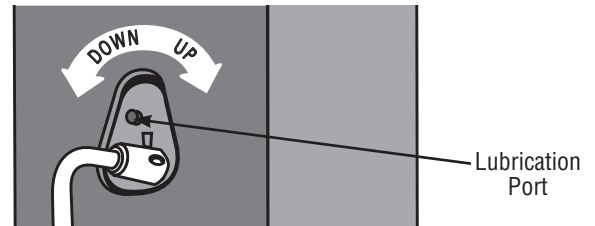
IMPORTANT

DO NOT use a penetrating oil (i.e. WD40.)

Step 1 Jack Assembly

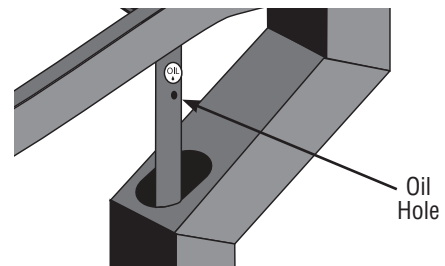
Use a liberal amount of general-purpose lubricating oil such as a 3-in-1 household oil or a light motor oil.

Step 1



Step 2 Use a liberal amount of general-purpose lubricating oil such as a 3-in-1 household oil or a light motor oil.

Step 2



Warranties

IMPORTANT

Enclosed underneath the protective sheeting on your backboard is a warranty registration card. **YOU MUST FILL OUT AND MAIL IN THIS CARD IN ORDER TO HAVE A VALID WARRANTY.** You may also fill out a warranty registration online at www.goalsetter.com.

LIMITED WARRANTY

LIMITED LIFETIME WARRANTY: Subject to proper installation and normal, intended use, and subject to the limitations set forth below, Goalsetter Systems, Inc. warrants to the original retail purchaser that all structural components of Goalsetter Systems™ Signature Series*, Extreme Series** and GS Wall Mount Series*** basketball systems are free of defects in material and workmanship for the duration of ownership by such original retail purchaser or five (5) years after discontinuation of the product by Goalsetter Systems, Inc..

*Signature Series – MVP, Captain, All-American, All-Star, Contender, Champion;
**Extreme Series – X672, X660, X560, X554, X454, X448;
***GS Wall Mount Series – GS72 Wall Mount, GS60 Wall Mount, GS54 Wall Mount, GS48 Wall Mount

LIMITED WARRANTY: Subject to proper installation and normal, intended use, and subject to the limitations set forth below, Goalsetter Systems, Inc. warrants to the original retail purchaser that all structural components of (a) Goalsetter Systems™ Tournament Series Elite Plus and GS Baseline Wall Mount Series* basketball systems are free of defects in material and workmanship for a time period of five (5) years from date of purchase (b) Goalsetter Systems™ Junior MVP and GS Junior Wall Mount basketball systems are covered for a time period of two (2) years from date of purchase.

*GS Baseline Wall Mount Series – GS72 Baseline, GS60 Baseline, GS54 Baseline

Any warranty on a basketball system excludes the rim. Rim warranties are as follows: Rims shall be free from defects in materials and workmanship from the date of purchase as follows: R10126 Single Ring Static Rim: one (1) year limited warranty; R10226 Double Ring Static Rim: unconditional lifetime warranty; R10326 HD Breakaway Rim: two (2) year limited warranty; R10554 GS Collegiate Breakaway Rim: one (1) year limited warranty.

Padding Warranty: Padding shall be free from defects in materials and workmanship from the date of purchase as follows: Multi-Purpose Backboard Edge Padding: one-year limited warranty; Custom Fitted Pole Padding: one-year limited warranty; Wrap Around Pole Padding: one-year limited warranty.

The Limited Lifetime Warranty and the Limited Warranty shall cover damage or failure that occurs during the course of **NORMAL** or **INTENDED USE** of the product. Normal or intended use shall be described as activity that is necessary for the participation in the sport for which the equipment is designed. **NOT COVERED** is damage caused by deliberate hanging, multiple player hanging, vandalism, non-basketball activities or any other activity that could be regarded as abusive. Goalsetter Systems™ Junior MVP and GS Junior Wall Mount warranty voided if damage caused by the act of dunking.

A limited lifetime warranty is effective for the duration of ownership by the original retail purchaser or 5 years after discontinuation of the product by Goalsetter Systems, Inc.

Goalsetter Systems, Inc. shall have the right to require the purchaser to deliver at its expense the allegedly defective product to Goalsetter for testing, repair or replacement. Goalsetter shall not be responsible for any expenses associated with the replacement or removal of the product from its application for such delivery.

THE WARRANTY IS VOID IF THE PRODUCT HAS BEEN DAMAGED BY ACCIDENT, USE FOR PURPOSES FOR WHICH IT IS NOT INTENDED, AS THE RESULT OF IMPROPER INSTALLATION, FAILURE TO FOLLOW INSTALLATION, CARE OR MAINTENANCE INSTRUCTIONS PROVIDED WITH THE PRODUCT, USE OF PARTS NOT PROVIDED BY GOALSETTER SYSTEMS OR ANY MODIFICATION OF ANY PRODUCT BY THE CUSTOMER UNLESS APPROVED BY GOALSETTER SYSTEMS, INC., OR OTHER CAUSES NOT ARISING OUT OF DEFECTS IN MATERIALS OR WORKMANSHIP.

The sole obligation of Goalsetter Systems, Inc., and the exclusive remedy under the applicable warranty, is repair or replacement of any component part determined by Goalsetter Systems, Inc. to be defective and covered by the warranty. Goalsetter Systems, Inc. will not be liable for any other damages or expenses. The applicable warranty is expressly in lieu of all other warranties, express or implied. Goalsetter Systems, Inc. does not assume, and no other person or representative is authorized to assume for Goalsetter Systems, Inc. any other liability in connection with the sale of Goalsetter System™ products.

NOT COVERED BY WARRANTY

- Use in non-residential applications of Glass backboards on Signature Series systems.
- Use in non-residential applications of Extreme Series and Tournament Series complete systems.
- Any products subjected to abuse, negligence, improper installation, vandalism, acts of God, alteration of product and any other events beyond the control of Goalsetter Systems, Inc.
- Junior Series breakage caused by the act of dunking.
- Paint or rusted parts. Touch-up paint is included in all hardware kits.
- Deterioration of product due to time or wear and tear.

Normal deterioration of products due to atmospheric conditions, weather, wear and tear (including scratching or scuffing paint from normal use), or other causes that do not affect functional use are not covered by Goalsetter Systems, Inc. warranties. All warranties are valid only when product is used in the intended application & when installed according to Goalsetter Systems instructions. Warranty may be void if maintenance instructions in the Owner's Manual are not followed. If you did not receive an Owners Manual, please call 1-888-USA-GOAL and one will be mailed to you.

DISCLAIMERS: THE APPLICABLE WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. AND ALL OTHER WARRANTIES ARE HEREBY DISCLAIMED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. UNDER NO CIRCUMSTANCES SHALL GOALSETTER SYSTEMS, INC. BE LIABLE FOR ANY INDIRECT, CONSEQUENTIAL, SPECIAL, INCIDENTAL, PUNITIVE, OR EXEMPLARY DAMAGES OF ANY KIND.

THE PRODUCT IS INTENDED TO BE USED TO PLAY THE SPORT OF BASKETBALL. ALL SPORTS INVOLVE RISK OF INJURY. THE USER ASSUMES ALL RISK OF INJURY RESULTING FROM THE USE OF THIS PRODUCT. ALL PRODUCTS ARE SOLD ON THIS CONDITION AND NO REPRESENTATIVE OF THE COMPANY MAY WAIVE OR CHANGE THIS POLICY.

Some states do not allow the exclusion or limitation of implied warranties or consequential or incidental damages, so the above limitations or exclusions may not apply to you.

LEGAL REMEDIES: This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

WARRANTY CLAIMS: All returns must be arranged through the Goalsetter Systems, Inc. dealer where the product was originally purchased. Warranties do not cover dealer service charges, labor charges, freight charges, and travel expenses associated with replacement, repair or removal of warranty items. Photos of the damaged product prior to any repair or clean-up actions must clearly show and permit analysis of the damaged product by Goalsetter Systems, Inc. A Goalsetter® Warranty Claim form must be completed, and photos submitted, together with proof of purchase, for any item you wish to claim under warranty. If the purchase was not made through a dealer, this form is available by email, fax or mail. In response to your claim, you will receive an order confirmation as well as a notice stating whether Goalsetter Systems, Inc. needs your warranty item returned. Goalsetter Systems, Inc. will notify you by fax or phone if we determine that the item cannot be claimed under warranty. **Goalsetter Systems, Inc. is not responsible for any charges for labor to install or repair defective product without prior authorization. Goalsetter Systems, Inc. will determine the most economical method to either repair or replace product before any work is to commence.**

Questions or Comments?
Phone 888.USA.GOAL
Email: info@goalsetter.com
www.goalsetter.com

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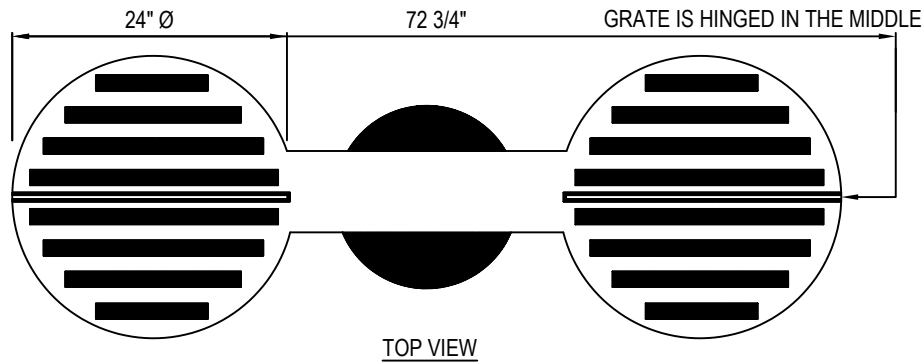
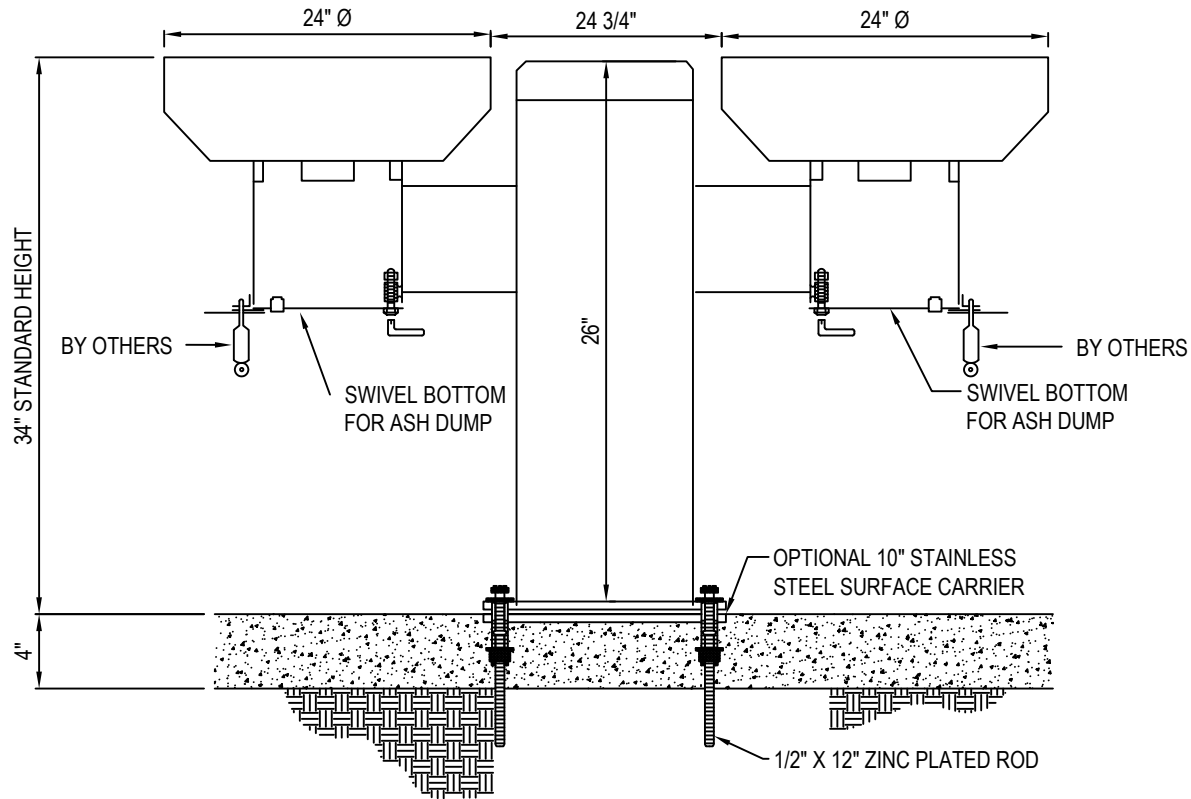
This product is covered by various U.S. and Canadian patents, including U.S. Patent #5,211,393. Patent infringement will be prosecuted.

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Revised 10/2015
GS IM3602

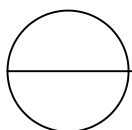


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 5705 COMMANDER DR. P.O. BOX 587
 ARLINGTON, TN 38002-0587
 PHONE: (901) 867-0039
 FAX: (901) 867-0159
 www.mostdependable.com



NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 3354-15.3.



BBQ 2 SM

2 BBQ GRILLS ON SURFACE MOUNT PEDESTAL SHOWN W/ OPTIONAL 10" SS SURFACE CARRIER

Play value

Climbing Structures made from hand-processed irregular round logs, can be integrated into a strongly nature-oriented environment due to their formal expressive character. Many children can play within a small space; Climbing Structures can even absorb the arrival of a large number of children who wish to play on it and incorporate all of them within a flowing play rhythm. Climbing Structures do not only allow for climbing, experiencing height, and for having a sensual experience with hands and feet, but they can also be used as a nice seat for relaxing and observing.



Fundamental characteristics

- natural, strong posts
- no pre-determined play procedures, also able to be used in stages, individual mastering
- incentive for playing: strong, challenging construction
- movement: climbing, balancing, doing exercise

Recommended

- for children from 6 years and young people
- for schools
youth centres
sports grounds
leisure areas
parks

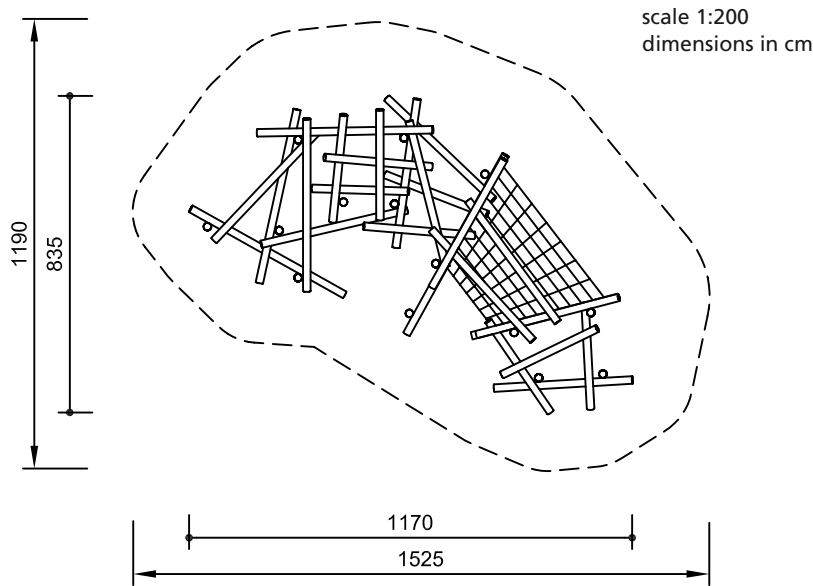
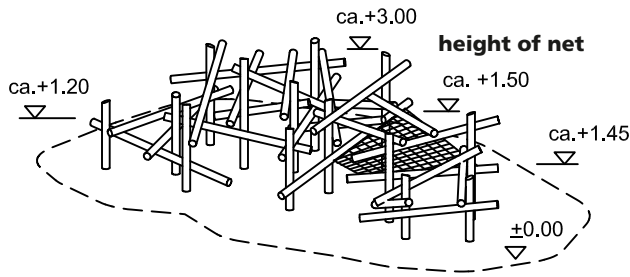
Climbing Structure 07



6.51007

Climbing Structure 07
Order No. 6.51007

Height details in meters



Safety check according to EN 1176 and „safety in another way“

Components

- 14 stand posts
- 25 connecting tie beams
- 1 net
- fittings

Dimensions

(small deviations possible)

- length 11.90 m
- width 8.35 m
- weight 3.900 kg

Required space

15.25 x 11.70 m

Installation information

Surfacing requirements corresponding to a fall height of ≤ 3.00 m (please refer to price list for more detailed information)

Foundations

14 items 80 x 80 x 60 cm
 excavation depth 80 cm

Note

The climbing structure is an individual construction which is only partly pre-assembled in our workshop. Therefore, the installation needs to be carried out by an installation company authorised by us.
 Technical changes reserved.

Technical information

posts of robinia, \varnothing 15 - 21 cm, splinter free and sanded smooth

angle cut

vertical support posts with angle cut in the end grain section as constructive wood preservation



Corocord® rope

special ropes of "Hercules type"
 six-strand Corocord® rope of the special "Hercules type", abrasion protected through heating of the six steel strands and melting the polyester sleeve onto them, standard colour natural



aluminium swages

double-conical aluminium swages with rounded-off ends, as small as possible



S-clamps

rounded Corocord® S-clamps made of stainless steel, \varnothing 8 mm



concealed head

large surface for pressure distribution, prevents water from getting inside, protects the bolt head



adjustable

no projecting threads after re-tightening due to two-piece bolt connection and therefore easy to maintain



distance fitting

to avoid entrapment of cords



net mounting

easy-to-install and service-friendly net fastening via adjustable stainless steel chain securing system



Order No. L6.51007

as above, but de-barked posts of non-impregnated mountain larch, \varnothing 15 - 21 cm, splinter free and sanded smooth

ground anchor

all parts used for anchoring to the ground are made of hot-dip galvanised steel respectively stainless steel



relief cut

parts which are not core-free have a kerf sawn at a suitable section of the trunk to pre-empt cracks that would form naturally or a bore hole as relief

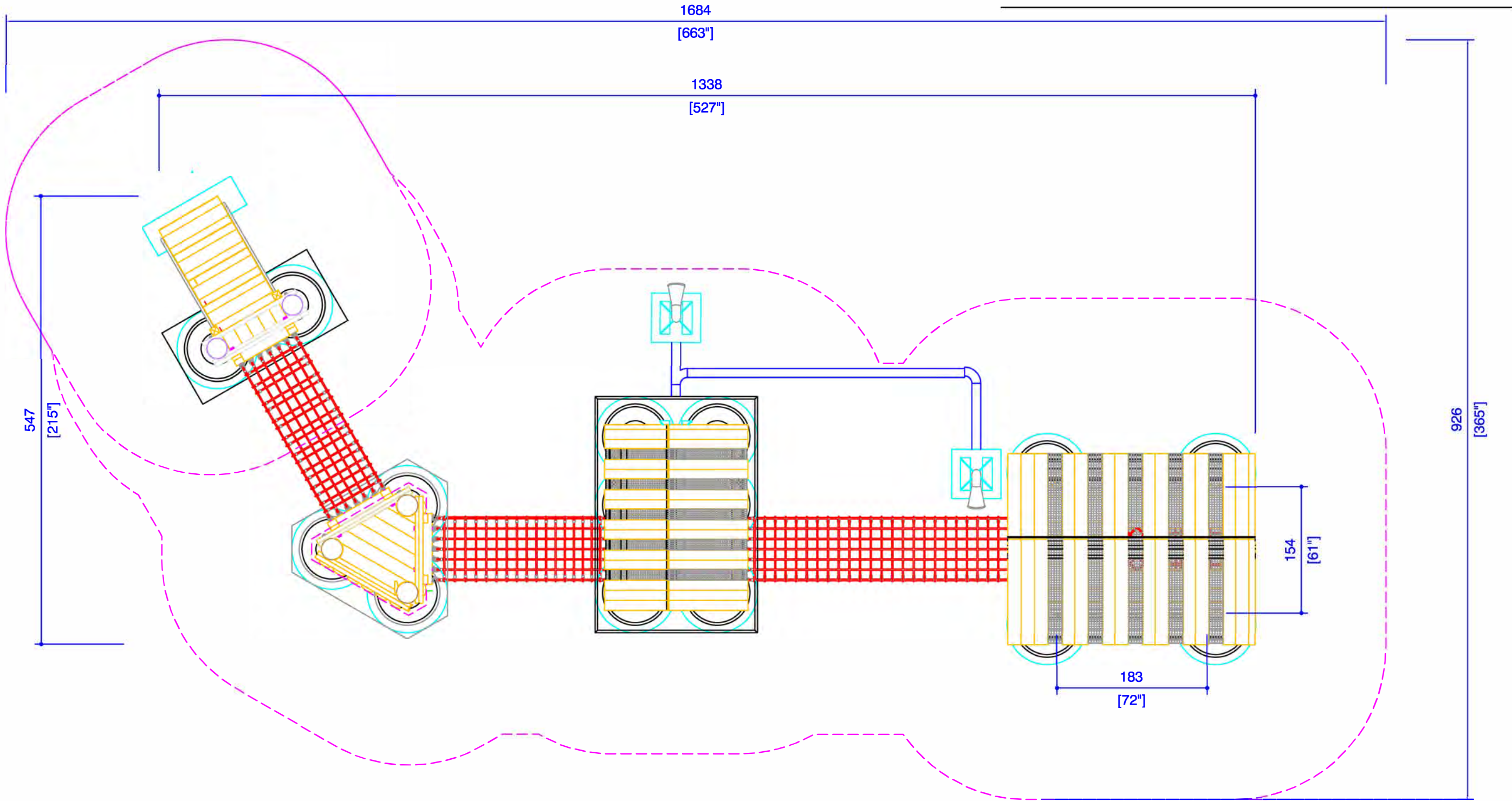


For more detailed explanation of the quality characteristics see price list.




6.51007

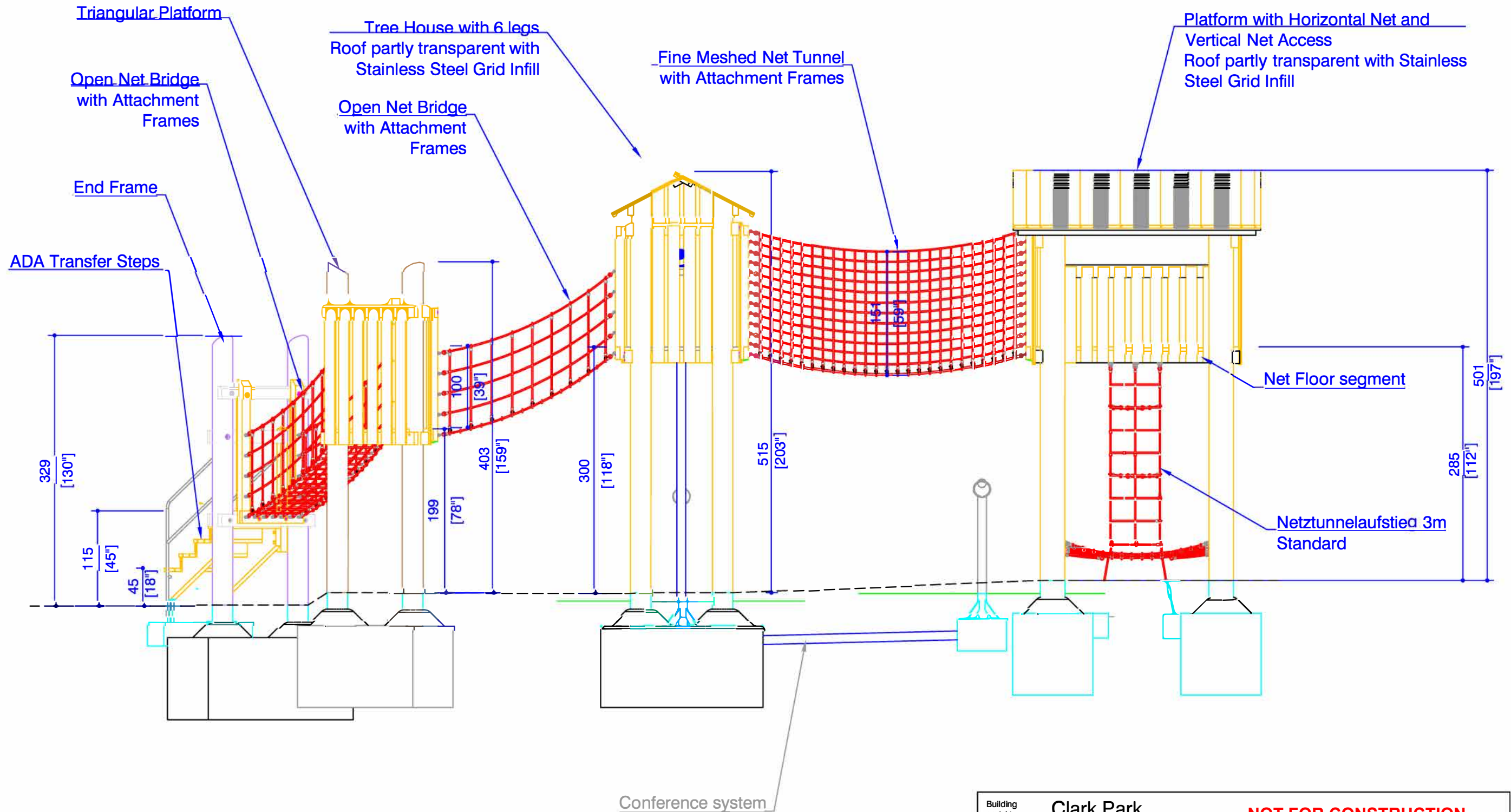
Legend



- - - - use zone acc. to ASTM 1487
- ↔ safety distance
- | site / equipment

Building projekt	Clark Park	NOT FOR CONSTRUCTION	
Equipment	Tree House Structure	Quotation/Order-No	AN244006
Customer	APE Studio		
PLEASE NOTE, SLIDES ATTACHED TO TREE HOUSE TOWERS ARE DEPICTED IN SEPERATE CUT SHEETS			
Equipment proposal	Richter Spielgeräte GmbH Simsseestraße 29 D-83112 Frasdorf +49 8052-17980	Scale Title	1:50 ground view
		Size	A3
		Name	F. Pichler
		Page	1

General information for clients
 The contractor is responsible for checking that all conditions necessary for configuration of the children's playground equipment are met (space requirements, available space, necessary ground elevation, existing ground elevation, etc.). This also includes supply lines (under and above ground) and consideration of any other possible constraints of the location. The client is to ensure on site that surfacing is constructed in compliance with US standards on free height of fall.



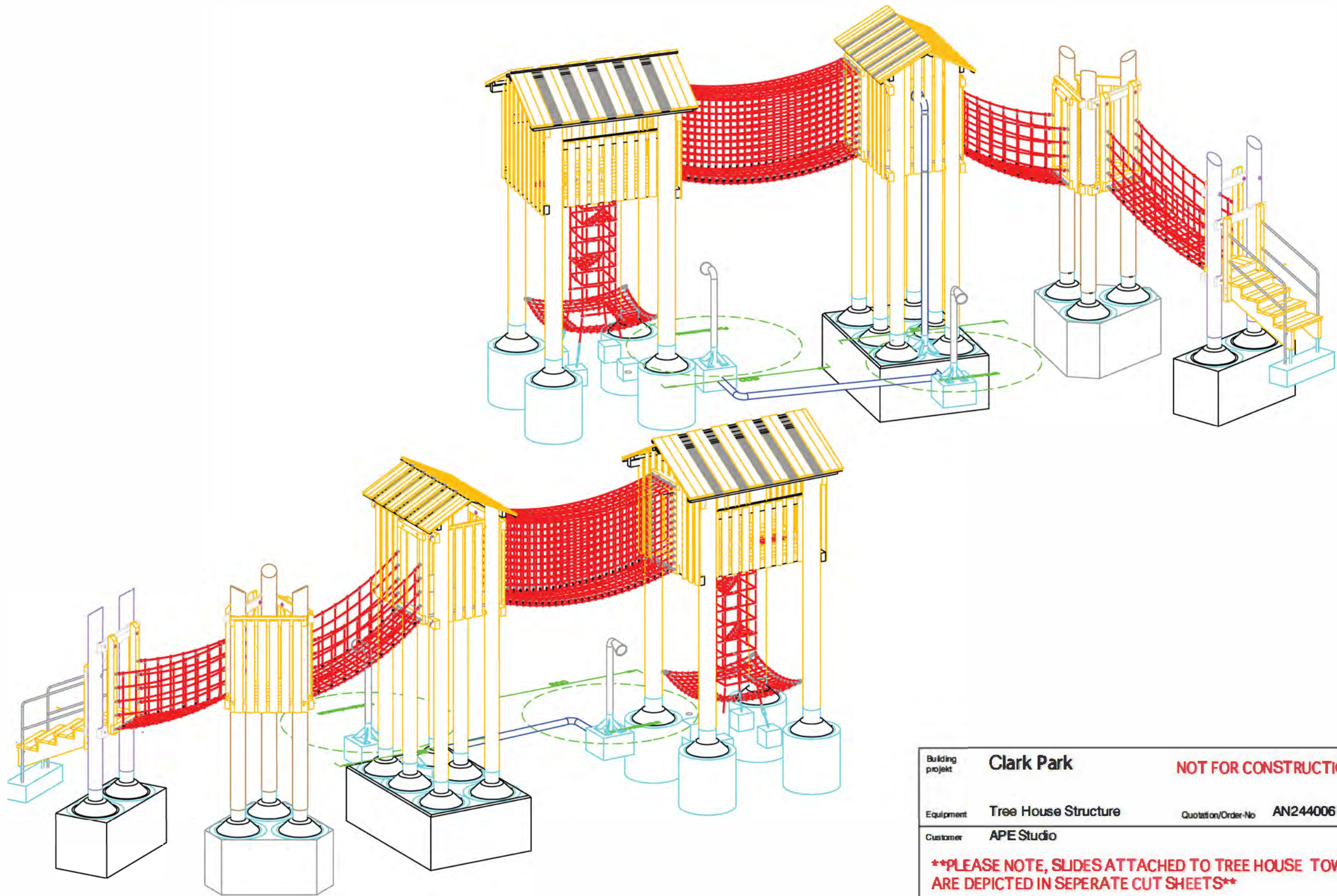
Information on installation of slides

Care should be taken that slides are not oriented to a southeast and southwest direction (heating up of material). If this is not possible, appropriate measures must be taken to ensure the provision of shade. In the case of tunnel slides, this is only necessary for the open run-out area.

General information for clients

The contractor is responsible for checking that all conditions necessary for configuration of the children's playground equipment are met (space requirements, available space, necessary ground elevation, existing ground elevation, etc.). This also includes supply lines (under and above ground) and consideration of any other possible constraints of the location. The client is to ensure on site that surfacing is constructed in compliance with EU standards on free height of fall.

Building projekt	Clark Park	NOT FOR CONSTRUCTION	
Equipment	Tree House Structure	Quotation/Order-No	AN218906
Customer	APE STUDIO **PLEASE NOTE, SLIDES ATTACHED TO TREE HOUSE TOWERS ARE DEPICTED IN SEPERATE CUT SHEETS** Richter Spielgeräte GmbH		
Equipment proposal	Simsseestraße 29 D-83112 Frasdorf +49 8052-17980	Scale 1:50 Title Side Elevation Date Name F. Pichler	Size A3 Page 2



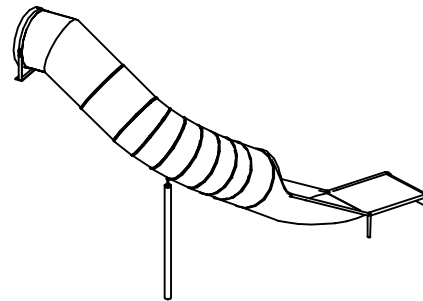
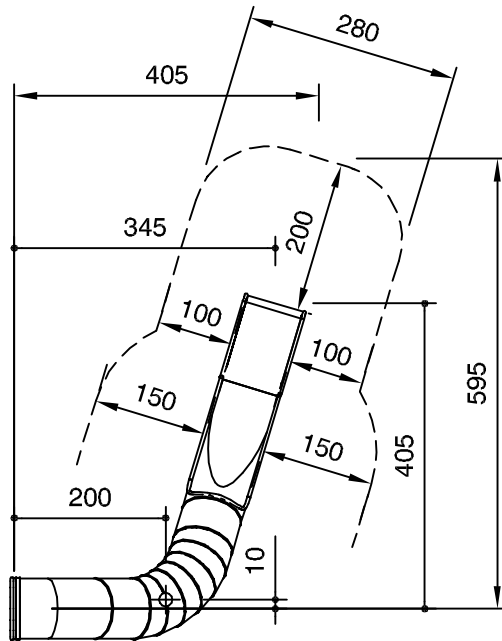
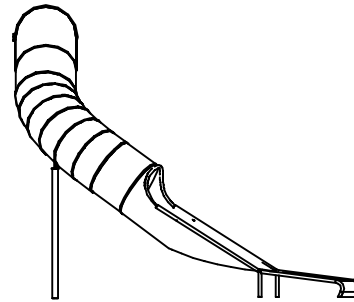
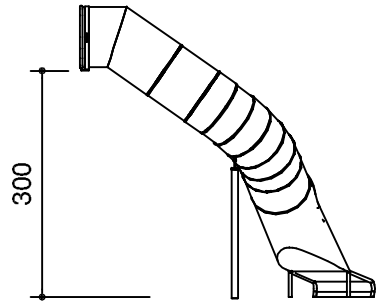
Building projekt	Clark Park	NOT FOR CONSTRUCTION	
Equipment	Tree House Structure	Quotation/Order-No	AN244006
Customer	APE Studio		
PLEASE NOTE, SLIDES ATTACHED TO TREE HOUSE TOWERS ARE DEPICTED IN SEPERATE CUT SHEETS			
Equipment proposal	Richter Spielgeräte GmbH Simsseestraße 29 D-83112 Frasdorf +49 8052-17980	Scale Title Date Name	1:50 Perspective View 2016-03-15 F. Pichler
		Size	A3
		Page	3

General information for clients

The contractor is responsible for checking that all conditions necessary for configuration of the children's playground equipment are met (space requirements, available space, necessary ground elevation, existing ground elevation, etc.). This also includes supply lines (under and above ground) and consideration of any other possible constraints of the location. The client is to ensure on site that surfacing is constructed in compliance with EU standards on free height of fall.

Information on this slide

- attachment height 300 cm
- inclination 35°
- sliding length 718 cm
- 72.9° left curve
- one-piece construction
- 1 support post
- weight approx. 315 kg
- suitable for attachment to Pyramid Towers (order no. 3.41000ff.)
- standard run-out
- 2 foundations for the run-out
50 x 100 x 40 cm
excavation depth 80 cm
- 1 foundation for support post
80 x 80 x 40 cm
excavation depth 80 cm



Legend for illustration	
safety distance	→
dimensions	—●
scale 1:100 (format A4)	

****TUNNEL SLIDE FOR CONNECTION TO TREE HOUSE STRUCTURE****

Play value

Sliding is not just a stimulating experience for children but also lots of fun. Combining a slide with other equipment increases the play value. Our especially sturdy and maintenance-friendly stainless steel version has a well designed slide profile. A steep slide beginning is followed by a long, smooth exit. Higher sides also mean the maximum fall height of 2.50 m is permitted.

****STRAIGHT OPEN SLIDE FOR CONNECTION TO TREE HOUSE STRUCTURE****



Order No 3.65200 Slide Support with Steps, width 0.45 m

Fundamental characteristics

- friendly appearance
- high-quality design
- can also be installed as embankment slides
- incentive for playing: experiencing height, thrill
- exercise activity: sliding, climbing

Recommended

- for older children but also for children under 3 years old
- for public playgrounds
- leisure areas
- kindergartens
- playgrounds situated near houses



Stainless steel slide with 1 wave and higher sides
Order No. 3.63225, installation height 3.00 m

Note on installation

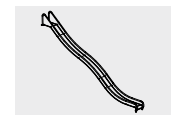
Avoid orientation of the slide to the south (heating up of material).

Stainless Steel Slides

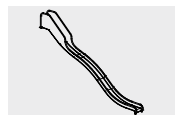
width 0.45 m



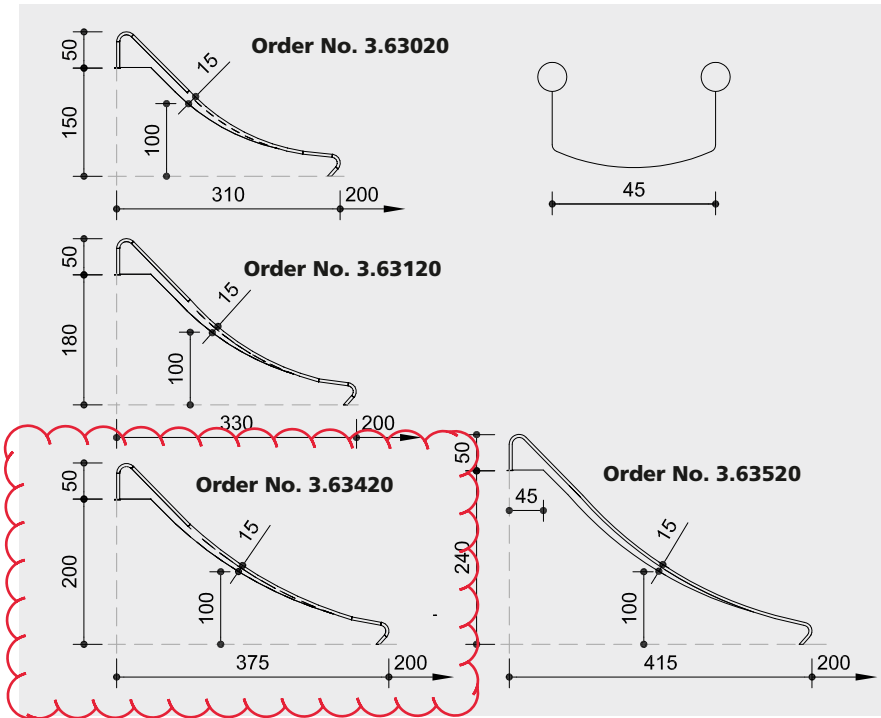
3.63020 - 3.63520



3.63220/3.63230



3.63225/3.63235



Technical information

Order No.
3.63020/3.63120/3.63420/3.63520

one-piece construction
 total construction of slides made of 2 mm stainless steel, mould-profiled longitudinally, no welding seams along the sliding surface



handrail tube Ø 42 mm, wall thickness 2 mm
 height of sides 15 cm from fall height of 1.00 m
 attached at the top and bottom with mounting plates

Order No.
3.63310/3.63220/3.63230/3.63225/3.63235
 total construction of slides made of stainless steel, thickness of sliding surface 2 mm, thickness of sides 2.5 mm, sides glass-bead blasted

handrail tube Ø 42 mm, wall thickness 2 mm
 height of sides 16 or 20 cm

attached at the top and bottom with mounting plates

order Nos. 3.63225 and 3.63235
 with higher sides for fall height of more than 2.50 m

Dimensions see sketches (small deviations possible)

Order No.	Weight
3.63310	58 kg
3.63020	53 kg
3.63120	63 kg
3.63420	69 kg
3.63520	79 kg
3.63220	121 kg
3.63230	132 kg
3.63225	139 kg
3.63235	170 kg

Components

- Order No. 3.63310/3.63020/3.63120/3.63420**
1 slide with ground anchor
- Order No 3.63520**
1 slide
- Order No. 3.63220/3.63230**
1 slide with 1 wave
- Order No. 3.63225/3.63235**
1 slide as above but with higher sides

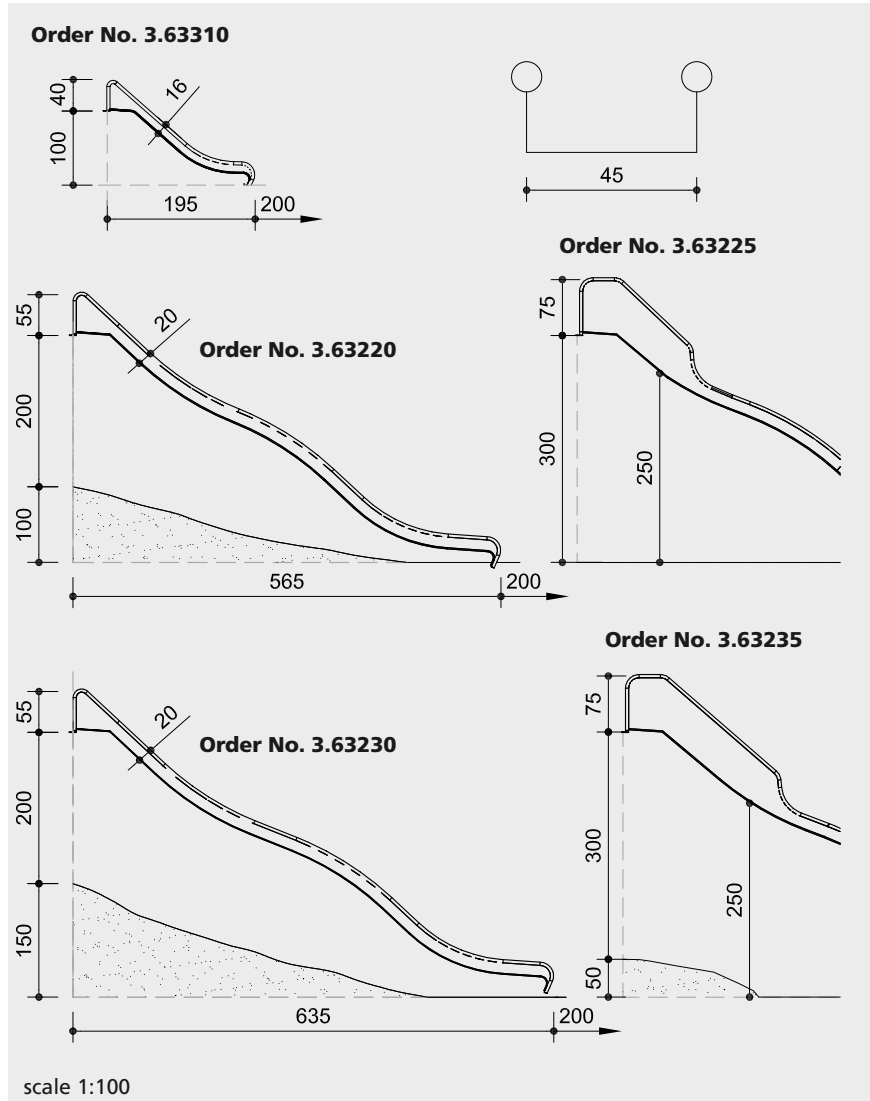
Installation information

Surfacing requirements depending on the installation height, embankment slides depending on the topographic situation; in the run-out area we recommend material such as sand (please refer to price list for more detailed information)

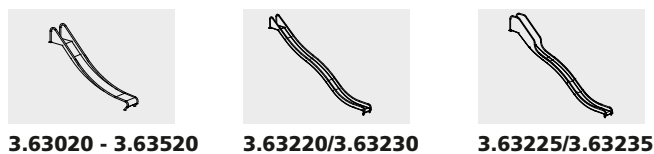
Foundations slides with ground anchor do not need concrete foundations; all other slides 1 item 30 x 70 x 30 cm excavation depth 70 cm

Attention:
Exact measurements may vary, for all installation dimensions refer to current assembly instructions.
 Technical changes reserved.

Please refer to the price list for a more detailed explanation of the quality characteristics.



safety check according to EN 1176



Function and Play value

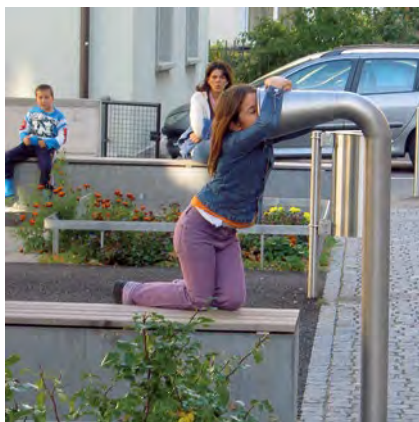
Sound behaves in similar ways to water which is why it can be directed through tubes as was done in old ship's telephones. Between two and four speaking/ listening stations can be installed and these are connected by underground pipes and a special sound distributor. It is possible to communicate over unusually long distances without the use of any electronic amplifiers.

Suitable

- for public playgrounds
- public institutions (i.e. kindergartens, daycare facilities for children, schools)
- parks
- therapy gardens (i.e. in institutions for people with special needs, rehab clinics, retirement homes)

Barrier-free

- independent play



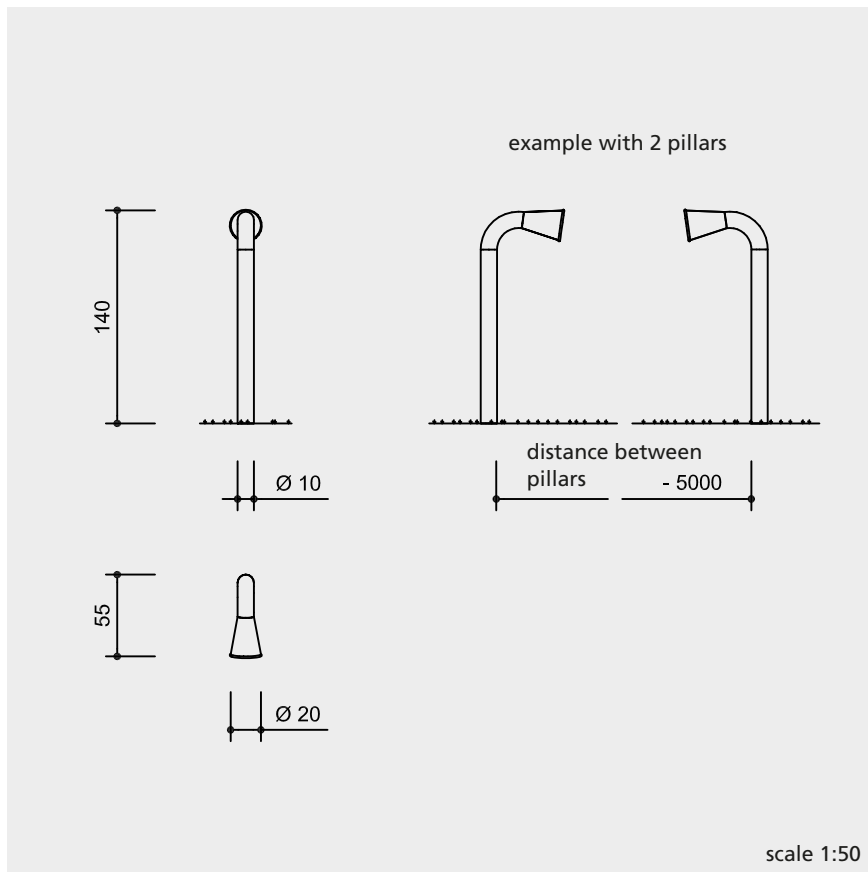
Conference
graubner Play Stations for
Developing the Senses

****INCLUDED IN THE TREE HOUSE TOWER STRUCTURE****

Acoustic effect	soft
Vandalism	not vulnerable
Supervision	not necessary
Explanation board	not necessary
Installation	indoors and outdoors
Safety check (EN 1176)	not necessary
Installation in concrete	not possible



10.55000



Technical information

pillar made of stainless steel

cone shaped opening with perforated sheet cover

Dimensions

(small deviations possible)

height	1.40 m
tube diameter	0.10 m
speech and listening tube depth	0.20 m
depth	0.55 m
weight	21 kg per pillar

Components

depending on the number ordered
2 - 4 pillars with coupling

minimum number is 2 pillars

On-site work

supply and installation of the required underground pipes as well as the ducting for connecting materials according to our specifications

Explanation board on request

Installation information

Recommended space
circle diameter 2.00 m per pillar

Foundations
1 item 60 x 60 x 70 cm per pillar
excavation depth 90 cm

Attention!

Exact measurements may vary, for all installation dimensions refer to current installation instructions.

Technical changes reserved.



10.55000

Play value

Children recognise at once that this „Family“ of carousels stands for father, mother and child, despite of their abstract design. The carousels can easily be set in motion, sitting on the disc by hand or being in an upright position by one's feet. The bent tubes serve as hand holds. Moreover, they can be used for gymnastic exercise. The carousels of the „Family“ line show their special nature mainly as complete installation with all three family members. Due to their formal design, they are very well suited for play areas in city centres and other public places in towns.



Fundamental characteristics

- dimensions corresponding to different age groups by different sizes of the carousels
- attractive design
- playful experience of the pirouette effect
- incentive for playing: friendly appearance, identification, different sizes
- movement: moving one's centre of gravity, turning

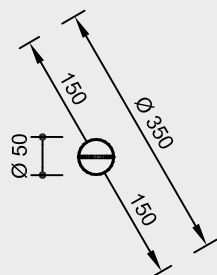
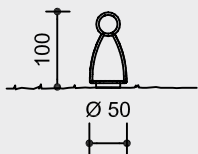
**Medium Spinner
Large Spinner**

Recommended

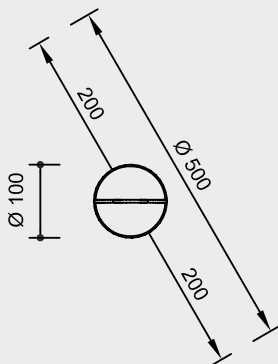
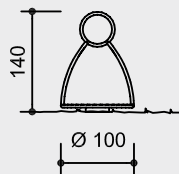
- for children from 4 years
- for public playgrounds
- nurseries
- school playgrounds
- pedestrian zones



**Order No. 6.26401
Medium Spinner**



**Order No. 6.26402
Large Spinner**



scale 1:100

Safety check according to EN 1176

Components

- 1 carousel each
- 1 foundation frame each

Installation information

Surfacing requirements
surfacing required as for critical fall height of ≤ 1.00 m
(please refer to price list for more detailed information)

Foundations

- Order No. 6.26401**
1 item 60 x 60 x 20 cm
excavation depth 60 cm
- Order No. 6.26402**
1 item 60 x 60 x 55 cm
excavation depth 60 cm

Attention:
Exact measurements may vary, for all installation dimensions refer to current installation instructions.
Technical changes reserved.

Technical information

equipment of stainless steel,
glass bead blasted

sturdy, welded substructure

ball bearing
mechanism with double low-maintenance, lacquered, water and sand proof



easy grip tubes
Order No. 6.26401 \varnothing 33.7 mm
Order No. 6.26402 \varnothing 42 mm

surfacing made of checker plate

foundation frame of steel

Dimensions
(small deviations possible)

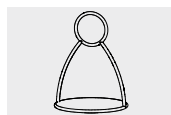
Order No. 6.26401
height 1.00 m
diameter 0.50 m
weight 45 kg

Order No. 6.26402
height 1.40 m
diameter 1.00 m
weight 70 kg

For more detailed explanation of the quality characteristics see price list.



6.26401



6.26402

Play value

This swing is higher than the Multi-surface Swing and also available with metal cross beam. A playground is not complete without a swing. Children need the possibility of swinging during their development. Swinging to and fro is a basic movement and is fun not only for children. Swinging has a comforting effect, removes tensions and provides pleasure, particularly if swinging is possible side by side.



Order No. 6.14000 High Twin Swing



Order No. 6.14020 High Twin Swing special

Fundamental characteristics

- high-quality design
- three metres equipment height
- incentive for playing: swing suspension
- movement: swinging, jumping off

****FOR 5-12 SWINGING AREA****

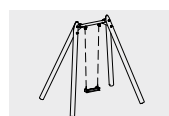
**High Swing
High Swing special
High Twin Swing
High Twin Swing special**

Suitable

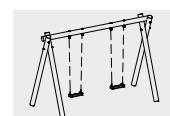
- for children from 4 years
- for public playgrounds
- playgrounds near houses
- nurseries
- children's homes
- leisure areas
- outdoor swimming pools



6.13000



6.13020

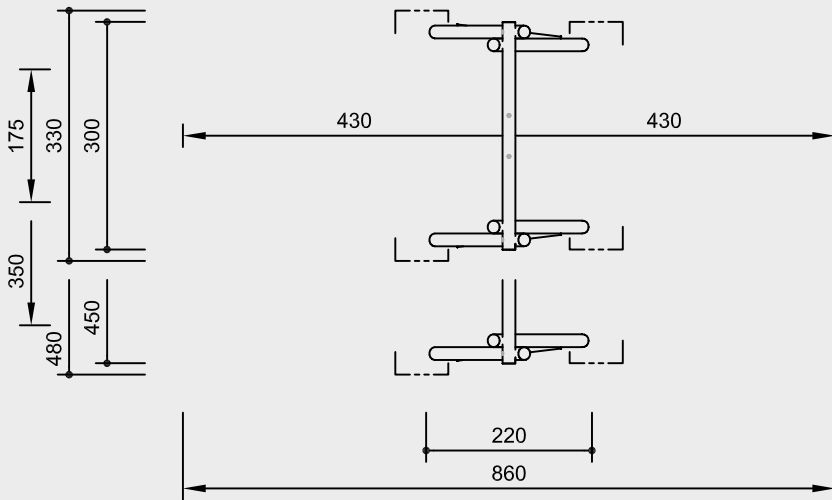


6.14000

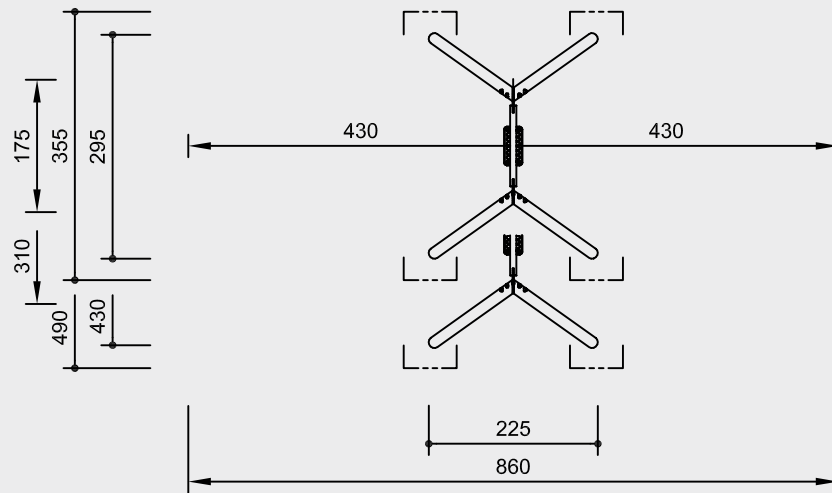


6.14020

Order No. 6.13000 High Swing
Order No. 6.14000 High Twin Swing



Order No. 6.13020 High Swing special
Order No. 6.14020 High Twin Swing Special



scale 1:100

Safety check according to EN 1176

Components

Order No. 6.13000/6.14000
High Swing
High Twin Swing

1 swing frame
 1 or 2 complete suspension attachments

Order No. 6.13020/6.14020
High Swing special
High Twin Swing special

1 swing frame with steel feet and
 crossbeam made of steel
 1 or 2 complete suspension attachments

Order No. 6.13000 and 6.14000 also available with steel feet.



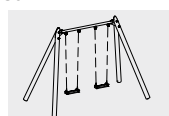
6.13000



6.13020



6.14000



6.14020

Installation information

Surfacing requirements corresponding to a fall height of ≤ 2.00 m (please refer to price list for more detailed information)

Foundations

Order No. 6.13000/6.14000

4 items 60 x 70 x 60 cm
 excavation depth 80 cm

Order No. 6.13020/6.14020

4 items 60 x 70 x 40 cm
 excavation depth 60 cm

Attention:

Exact measurements may vary, for all installation dimensions refer to current installation instructions.

Technical changes reserved.

Technical information

Order No. 6.13000/6.14000

de-barked posts

de-barked posts, \varnothing 15 - 18 cm, of spruce/fir, boiler pressure impregnated according to DIN 68800-3, use class 4



perforated

the earth/air zone of the wood is perforated by small bore holes to ensure that the impregnating agent penetrates this particularly endangered zone



rubber seat

rubber seat with anatomically correct shape, strong profiled steel insert and soft shock absorbing edge



swing joint

drop-forged and hot-dip galvanised swing joint with bush with graphite sleeve for self-lubrication and integrated swivel



concealed head

large surface for pressure distribution, prevents water from getting inside, protects the bolt head



adjustable (6.13000/6.14000)

no projecting threads after re-tightening due to two-piece bolt connection and therefore easy to maintain



strong fastening

bolt connections with milled metal rings or serrated press-in-dowels for connections which are stressed cross-wise



brass bush

for all to and fro movements we use bush bearings which allow for self-lubrication while in use and which can be easily exchanged in case of need



chains

suspended on short-link chains, 6 mm, welded before hot-dip galvanisation (stainless steel chains available on request)



Order No. 6.13020/6.14020

materials as before, but posts of non-impregnated mountain larch

crossbeam made of steel

of galvanised steel, with rigid corner connection by that smaller foundations are possible



ground anchor

all parts used for anchoring to the ground made of hot-dip galvanised steel



Dimensions

(small deviations possible)

Order No.	6.13000	6.14000
height	3.00 m	3.00 m
vertical clearance	2.80 m	2.80 m
length	3.00 m	4.50 m
width	2.20 m	2.20 m
weight	270 kg	300 kg

Order No.	6.13020	6.14020
height	3.00 m	3.00 m
vertical clearance	2.80 m	2.80 m
length	2.95 m	4.30 m
width	2.25 m	2.25 m
weight	240 kg	270 kg

For more detailed explanation of the quality characteristics see price list.

Play value

Anyone who has ever swung in a wide arc, never forgets it again. Here we have built such a high swing and in conjunction with safety experts, designed it so that it can stand on unsupervised public playgrounds.



Fundamental characteristics

- extra high swing frame allows for soft swinging
- equipment height is challenging for young people
- incentive for playing: height
- movement: swinging

Suitable

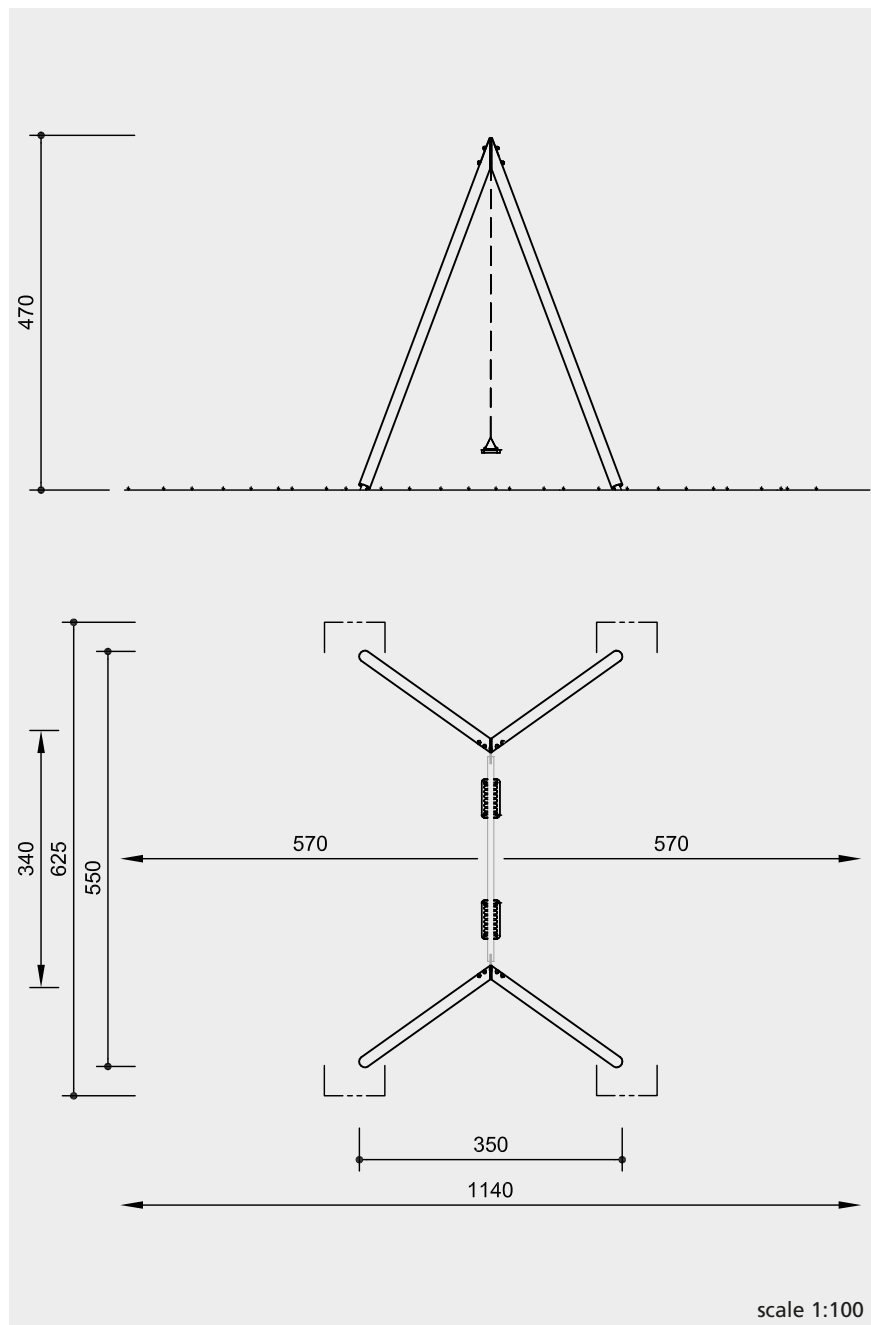
- for children from 10 years and young people
- for public playgrounds
- leisure areas
- excursion areas
- open-air swimming pools
- institutions for young people

Extra High Swing special

****FOR 5-12 SWINGING AREA****



7.14020



Safety check according to EN 1176

Components

- 1 swing frame with steel feet and cross beam made of steel
- 2 wide swing seats with chains

Installation information

Surfacing requirements corresponding to a fall height of ≤ 3.00 m (please refer to price list for more detailed information)

Foundations
4 items 60 x 80 x 60 cm
excavation depth 80 cm

Attention:
Exact measurements may vary, for all installation dimensions refer to current installation instructions.
Technical changes reserved.

Technical information

equipment of non-impregnated mountain larch

de-barked
de-barked posts, Ø 18 - 21 cm



swing joint
drop-forged and hot-dip galvanised swing joint with bush with graphite sleeve for self-lubrication and integrated swivel



concealed head
large surface for pressure distribution, prevents water from getting inside, protects the bolt head



adjustable
no projecting threads after re-tightening due to two-piece bolt connection and therefore easy to maintain



strong fastening
bolt connections with milled metal rings for connections which are stressed cross-wise



brass bush
for all to and fro movements we use bush bearings which allow for self-lubrication while in use and which can be easily exchanged in case of need



ground anchor
all parts used for anchoring to the ground made of hot-dip galvanised steel



crossbar
of galvanised steel, with rigid corner connection by that smaller foundations are possible



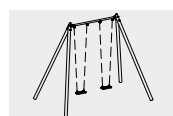
chains
suspended on short-link chains, 6 mm, welded before hot-dip galvanisation (stainless steel chains available on request)



rubber swing seats for adults, 25 x 50 cm

Dimensions
(small deviations possible)

height	4.70 m
vertical clearance	4.45 m
length	5.50 m
width	3.50 m
weight	500 kg



7.14020

For more detailed explanation of the quality characteristics see price list.



Play value

Swinging and rocking are typical movements in the childhood. Children are looking for possibilities to experience this swinging movement. Lying in the Cradle Nest is even more pleasant when a friendly co-player sets the swing into motion from outside. It is special fun if there are several "chicks" in the nest.

Fundamental characteristics

- emotionally appealing design
- sturdy construction of round poles
- incentive for playing: lying oneself in a nest
- exercise activity: swaying, rocking, swinging

Recommended

- for children from 4 years of age
- for kindergartens
- day-care centres
- public playgrounds
- play spaces situated near houses

barrier-free

- special exercise experience
- together with a carer



Order No. 6.14520 Cradle Nest special

**Cradle Nest
Cradle Nest special**

****CRADLE NEST DESIGNATED FOR 5-12 SWING AREA
WILL INCLUDE A STORK'S NEST****



Note: The design of the cradle nest has been changed. Please refer to the description on the back of the page.

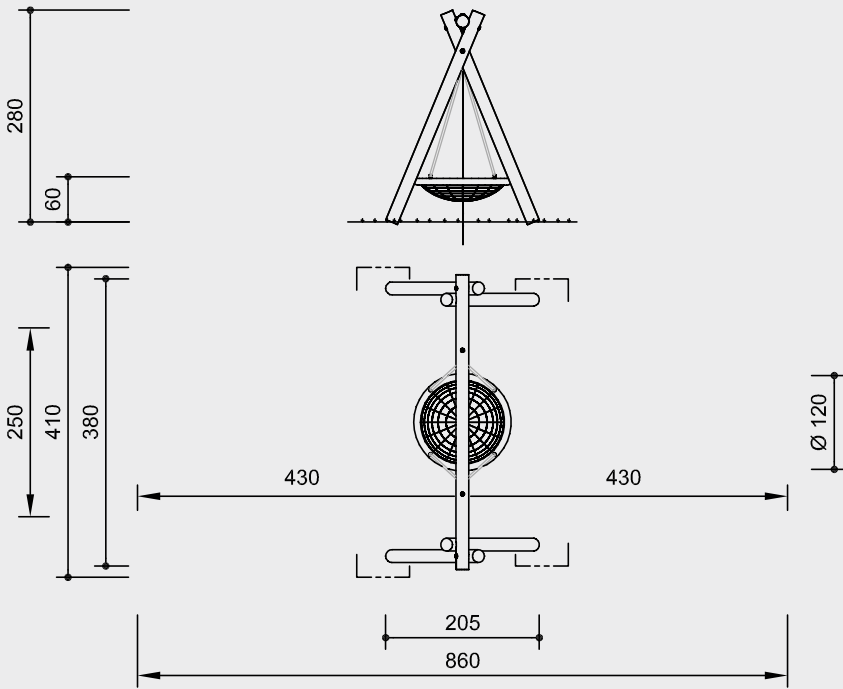


6.14500

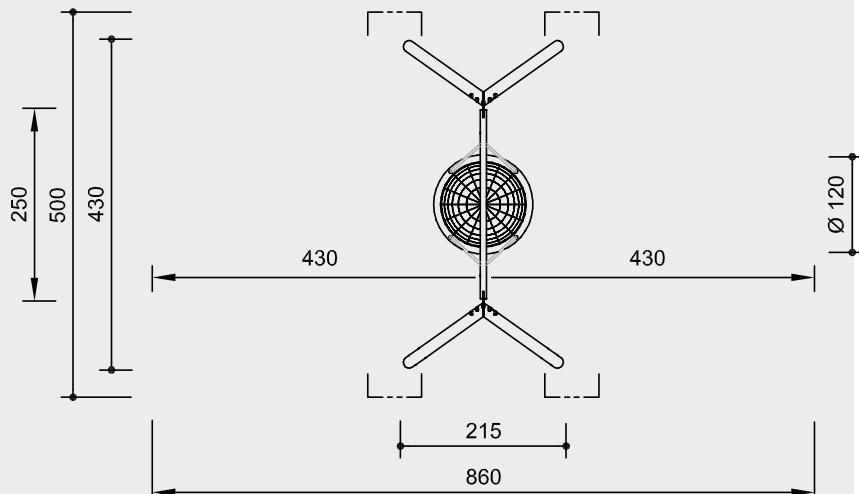


6.14520

Order No. 6.14500 Cradle Nest



Order No 6.14520 Cradle Nest special



scale 1:100

safety check according to EN 1176

Components

Order No. 6.14500 Cradle Nest

- 1 swing frame
- 1 stork nest suspended on ropes and chains

Order No. 6.14520 Cradle Nest special

- 1 swing frame with steel feet and cross beam made of steel
- 1 stork nest suspended on ropes and chains



6.14500



6.14520

Installation information

Surfacing requirements corresponding to a fall height of ≤ 1.50 m (please refer to price list for more detailed information)

foundations
4 items 60 x 70 x 60 cm
excavation depth 80 cm

Attention:

Exact measurements may vary; for all installation dimensions refer to current assembly instructions.

Technical changes reserved.

Order No. 6.14500 also available with steel feet.

Technical information

Order No. 6.14500 Cradle Nest

de-barked posts

de-barked posts, Ø 15–18 cm, of spruce/fir, boiler pressure impregnated according to DIN 68800-3, use class 4



perforated

The earth/air zone of the wood is perforated by small bore holes to ensure that the impregnating agent penetrates this particularly endangered zone.



universal joint

drop-forged, hot-dip galvanised joint yoke; the universal joint insert consists of two swing bearings, here reinforced workmanship



concealed head

large surface for pressure distribution, prevents water from getting inside, protects the bolt head



adjustable (6.14500)

easy to maintain, no projecting threads after re-tightening due to two-piece bolt connection



strong fastening

bolt connections with milled metal rings for connections that are stressed cross-wise



brass bush

for all to and fro movements we use bush bearings which allow for self-lubrication while in use and are easy to exchange if required



stork nest Ø 120 cm with green rope ring (PPM), net seat and suspension rope black Ø 16 mm (polyester)

suspended on Ø 7 mm stainless steel chains

Order No. 6.14520 Cradle Nest special

description of materials as before, but posts of non-impregnated mountain larch

cross beam made of steel

galvanised steel, with rigid corner connection



Ground anchor

all parts used for anchoring to the ground made of hot-dip galvanised steel



Dimensions

(small deviations possible)

Order No	6.14500	6.14520
height	2.80 m	2.80 m
vertical clearance	2.60 m	2.60 m
width	3.80 m	4.30 m
depth	2.05 m	2.15 m
weight	310 kg	280 kg

Please refer to the price list for a more detailed explanation of the quality characteristics.

Play value

We developed a new version with a cross beam made of steel to give the Toddler's Twin Swing a special design. The sophisticated corner connection ensures extra stability for the entire construction. No playground is complete without a swing. It is important that children are offered the right equipment to promote development. Swinging to-and-fro is a basic movement and is not just fun for children. Swinging releases stress, has a comforting effect and is very enjoyable, especially done together next to one another.



Order No. 6.12020 Toddlers Swing



Fundamental characteristics

- aesthetically appealing design
- incentive for playing: repeating familiar activities
- exercise activity: swinging, jumping off

Suitable

- for children from 2 years of age
- for play spaces situated near houses
kindergartens
after-school care clubs
public playgrounds

Toddler's Swing – special
Toddler's Twin Swing – special

****TODDLER 'S TWIN SWING WITH 2 ADA SEATS****



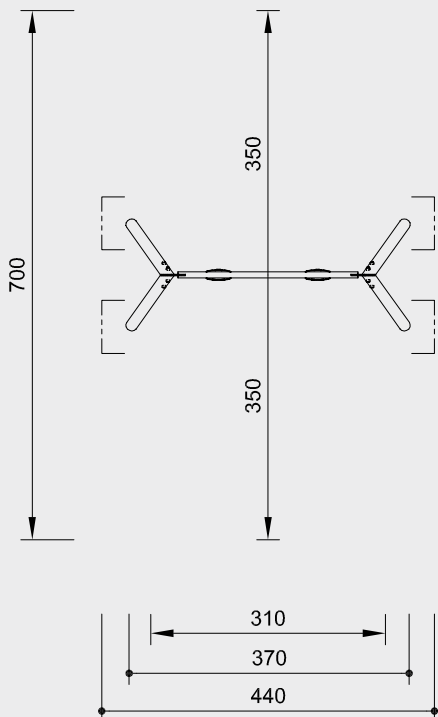
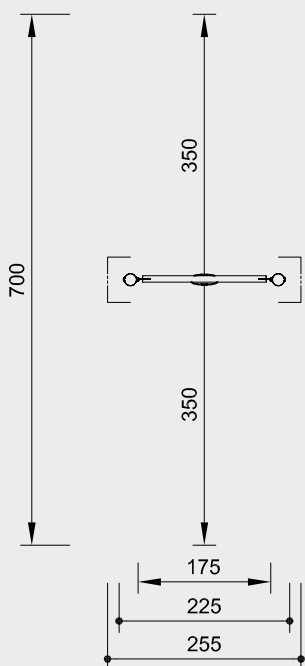
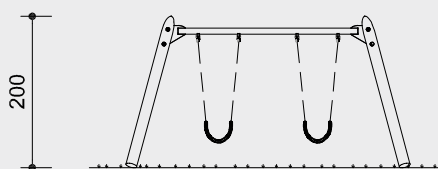
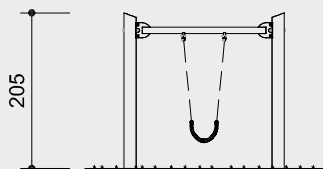
6.12020



6.12720

Order No. 6.12020
Toddler's Swing – special

Order No. 6.12720
Toddler's Twin Swing – special



scale 1:100

safety check according to EN 1176

Components

Order No. 6.12020
Toddler's Swing – special
 1 swing with steel feet
 and cross beam made of steel
 1 canvas seat with chains

Order No. 6.12720
Toddler's Twin Swing – special
 1 swing with steel feet and cross beam
 made of steel
 2 canvas seats with chains

Installation information

Surfacing requirements
 corresponding to a fall height of ≤ 1.00 m
 (please refer to price list for more
 detailed information)

Foundations

Order No. 6.12020
 2 items 60 x 60 x 60 cm
 excavation depth 80 cm
Order No. 6.12720
 4 items 60 x 70 x 40 cm
 excavation depth 60 cm

Attention:
Exact measurements may vary;
for all installation dimensions refer
to current installation instructions.
 Technical changes reserved.



6.12020



6.12720

Technical information

equipment of non-impregnated
 mountain larch

de-barked
 de-barked posts, \varnothing 15 - 18 cm



swing joint
 drop-forged, hot-dip galvanised swing
 joint with bush with graphite sleeve for
 self-lubrication and integrated swivel



concealed head
 large surface for pressure distribution,
 prevents water from getting inside,
 protects the bolt head



strong fastening
 bolt connections with milled metal rings
 or serrated press-in-dowels for con-
 nections which are stressed cross-wise



brass bush
 for all to and fro movements we use
 bush bearings which allow for self-
 lubrication while in use and are easy
 to exchange if required



chains
 suspended on short-link chains,
 6 mm, welded before hot-dip
 galvanisation (stainless steel chains
 available on request)



ground anchor
 all parts used for anchoring to the
 ground made of hot-dip galvanised
 steel



cross beam made of steel
 of galvanised steel, with rigid
 corner connection, therefore smaller
 foundations (for Order No. 6.12720)



Dimensions
 (small deviations possible)

Order No.	6.12020	6.12720
height	2.05 m	2.00 m
vertical clearance	1.80 m	1.80 m
width	2.25 m	3.70 m
weight	130 kg	180 kg

Please refer to the price list for a more detailed explanation of the quality characteristics.

Play value

Swinging and rocking are typical movements in the childhood. Children are looking for possibilities to experience this swinging movement. Lying in the Cradle Nest is even more pleasant when a friendly co-player sets the swing into motion from outside. It is special fun if there are several "chicks" in the nest.

Fundamental characteristics

- emotionally appealing design
- sturdy construction of round poles
- incentive for playing: lying oneself in a nest
- exercise activity: swaying, rocking, swinging

Recommended

- for small children's areas of:
 - public playgrounds
 - play spaces situated near houses
 - kindergartens/nurseries
 - children's homes
 - child therapy centres
 - camp sites
- day nurseries

barrier-free

- special exercise experience
- together with a carer

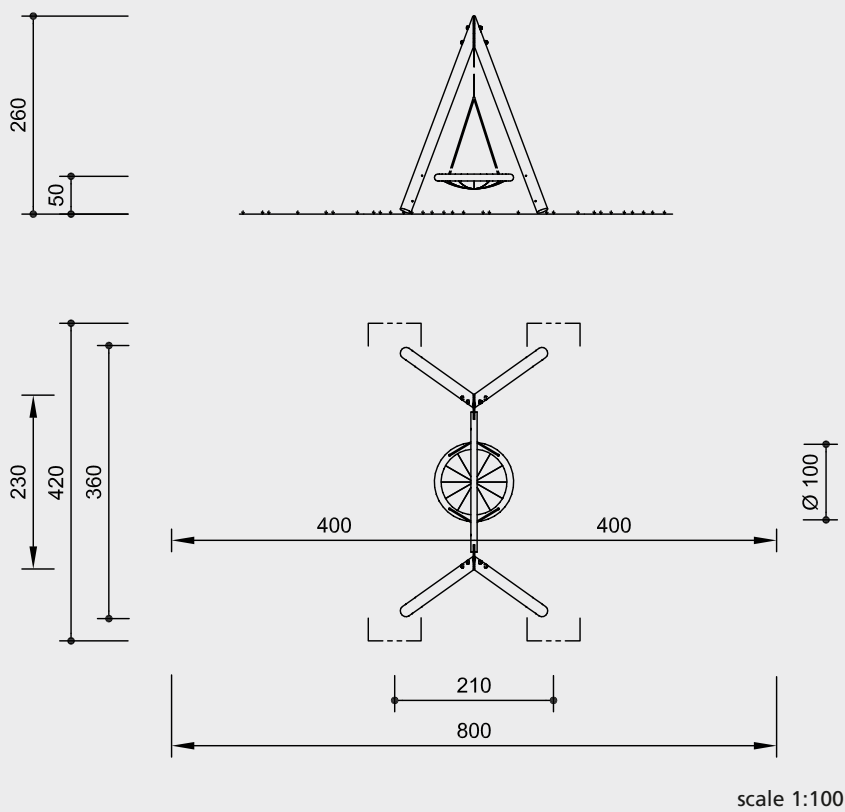


Swallow's Cradle Nest special

ΕΘΥΘΕΣΟΑΡ ΟΥΝΑΘΟΥΘΡΒΕΥΟΘΑΥ ΠΑΓΗ ΑΥ Θ ΟΑΕΥΘΑ
Υ ΘΣΑΘ ΟΣΩΘΑΑΥ ΘΣΣΥΥ ΘΑΡ ΟΥΒΕ



Order No. 6.14720 Swallow's Cradle Nest special



safety check according to EN 1176

Components

- 1 swing frame with steel feet and cross beam made of steel
- 1 swallow's nest suspended on ropes and chains

Installation information

Surfacing requirements corresponding to a fall height of ≤ 1.50 m (please refer to price list for more detailed information)

Foundations
4 items 60 x 70 x 60 cm
excavation depth 80 cm

Attention!
Exact measurements may vary;
for all installation dimensions refer to current assembly instructions.
Technical changes reserved.

Technical information

equipment of non-impregnated mountain larch

de-barked
de-barked posts, \varnothing 15 to 18 cm



universal joint
drop-forged, hot-dip galvanised joint yoke; the universal joint insert consists of two swing bearings, here reinforced workmanship



concealed head
large surface for pressure distribution, prevents water from getting inside, protects the bolt head



adjustable
bolt connections with milled metal rings or serrated press-in-dowels for connections which are stressed cross-wise



brass bush
for all to and fro movements we use brass bush bearings which allow for self-lubrication while in use and can be easily exchanged if required



crossbar
of hot-dip galvanised steel, with rigid corner connection by that smaller foundations are possible



ground anchor
all parts used for anchoring to the ground are made of hot-dip galvanised steel



swallow's nest \varnothing 100 cm with green rope ring (PPM), net seat and suspension rope black \varnothing 16 mm (polyester)

suspended on \varnothing 7 mm stainless steel chains

Dimensions
(small deviations possible)

height	2.60 m
vertical clearance	2.40 m
width	3.60 m
depth	2.10 m
weight	240 kg

Please refer to the price list for a more detailed explanation of the quality characteristics.



6.14720



Two Storey Play House

Play value

The Two Storey Play House offers two rooms and basic furnishings like a table and benches for role play such as family, mother and child and neighbourly play activities on two levels. There is a furnished basement with window and a ladder leading to the upper area.

Fundamental characteristics

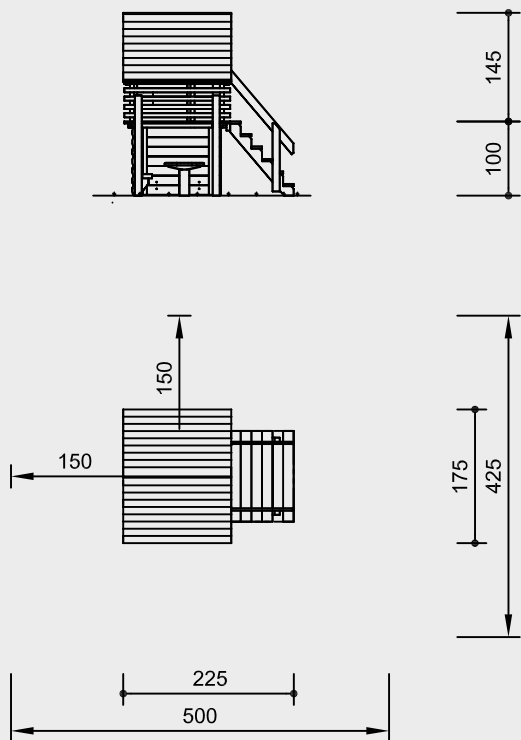
- child proportions according to ergonomic requirements
- appealing design by: solid wooden roof, proportion between closed and transparent walls, child-orientated rooms
- natural wooden surface which appeals to the senses
- incentive for playing: two storeys, veranda, furnishing on both play levels

Recommended

- for older than, but also suitable for children under 3 years
- for public playgrounds
playgrounds situated near houses
nurseries
children's homes
therapy institutions for children
school playgrounds
leisure areas



Order No. 4.10500 Two Storey Play House



scale 1:100

Safety check according to EN 1176

Components

- 1 house body
- 2 roof sections, double-layered
- 4 support posts
- 1 stairs with hand rail and foundation irons
- 1 level playroom containing:
 - 2 walls with 2 benches
 - 1 round table with steel foot

Installation information

Surfacing requirements corresponding to a fall height of ≤ 1.00 m (please refer to price list for more detailed information)

Foundations

Timber House on Stilts

4 items 50 x 50 x 40 cm
excavation depth 60 cm

Stairs

2 items 30 x 30 x 20 cm
excavation depth 40 cm

Table

1 item 40 x 40 x 40 cm
excavation depth 60 cm

Attention:

Exact measurements may vary, for all installation dimensions refer to current installation instructions.

Technical changes reserved.

Equipment also available with steel feet or made of larch with steel feet.

Technical information

core-free

sawn timbers of spruce/fir, boiler-pressure impregnated according to DIN 68800-3, use class 4, core-free, by that formation of cracks can be reduced



claddings

thickness 3 - 5 cm, de-barked by hand, boiler pressure impregnated according to DIN 68800-3, use class 4



floor of 25 mm tongue and groove boards

stairs, table and benches of non-impregnated mountain larch

steps of stair made of hardwood, 32 mm

Order No. 4.10500

impregnated version with double-layered roof of 21 mm boards and 3 - 5 cm thick claddings

Order No. L4.10500

version made of larch with single-layered roof of 4 - 5 cm thickness, half-rebated claddings

Dimensions

(small deviations possible)

total height	2.45 m
height floor	1.00 m
length	2.25 m
width	1.75 m
width stair	1.20 m
weight	380 kg

For more detailed explanation of the quality characteristics see price list.



4.10500



Play value

The Timber House is a Play House on stilts, with basic furnishings like a table and benches. It offers all the play possibilities of the Play House but has a higher play value due to the second play level. The lower play area invites den-building and adventure games but can also be cellar or stable. The stair is a stimulus for activity and can be an activity in itself, climbing, stepping, jumping and hiding.

Fundamental characteristics

- child proportions according to ergonomic requirements
- appealing design
- natural wooden surface which appeals to the senses
- incentive for playing: veranda, furniture, stair
- movement: climbing up and around

Recommended

- for older than, but also suitable for children under 3 years
- for public playgrounds
- playgrounds situated near houses
- nurseries
- children's homes
- therapy institutions for children
- school playgrounds
- leisure areas



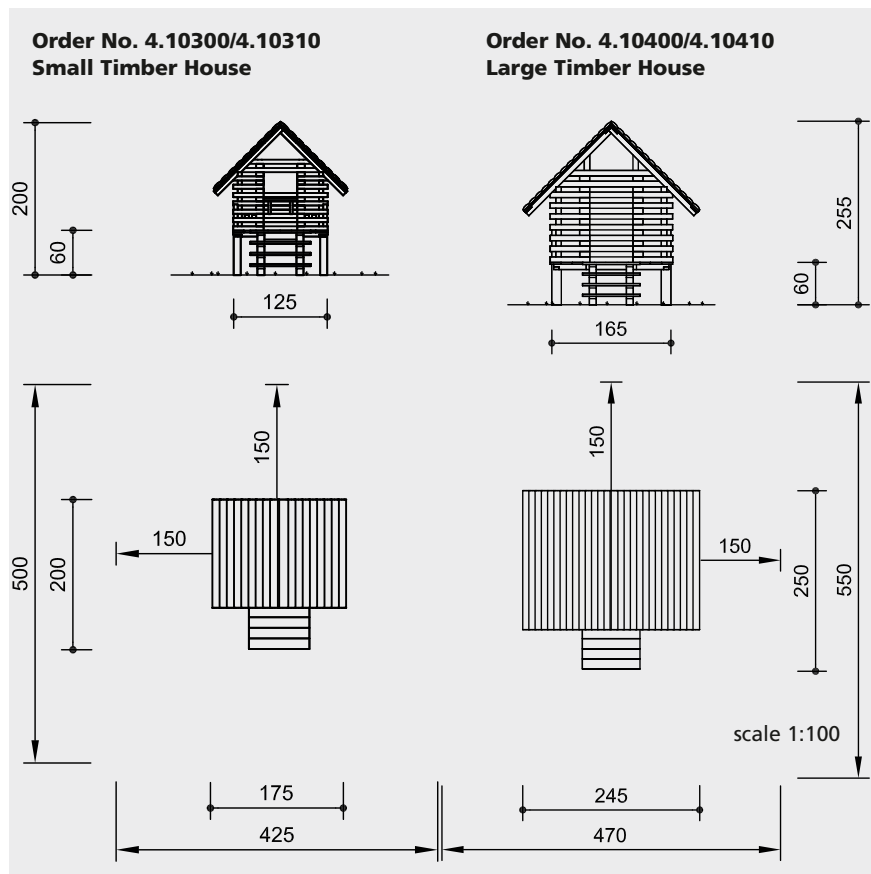
Small Timber House on Stilts
Small Timber House on Stilts with door
Large Timber House on Stilts
Large Timber House on Stilts with door



4.10300/4.10310



4.10400/4.10410



Safety check according to EN 1176

Components

- 1 house body, including:
 - 2 benches
 - 1 table
- 4 support posts
- 1 stairs with foundation irons
- 2 roof sections, double-layered

Order No. 4.10310/4.10410
as before, but with door

Installation information

Surfacing requirements corresponding to a fall height of ≤ 0.60 m (please refer to price list for more detailed information)

Foundations

Order No. 4.10300/4.10310
Small Timber House on Stilts

- 4 items 50 x 50 x 40 cm excavation depth 60 cm
- 1 item 30 x 70 x 20 cm excavation depth 40 cm

Order No. 4.10400/4.10410
Large Timber House on Stilts

- 4 items 50 x 50 x 40 cm excavation depth 60 cm
- 1 item 30 x 70 x 20 cm excavation depth 40 cm

Attention:

Exact measurements may vary, for all installation dimensions refer to current installation instructions.

Technical changes reserved.

Equipment also available with steel feet or made of larch with steel feet.

Technical information

core-free

sawn timbers of spruce/fir, boiler-pressure impregnated according to DIN 68800-3, use class 4, core-free, by that formation of cracks can be reduced



claddings

thickness 3 - 5 cm, de-barked by hand, boiler pressure impregnated according to DIN 68800-3, use class 4



floor of 25 mm tongue and groove boards

steps of stairs made of hardwood, 32 mm

Order No. 4.10300/4.10400
Order No. 4.10310/4.10410
impregnated version with double-layered roof of 21 mm boards and 3 - 5 cm thick claddings

Order No. L4.10300/L4.10400
Order No. L4.10310/L4.10410
version made of larch with single-layered roof of 4 - 5 cm thick, half-rebated claddings

Dimensions

(small deviations possible)

Order No.	4.10300	4.10400
	4.10310	4.10410
height	2.00 m	2.55 m
height floor	0.60 m	0.60 m
length	1.75 m	2.45 m
width	2.00 m	2.50 m
weight	320 kg	600 kg

For more detailed explanation of the quality characteristics see price list.



4.10300/4.10310



4.10400/4.10410



Play value

The Play Houses with their basic furnishings like a table and benches are a stimulus to role-play for younger children. Primarily this entails mother and child games because the house with protective roof and four sheltering walls conveys the feelings and actions associated with family. The window enables supervision of the child and the door ensures the boundary to the private space. Doors, especially half doors, stimulate a variety of role-play such as shopping, post and bank activities.

Fundamental characteristics

- child proportions according to ergonomic requirements
- appealing design
- mixed material forms: claddings/square timber
- natural wooden surface which appeals to the senses
- sturdy, double-layer roof construction
- incentive for playing: veranda, door, furniture

Recommended

- for older than, but also suitable for children under 3 years
- for small children's areas of public playgrounds
- nurseries
- children's homes
- therapy institutions for children
- leisure areas
- school playgrounds



Order No. 4.10105 Smallest Playing House please refer to our catalogue „For the Very Young“

Small Play House
Small Play House with door
Big Play House
Big Play House with door



Order No. 4.10110 with door

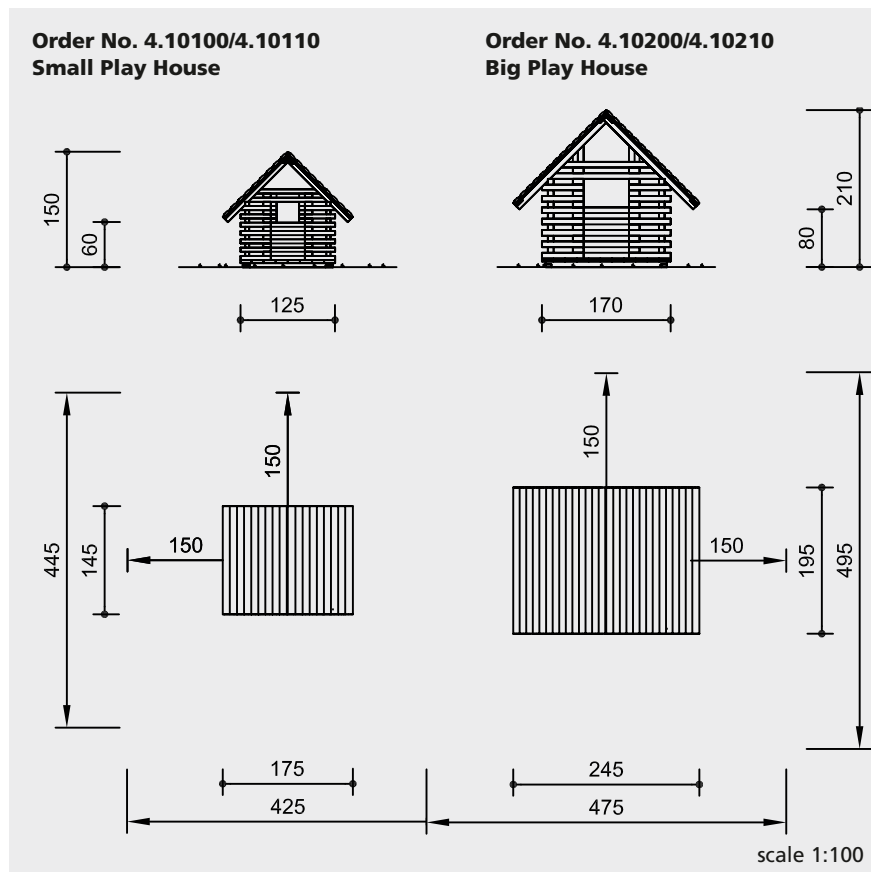
© Richter Spielgeräte GmbH 03/19

Design and Copyright



4.10100/4.10110

4.10200/4.10210



Safety check according to EN 1176

Components

- 1 house body, including:
 - 2 benches
 - 1 table
- 2 roof sections, double-layered
- 4 foundation irons

Order No. 4.10110/4.10210
as before, but with installed door

Installation information

Surfacing requirements corresponding to a fall height of ≤ 0.60 m (please refer to price list for more detailed information)

Foundations (only necessary to immobilise the equipment)

- Order No. 4.10100/4.10110**
4 items 30 x 30 x 30 cm
excavation depth 40 cm
- Order No. 4.10200/4.10210**
4 items 40 x 40 x 40 cm
excavation depth 50 cm

Attention:
Exact measurements may vary, for all installation dimensions refer to current installation instructions.
Technical changes reserved.

Technical information

core-free
sawn timbers of spruce/fir, boiler-pressure impregnated according to DIN 68800-3, use class 4, core-free, by that formation of cracks can be reduced



claddings
thickness 3 - 5 cm, de-barked by hand, of spruce/fir, boiler-pressure impregnated according to DIN 68800-3, use class 4



ground anchor
all parts used for anchoring to the ground made of hot-dip galvanised steel



Order No. 4.10100/4.10110
Order No. 4.10200/4.10210
impregnated version with double-layered roof of 21 mm boards and 3 - 5 cm thick claddings

Order No. L4.10100/L4.10110
Order No. L4.10200/L4.10210
version made of larch with single-layered roof of 4 - 5 cm thick, half-rebated claddings

Dimensions

(small deviations possible)

Order No.	4.10100	4.10200
	4.10110	4.10210
height	1.50 m	2.10 m
width	1.75 m	2.45 m
depth	1.45 m	1.95 m
weight	250 kg	540 kg

For more detailed explanation of the quality characteristics see price list.



4.10100/4.10110



4.10200/4.10210

Play value

Slides are fun for big and small alike. The exhilaration of the unfamiliar, apparently risky movement is a very important part of the slide's play value. The downhill glide without doing anything other than overcoming self-doubt and being daring, is enjoyable and provides a sense of achievement. Particularly fun is tandem or twin gliding on a wide slide.



Fundamental characteristics

- friendly appearance
- high-quality design
- can also be installed as embankment slides
- incentive for playing: experiencing height, thrill
- exercise activity: sliding

Recommended

- for older children but also for children under 3 years old
- for public playgrounds
- leisure areas
- kindergartens
- play areas situated near houses



Stainless Steel Slides
width 1.00 m - 1.50 m

2-5 SLIDING AREA - "SLIDE MOUND" - TOPO TO BE CREATED BY LANDSCAPE ARCHITECT

PROPOSED SLIDES:

****ACCESSIBLE TOT SLIDE ON SLIDE MOUND (S A3.63306) WILL INCLUDE AN ADA-ACCESSIBLE STAINLESS STEEL TRANSFER PLATFORM - DIMS: 1M WIDE X 0.76M HIGH****

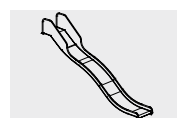
****TOT SLIDE ON SLIDE MOUND (A 3.63020) - DIMS: 0.45M WIDE X 1.5M HIGH****

Note on installation

The orientation of the slide to the South has to be avoided because of heating up of the material.



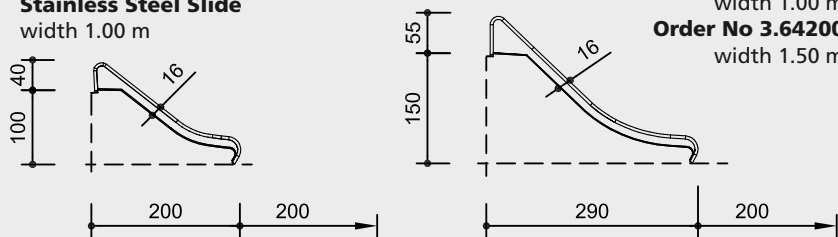
3.63300 - 3.64250



3.63395/3.64105

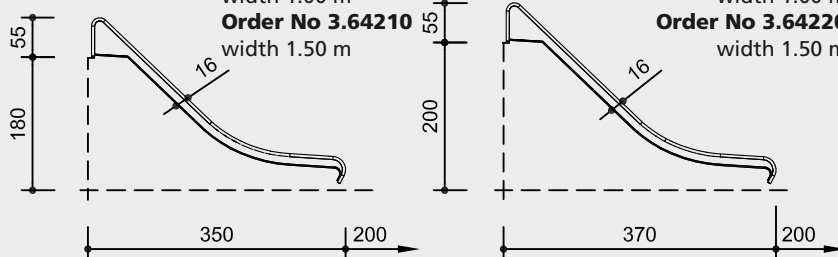
Order No 3.63300
Stainless Steel Slide
width 1.00 m

Order No 3.63320
width 1.00 m
Order No 3.64200
width 1.50 m

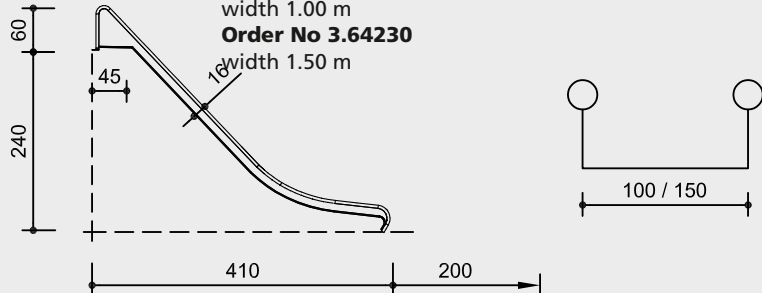


Order No 3.63340
width 1.00 m
Order No 3.64210
width 1.50 m

Order No 3.63360
width 1.00 m
Order No 3.64220
width 1.50 m

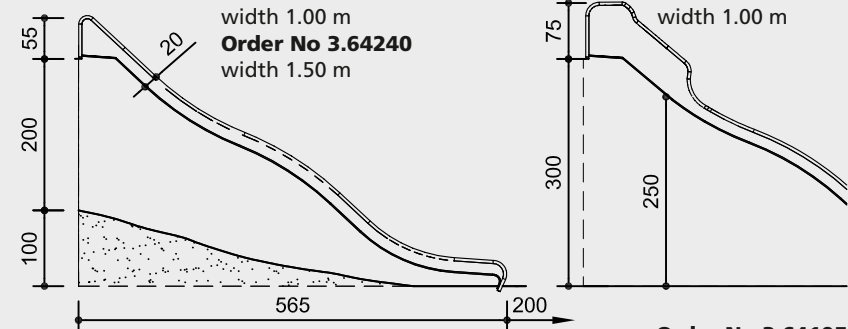


Order No 3.63380
width 1.00 m
Order No 3.64230
width 1.50 m



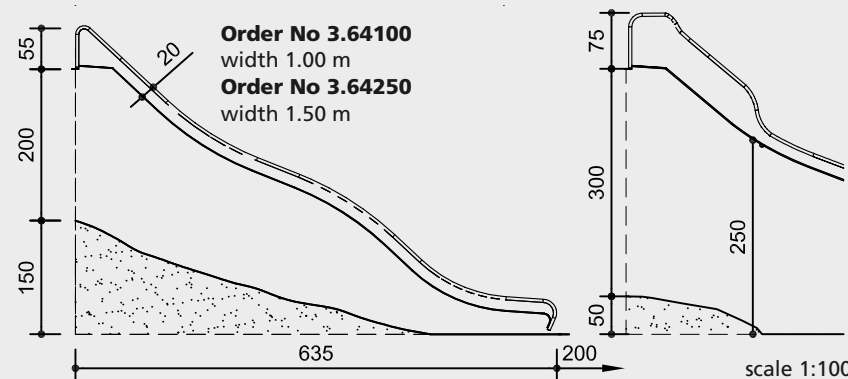
Order No 3.63390
width 1.00 m
Order No 3.64240
width 1.50 m

Order No 3.63395
width 1.00 m



Order No 3.64100
width 1.00 m
Order No 3.64250
width 1.50 m

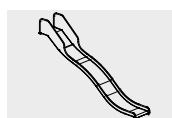
Order No 3.64105
width 1.00 m



safety check according to EN 1176



3.63300 - 3.64250



3.63395/3.64105

Technical information

total construction of slides made of stainless steel, slide walls glass bead blasted

height of sides 16 or 20 cm

handrail tube Ø 42 mm, wall thickness 2 mm

attached at the top and bottom with mounting plates

thickness of sliding surface **Order No. 3.63300** 2.5 mm, all other slides 3 mm

Order No. 3.63395 and 3.64105 with higher sides for fall height of more than 2.50 m

Dimensions see sketches (small deviations possible)

Order No.	Weight
3.63300	65 kg
3.63320	110 kg
3.63340	130 kg
3.63360	150 kg
3.63380	170 kg
3.63390	231 kg
3.64100	242 kg
3.63395	249 kg
3.64105	280 kg
3.64200	150 kg
3.64210	175 kg
3.64220	200 kg
3.64230	225 kg
3.64240	320 kg
3.64250	335 kg

Components

Order No 3.63300
1 slide, width 1.00 m with ground anchor

Order No. 3.63320-3.63380
1 slide, with 1.00 m

Order No 3.63390/3.64100
1 slide, width 1.00 m, with 1 wave

Order No. 3.63395/3.64105
1 slide as above but with higher sides

Order No. 3.64200-3.64230
1 slide, with 1.50 m

Order No. 3.64240/3.64250
1 slide, width 1.50 m with 1 wave

Installation information

Surfacing requirements depending on the installation height, embankment slides depending on the topographic situation; in the run-out area we recommend material such as sand (please refer to price list for more detailed information)

Foundations slides with ground anchor do not need concrete foundations; all other slides 2 items 30 x 30 x 30 cm excavation depth 70 cm

Attention:
Exact measurements may vary; for all installation dimensions refer to current assembly instructions.
Technical changes reserved.

Play value

Climbing Structures made from hand-processed irregular round logs, can be integrated into a strongly nature-oriented environment due to their formal expressive character. Many children can play within a small space; Climbing Structures can even absorb the arrival of a large number of children who wish to play on it and incorporate all of them within a flowing play rhythm. Climbing Structures do not only allow for climbing, experiencing height, and for having a sensual experience with hands and feet, but they can also be used as a nice seat for relaxing and observing.



Fundamental characteristics

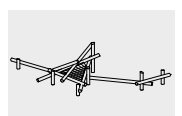
- natural, strong posts
- no pre-determined play procedures, individual mastering
- incentive for playing: strong, challenging construction
- movement: climbing, balancing, doing exercise

Recommended

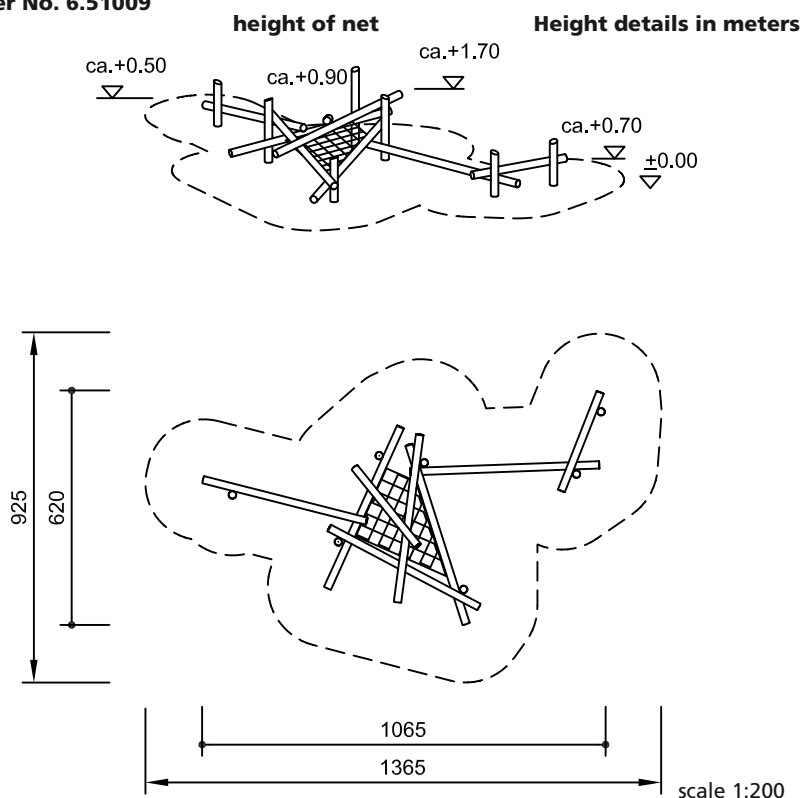
- for children from 4 years
- for kindergartens
- schools
- sports grounds
- leisure areas
- parks

Climbing Structure 09

****CLIMBING STRUCTURE #9 WILL BE CUSTOMIZED FOR YOUNGER CHILDREN - 2-5 YEARS****



Climbing Structure 09
Order No. 6.51009



Safety check according to EN 1176 and „safety in another way“

Components

- 7 stand posts
- 8 connecting tie beams
- 1 net
- fittings

Dimensions

(small deviations possible)

- length 10.65 m
- width 6.20 m

Required space

13.65 x 9.25 m

Installation information

Surfacing requirements corresponding to a fall height of ≤ 2.00 m (please refer to price list for more detailed information)

Foundations

7 items 80 x 80 x 60 cm
 excavation depth 80 cm

Note

The climbing structure is an individual construction which is only partly pre-assembled in our workshop. Therefore, the installation needs to be carried out by an installation company authorised by us.

Technical changes reserved.

Technical information

posts of robinia, \varnothing 15 - 21 cm, splinter free and sanded smooth

angle cut

vertical support posts with angle cut in the end grain section as constructive wood preservation



Corocord® rope

special ropes of "Hercules type"
 six-strand Corocord® rope of the special "Hercules type", abrasion protected through heating of the six steel strands and melting the polyester sleeve onto them, standard colour natural



aluminium swages

double-conical aluminium swages with rounded-off ends, as small as possible



S-clamps

rounded Corocord® S-clamps made of stainless steel, \varnothing 8 mm



concealed head

large surface for pressure distribution, prevents water from getting inside, protects the bolt head



adjustable

no projecting threads after re-tightening due to two-piece bolt connection and therefore easy to maintain



distance fitting

to avoid entrapment of cords



net mounting

easy-to-install and service-friendly net fastening via adjustable stainless steel chain securing system



Order No. L6.51009

as above, but de-barked posts of non-impregnated mountain larch, \varnothing 15 - 21 cm, splinter free and sanded smooth

ground anchor

all parts used for anchoring to the ground are made of hot-dip galvanised steel respectively stainless steel

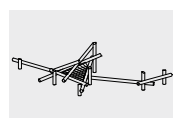


relief cut

parts which are not core-free have a kerf sawn at a suitable section of the trunk to pre-empt cracks that would form naturally or a bore hole as relief



For more detailed explanation of the quality characteristics see price list.



6.51009



Order No. 6.3000 Rocking Plate

Play value

The flat metal plates with the fixed approach ramps and a moving part, for turning, require no foundations. They are light enough to move with a trailer but heavy enough so that they cannot be moved by vandals. Their stability also allows wheelchair users and people with cycles and mopeds to drive on and over them. The ground plates of metal are a discreet but effective play item for pedestrian areas, schoolyards and playgrounds, and stimulate active play.

Fundamental characteristics

- unique and original
- offer for active play with integrative character
- also suitable for wheelchair users
- incentive for playing: surprising element on the ground
- movement: rocking

Suitable

- for children from 5 years and young people
- for pedestrian zones
- school playgrounds
- leisure areas
- rehabilitation centres
- institutions for people with special needs

Barrier-free

- special exercise experience
- with a carer



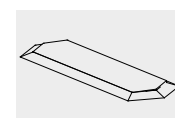
**Rocking Plate
Hexagonal Rocking Plate**



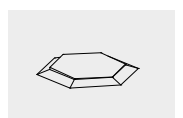
Order No. 6.31000 Hexagonal Rocking Plate

Advice

An adequate surface design helps to avoid passers-by stepping on the plates unintentionally and thus improves safety.

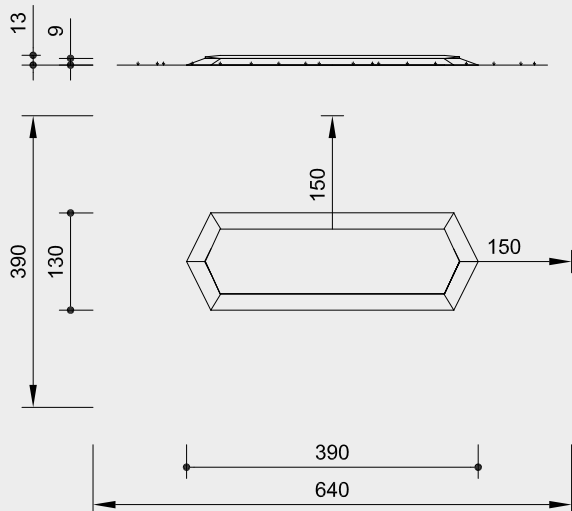


6.30000

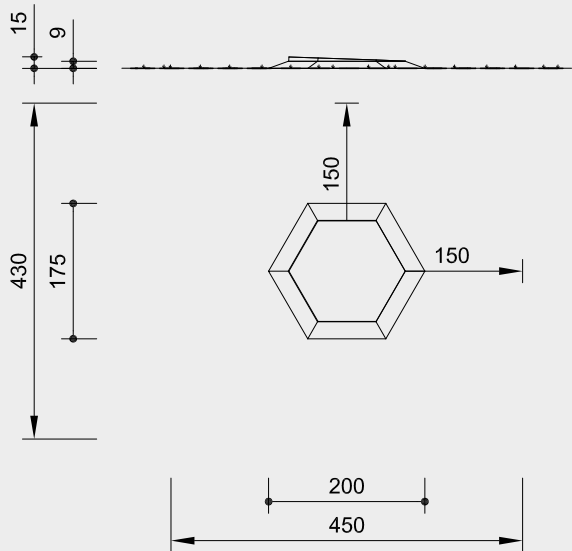


6.31000

Order No. 6.30000 Rocking Plate



Order No. 6.31000 Hexagonal Rocking Plate



scale 1:100

Safety check according to EN 1176

Components

one part complete ready for play

Installation information

Surfacing requirements corresponding to a fall height of $\leq 0,60$ m (please refer to price list for more detailed information)

Foundations
no foundations necessary

Attention:

Exact measurements may vary, for all installation dimensions refer to current installation instructions.

Technical changes reserved.

Technical information

Steel construction, hot-dip galvanised, padded underneath with vulcanised foam rubber to reduce sound level

ball bearing

rocking mechanisms using ball bearings, low-maintenance



Dimensions

(small deviations possible)

Order No. 6.30000 Rocking Plate

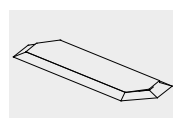
height	0.09 m / 0.13 m
length	3.90 m
width	1.30 m
weight	275 kg

Order No. 6.31000

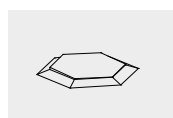
Hexagonal Rocking Plate

height	0.09 m / 0.15 m
length	2.00 m
width	1.75 m
weight	230 kg

For more detailed explanation of the quality characteristics see price list.



6.30000



6.31000



Function and Play value

The Dendrophone is made up of harmoniously tuned sound boards which have been arranged like an oversized xylophone. If the lengths of the sound elements are changed, different tones are produced, and these are tuned and amplified with resonators. Hitting it, either with a percussion hammer or by hand, produces warm sounds, and these can be made into melodies and rhythms. Several people can play on the equipment at the same time and create music together.

Suitable

- for indoors and outdoors
- for public institutions (i.e. kindergartens, daycare facilities for children, schools)
- therapy gardens (i.e. in institutions for people with special needs, rehab clinics, retirement homes)
- parks
- zoological and botanical gardens

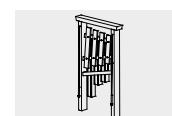
Barrier-free

- independent play



Dendrophone - single field
Dendrophone - double field
graubner Play Stations for Developing the Senses

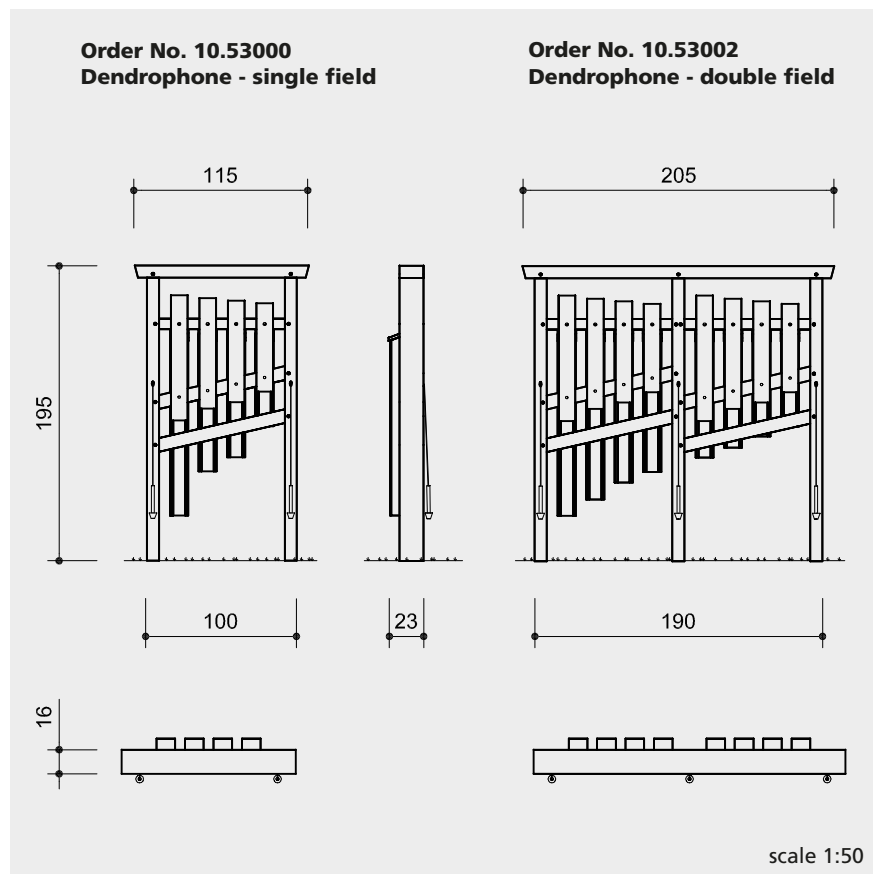
Acoustic effect	soft
Vandalism	slightly vulnerable
Supervision	not necessary
Explanation board	not necessary
Installation	indoors and outdoors
Safety check (EN 1176)	not necessary
Installation in concrete	possible



10.53000



10.53002



Technical information

frame made of oak

carefully chosen sound boards made of cherry wood

the vertical resonators are designed to create optimal sound with each sound board

only wood joints in accordance with traditional carpentry

beater with rubber head, suspension made of stainless steel cable

Dimensions

(small deviations possible)

height	1.95 m
single field width	1.15/1.00 m
double field width	2.05/1.90 m
depth	0.23 m
weight	75/140 kg

Components

Order No. 10.53000

1 single field with 4 sound boards and 2 beaters

Order No. 10.53002

1 double field with 8 sound boards and 3 beaters

Explanation board on request

Installation information

Recommended space

Single field 2.50 x 2.10 m

Double field 2.50 x 3.00 m

Foundations

Single field

2 items 40 x 40 x 40 cm
excavation depth 60 cm

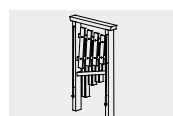
Double field

3 items 40 x 40 x 40 cm
excavation depth 60 cm

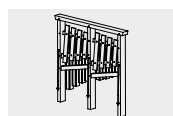
Attention!

Exact measurements may vary, for all installation dimensions refer to current installation instructions.

Technical changes reserved.



10.53000



10.53002



Function and Play value

The Wind Pipes are a simple sound equipment which enables the person „playing them“ to experience physically the relation of cause and effect. The three, ground level integrated see-saw beams can be moved independently from each other. Due to the movement of the beams, the air pressure which is required for playing the pipes is produced. By means of shifting the weight or moving from one beam to the other, different simple sequences of notes are produced. Six different notes are possible. Children enjoy very much making „music“ with the whole body or producing „beautiful“ (dreadful) sequences of notes by using the see-saw effect of the beams.

Fundamental characteristics

- unique and original
- combination of see-sawing and experience of sound
- incentive for playing: surprising element on the ground
- movement: shifting one's weight

Recommended

- for all age groups from 4 years
- for public playgrounds
- for public institutions (i.e. kindergartens, daycare facilities for children, schools)
- therapy gardens (i.e. institutions for people with special needs)
- public places (i.e. pedestrian areas, waiting areas of stations and bus stations, courtyards)
- parks
- leisure parks

Barrier-free

- independent play

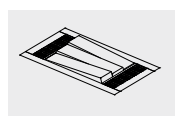


Planning information

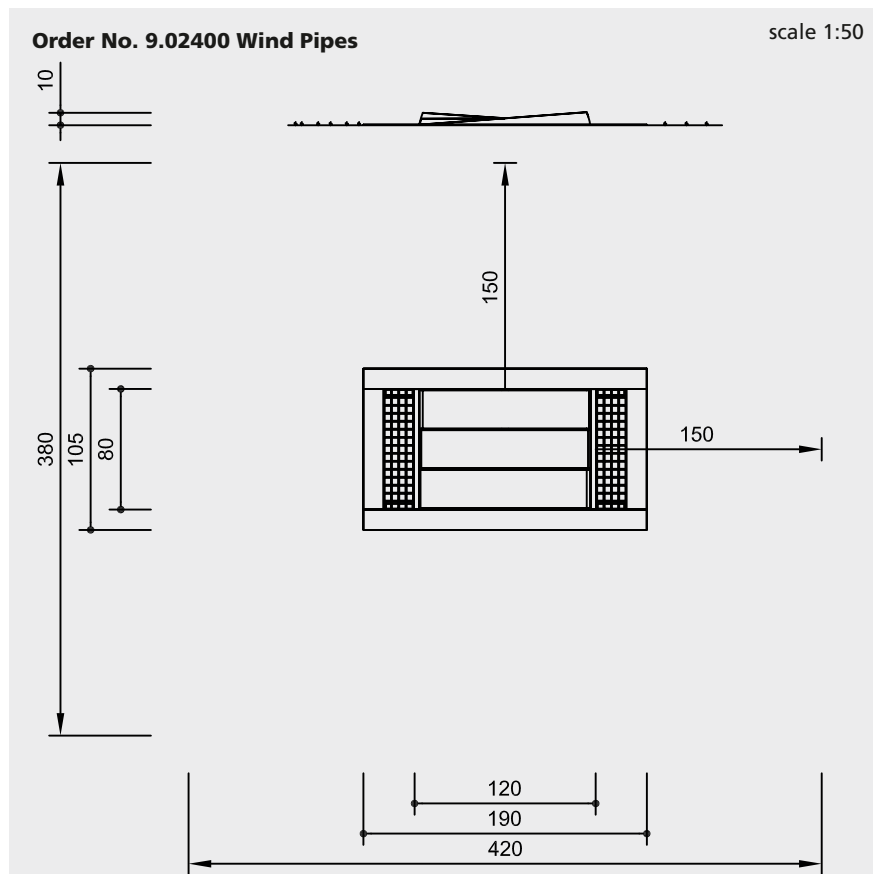
To prevent the underground parts of the mechanism from being damaged, we strongly advise against installing the equipment in sand.

Acoustic effect	medium / pipes
Vandalism	not vulnerable
Supervision	recommended

Wind Pipes



9.02400



Safety check according to EN 1176

Components

1 complete equipment with 3 see-saw beams and 6 piston pumps with musical pipes

Installation information

Surfacing requirements corresponding to a fall height of $\leq 0,60$ m (please refer to price list for more detailed information)

Foundations
Excavation: 125 x 220 x 63 cm
1 box foundation 125 x 220 x 50 cm with a wall thickness of 30 cm on the short side and 20 cm on the long side

Attention:
Exact measurements may vary, for all installation dimensions refer to current installation instructions.
Technical changes reserved.

Technical information

equipment of non-impregnated mountain larch

core-free timber
sawn timbers core-free, by that formation of cracks can be reduced



brass bush
for all to and fro movements we use bush bearings which allow for self-lubrication while in use and which can be easily exchanged in case of need



ground anchor
all parts used for anchoring to the ground made of hot-dip galvanised steel



piston pumps with pipes mounted under the see-saw beam

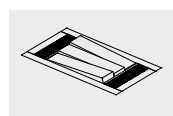
pipes are tuned to the pentatonic scale

ventilation from hot-dip galvanised grille

Dimensions
(small deviations possible)

length	1.90 m
width	1.05 m
see-saw beams	10/26 cm
weight	180 kg

For more detailed explanation of the quality characteristics see price list.



9.02400



Function and Play value

The well designed Mushroom Springs gives off water when the hemisphere on top gets pressed down. The water comes out like a circular veil. When the hemisphere is pressed once, a valve is activated which stops the water flow after 60 seconds or earlier (time is adjustable). Due to its agreeable design, the Mushroom Springs can also be used in less natural play surroundings.

Fundamental characteristics

- high-quality design
- automatic water stop
- unique and original
- incentive for playing: hemisphere, water
- movement: physical effort

Suitable

- for children from 3 years
- for all water play areas

Barrier-free

- independent play



Order No. 5.18030 Mushroom Column Spring

Mushroom Spring
Mushroom Spring for Concrete Basins
Mushroom Column Spring



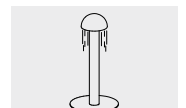
5.18000/5.18002



5.18005



5.18006



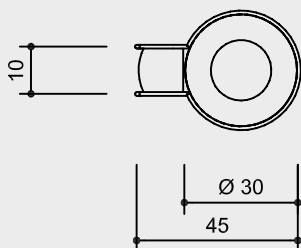
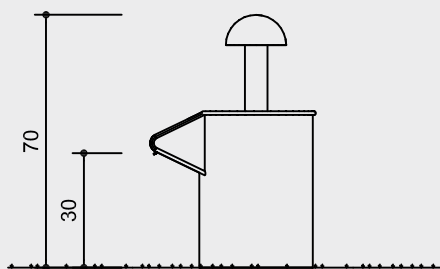
5.18030



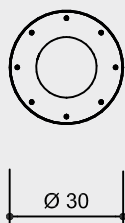
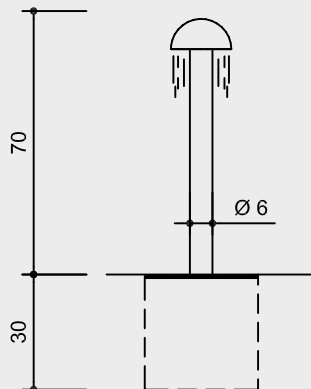
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Design and Copyright

Order No. 5.18000/5.18002/5.18005
Mushroom Spring



Order No. 5.18030
Mushroom Column Spring

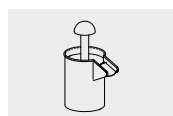


scale 1:20

Safety check according to EN 1176



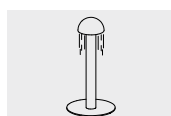
5.18000/5.18002



5.18005



5.18006



5.18030

Technical information

Mushroom Springs completely of stainless steel, glass bead blasted, with self-righting pressure valve

foundation anchor Order No. 5.28006 of galvanised steel

Dimensions

(small deviations possible)

height	0.70 m
width	0.45 m
diameter	0.30 m
weight	
Mushroom Spring	37 kg
Mushroom Column Spring	12 kg

Components

1 part each

Installation information

Surfacing requirements recommendation: paving stone or similar with gully.

The Mushroom Spring **Order No. 5.18000** can be installed on natural stone, pedestal etc.

Order No. 5.18002 as before, but with programmable rinsing device for direct connection to pressure line.

The Mushroom Spring **Order No. 5.18005** can be installed on concrete Water Basins **Order No. 5.22000, 5.22100, 5.24200** and **5.24400**.

The Mushroom Column Spring **Order No. 5.18030** can be installed in site concrete foundation.

1 item 40 x 40 x 30 cm excavation depth 60 cm

The Mushroom Spring and the Mushroom Column Spring needs to be connected directly to the mains water.

Individual solutions for the water supply must be devised, depending on the plans. Up-to-date details on the connection for the water supply and other technical information is available to download as a table at our website www.richter-spielgeraete.de. Go to "Products" and then to the applicable piece of equipment.

During the frost period the inset with the valve needs to be disassembled. The opening can be closed with a winter lid Order No. 0.97840 (see price list).

Attention:

Exact measurements may vary, for all installation dimensions refer to current installation instructions.

Technical changes reserved.

For use in chlorine water the equipment are also available with a special steel alloy.

Play value

Our system of wooden water gutters consists of 10 elements of different shapes and functions which can be combined to individual water play installations. The gutters have different movable shutters, are installed with inclination or horizontal. They allow for interesting water play activities which are particularly attractive for children. The gutters - some of them are as wide as tables - can be used for playing with mud and distributing water. If required, the elements can be supplied with longer posts and thus can be installed in different heights. By this it is possible to take into account special requirements, e.g. of wheelchair bound children. This system of water gutters can be combined with different water wheels and Archimedes Screws.



Fundamental characteristics

- child proportions according to ergonomic requirements
- use of natural wood which is appealing to the senses; the beautiful structure of the wood gets more and more visible by use
- incentive for playing: wood, sand, water
- movement: motor activities

Recommended

- for children from 3 years
- for all water play areas

Barrier-free

- independant play

Basic elements of wood for water playgrounds

****SQUARE MUD TABLE (5.10700) FOR USE WITH MUSHROOM SPRING****



5.10100 - 5.15600



Integrative play

Playing with water is a favourite play offer for almost all children. Therefore, water play installations are very well suited for integrative play areas. The wooden water play elements with their easily comprehensible damming and distribution devices and the wide tables are an harmonious offer for children with different needs. The wooden gutters and tables can be installed in a way that also wheelchair bound children can play with them. Thus children with different abilities can play together. The overall planning should take into consideration the special surface requirements for wheelchair users.

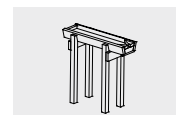


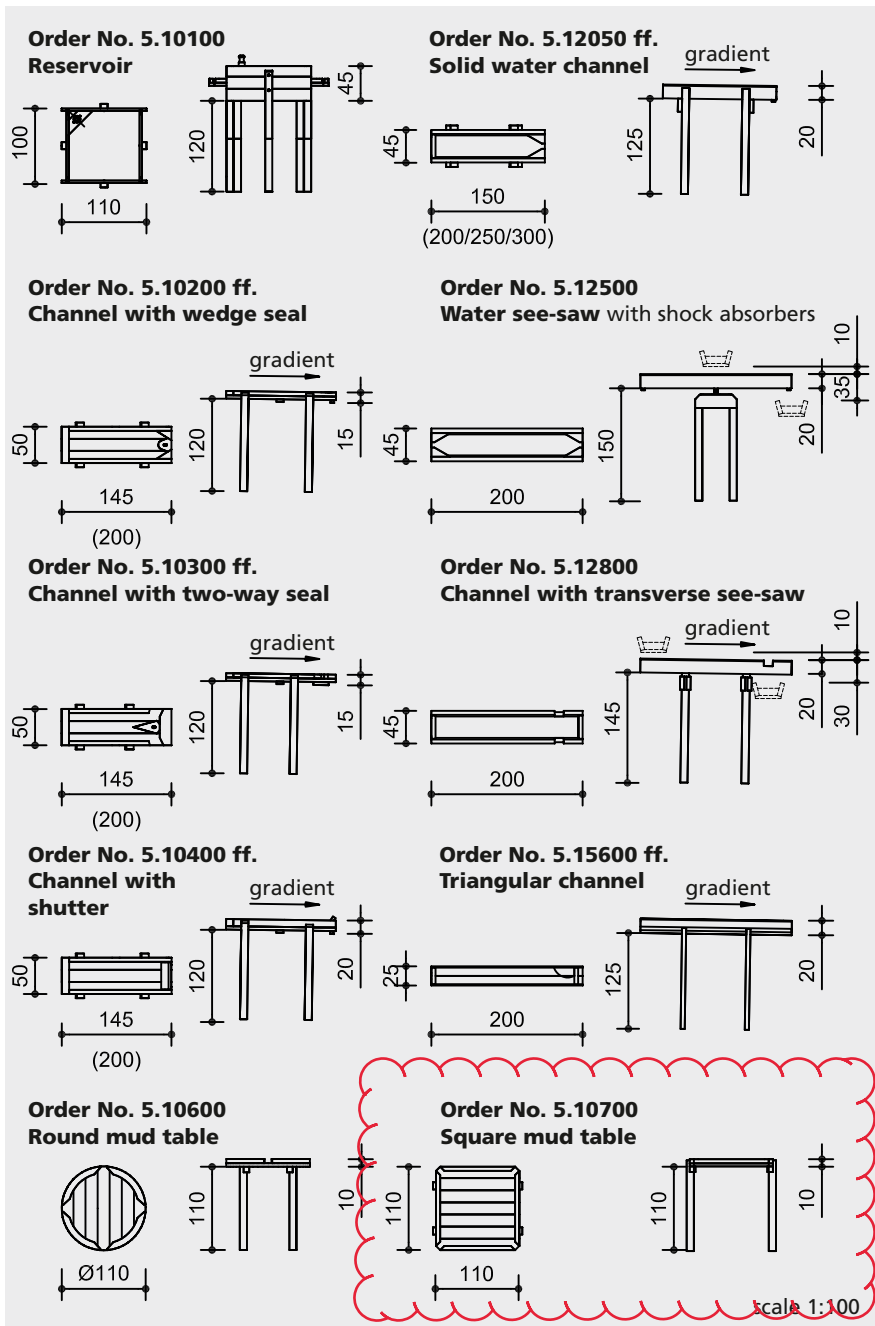
Water

The play value of water play equipment is invaluable. Contact with the elements is part of the child's complete development. Feeling water, letting water flow, diverting it, damming it, letting it trickle away, and experiencing water power is all part of early experience. This all contributes to fun experiences and is a further step towards mastering the child's environment.



Basic elements of wood for water playgrounds





Safety check according to EN 1176

Components

1 element
with the corresponding number of
support posts each



5.10100 - 5.15600

Installation information

Surfacing requirements
no fall height according to standard,
staircase-like constructions may make
necessary an examination of the fall height

Recommendation: sand with drainage or
paving stone with gully; for playing with
„mud“, sand is required.

Required space according to overall
installation.

Foundations according to overall
installation, excavation depth 70 cm each

Attention:
**Exact measurements may vary, for
all installation dimensions refer to
current installation instructions.**
Technical changes reserved.
**Equipment also available with steel
feet (support posts made of larch).**

Technical information

equipment of non-impregnated
mountain larch

core-free
core-free, by that formation of cracks
can be reduced



tongue and groove
all surfaces of 40 mm tongue and
groove boarding, except solid channels



support posts made of oak heartwood
10/10 cm; **5.15600**: 6/16 cm

Order No. 5.10.100/5.10110

plywood
ground made of three-layer waterproof
plywood of larch, 30 mm



Order No.
5.10100/5.10200ff./5.10300ff./
5.10400ff./5.15600ff.
sealed with microcellular rubber

Solid channels
Order No. 5.12050, 5.12500, 5.12800
floor plates 10/30 cm

Dimensions
(small deviations possible)

see sketches
weight 30 - 90 kg

Planning information

Equipment marked with a pointing
arrow needs to be installed with a
gradient of approx. 2% (= 2 cm on 1 m).
This means that for planning not only
the height of the equipment but also
the gradient needs to be taken into
consideration.

The lengths of the support posts must
be checked for the planned installation
heights. The required lengths of the
support posts need to be calculated by
the customer taking into consideration
the installation depth (depending on
the surface) and the intended height
(above ground). Longer support posts
can be supplied on request.

If several elements are installed in a
line, this might make necessary a corres-
ponding modelling of the ground.

For more detailed explanation of the
quality characteristics see price list

Water and mud

Playing with mud, shaping and building with sand, earth and water is a fundamental human requirement, which even adults find difficult to suppress sometimes. With different types of water play equipment, children can gain insights into different functions and learn physical laws while playing. Troughs, water see-saws and mud tables ensure intense mud play which children often participate in together.

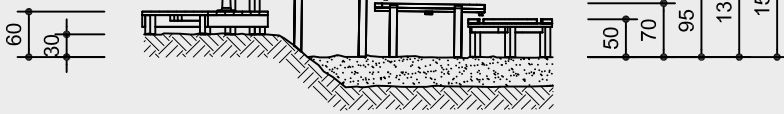


**Basic elements of wood
for water playgrounds**

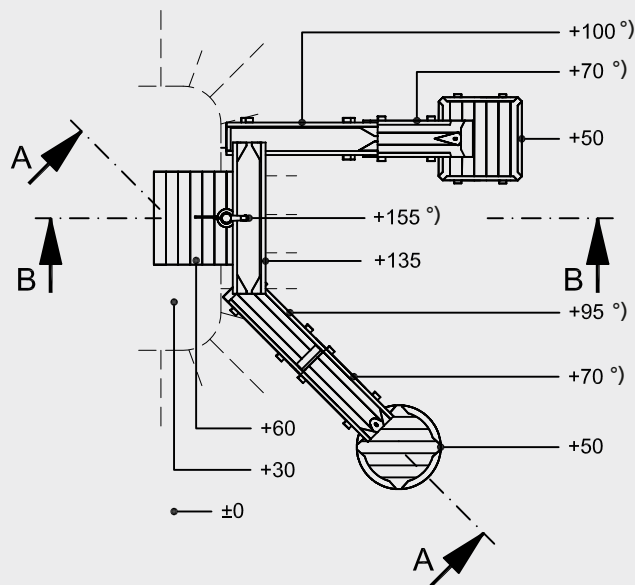
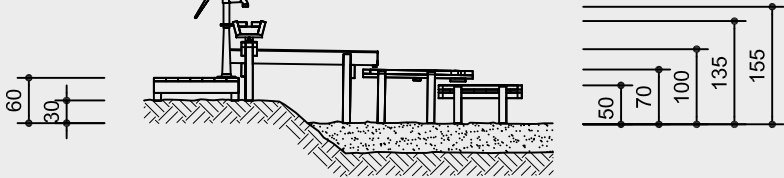


Planning Example

sectional drawing A



sectional drawing B



scale 1:100

In this planning example extended posts (surcharge) are required for the gutters (marked with °). The hill can also be formed afterwards.

Order No. 5.10100
is usually allocated to pump, with bung for sealing;
height difference 50 cm *



Order No. 5.10200
can be used as water play table;
height difference 17 cm *



Order No. 5.10300
can be used as water play table and as distributor channel;
height difference 17 cm *



Order No. 5.10400
can be used as water play table;
height difference 21 cm *



Order No. 5.10600
is mostly used as final element of a water way, 4 outlets;
height difference 18 cm *



Order No. 5.10700
is mostly used as final element of a water way, 4 outlets;
height difference 18 cm *



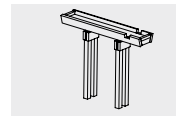
Order No. 5.12050
basic element of this equipment group available up to 3 m length;
height difference 25 to 28 cm *



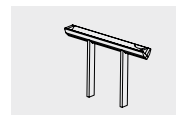
Order No. 5.12500
two-way distributor with sturdy, buffered mechanism
height difference 65 cm * to bottom, 15 cm * to top (see side view)



Order No. 5.12800
transverse distributor on rubber buffers;
height difference 30 cm * to bottom, 10 cm * to top (see side view)



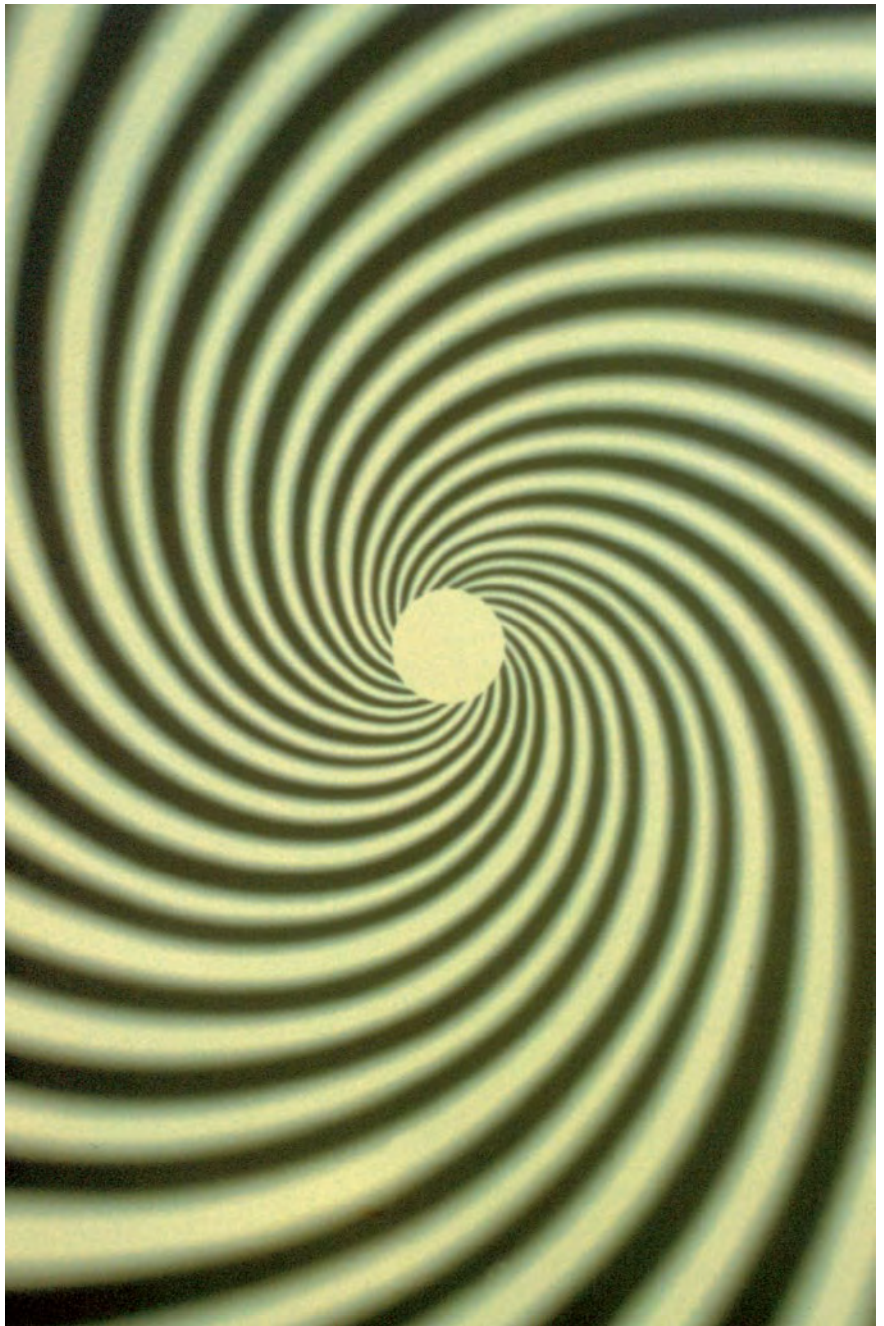
Order No. 5.15600
standard length 2.00 m, but can also be delivered shorter;
height difference 24 cm *



*** The minimum height difference is the required distance between one element to the next. For see-saws the indicated measurements need to be kept to.**



5.10100 - 5.15600



Function and Play value

The observer gently spins the disc and then takes a step back. Looking at the disc the eye actively and automatically creates complementary and polar counter images. The sense of sight thus fulfils a basic principle of nature: maintaining the unity in a variety of perceptions, and thus through this unity maintaining the diversity. As a result of the turning motion of the Rotating Discs, observers see a dynamic penetration of the light and dark rotating parts. This creates surprising, colourful light phenomena.

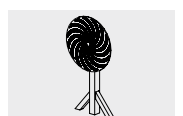
Recommended

- for public buildings
- reception areas, training and recreational areas of companies, seminar centres, hospitals, therapy gardens, zoological and botanical gardens, museums, pedestrian areas, foyers, museums

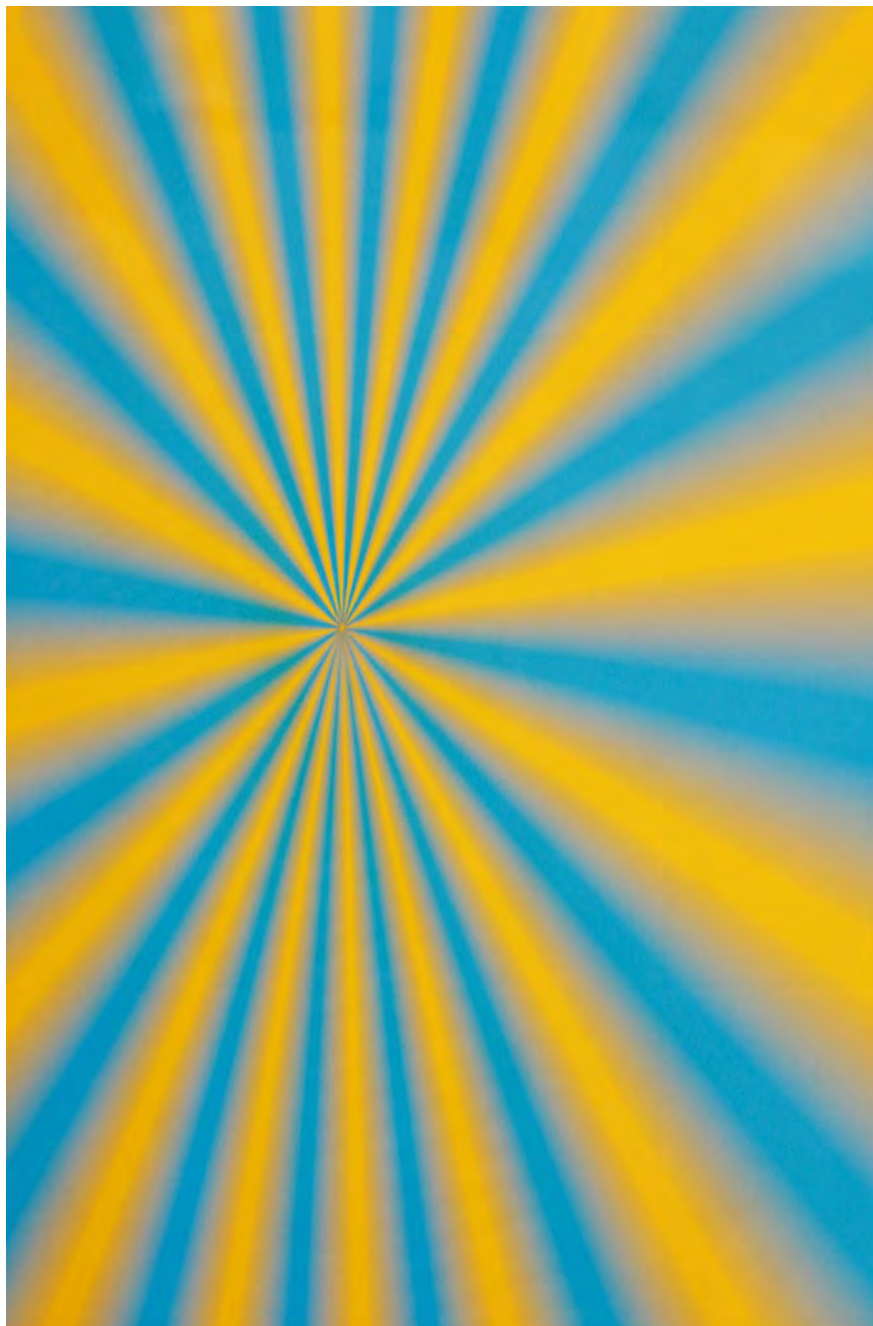
Rotating Discs
graubner Play Stations for
 Developing the Senses

Vandalism	slightly vulnerable
Supervision	not necessary
Explanation Board	recommended
Installation	indoors and outdoors
Safety check (EN 1176)	not necessary
Installation in concrete	possible

Design W. Graubner nach H. Kùkelhaus Copyright © Richter Spielgeràte GmbH 03/19



10.22100 - 10.22850



Colour Disc

The disc is divided into blue and yellow sectors. Turning creates not only a mixture of colours, but also the colour green and after that the complementary colour red. The observer experiences the effect of colour as a physical, non-material appearance.



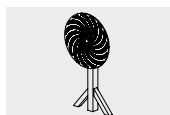
Spiral for wall attachment



Funnel for wall attachment



Pulsation for wall attachment



10.22100 - 10.22850

Funnel

Turning the disc slowly creates the impression of a rotating cone and funnel, around which there are regular black and white stripes. The impression remains unchanged even if the observer looks at it from different angles. The reason is that the eye seeks a virtual centre in the asymmetrical pattern. However, it can only achieve this by creating a third dimension, namely perspective, thus making the cone or funnel appear three-dimensional.



Spiral

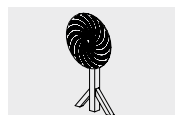
When the observer turns the disc clockwise, the spiral appears to expand further and further. Turning the disc the opposite way forms a continually deepening funnel. The eye attempts to compensate the one-sidedness of the rotation by involuntarily jumping from one spiral line to the next. This counteraction has the effect of appearing to slow down the rotation and make the funnel grow larger. The complementary colours appear on the borders of the black pattern. If the gaze is diverted from the disc then it appears as if the entire surroundings expand or contract in contrast to the image last seen on the disc - as if in slow motion - resulting in great astonishment. The eye "compensates". By seeing the complementary colours, a fundamental principle of light becomes visible: colour as the dynamic penetration of dark and light in the form of black and white spiral lines.



Pulsation

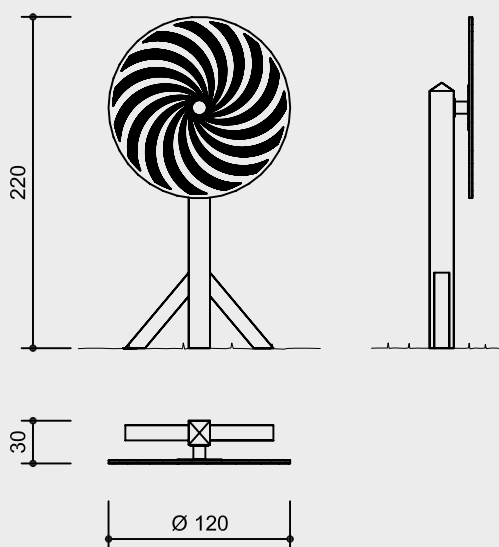
Here the eye perceives a pulsating physical motion similar to breathing in and out. The square and circle play around each other, pulling together and drawing outwards.

Rotating Discs
graubner Play Stations for
 Developing the Senses



10.22100 - 10.22850

Order No. 10.22100 Rotating Disc



scale 1:50

Technical information

- frame made of oak
- maintenance-free ball bearing (for enduring motion)
- flange and fastening screws made of stainless steel
- supports made of special plastic
- large-format patterned disc with sufficient motion mass
- precise black and white or coloured print with weather-resistant, special protective paint
- anti-glare surface

Dimensions

(small deviations possible)

- height 2.20 m
- depth 0.30 m
- disc Ø 1.20 m
- weight 80 kg

Components

- 1 wooden frame
- 1 disc with pattern and bearing, fastening material included

Explanation board on request

Installation information

Recommended space
6.00 x 2.50 m

Foundations

Support post made of wood

- 1 item 40 x 40 x 40 cm excavation depth 60 cm
- 2 items 30 x 50 x 30 cm excavation depth 50 cm

Support post made of stainless steel

- 1 item 60 x 60 x 60 cm excavation depth 80 cm

Attention!

Exact measurements may vary, for all installation dimensions refer to current installation instructions.

Technical changes reserved.

Equipment also available with stainless steel stand post or for wall attachment (see table).

Order No.	Item	Motive
10.22100	Spiral with support post made of wood	
10.22105	Spiral with support post made of stainless steel	
10.22150	Spiral for wall attachment	
10.22200	Funnel with support post made of wood	
10.22205	Funnel with support post made of stainless steel	
10.22250	Funnel for wall attachment	
10.22300	Pulsation with support post made of wood	
10.22305	Pulsation with support post made of stainless steel	
10.22350	Pulsation for wall attachment	
10.22400	Colour disc with support post made of wood	
10.22405	Colour disc with support post made of stainless steel	
10.22450	Colour disc for wall attachment	
10.22500	Funnel 2 with support post made of wood	
10.22505	Funnel 2 with support post made of stainless steel	
10.22550	Funnel 2 for wall attachment	
10.22600	Pulsation 2 with support post made of wood	
10.22605	Pulsation 2 with support post made of stainless steel	
10.22650	Pulsation 2 for wall attachment	
10.22700	Pulsation 3 with support post made of wood	
10.22705	Pulsation 3 with support post made of stainless steel	
10.22750	Pulsation 3 for wall attachment	
10.22800	Spiral 2 with support post made of wood	
10.22805	Spiral 2 with support post made of stainless steel	
10.22850	Spiral 2 for wall attachment	



10.22100 - 10.22850

Planning information

The Spraying Heads with the **Order No. 5.18815** and **5.18835** produce a high, sharp water jet and should only be used where the Spraying Heads are not accessible, e.g. in a pond which is not used for swimming, and with sufficient distance to the shore.

Please note the higher cleaning effort involved when using the Simple Spraying Head, **Order No. 5.18870**. Consider using the Spraying Head with Cleaning Mechanism (**Order No. 5.18810/5.18830**).

Recommended

- for children from 6 years
- for all water play areas of playgrounds
leisure areas
- for water playgrounds
outdoor swimming pools

Barrier-free

- independent play



Order No. 5.18810 Spraying Head

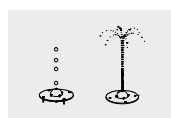


Order No. 5.18810 Spraying Head

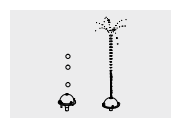
Spraying Heads with wide flange
Spraying Heads with small flange
Simple Spraying Head

Spring Head with wide flange
Spring Head with small flange

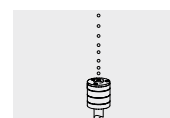
****SPLASH PAD****



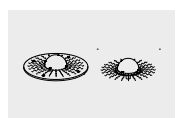
5.18810/5.18815



5.18830/5.18835

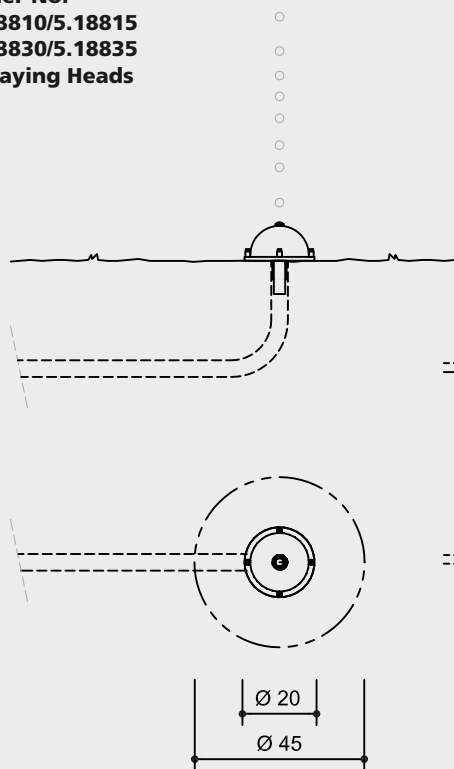


5.18870

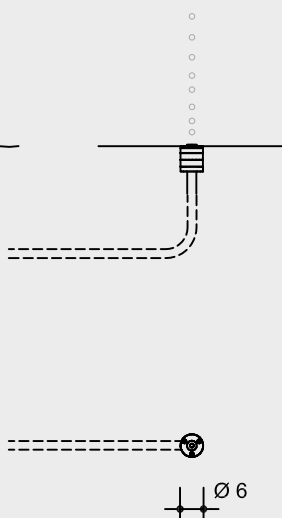


5.18880/5.18885

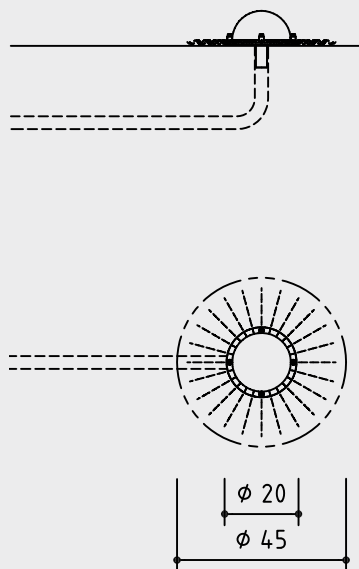
Order No.
5.18810/5.18815
5.18830/5.18835
Spraying Heads



Order No. 5.18870
Simple Spraying Head



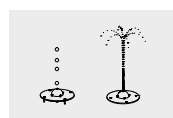
Order No.
5.18880/5.18885
Spring Head



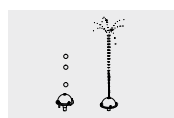
Individual solutions for the water supply must be devised, depending on the plans. Up-to-date details on the connection for the water supply and other technical information is available to download as a table at our website www.richter-spielgeraete.de. Go to "Products" and then to the applicable piece of equipment.

scale 1:20

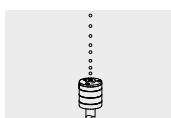
Safety check according to EN 1176



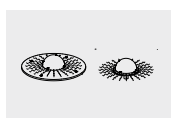
5.18810/5.18815



5.18830/5.18835



5.18870



5.18880/5.18885

Technical information

Spraying Heads with wide flange
Order No. 5.18810 with weak water jet
Order No. 5.18815 with strong water jet

Spraying Heads with small flange
Order No. 5.18830 with weak water jet
Order No. 5.18835 with strong water jet

Order No. 5.18810/5.18830
 Spraying Heads with weak jet, integrated cleaning mechanism
Order No. 5.18815/5.18835
 Spraying Heads with strong water, without cleaning mechanism

Spraying Heads made of stainless steel, glass bead blasted, with brass head

Simple Spraying Head
Order No. 5.18870
 Spraying Heads made of stainless steel, glass bead blasted, with brass head without cleaning mechanism

Dimensions
 (small deviations possible)

Spraying and Spring Heads Order No. 5.18810/5.18815/5.18880

flange diameter	0.45 m
weight	12 kg
5.18830/5.18835/5.18885	
flange diameter	0.20 m
weight	4 kg
diameter of the hemisphere	0.15 m
distance between head and Pump max.	8.00 m
required diameter for water supply	3/4 inch

Simple Spraying Head
Order No. 5.18870

diameter	0.06 m
distance between head and pump	max. 10 m
spraying head inlet Ø	3/4 inch
weight	1 kg

Components

Spraying Heads Order No. 5.18810/5.18815/5.18830/5.18835
 1 spraying head

Simple Spraying Head
Order No. 5.18870
 1 spraying head
 foundation anchor for spraying head with small flange see **Order No. 5.18056**

Spring Heads Order No. 5.18880/5.18885
 1 spring Head

Installation information
 Reinforced surface
 Foundations and water supply to be prepared by the customer.

Attention:
Exact measurements may vary, for all installation dimensions refer to current installation instructions.
 Technical changes reserved.
For use in chlorine water the equipment are also available with a special steel alloy (V4A).

Planning information

The Water Push Button is only suitable for direct connection to the pressure line. Pushing the semi-spherical button activates the Spraying Heads. When the semi-spherical button is pressed once, a valve is activated that automatically stops the water flow after 60 seconds or earlier (time is adjustable).

Recommended

- for children from 6 years
- for all water play areas of playgrounds leisure areas
- for water playgrounds outdoor swimming pools

Barrier-free

- independent play

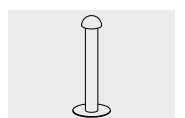


Water Push Button
with installation housing for external jet

****SPLASH PAD****

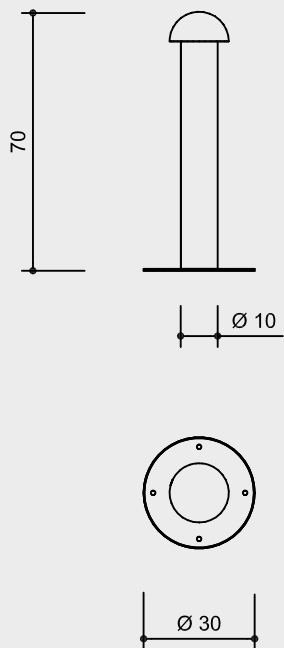


Order No. 5.18020 Water Push Button



5.18020

Order No. 5.18020 Water Push Button



scale 1:20

Technical information

Water Push Button made of stainless steel, glass bead blasted, with coloured hemisphere

Dimensions

(small deviations possible)

height	0.70 m
diameter column	0.10 m
weight	26 kg

Individual solutions for the water supply must be devised, depending on the plans. Up-to-date details on the connection for the water supply and other technical information is available to download as a table at our website www.richter-spielgeraete.de. Go to "Products" and then to the applicable piece of equipment.

Safety check according to EN 1176

Components

1 Water Push Button

Installation information

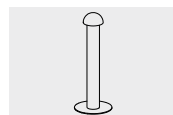
Reinforced surface
 Foundations
 1 item 40 x 40 x 30 cm,
 excavation depth 80 cm

Attention:

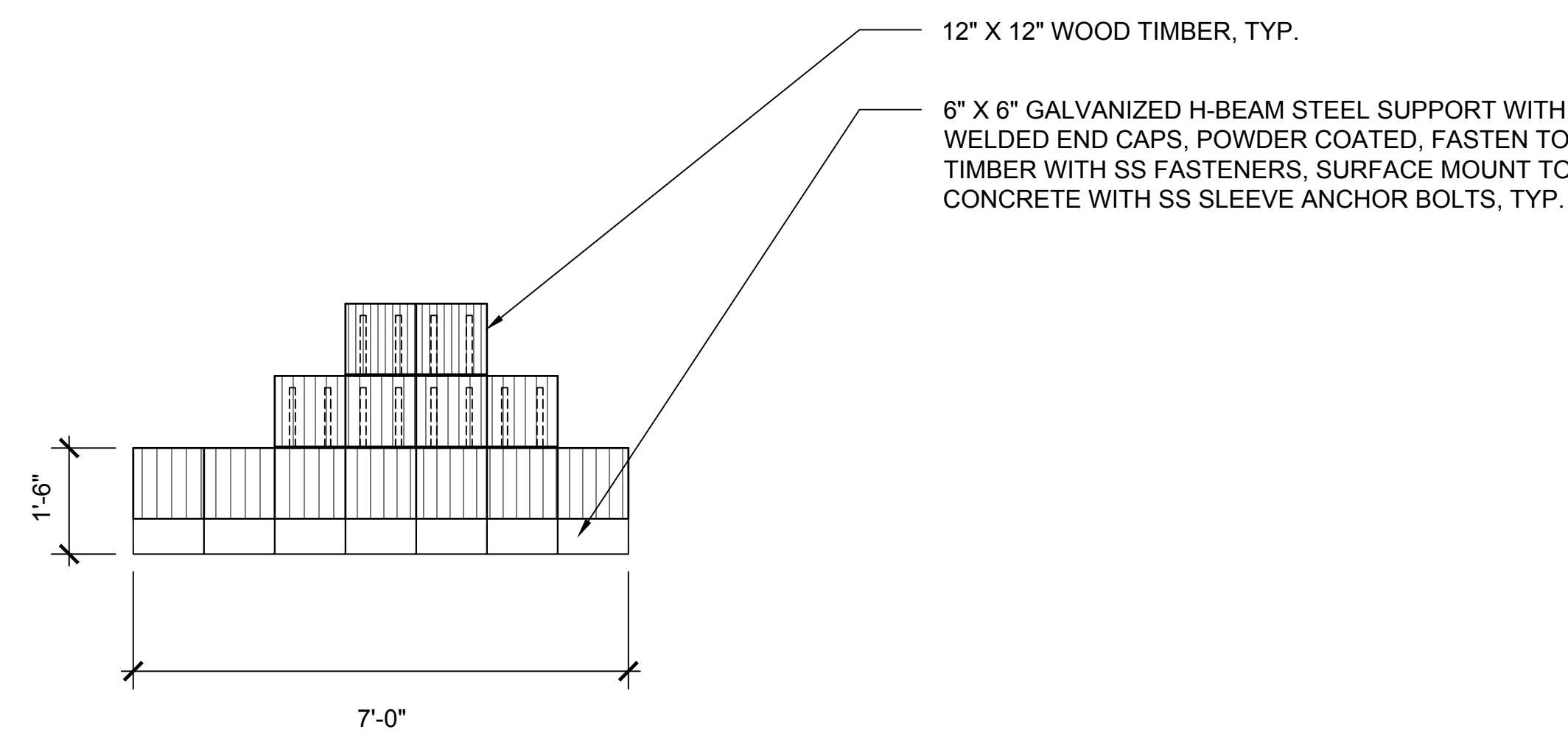
Exact measurements may vary, for all installation dimensions refer to current installation instructions.

Technical changes reserved.

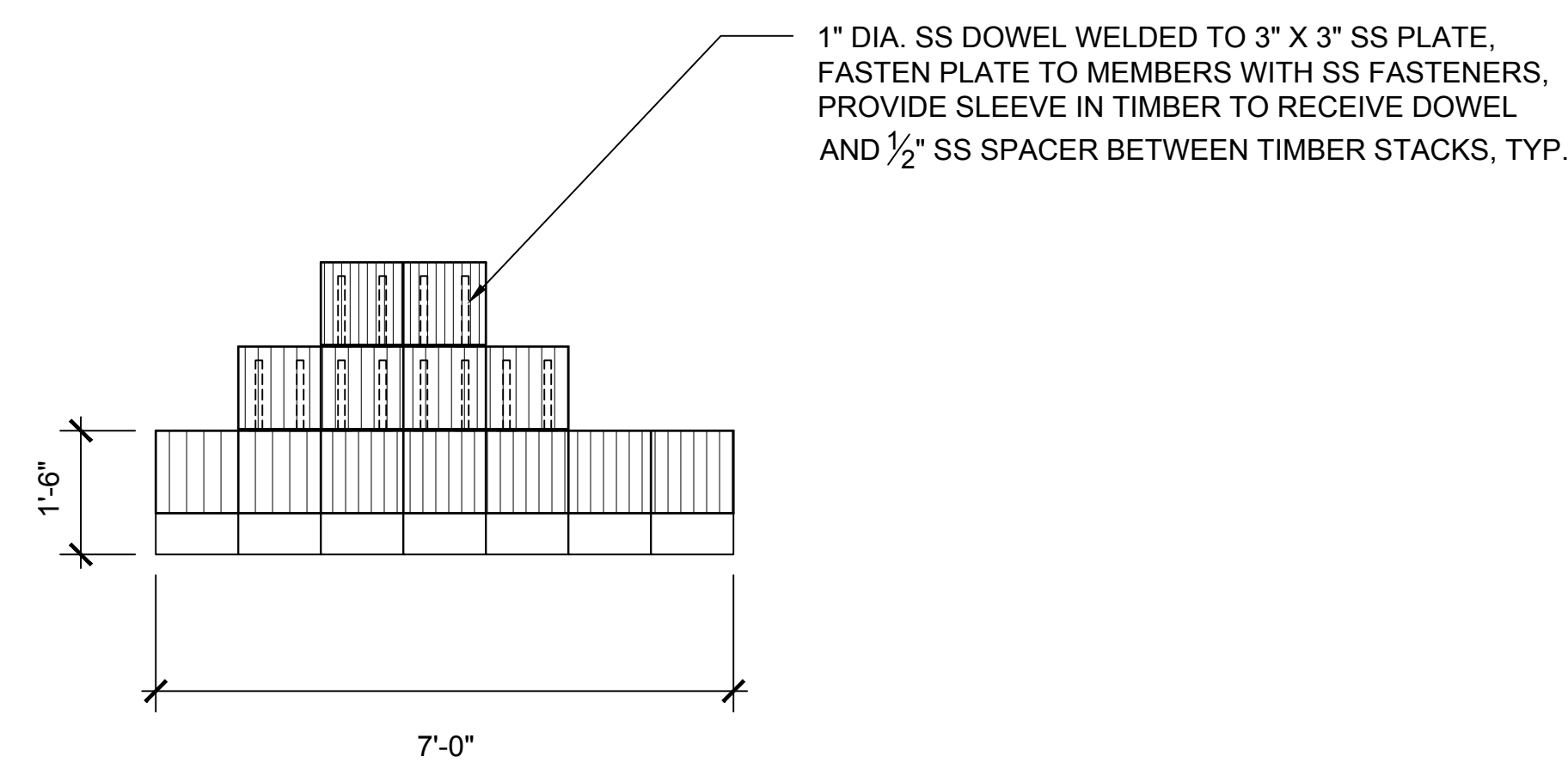
For use in chlorine water the equipment are also available with a special steel alloy (V4A).



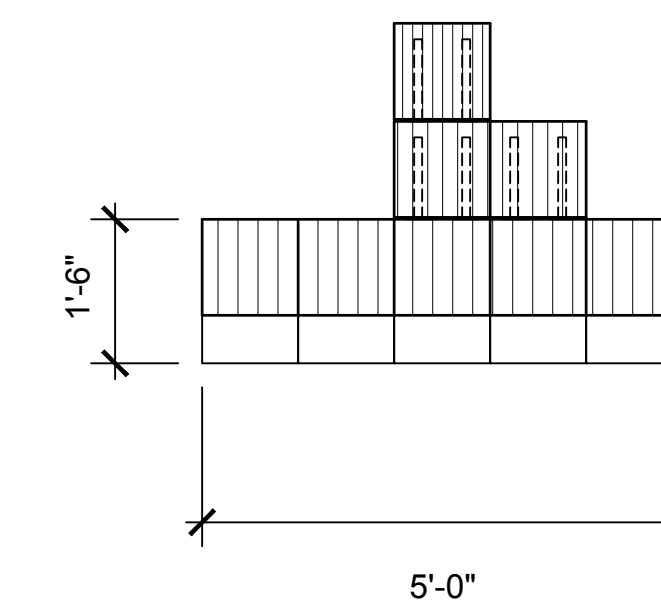
5.18020



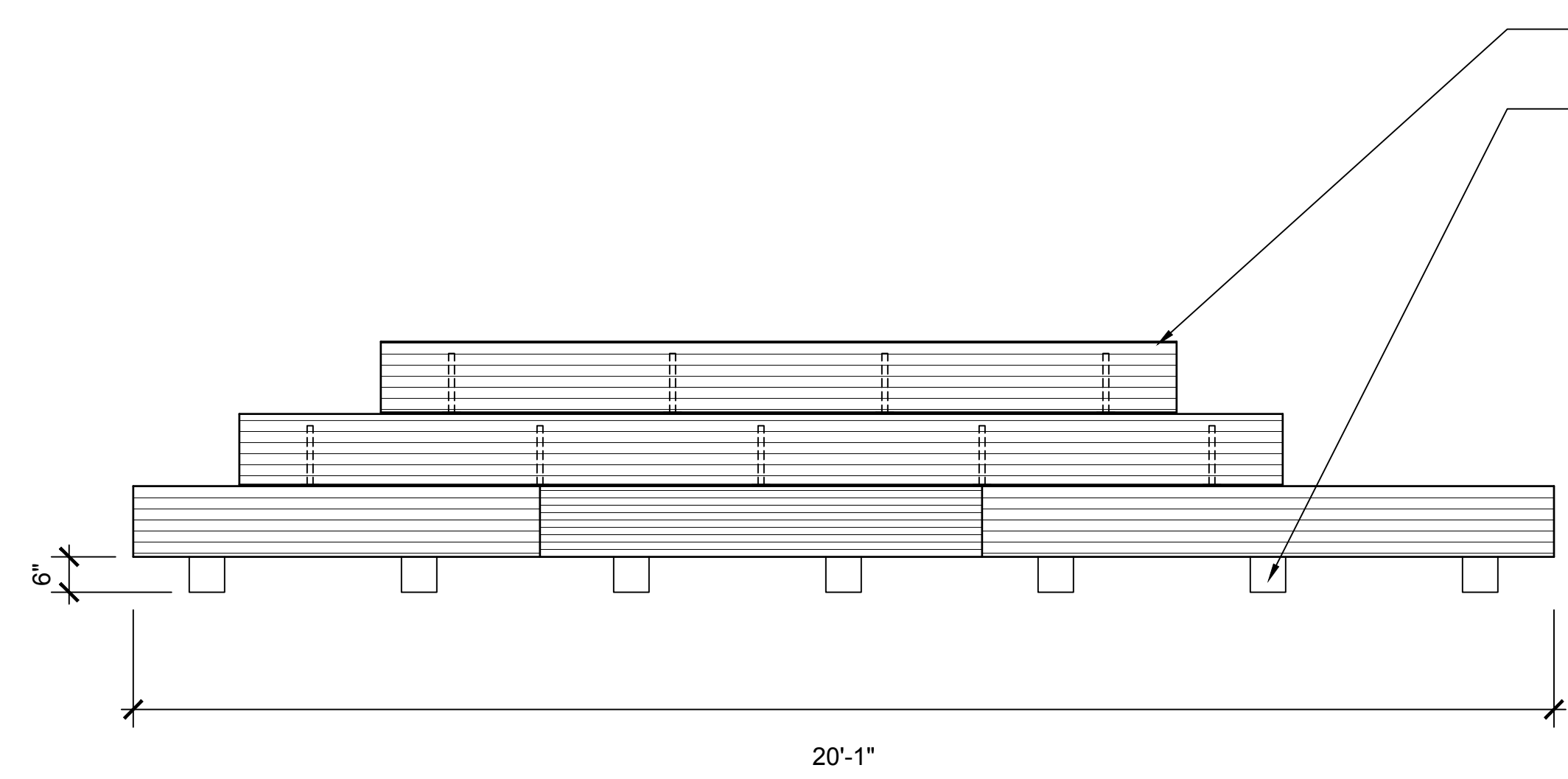
END ELEVATION - TYPE A



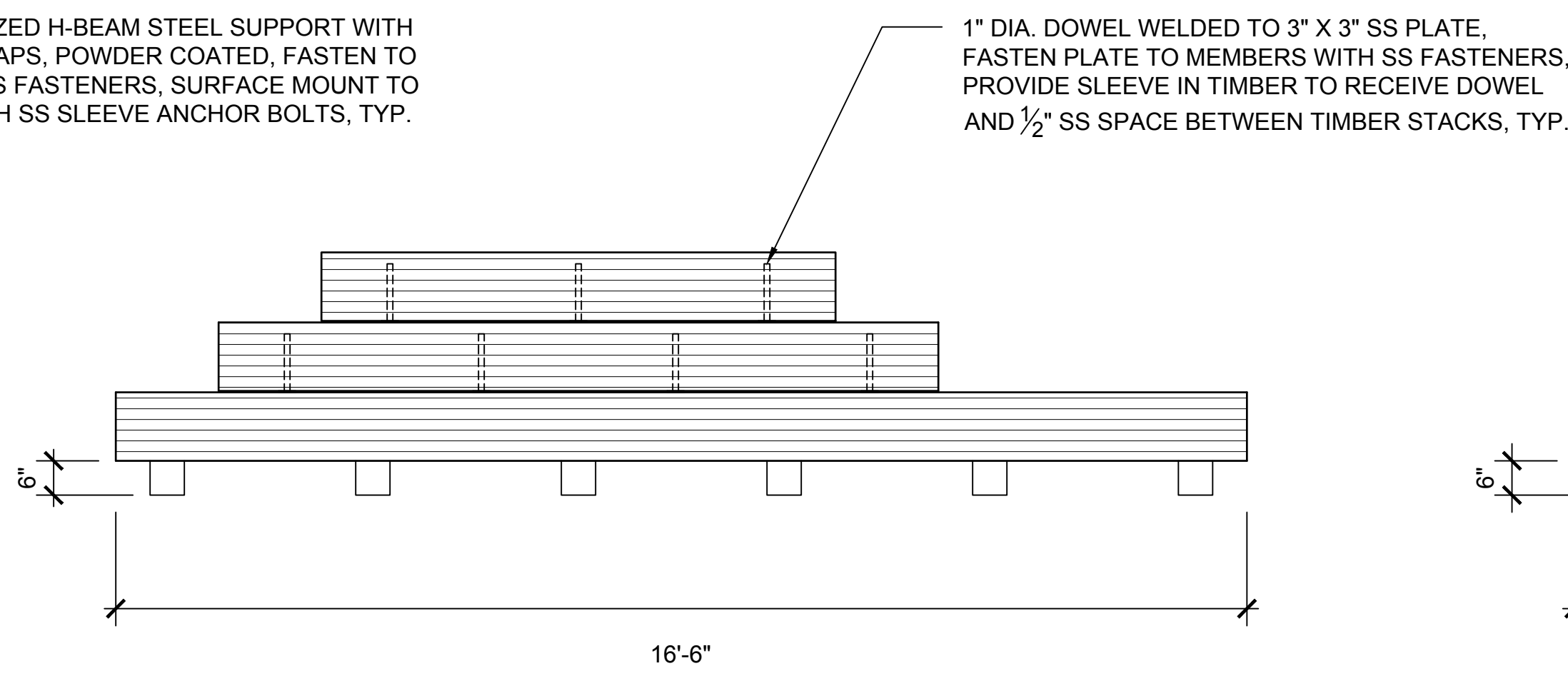
END ELEVATION - TYPE B



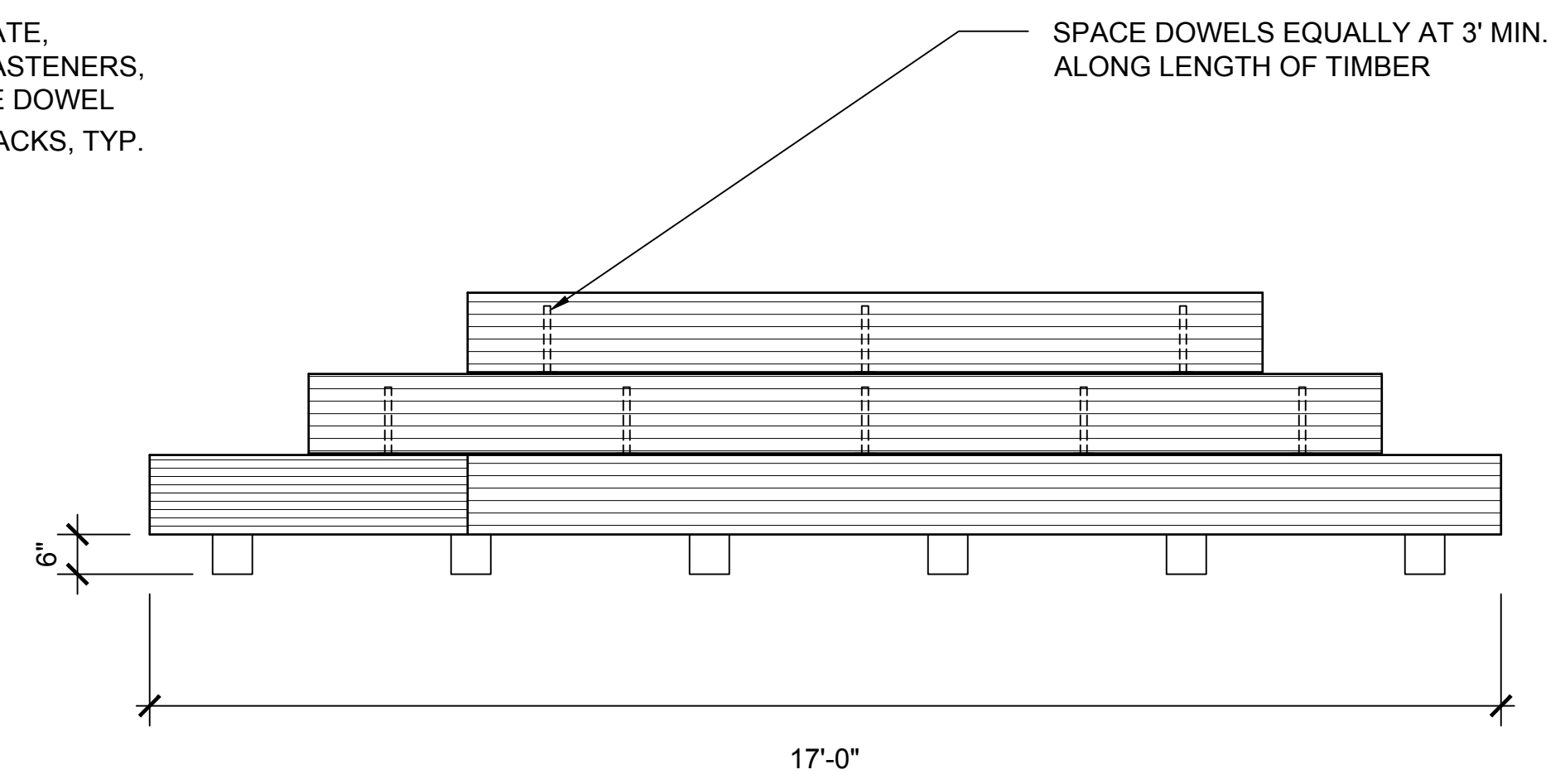
END ELEVATION - TYPE C



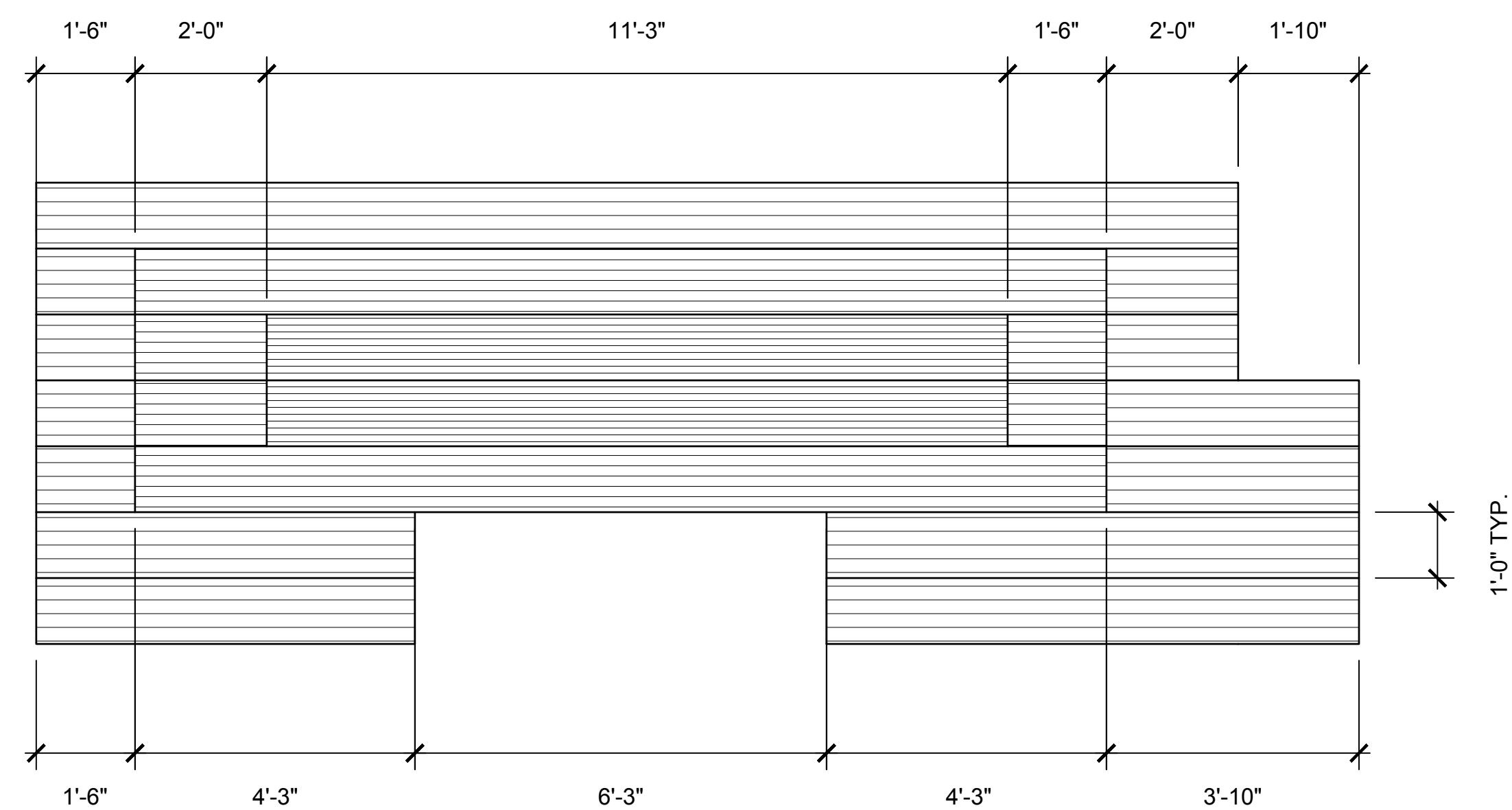
FRONT ELEVATION - TYPE A



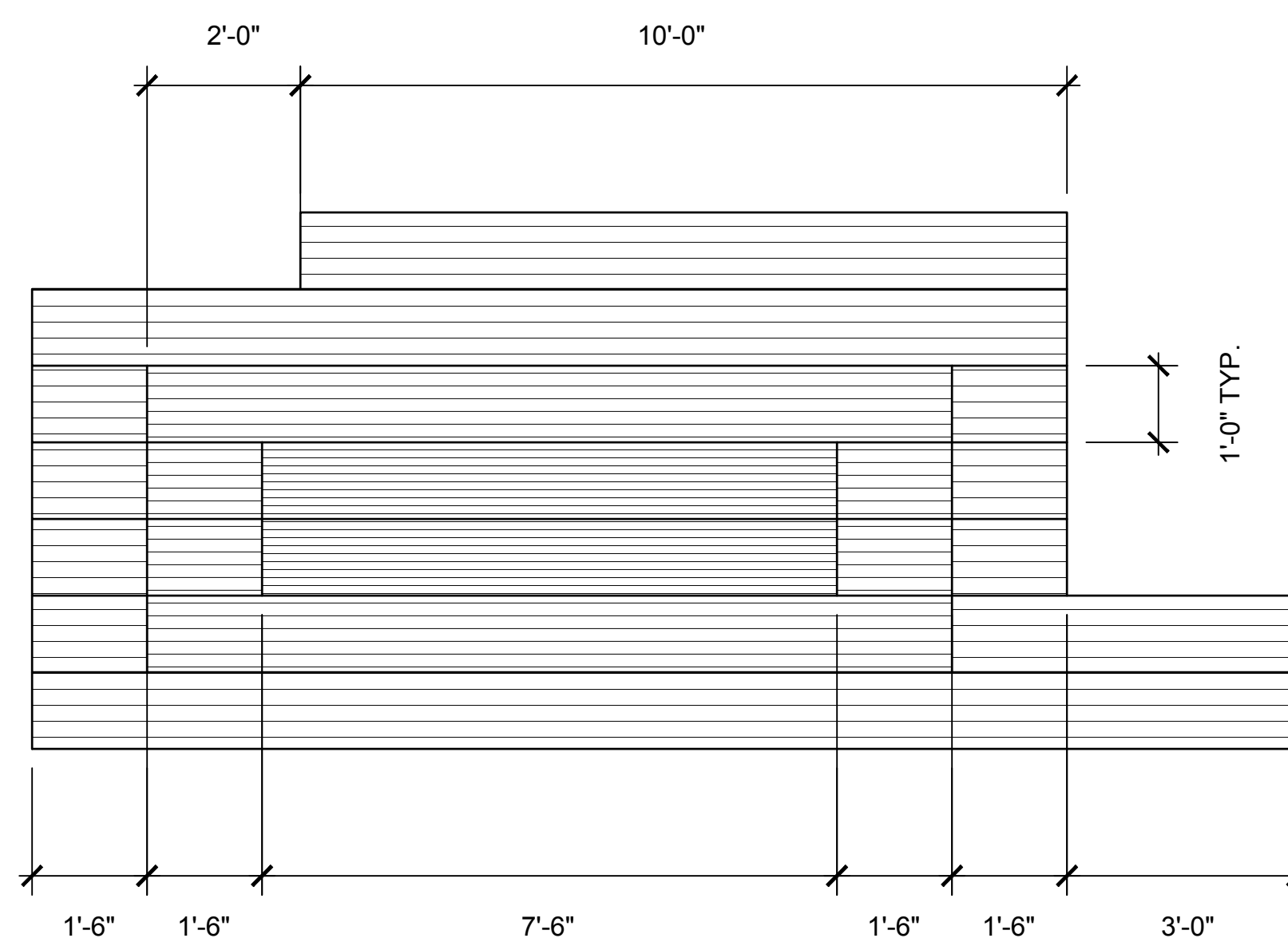
FRONT ELEVATION - TYPE B



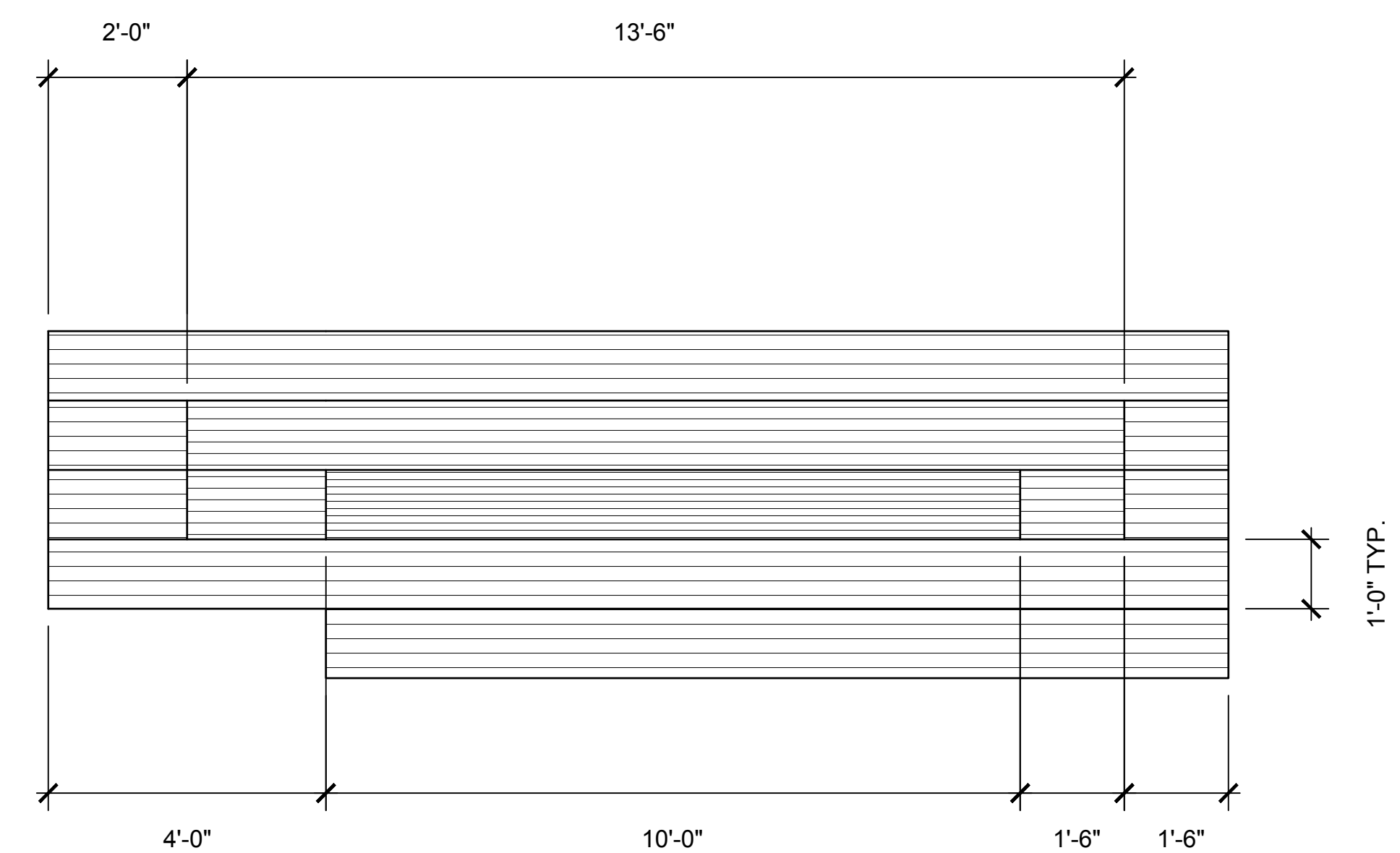
FRONT ELEVATION - TYPE C



PLAN - TYPE A



PLAN - TYPE B



PLAN - TYPE C



Know what's below.
Call before you dig.

Client
City of Detroit
General Services Department

Registration Seal

ISSUE FOR BID 9 MAR 2020

Project
**CLARK PARK
IMPROVEMENT PLAN -
PHASE 1A**

Drawing Title
SITE DETAILS

Project Number: 2018183.00
Drawn By: DQ Approved By: MS
Scale: AS SHOWN

Drawing No.



HOME / PRODUCTS / DOG WASTE STATIONS / COMMERCIAL DOG WASTE STATION – ROLL BAG DISPENSER SYSTEM ITEM #: BW-006



Commercial Dog Waste Station – Roll Bag Dispenser System Item #: BW-006

★★★★★ (2 reviews) [Write a Review](#)

\$326.69

SKU: BW-006

Weight: 42.00 LBS

Shipping: Calculated at Checkout

[Buy in bulk and save](#)

Color: *



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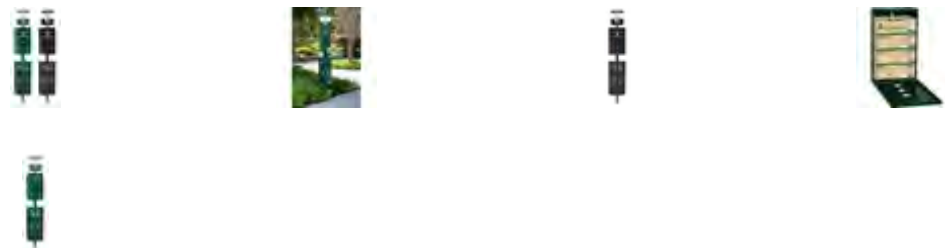


8.9% Tariff Mitigation Fee

Quantity:

Quantity selector: [down arrow] 1 [up arrow]

ADD TO CART



Commercial Dog Waste Station with Roll Bag dispenser system. Screen-printed and powder coated to last!

Includes EVERYTHING:

Sign

Post

Bag Dispenser

Waste Can with Lid

400 Roll Bags

50 Can Liners

Hardware

Dispenses up to 600 bags at time and holds an extra, back-up roll inside the dispenser compartment.

Rustproof, high-strength aluminum – for longevity and ease of maintenance.

Lidded Waste Can holds 10 gallons, and has **built-in** retention clamps to prevent can liner bag from slipping-in.

Color: GREEN or BLACK

Size: 73" H x 13" W

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ITEM #: BW-006, Commercial Dog Waste Station with Roll Bag dispenser system

If you select this Commercial Dog Waste Station with Roll Bag dispenser system and need extra bags, please order Item #: **BW-001-10** or **BW-001-30**, Roll Bags.

Dog Waste Station Tip #3 - Always install your dog waste stations in areas that are accessible and easily seen.

FREE SHIPPING

Warranty Information



RELATED PRODUCTS

CUSTOMERS ALSO VIEWED



Commercial Dog Waste Station – Tie-Handle Bag System Item #: BW-404
MSRP: \$379.99
\$326.69



Commercial Dog Waste Station – The MittN BAG™ System Item #: BW-929
\$326.69



Budget Dog Waste Station – Tie-Handle Bag System Item #: BW-405
\$158.98



★★★★★
Starter Dog Waste Station – Roll Bag System Item #: BW-303
\$106.71



★★★★★
Starter Dog Waste Station – Tie-Handle Bag System Item #: BW-434
\$106.71

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Item#: 159-2P201

Kwik Goal Official Futsal Soccer Goal

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Q&A (1)

\$1,365.00

✓ free shipping [click for details]

Qty:

Leaves warehouse in 5-7 business days

This item requires special shipping [> See Details]

Add to Cart

Excellent

PROMO! \$50 Off This Item - Limited Time - Applies in Cart

1365 points for this item! [> Get Rewards]



x

SIGN UP FOR EMAIL & GET

\$10 OFF

YOUR FIRST ORDER OVER \$99

Click to Zoom

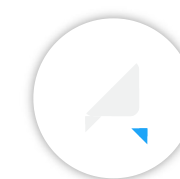
View Full Screen

Enter Email Address Here

Submit

*some exclusions apply

The Kwik Goal Official Futsal Soccer Goal has a sturdy, all-aluminum build with the Kwik Lock Net System for simple and easy net attachment. The Official Futsal Goal comes with everything you need to use it for games



including a 4mm net, semi-permanent ground anchors, saddle anchor bags and 6 protective floor pads for indoor use. The official goal of the US Futsal Federation.

FEATURES:

- 4mm yellow net
- 4 semi permanent ground anchors
- Kwik Lock net clips
- 6 protective floor pads
- 4 Saddle Anchor Bags
- 3.15" square front posts and crossbar
- All aluminum construction
- Back bottom bar for stability
- Kwik Lock Net System for simple and easy net attachment
- Powder coated white for durability
- All-surface friendly
- Ideal for Futsal leagues or indoor soccer leagues
- Official goal of the US Futsal Federation
- Kwik Goal Lifetime Guarantee
- Height: 6' 7" (2 m)
- Width: 9' 10" (3 m)
- Depth: 2' 8"
- Base: 3' 7 1/2"

SPECIFICATIONS:

- **Goal Size:** 6'7" x 9' 10"
- **Weight:** 90 lbs
- **Brand:** Kwik Goal

x

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*some exclusions apply

YOU MAY ALSO LIKE



Hot Coal Bin



[View Description](#)

Model: HCB

Configure Product

Frame Finish

Select the finish you want on the frames.

- High Heat Black Enamel
- Powder Coated (\$104.00)

Blue (U) ▼

Spec Bulletin

Select a Bulletin ▼

Material Options

Quantity

ADD TO QUOTE CART

Product Description

Series Overview

Model HCB/B-1 Hot Coal Bin is a convenient, economical and safe way for campers, picnickers and tailgaters to dispose of their hot charcoals and ashes from their picnic grills. No more dumping of hot coals on the ground. The Hot Coal Bin is a perfect site feature for camping and picnic landscapes, and sporting event tailgating areas.

FEATURES:

The 23" square top funnels down to a 12" square grated opening through which you can dump coals and ash. The grate bar spacings will allow full size charcoal briquettes through, but will prevent most large trash from being deposited. Inside you can place any size steel container up to a 32-gallon capacity garbage can. Provide your own container, or order Model CNG-2310C from us.

But you don't need a can inside! This Hot Coal Bin is designed so it can be anchored to a concrete pad. Campers can deposit their ashes through the top grate. The ashes collect on the concrete pad inside the Bin. When it's time for clean out, open the door and scoop out the ashes with a flat shovel. The square corners of the Coal Bin and the flat concrete surface will allow for complete clean out.

The Hot Coal Bin also serves as a convenient depository for park maintenance personnel to dump ashes as they periodically clean out pedestal park grills.

SPECIFICATIONS:

The **Model HCB/B-1 Hot Coal Bin** measures 23 x 23" x 32-1/2" tall. It is fabricated from 14 ga. (1/16") steel for the side panels and top funnel, and 1/2" dia. steel bars for the grate. The Bin is finished with high temp non-toxic black enamel paint, and includes two "caution" decals. A full-length piano hinge attaches the door to one side panel. The draw-pull door latch can be padlocked to keep other trash and vandals out. (Order optional **Model PL-1** brass padlock.) The unit ships knocked down (top is fully assembled) to reduce freight costs. Galvanized fasteners included. The Bin weighs 84 lbs. when assembled.

ACCESSORIES FOR YOUR HOT COAL BIN:

Order these optional accessories separately as you need them to complete your Hot Coal Bin.

Model CNG-2310C - galvanized steel collection can, 31 gallon capacity.

Model GGS/B-1 Grill and Grate Scraper - easily scrape ashes from the grill firebox into a collection pail. Then dump the pail into the Hot Coal Bin. The Scraper has two functions: scrape off the grate bars, then flip it over and scrape ashes out of the firebox.

Model CNG-W10120 - galvanized steel collection pail, 12 qt. capacity.

Model PL-1 - brass padlock to keep front door closed to trash and vandals.

Model BR-4HSA - set of (4) 3/8" x 1-7/8" hex sleeve anchors for concrete surface.

Model M9/B - set of (3) steel rod ground anchors for turf installations, temporary/seasonal installations.



THE TILIKUM

The Tilikum is a new angle on the classic Staple rack, its longer profile gives better support to leaning bikes and the angled tube allows cyclists to more easily lock tire and frame together.

CONSTRUCTION/MATERIAL

- 2" Sch. 40 Round Steel Pipe (shown)
- 1.5" Sch. 40 Round Steel Pipe
- 2" x 2" Square Steel Tubing (Pipecutter Proof)

- Steel Flanges (Size varies)

DIMENSIONS

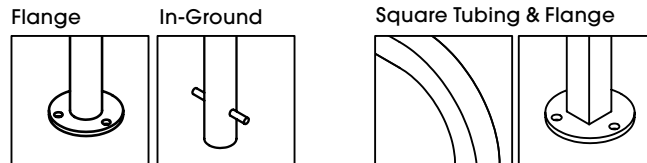
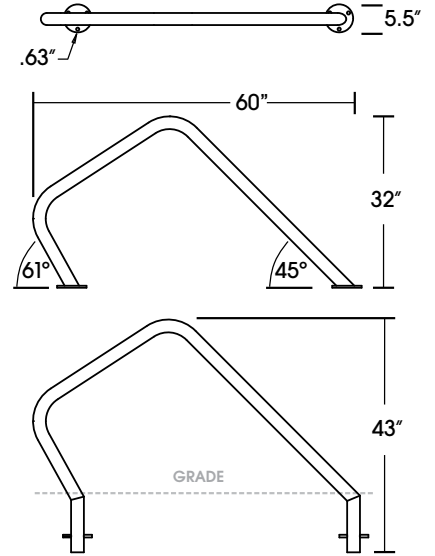
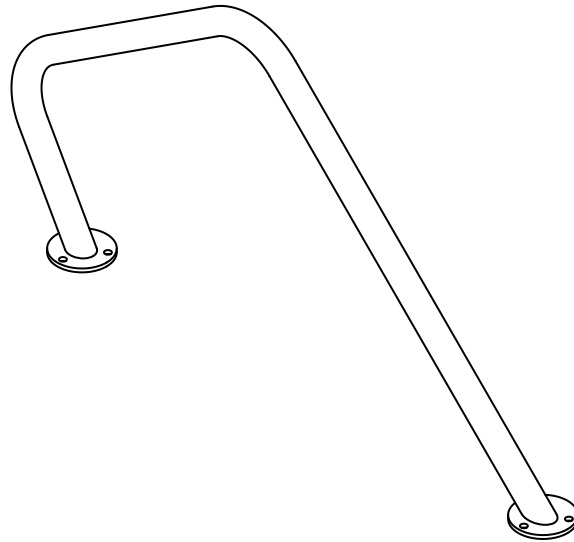
- 60" Length
- 5.5" Width
- 32" Height

MOUNTING OPTIONS

- Flange Mount (Shown)
- (6) .63" Mounting Holes
- In-Ground
- 11" Leg Extensions

FINISH OPTIONS

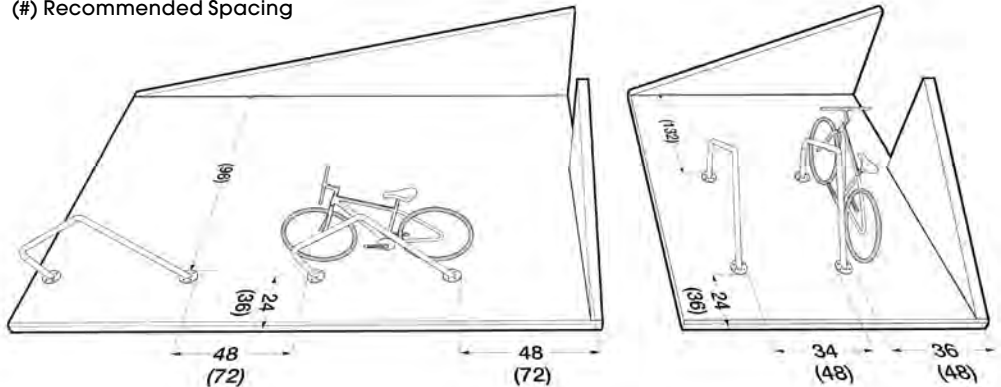
- T304 Stainless Steel
- #4 Satin Finish
- Hot Dipped Galvanized
- Powder Coating
- # _____
- Thermoplastic Coating
- # _____



RECOMMENDED LAYOUT

NOTES:

- "Bike" is 70"
- # Minimum Spacing
- (#) Recommended Spacing



CONTRACTOR: _____

JOB: _____

NOTES: _____

Product Environmental Profile

Solar Charging Kit



COMPANY OVERVIEW

• Sustainability built in to support our associates, customers, and the environment

At Legrand North and Central America, we're committed to leading by example within our own operations, to developing high quality solutions for our customers' High Performance Buildings, and to transforming how people live and work – more safely, more comfortably, more efficiently.

• Better Performance

A core principle of designing for sustainability drives us to innovate products and systems that enable buildings to reach exceptional levels of performance, bringing about industry-leading ideas, inventions and initiatives.

• Better Operations

A commitment to a leadership role in operational excellence through environmental management, optimizing the way we manage energy, water and waste.

• Better Lives

A dedication to enhancing employee and community welfare through programs that help people enjoy healthier, more productive and more rewarding lives.

For more information on Legrand's PEPs and other sustainability initiatives, visit <https://www.legrand.us/aboutus/sustainability.aspx>.



LEGRAND'S ENVIRONMENTAL COMMITMENTS

• Incorporate environmental management into our industrial sites

Of all Legrand sites worldwide, over 85% are ISO 14001 certified (sites belonging to Legrand for more than five years).

• Offer our customers environmentally friendly solutions

Develop innovative solutions to help our customers design more energy efficient, better managed and more environmentally friendly installations.


• Involve the environment in product design

Reduce the environmental impact of products over their whole life cycle.

Provide our customers with all relevant information (composition, consumption, end of life, etc.).



REFERENCE PRODUCT

<p>Function</p>	<p>The Solar Charging Kit, which is fixed to an existing pole, transforms solar energy into electrical energy. Are represented the impacts of the following use case scenario: charging 20 devices for 15 min per day and per USB slot via its 3x 2Ports USB modules sharing 3.1A of power. Given this scenario, the product assures a continuous service for 10 years if operating as recommended between 32 - 104°F.</p>
<p>Reference Product</p>	<div style="text-align: center;">  <p>Part Number: XSOLARCS Solar Charging Kit</p> </div>

The company reserves the right to change specifications and designs without notice. All illustrations, descriptions, dimensions and weights in the document are for guidance and cannot be held binding on the company.

Product Environmental Profile

Solar Charging Kit



PRODUCTS CONCERNED

The environmental data is representative of the following products:

- XSOLARCS



CONSTITUENT MATERIALS

This Reference Product contains no substances prohibited by the regulations applicable at the time of its introduction to the market.

It respects the restrictions on use of hazardous substances as defined in the RoHS directive 2011/65/EC and does not contain, as far as we know, any substance on the candidate list at the time the PEP was published for authorization of the REACH regulation (EC) no. 1907/2006 with a concentration above 0.1% w/w.

Total weight of Reference Product with unit packaging		550.1 oz (15595 g)			
Plastics as % of weight		Metals as % of weight		Others as % of weight	
Product					
PC	4.3%	Aluminum	39.4%	Solar pannel	22.0%
PU	0.4%	Steel	4.5%	Battery	10.3%
PA	0.4%	Copper alloys	<0.1%	Circuit board	0.8%
				Cables	0.7%
				Electronic components	0.6%
Packaging					
Other plastics	2.2%			Paper	13.7%
PE	0.4%				
PET	0.3%				
Total plastics	8.0%	Total metals	43.9%	Total others	48.1%

Estimated recycled material content: 20% of weight.



MANUFACTURING

The Reference Product comes from a site that has received ISO14001 certification.



DISTRIBUTION

Products are distributed from logistics centers located to optimize transport efficiency using EPA SmartWay® certified carriers to reduce greenhouse gases emissions. Information on the distance of distribution is not available so the PCR hypothesis for "Intracontinental transport", 2175 miles (3500 km) by heavy truck, was used. This represents transportation of the Reference Product from our warehouse to the local point of distribution in the North American market.

Product Environmental Profile

Solar Charging Kit



INSTALLATION

For the installation of the product, only standard tools are needed.



USE

Servicing and maintenance:

Given the use case scenario described in the functional unit, the battery which only last 5.6 years will need to be replaced one time.

Consumable:

XSOLARCSBAT : The replacement Battery Kit including the Battery 12V 12Ah Lithium Ion Phosphate.



END OF LIFE

• Hazardous waste* contained in the product: no hazardous waste

(*) Hazardous waste as defined by European Commission decision 2000/532/EC.

• Recycling rate:

Calculated using the method described in the IEC/TR 62635 technical report, the recyclability rate of the Reference Product without packaging is estimated as 65%. This value is based on data collected from a technological channel using industrial procedures. It does not pre-validate the effective use of this channel for end-of-life electrical and electronic products.

Separated into:	(% mass of Reference Product excluding packaging)
- plastic materials:	5%
- metal materials:	53%
- other materials:	7%

Recycling rate of packaging (all types of materials): 83%



ENVIRONMENTAL IMPACTS

The evaluation of environmental impacts examines the stages of the Reference Product life cycle: manufacturing, distribution, installation, use, and end of life. It is representative of products marketed and used in North America.

The following modelling elements were taken into account:

Manufacturing	Packaging taken into account. As required by the PEP ecopassport program, all transport for the manufacturing of the Reference Product, including materials and components, has been taken into account. The waste generated during manufacturing phase has been taken into account.
Distribution	Transport between the last distribution center and an average delivery to the sales area. The default scenario modelled maximizes the environmental impact using the PCR hypothesis for "Intracontinental transport": 2175 miles (3500 km) by heavy truck.
Installation	The end of life of the packaging is taken into account at this phase.
Use	<ul style="list-style-type: none"> • Under the use scenario described in the FU, this product needs its battery to be replaced once. • One consumable is necessary: XSOLARCSBAT which includes the Battery 12V 12Ah Lithium Ion Phosphate. • Product category: active product • Use scenario: no energy consumption during the 10 year working life. This modelling duration does not constitute a minimum durability requirement. • Energy model: Electricity(US) - 2009
End of life	The Battery is treated separately by Hydrometallurgy Battery Li-ion waste-treatment (the most polluting treatment has been chosen due to the lack of information). For the rest of the product, the end of life scenario modelled maximizes the environmental impact using the PCR hypothesis for "Local transport": 621 miles (1000 km) by heavy truck and landfilling.
Software used	EIME V5 and its database "CODDE-2018-11" and the indicators defined in the PCR ed 3 in alignment with the EN15804 standard

Product Environmental Profile

Solar Charging Kit



ENVIRONMENTAL IMPACTS (continued)

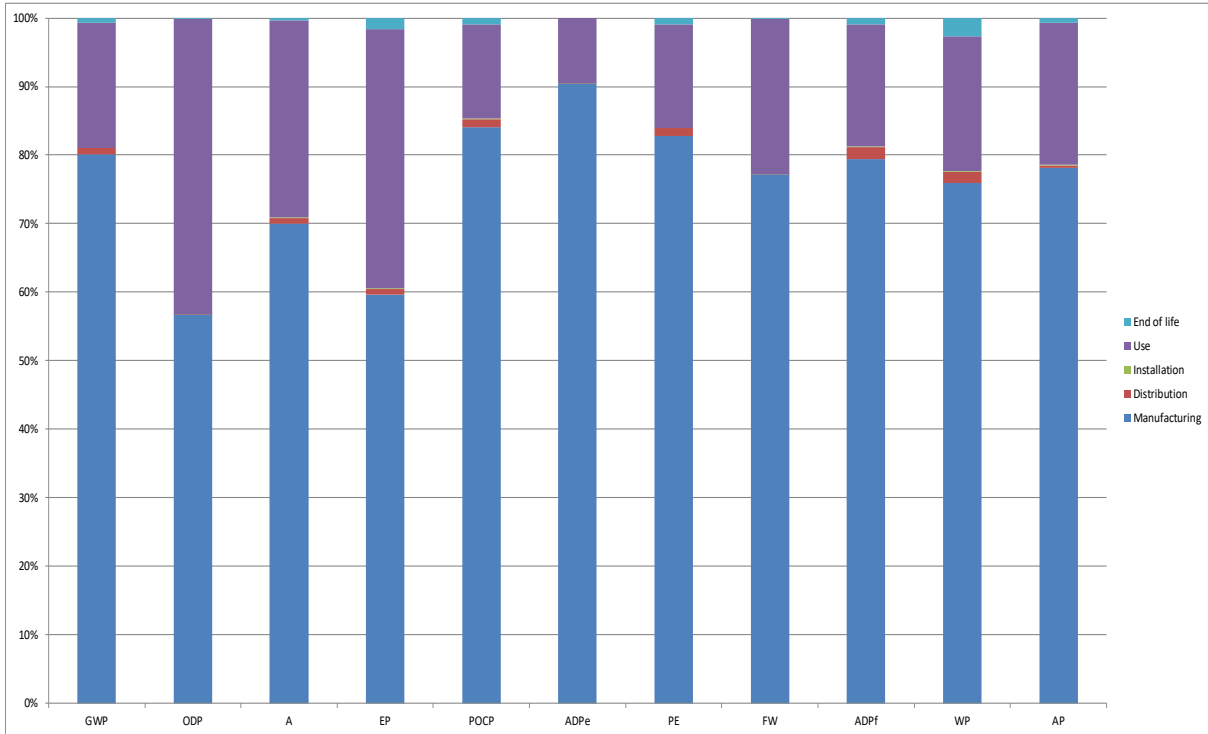
	Total for Life cycle		Raw material and manufacturing		Distribution		Installation		Use		End of life	
Global warming (GWP)	2.82E+02	kg CO ₂ eq.	2.25E+02	80%	2.72E+00	< 1%	1.46E-01	< 1%	5.12E+01	18%	2.09E+00	< 1%
Ozone depletion (ODP)	1.69E-04	kg CFC-11 eq.	9.58E-05	57%	5.50E-09	< 1%	1.24E-09	< 1%	7.28E-05	43%	1.30E-07	< 1%
Acidification of soil and water (A)	1.49E+00	kg SO ₂ eq.	1.04E+00	70%	1.22E-02	< 1%	7.03E-04	< 1%	4.28E-01	29%	5.41E-03	< 1%
Water eutrophication (EP)	3.77E-01	kg PO ₄ ³⁻ eq.	2.25E-01	60%	2.81E-03	< 1%	7.61E-04	< 1%	1.42E-01	38%	6.06E-03	2%
Photochemical ozone creation (POCP)	7.11E-02	kg C ₂ H ₄ eq.	5.97E-02	84%	8.67E-04	1%	5.00E-05	< 1%	9.82E-03	14%	6.18E-04	< 1%
Depletion of abiotic resources - elements (ADPe)	1.46E-02	kg Sb eq.	1.32E-02	90%	1.09E-07	< 1%	6.62E-09	< 1%	1.40E-03	10%	1.15E-07	< 1%
Total use of primary energy (PE)	3.45E+03	MJ	2.86E+03	83%	3.84E+01	1%	1.97E+00	< 1%	5.23E+02	15%	3.10E+01	< 1%
Net use of fresh water (FW)	3.65E+00	m ³	2.82E+00	77%	2.43E-04	< 1%	5.30E-05	< 1%	8.28E-01	23%	4.97E-03	< 1%
Depletion of abiotic resources – fossil fuels (ADPff)	2.13E+03	MJ	1.69E+03	79%	3.82E+01	2%	1.91E+00	< 1%	3.79E+02	18%	2.07E+01	< 1%
Water pollution (WP)	2.78E+04	m ³	2.11E+04	76%	4.47E+02	2%	2.21E+01	< 1%	5.48E+03	20%	7.49E+02	3%
Air pollution (AP)	3.10E+04	m ³	2.42E+04	78%	1.11E+02	< 1%	1.84E+01	< 1%	6.42E+03	21%	2.20E+02	< 1%

The values of the 27 impacts defined in the PCR-ed3-EN-2015 04 02 are available in the digital database of pep-ecopassport.org website. The environmental impacts of the Reference Product are representative of the products covered by the PEP, which therefore constitute a homogeneous environmental family.



ENVIRONMENTAL IMPACTS (continued)

% ENVIRONMENTAL IMPACT PER LIFE CYCLE STAGE OF REFERENCE PRODUCT



The environmental impact of the Reference Product occurs predominantly during the Manufacturing phase.

Registration number: LGRP-01054-V01.01-EN	Drafting rules: "PCR-ed3-EN-2015 04" Supplemented by "PSR-0005-ed2-2016 03 29"
Verifier's accreditation number: VH02	Information and reference documents: www.pep-ecopassport.org
Date of issue: 07-2019	Validity period: 5 years
Independent verification of the declaration and data, in compliance with ISO 14025:2010 Internal <input checked="" type="checkbox"/> External <input type="checkbox"/>	
The PCR Review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN).	
The elements of the present PEP cannot be compared with elements from another program.	
Document in compliance with ISO 14025:2010: "Environmental labels and declarations - Type III environmental declarations"	
In compliance with ISO 14040:2006: "Environmental management - LCA - Principles and framework"	
In compliance with ISO 14044:2006: "Environmental management - LCA - Requirements and guidelines" In alignment with EN 15804:2012+A1:2013: "Sustainability of construction works - EPD's - Core rules for the product category of construction products"	

Model: Steelworx Hexagonal Shelter, 35'
Model # HX-35-SW-612-LA-CP-CC

Manufacturing Mission: To provide all prefabricated components and installation instructions for a 35' hexagonal (measured from eave to eave) free standing bolt together, tubular steel constructed shelter kit.

Design Criteria: Structure shall be designed to meet site specific snow and wind load design criteria using most current applicable building codes. All structural members are ASTM A-500 U.S. grade B steel. Welded connection plates shall be ASTM A-36 hot rolled steel. All fabrication performed to latest AISC standards by AWS Certified welders. All framing connections are done using A325 grade bolts within concealed access openings from above and will later be concealed by the roofing. All roof framing shall be flush against the roof decking to eliminate the possibility of bird nesting.

Tubular Steel Columns and Beams: Standard column dimension shall be 6" x 6" x 3/16" tubular steel with stepped base welded to 5/8" base plates for surface mounting. Main support beams are 7" x 5" x 3/16" and purlins are 5" x 3" x 1/8". Steel sizes are preliminary and may change due to ongoing review and final engineering.

Roof Deck (Optional): 2" x 6" (nominal) #1 Grade, end matched, single tongue and groove with V-joint bottom face, kiln-dried to an average of 15% moisture content, Southern Yellow Pine. #30 roofing felt included.

Roofing: 24 Ga. pre-cut steel Multi-Rib panels with Kynar 500 finish in a variety of colors with white underside. Standard roof slope is a 6/12 pitch with a eave height of 8'-0". Attached to structural framing with exposed self tapping screws painted to match roof color. Matching 24 Ga. trim included.

Frame Finish: All steel framework will receive a corrosion protective TGIC Polyester powder coat, electro-statically applied and cured at 400°F. A large selection of standard colors are available.

Foundation: All columns need to be anchored to concrete footings (footing design provided separately). Columns can be surface mounted to footings with anchor bolts at or below finish slab elevation or they can be embedded directly into the footing without base plates upon request. Anchor bolts and bracing templates are included. Optional base plate covers are available at an additional cost.

Hardware: All structural hardware and roofing fasteners shall be provided.

Warranty: 10 years against manufacturer defects.

Not Included: Concrete work of any kind, unloading of product and installation.

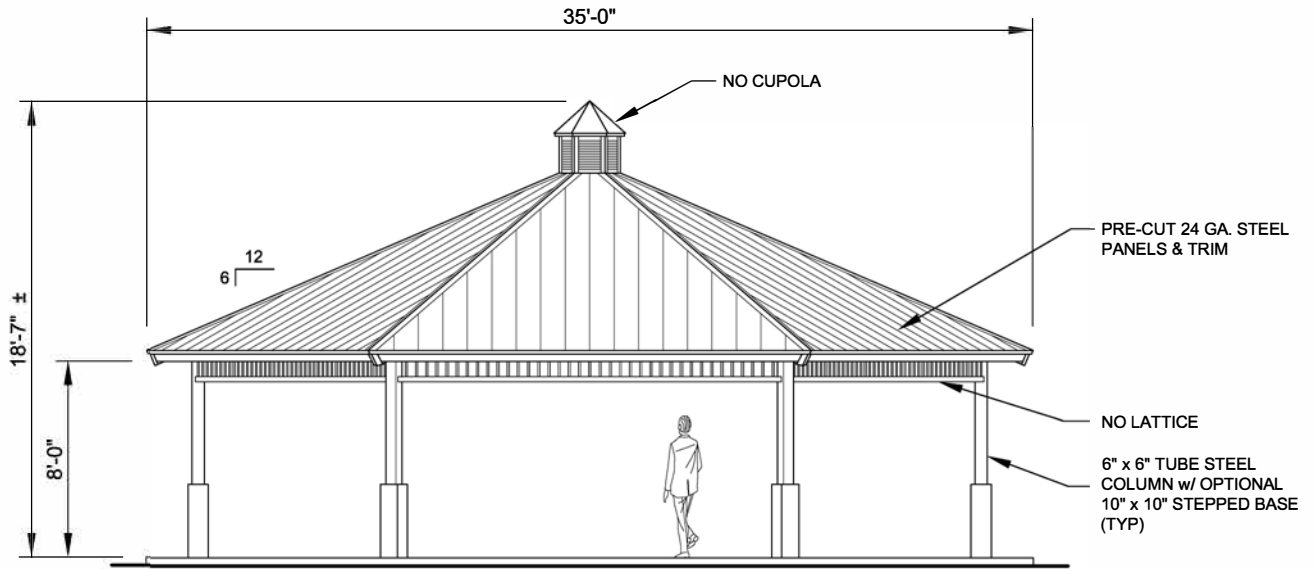


11800 East 9 Mile Road
Warren, MI 48089
Office: (586) 486-1088
Fax: (586) 754-9130
Toll Free: (800) 657-6118
Email: info@coverworx.net
www.Coverworx.com

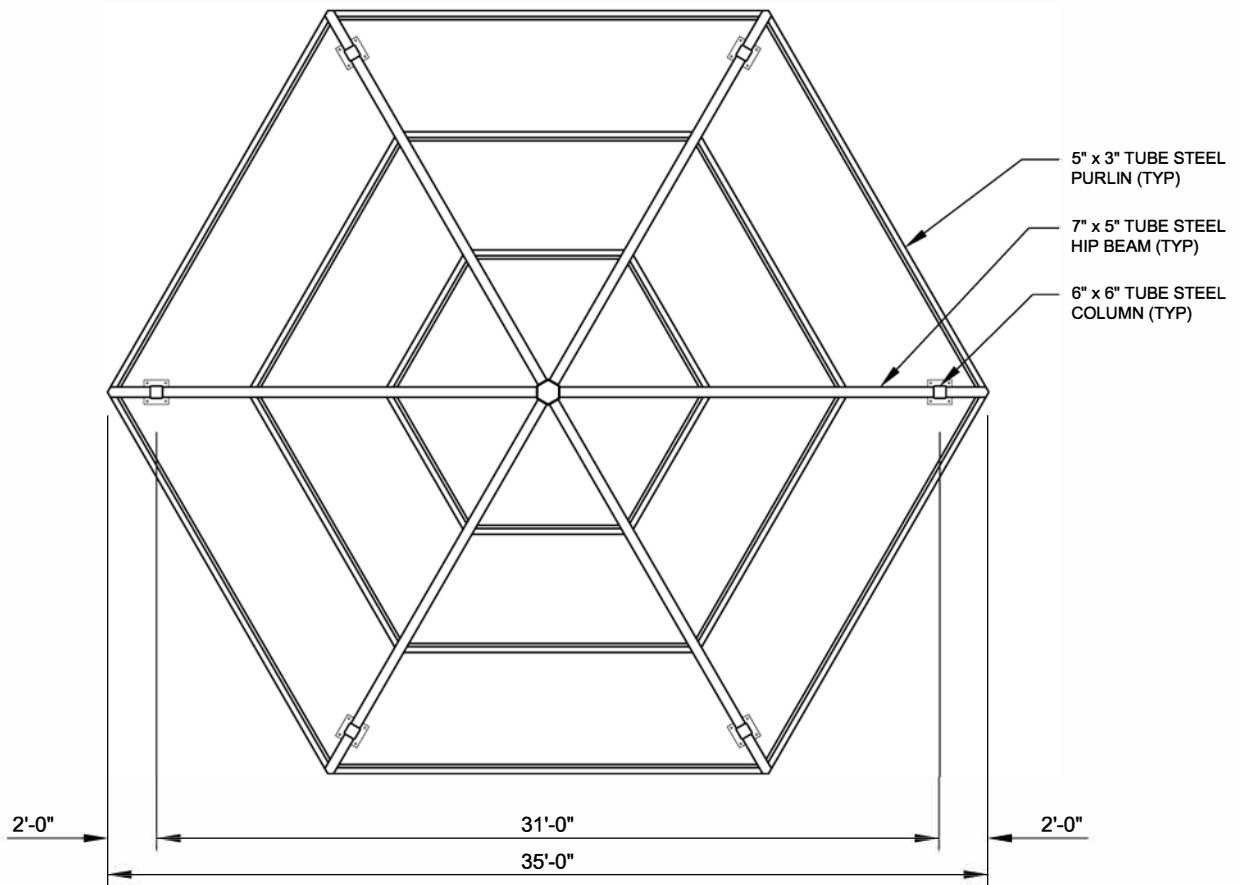
Steelworx Hexagonal Shelter - 35'

Model: HX-35-SW-612-LA-CP-CC

DESIGN SPECIFICATIONS



ELEVATION
SCALE: NTS



FRAMING PLAN
SCALE: NTS



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Email: info@coverworx.net
www.Coverworx.com

Steelworx Hexagonal Shelter - 36'

Model: HX-35-SW-612-LA-CP-CC

DESIGN SPECIFICATIONS

model no:

SG213D, SG213P, SG214D, SG214P,
SG229D, SG229P, SG234D, SG234P,
SG243D, SG244D, SG244P, SG249D
SG249P, SG234P-ONESEAT, SG234P-TWOSEAT



WABASH VALLEY

SIGNATURE SERIES

30", 40" & 46" SQ. & 36", 46" RND SURFACE MOUNT TABLE W/1, 2, 3 & 4 SEATS,
BASIC FRAME, EXPANDED METAL & PERFORATED

© Wabash Valley Manufacturing, Inc.

customer service:

ASSEMBLERS: If you find any parts missing or damaged, or if you're having difficulty assembling your furniture/equipment, call us at:

* Before calling, have your product model number available.

1-800-253-8619 (Inside U.S.A.)

260-352-2102 (Outside U.S.A.)

Monday thru Friday,

8:00 AM - 4:30 PM Eastern Time

(EXCEPT HOLIDAYS)

Any correspondence concerning our product should be sent directly to our Customer Service Manager at:

Wabash Valley Manufacturing, Inc.
505 E. Main Street
P.O.Box 5
Silver Lake, IN 46982 U.S.A.
FAX: 260-352-2160

maintenance:

Regular inspection and maintenance of all parts, and fasteners is necessary. Tighten all bolts and nuts. Inspect Tops, Seats, Legs, Braces and Fasteners periodically for wear or vandalism. Replace broken or worn parts immediately or take equipment out of service until repairs are made. Use genuine Wabash Valley replacement parts.

To restore plastisol coating to its luster after prolonged use, wash/rinse/dry and use Armor-All ® or similar quality vinyl protectant.

KEEP THIS ASSEMBLY/SPECIFICATION SHEET FOR FUTURE REFERENCE.

specifications:

NOTE: We reserve the right to change specifications without notice.

Heat fused poly-vinyl coating, finished on inner-metal structure, to an approximate 3/16" thickness.

Framework assemblies are finished with powder coating; electrostatically applied and oven cured according to powder manufacturer's specifications. Fasteners are stainless steel to resist corrosion.

TABLE FRAME:

Main support is constructed from 4" x 4" x 11 gage structural steel tubing. Surface mount leg base consists of 3/8" plate steel. Square mounting frame, for top, consists of 1/4" x 1 1/4" steel flat bar, 1/4" plate steel and 14 gage sheet steel. Seat assembly arm is constructed with 2 7/8" od x 9 gage structural steel tubing. Cross tubing is 2 3/8" od x 12 gage structural steel tubing. Seat's mounting ears are 10 gage sheet steel. Mounting bracket to the post is 3/8" x 3 1/2" x 8" plate steel.

TOP & SEATS:

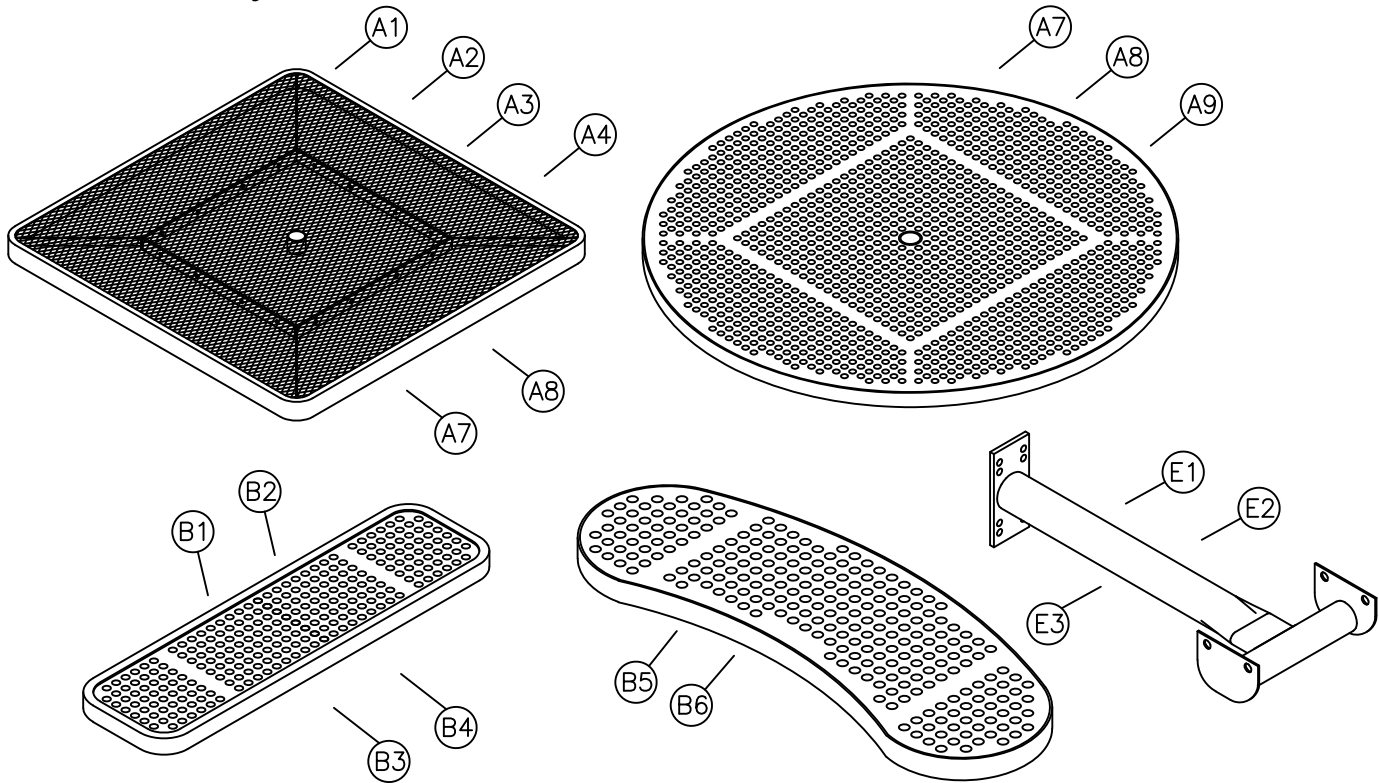
Top and seat use fabricated 3/4" #9 expanded steel mesh and 12 gage sheet metal for the perforated. Framing consists of die formed 10 gage mitered angles 3/4" x 1 3/4". Round tops are framed with 1/8" thick x 1 1/2" wide strip steel. Top's square mounting frame and the seat's mounting brackets are 1/4" x 1 1/2" steel flat bar. Top's support braces are 1/8" x 1 1/2" strip steel.

GENERAL:

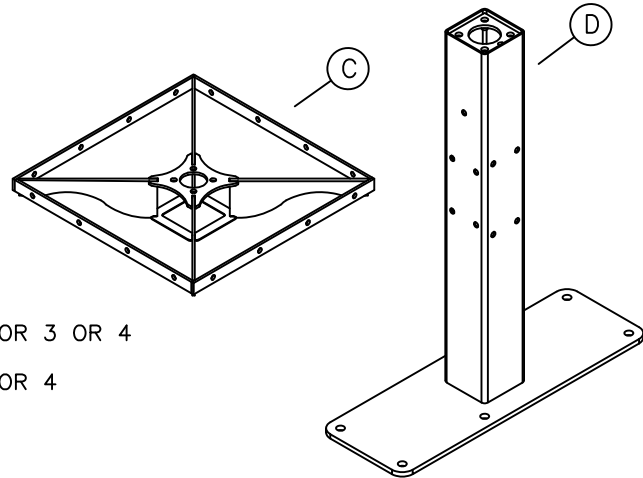
SG213D and SG213P ground space requirements are 30 1/4" x 60 5/8". SG214D and SG214P ground space requirements are 71" squared. SG229D and SG229P ground space requirements are 77 3/4" squared. SG234D and SG234P ground space requirements are 62" x 77 3/4". SG243D ground space requirements are 64 3/16" x 36". SG244D and SG244P ground space requirements are 81" squared. SG249D and SG249P ground space requirements are 63 5/8" x 81". It is 30" to the top of tables. Straight seats are 10 1/4" wide x 36 1/8" long and 19 1/8" to the top of seat. Concave seats are 10 1/4" wide x 34 1/2" long and 19 1/8" to the top of seat. SG234P-ONESEAT requirements are 62" x 46 1/4". It is 30" to the top of table. The seat is 10 1/4" wide x 36 1/8" long and 19 1/8" to the top of seat. SG234P-TWOSEAT ground space requirements are 77 3/4" x 46 1/4". It is 30" to the top of the table. The seats are 10 1/4" wide x 36 1/8" long and 19 1/8" to the top of seats.

NOTE: When Umbrellas are used on Tables, the Umbrellas must be secured.
Wabash Valley Umbrellas include an Umbrella Collar for securing.

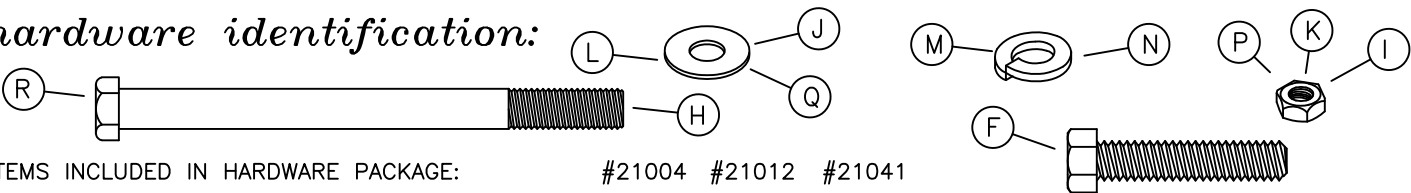
parts identification:



ITEM	PART#	DESCRIPTION	QTY
A1	8109	40" RE EXPANDED METAL SQUARE TOP	1
A2	7504R	46" RE EXPANDED METAL SQUARE TOP	1
A3	8245	30" RE EXPANDED METAL SQUARE TOP	1
A4	8194	40" RE PERFORATED SQUARE TOP	1
A5	7971	46" RE PERFORATED SQUARE TOP	1
A6	8247	30" RE PERFORATED SQUARE TOP	1
A7	7665	46" ROUND EXPANDED METAL TOP	1
A8	7976	46" ROUND PERFORATED TOP	1
A9	8285	36" ROUND EXPANDED METAL TOP	1
B1	7530R	36" RE EXPANDED METAL SEAT	3 OR 4
B2	8244	30" RE EXPANDED METAL SEAT	2
B3	7998	36" RE PERFORATED SEAT	1 OR 2 OR 3 OR 4
B4	8246	30" RE PERFORATED SEAT	2
B5	7666	EXPANDED METAL CONCAVE SEAT	2 OR 3 OR 4
B6	8000	PERFORATED CONCAVE SEAT	3 OR 4
C	7464	POST MOUNTING FRAME	1
D	7069	40"/46" RE SURFACE MOUNT POST	1
E1	7129	40" SEAT ASSEMBLY	3 OR 4
E2	7318A	46" SEAT ASSEMBLY	1 OR 2 OR 3 OR 4
E3	7099	30" SEAT ASSEMBLY	2



hardware identification:



ITEMS INCLUDED IN HARDWARE PACKAGE: #21004 #21012 #21041

ITEM	PART#	DESCRIPTION	QTY	QTY	QTY
F	17011	5/16-18 x 1 1/2" HEX BOLT - SS	0	8	8
G	17013	3/8-16 x 1 1/4" HEX BOLT - SS	0	0	4
H	17051	7/16-14 x 5 1/2" HEX BOLT - SS	8	0	0
I	17044	7/16-14 HEX NUT - SS	8	0	0
J	17028	3/8" FLAT WASHER - SS	0	16	20
K	17032	5/16-18 HEX FINISH NUT - SS	0	8	8
L	17043	7/16" FLAT WASHER - SS	16	0	0
M	17050	5/16" SPLIT LOCK WASHER - SS	0	8	8
N	17105	7/16" SPLIT LOCK WASHER - SS	8	0	0
P	17017	1/4-20 HEX NUT - SS	1	0	0
Q	17103	5/16" FLAT WASHER - SS	2	0	0
R	17154	1/4-20 X 4 1/2" HEX BOLT - SS	1	0	0

ASSEMBLY TOOLS REQUIRED

- 2 - 1/2" WRENCHES
- 1 - 9/16" WRENCH
- 1 - TAPE MEASURE
- 1 - 3' OR 6' LEVEL
- 1 - 5/8" WRENCH
- 1 - 11/16" WRENCH

assembly procedures:

IMPORTANT: Assemblers should be reasonably skilled in the assembly of commercial grade/heavy duty fabricated steel equipment.

To ensure proper assembly, it is suggested that you take adequate time to locate and identify each part. To prevent scratching of the finished pieces, we recommend this unit to be assembled on a clean, flat, solid, surface with a drop cloth, allowing plenty of working room. Also please read the instructions and study the sketches very carefully. A little extra time spent before assembly will be well worth it in performing a complete, proper assembly. Please note that all parts have been pre-cut and pre-drilled.

During the assembly process leave all bolts and nuts "finger tight", until the entire unit is completely assembled. This allows room for movement to level or adjust all seats, tops, benches, framework and braces if necessary. After final adjustment and leveling, permanently tighten all nuts, bolts and fasteners.

STEP 1

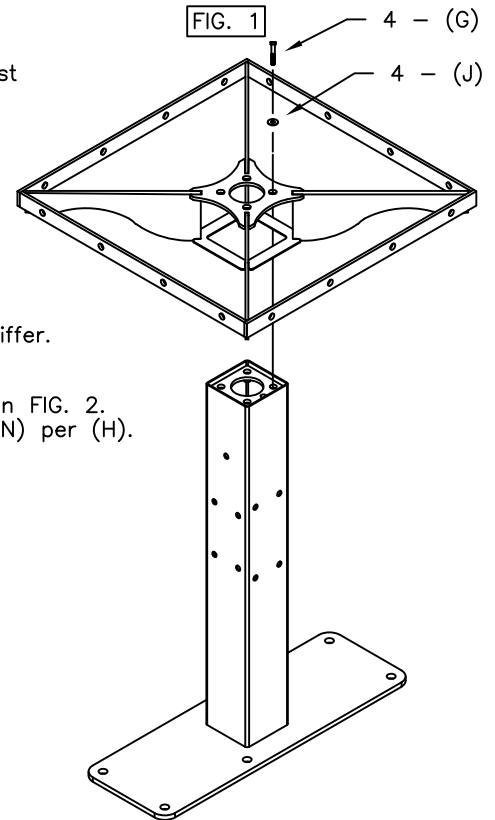
Prepare and place the foundations securement hardware in its chosen location. A detailed description of where the hole locations should be placed is shown on page 4.

STEP 2

When the foundation's securement hardware has been installed, place (D) post in its new location and secure to the foundation.

STEP 3

Slide (C) onto end of (D), matching the square opening with the square post until it rests on the top of the post. Secure (C) to (D) engaging four (G) and (J) into pre-welded t-nuts inside post, see FIG. 1. Draw the bolts to a snug fit with wrenches.



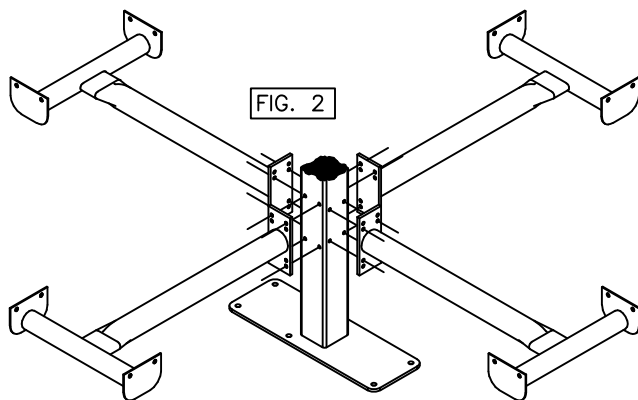
NOTE: Depending on the unit you have purchased, the following steps may differ.

STEP 4

Attach each (E-) seat assembly arm to the surface mount post as shown in FIG. 2. Use four per each seat assembly arm, (H) and (I) using two (L) and one (N) per (H).

STEP 5

Level the arms, then tighten fasteners with wrenches.

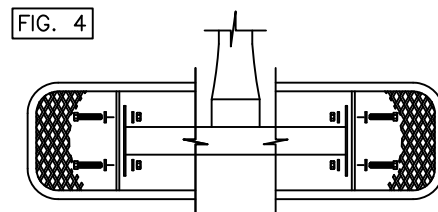


STEP 6

Attach (2 or 3 or 4) seats (B-) to the end of each seat assembly arm, aligning the seat's brackets to the outside of the seat assembly arm's brackets as shown in FIG. 4. Use four, per each seat, (F) and (K) using two (J) and one (M) per (F).

STEP 7

Level seats and top if necessary and tighten remaining fasteners with wrenches.



installation:

WARNING: The proper installation for Wabash Valley products may depend upon many factors unique to the site, location, or use of a particular product. Consult with your contractor or other professional to determine your specific installation requirements.

assembly procedures, cont'd:

STEP 8

Attach (A-) top to the outside of the square mounting frame (C). See FIG. 3. Use eight (F) and (K) using two (J) and one (M) per (F). Draw the fasteners to a snug fit with wrenches.

USE HOLE PROVIDED IN TUBE AS TEMPLATE AND DRILL THRU UMBRELLA EXTENSION TUBE.

NOTE:

Secure the umbrella AFTER the seat arms are assembled.

UMBRELLA SECUREMENT

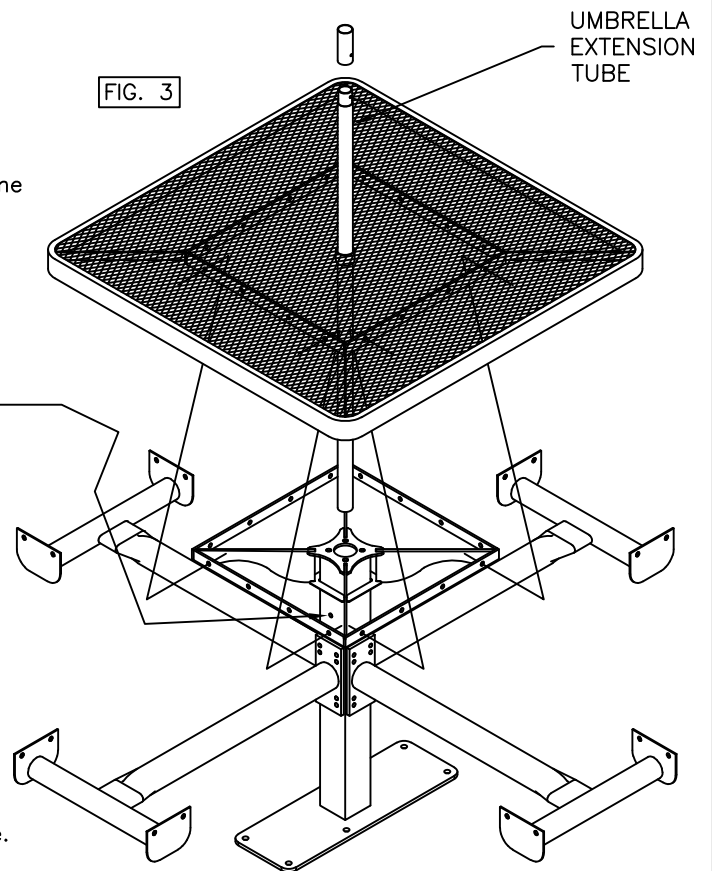
Insert the umbrella extension tube into the square inground/surface mount tube through the table top hole.

STEP A

Before drilling, be sure desired umbrella height is established. Drill a $\phi 1/4$ " hole thru umbrella extension tube using the $\phi 3/8$ " hole directly under table top as a template.

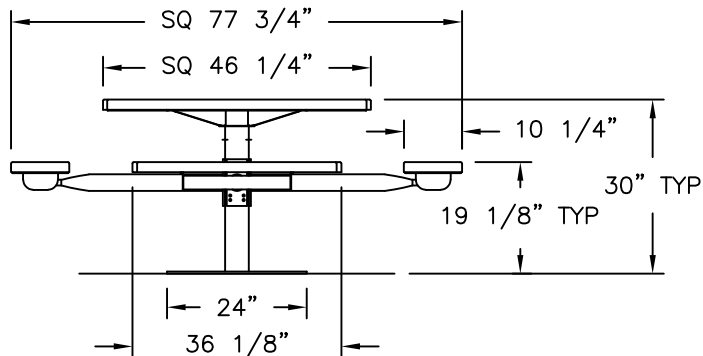
STEP B

Secure umbrella extension to table leg tube using one (R), two (Q) and one (P). Tighten to snug fit.



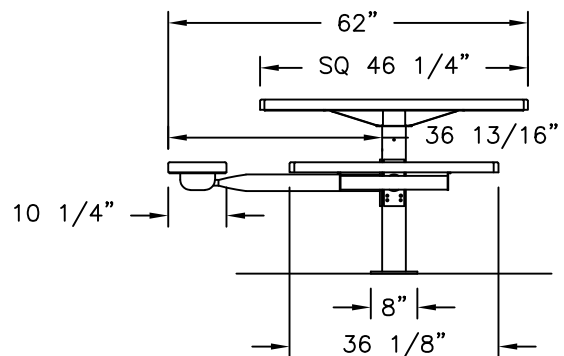
product dimensions:

SG229D
SG229P

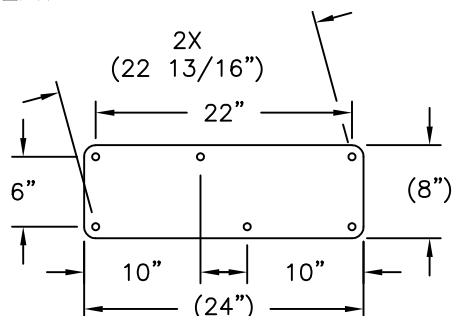


4 SEAT

SG234D
SG234P

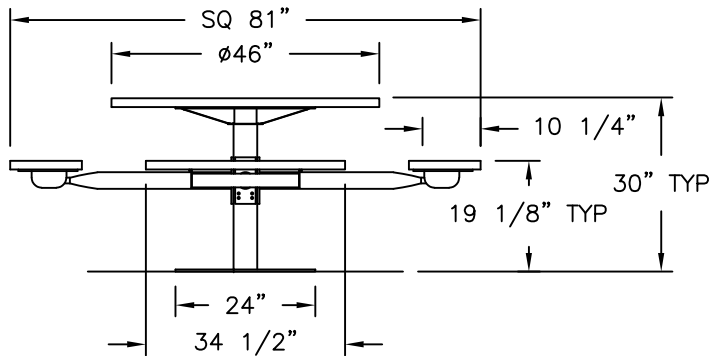


3 SEAT



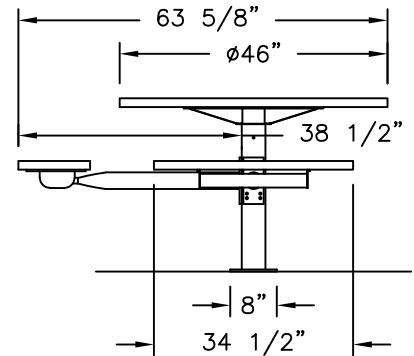
product dimensions:

SG244D
SG244P



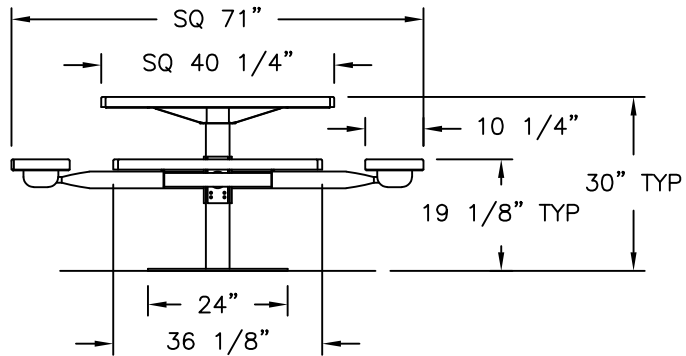
4 SEAT

SG249D
SG249P



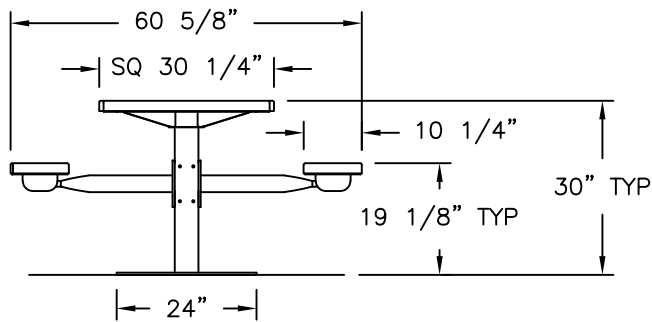
3 SEAT

SG214D
SG214P

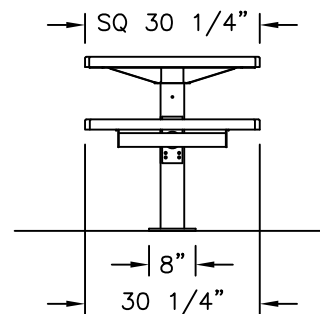


4 SEAT

SG213D
SG213P



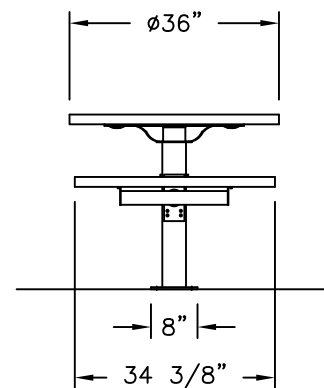
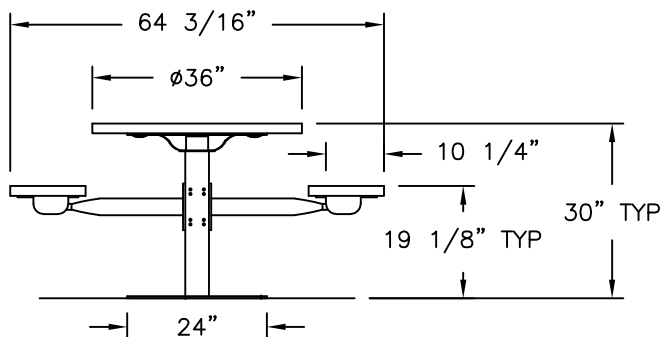
2 SEAT



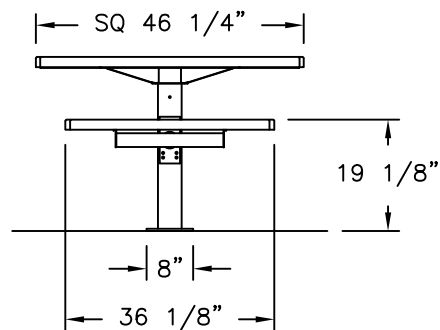
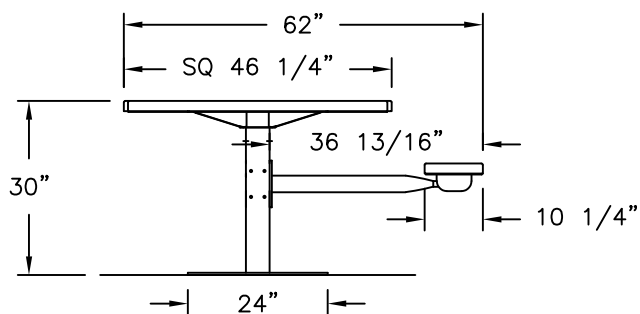
product dimensions:

SG243D

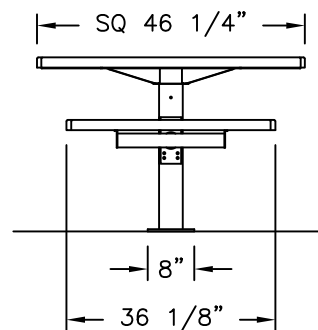
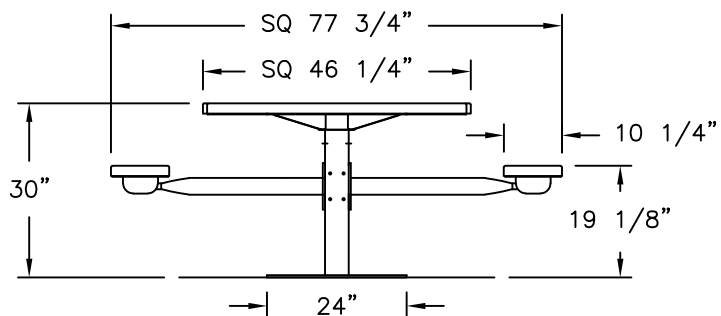
2 SEAT



SG234D-ONESEAT

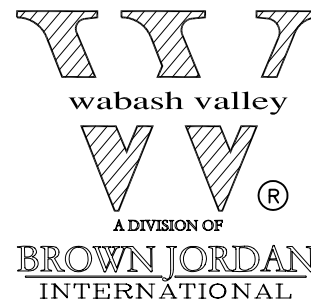


SG234D-TWOSEAT



model no:

SG205D, SG205P, SG206D,
SG206P, SG207D, SG207P



SIGNATURE SERIES

6', 8' & 8' HANDICAP PICNIC TABLES – EXPANDED METAL
& PERFORATED – MULTI-PEDESTAL INGROUND

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customer service:

ASSEMBLERS: If you find any parts missing or damaged, or if you're having difficulty assembling your furniture/equipment, call us at:

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260-352-2102 (Outside U.S.A.)

Monday thru Friday,
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(EXCEPT HOLIDAYS)

Any correspondence concerning our product should be sent directly to our Customer Service Manager at:

Wabash Valley Manufacturing, Inc.
505 E. Main Street
P.O.Box 5
Silver Lake, IN 46982 U.S.A.
FAX: 260-352-2160

maintenance:

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To restore plastisol coating to its luster after prolonged use, wash/rinse/dry and use Armor-All ® or similar quality vinyl protectant.

KEEP THIS ASSEMBLY/SPECIFICATION SHEET FOR FUTURE REFERENCE.

specifications:

NOTE: We reserve the right to change specifications without notice.

Heat fused poly-vinyl coating, finished on inner-metal structure, to an approximate 3/16" thickness. Framework assemblies are finished with powder coating; electrostatically applied and oven cured according to powder manufacturer's specifications. Fasteners are stainless steel to resist corrosion.

TABLE FRAME:

Main support is constructed from a 4" x 4" x 11 gage galvanized structural steel square tubing. Seats inground post mounting brackets are 1/4" x 1 1/2" steel flat bar, the top plate is made of 10 gage sheet steel. Top's inground post mounting bracket is 7 gage sheet steel, the top plate is 14 gage sheet steel and the gusset is made of 1/8" x 1" strip steel.

TOP & SEAT:

Top and seat use fabricated 3/4" #9 expanded steel mesh and perforated uses 12 gage sheet metal. Framing consists of 10 gage mitered angles 3/4" x 1 3/4". Top and seat center brace and mounting brackets are 1/4" x 1 1/2" steel flat bar.

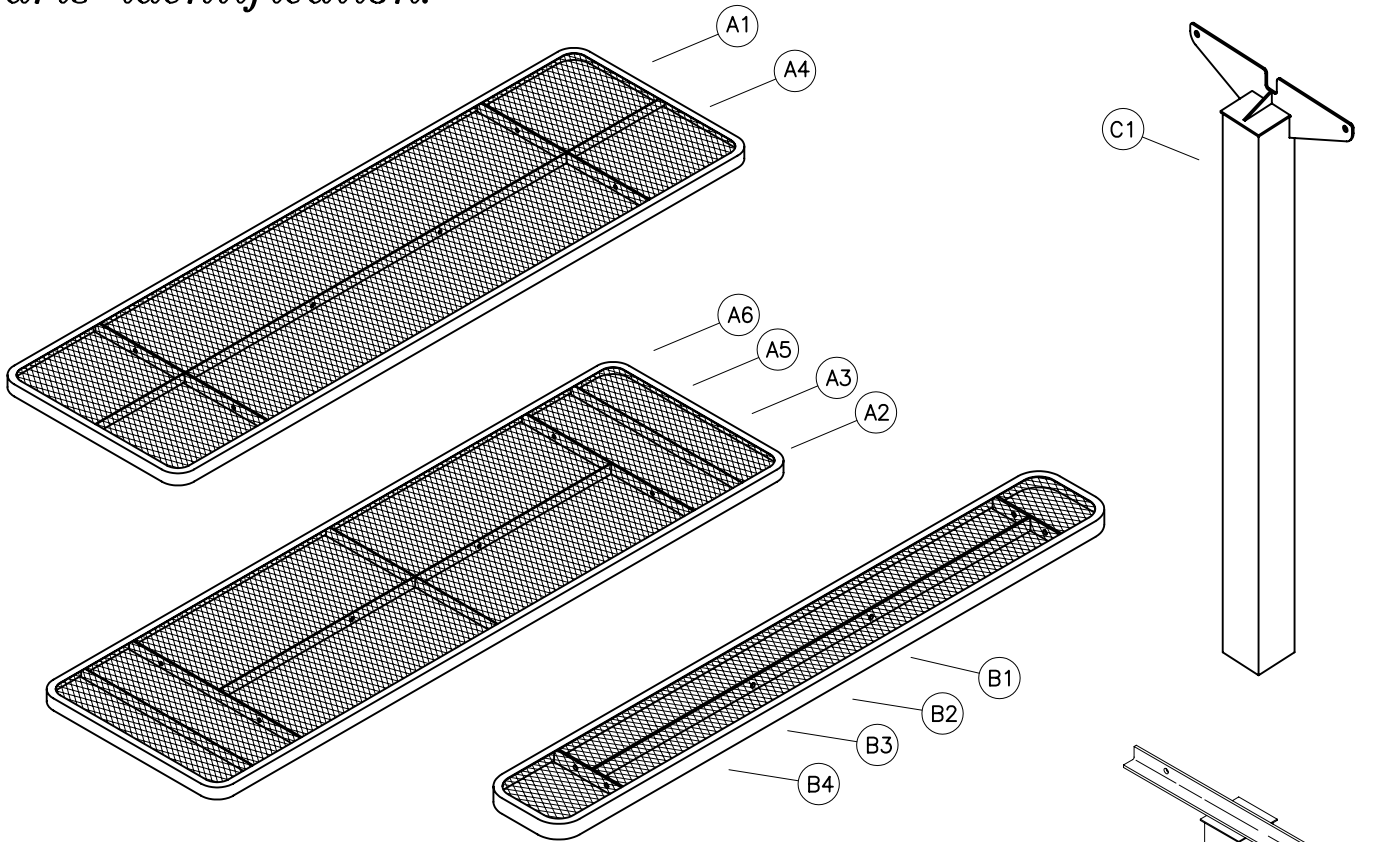
GENERAL:

SG205P and SG205D ground space requirements are 63 3/8" x 72 3/8". Table top is 30 3/8" wide and 30" to the top of the table. Seats are 10 3/8" wide and 19" to the top of seat. Corner radius is 3" to the outside.

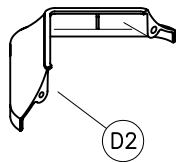
SG206P and SG206D ground space requirements are 63 3/8" x 96 3/8". Table top is 30 3/8" wide and 30" to the top of the table. Seats are 10 3/8" wide and 19" to the top of seat. Corner radius is 3" to the outside.

SG207P and SG207D ground space requirements are 63 3/8" x 96 3/8". Table top is 30 3/8" wide and 31 1/2" to the top of the table. Seats are 10 3/8" wide and 19" to the top of seat. Corner radius is 3" to the outside.

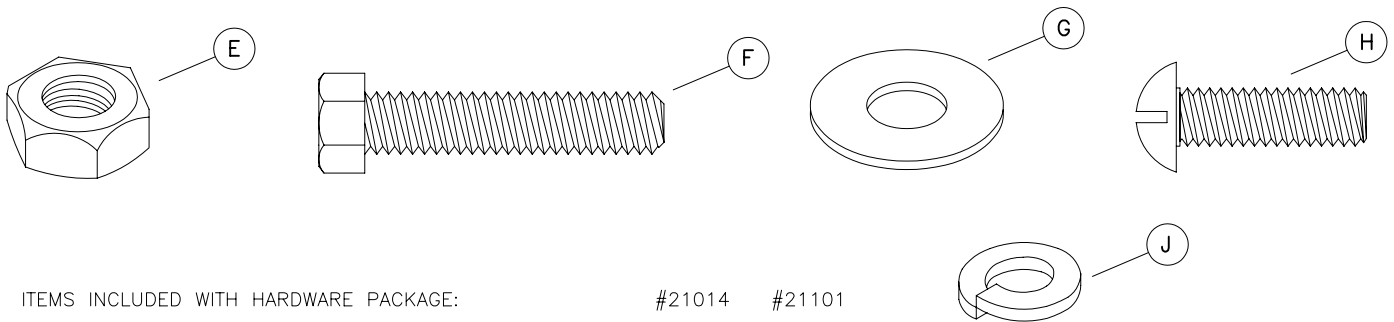
parts identification:



ITEM	PART#	DESCRIPTION	QTY
A1	7520R	8' EXPANDED METAL HANDICAP TOP	1
A2	7502R	6' EXPANDED METAL TOP	1
A3	7501R	8' EXPANDED METAL TOP	1
A4	7961	8' PERFORATED HANDICAP TOP	1
A5	7964	6' PERFORATED TOP	1
A6	7960	8' PERFORATED TOP	1
B1	7529R	6' EXPANDED METAL SEAT	2
B2	7527R	8' EXPANDED METAL SEAT	2
B3	7994	6' PERFORATED SEAT	2
B4	7992	8' PERFORATED SEAT	2
C1	7474	8' HANDICAP INGROUND POST	2
C2	7305	INGROUND TABLE POST	2
D1	7322	INGROUND SEAT POST	4
D2	7151	MOUNTING PLATE COVER (OPTIONAL)	6 SETS



hardware identification:



ITEMS INCLUDED WITH HARDWARE PACKAGE:			#21014	#21101	ASSEMBLY TOOLS REQUIRED
ITEM	PART#	DESCRIPTION	QTY	QTY	
E	17032	5/16-18 HEX FINISH NUTS - SS	4	0	2 - 1/2" WRENCHES 1 - TAPE MEASURE 1 - 3' OR 6' LEVEL 1 - FLAT SCREW DRIVER
F	17011	5/16-18 x 1 1/2" HEX HEAD BOLT - SS	4	0	
G	17028	3/8" FLAT WASHER - SS	8	0	
H	17052	1/4-20 x 1" MACHINE SCREW - SS	0	2	
J	17050	5/16" SPLIT LOCK WASHER - SS	4	0	

assembly procedures: IMPORTANT: Assemblers should be reasonably skilled in the assembly of commercial grade/heavy duty fabricated steel equipment.

To ensure proper assembly, it is suggested that you take adequate time to locate and identify each part. To prevent scratching of the finished pieces, we recommend this unit to be assembled on a clean, flat, solid, surface with a drop cloth, allowing plenty of working room. Also please read the instructions and study the sketches very carefully. A little extra time spent before assembly will be well worth it in performing a complete, proper assembly. Please note that all parts have been pre-cut and pre-drilled.

During the assembly process leave all bolts and nuts "finger tight", until the entire unit is completely assembled. This allows room for movement to level or adjust all seats, tops, benches, framework and braces if necessary. After final adjustment and leveling, permanently tighten all nuts, bolts and fasteners.

76

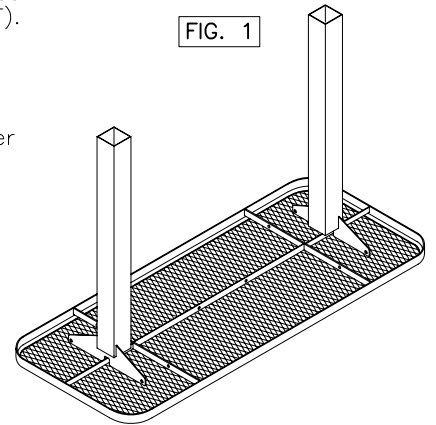
STEP 1

Invert the (A-) top so it's upside down on a flat surface. Attach each (C-) top's inground post to the outside of the top's mounting brackets, see FIG. 1. Use two, per each bracket, (F) and (E) using two (G) and one (J) per (F). Draw the fasteners to a snug fit with wrenches.

STEP 2

Invert both (B-) seats so they're upside down on a flat surface. Attach the four (D) seat's inground post to the outside of each seat's mounting brackets, see FIG. 2. Use two, per each bracket, (F) and (E) using two (G) and one (J) per (F). Draw the fasteners to a snug fit with wrenches.

FIG. 1



STEP 3

Prepare six foundation holes as shown on page four. The distance of holes, center to center, are shown in a diagram on the backside of this assembly instruction sheet.

STEP 4

Re-invert the table and seats to their topside up position and place them in the footing holes. Block the table and seats as shown in FIG. 3.

Before pouring concrete, make sure the table and seats are level horizontally as well as vertically and holds 29", for standard, or 31 1/2", for handicap, to the top of the table, and 19" to the top of the seats.

Pour concrete to form the footings and let cure for 48 hours.

STEP 5

Tighten all fasteners with wrenches.

If mounting plate covers (D2) are used, place halves around legs and secure with 2 (H) screws, see FIG. 4. Draw to a snug fit being careful not to over tighten.

FIG. 2

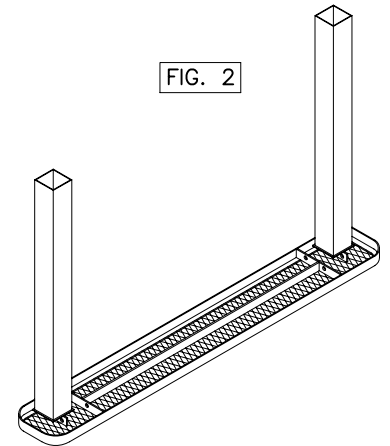


FIG. 3

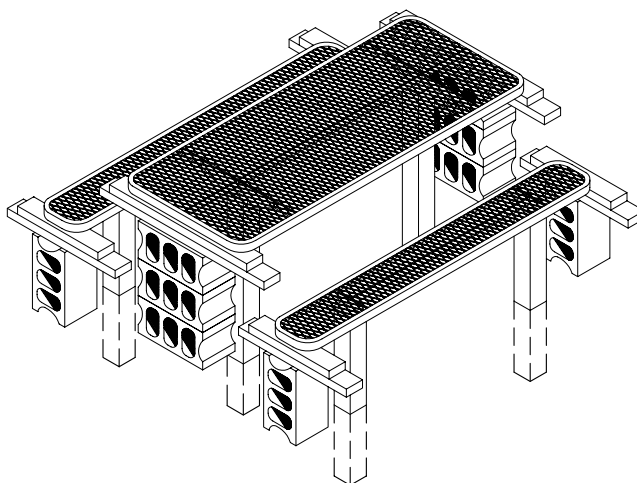
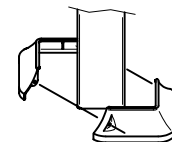


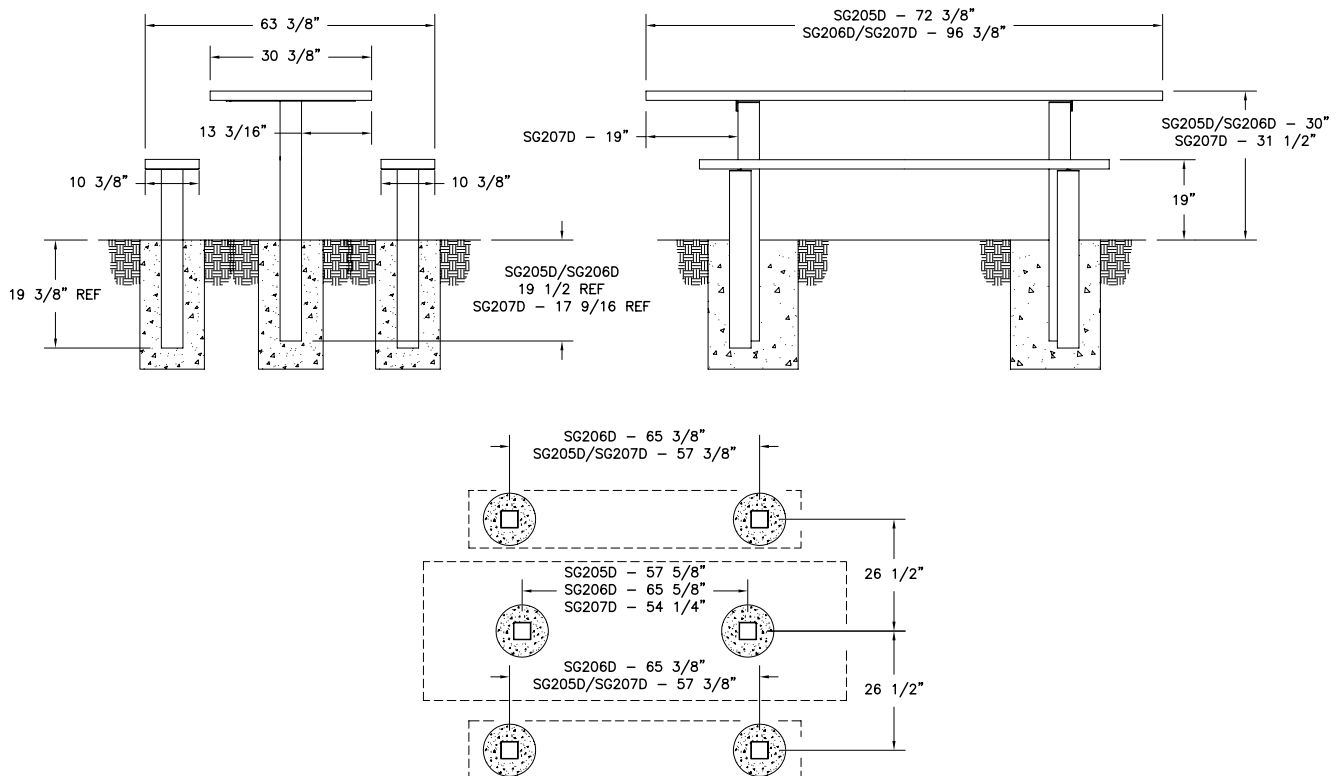
FIG. 4



installation: WARNING: The proper installation for Wabash Valley products may depend upon many factors unique to the site, location, or use of a particular product. Consult with your contractor or other professional to determine your specific installation requirements.

assembly procedures, cont'd:

product dimensions:



Clark Park – Phase 1A
Detroit, MI
Project No. 2018183.00

Hamilton Anderson Associates
Issue for Bid
03-09-2020

APPENDIX B

CUSTOM TREE HOUSE STRUCTURE
TECHNICAL DOCUMENTS



The play components identified on this plan are IPEMA certified. (IPEMA model number is preceded with *) The use and layout of these components conform to the requirements of ASTM F1487. To verify product certification, visit www.ipema.org

THIS PLAY AREA & PLAY EQUIPMENT IS DESIGNED FOR AGES 5-12 YEARS UNLESS OTHERWISE NOTED ON PLAN.

IT IS THE MANUFACTURER'S OPINION THAT THIS PLAY AREA DOES CONFORM TO THE A.D.A. ACCESSIBILITY STANDARDS, ASSUMING AN ACCESSIBLE PROTECTIVE SURFACING IS PROVIDED, AS INDICATED, OR WITHIN THE ENTIRE USE ZONE.

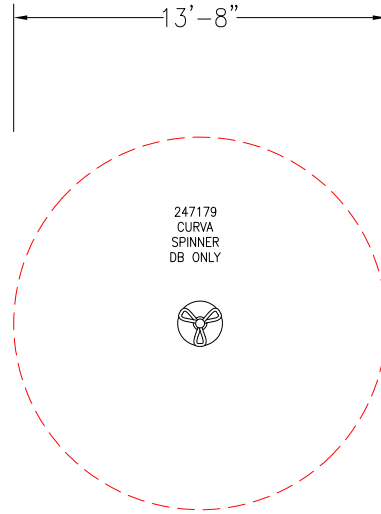
THIS CONCEPTUAL PLAN WAS BASED ON INFORMATION AVAILABLE TO US. PRIOR TO CONSTRUCTION, DETAILED SITE INFORMATION INCLUDING SITE DIMENSIONS, TOPOGRAPHY, EXISTING UTILITIES, SOIL CONDITIONS, AND DRAINAGE SOLUTIONS SHOULD BE OBTAINED, EVALUATED, & UTILIZED IN THE FINAL DESIGN. PLEASE VERIFY ALL DIMENSIONS OF PLAY AREA, SIZE, ORIENTATION, AND LOCATION OF ALL EXISTING UTILITIES, EQUIPMENT, AND SITE FURNISHINGS PRIOR TO ORDERING. SLIDES SHOULD NOT FACE THE HOT AFTERNOON SUN.

CHOOSE A PROTECTIVE SURFACING MATERIAL THAT HAS A CRITICAL HEIGHT VALUE TO MEET THE MAXIMUM FALL HEIGHT FOR THE EQUIPMENT (REF. ASTM F1487 STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATION FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE, SECTION 8 CURRENT REVISION). THE SURFACING MUST BE WELL DRAINED. IF THE SOIL DOES NOT DRAIN NATURALLY IT MUST BE TILED OR SLOPED 1/8" TO 1/4" PER FOOT TO A STORM SEWER OR A "FRENCH DRAIN".

DESIGNED BY:

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 LANDSCAPE STRUCTURES, INC.
 601 7th STREET SOUTH - P.O. BOX 198
 DELAND, MINNESOTA 55329
 PH: 1-800-328-0035 FAX: 1-763-972-6091

Date	Previous Drawing #	Initials



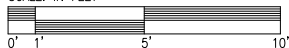
Freestanding Play
 (5-12 years)

Max Fall Height: 9 inches

TOTAL SQUARE FOOTAGE
 148 SQ.FT.

TOTAL ELEVATED PLAY COMPONENTS	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	0	REQUIRED	0
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	1	REQUIRED	0
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	1	REQUIRED	1

SCALE: IN FEET



Curva Spinner
 217179

Landscape
 Structures

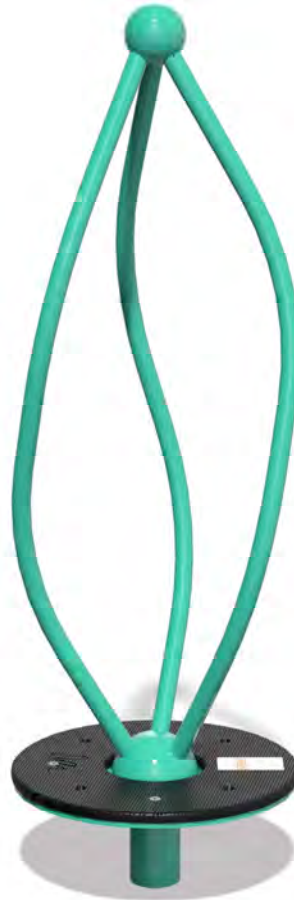
SYSTEM TYPE:
 Freestanding

DRAWING #:



247179 Curva Spinner

December 17, 2018 247179 Curva Spinner



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COLOR

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THIS PLAY AREA & PLAY EQUIPMENT IS DESIGNED FOR AGES 5-12 YEARS UNLESS OTHERWISE NOTED ON PLAN.

IT IS THE MANUFACTURERS OPINION THAT THIS PLAY AREA DOES CONFORM TO THE A.D.A. ACCESSIBILITY STANDARDS, ASSUMING AN ACCESSIBLE PROTECTIVE SURFACING IS PROVIDED, AS INDICATED, OR WITHIN THE ENTIRE USE ZONE.

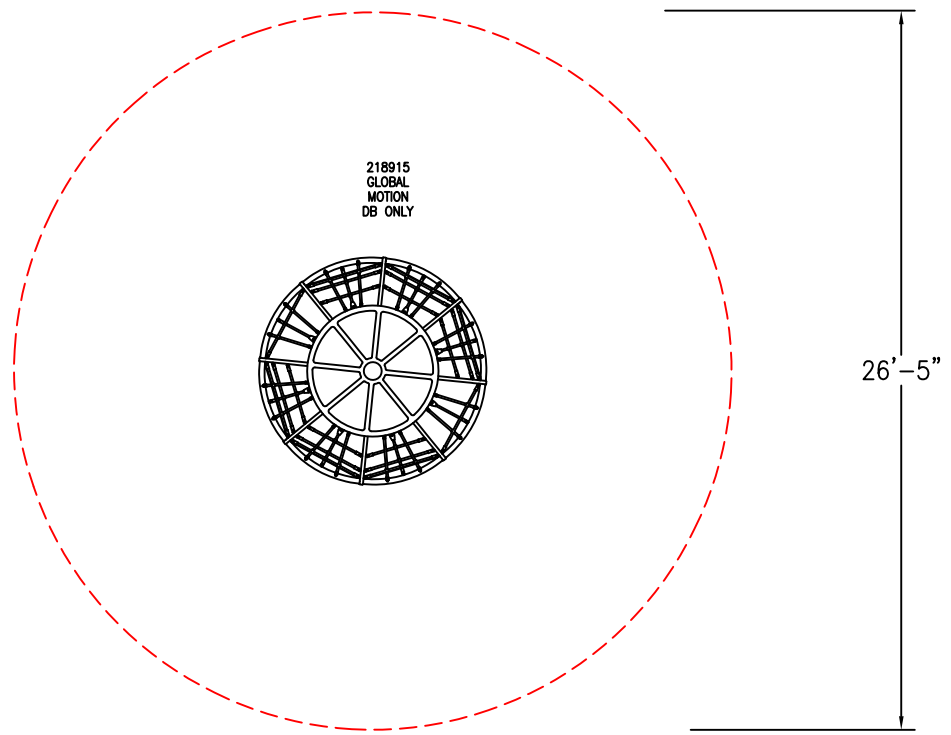
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CHOOSE A PROTECTIVE SURFACING MATERIAL THAT HAS A CRITICAL HEIGHT VALUE TO MEET THE MAXIMUM FALL HEIGHT FOR THE EQUIPMENT (REF. ASTM F1487 STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATION FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE, SECTION 8 CURRENT REVISION). THE SURFACE MUST BE WELL DRAINED IF THE SOIL DOES NOT DRAIN NATURALLY IT MUST BE TILED OR SLOPED 1/4" TO 1/4" PER FOOT TO A STORM SEWER OR A "FRENCH DRAIN".

DESIGNED BY:

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801 7th STREET SOUTH - P.O. BOX 188
SELMA, ALABAMA 36288
PH: 1-800-338-0035 FAX: 1-763-972-0091

Date Previous Drawing # Initials



Freestanding Play
(5-12 years)

TOTAL ELEVATED PLAY COMPONENTS	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	0	REQUIRED	0
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	1	REQUIRED	0
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	1	REQUIRED	1

THE MAXIMUM FALL HEIGHT OF THIS STRUCTURE IS 105"

SCALE: IN FEET



Global Motion

Landscape Structures, Inc.

SYSTEM TYPE:
FreeStanding

DRAWING #:
96123-1-1







COLOR

color for illustration purposes only



The play components identified on this plan are IPEMA certified. (Unless model number is preceded with *) The use and layout of these components conform to the requirements of ASTM F1487. To verify product certification, visit www.ipema.org

THIS PLAY AREA & PLAY EQUIPMENT IS DESIGNED FOR AGES 2-12 YEARS UNLESS OTHERWISE NOTED ON PLAN.

IT IS THE MANUFACTURER'S OPINION THAT THIS PLAY AREA DOES CONFORM TO THE A.D.A. ACCESSIBILITY STANDARDS, ASSUMING AN ACCESSIBLE PROTECTIVE SURFACING IS PROVIDED, AS INDICATED, OR WITHIN THE ENTIRE USE ZONE.

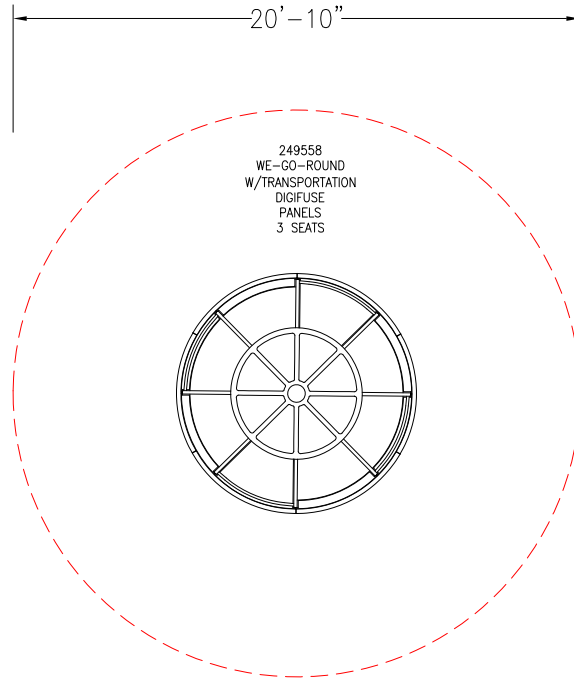
THIS CONCEPTUAL PLAN WAS BASED ON INFORMATION AVAILABLE TO US. PRIOR TO CONSTRUCTION, DETAILED SITE INFORMATION INCLUDING SITE DIMENSIONS, TOPOGRAPHY, EXISTING UTILITIES, SOIL CONDITIONS, AND DRAINAGE SOLUTIONS SHOULD BE OBTAINED, EVALUATED, & UTILIZED IN THE FINAL DESIGN. PLEASE VERIFY ALL DIMENSIONS OF PLAY AREA, SIZE, ORIENTATION, AND LOCATION OF ALL EXISTING UTILITIES, EQUIPMENT, AND SITE FURNISHINGS PRIOR TO ORDERING. SLIDES SHOULD NOT FACE THE HOT AFTERNOON SUN.

CHOOSE A PROTECTIVE SURFACING MATERIAL THAT HAS A CRITICAL HEIGHT VALUE TO MEET THE MAXIMUM FALL HEIGHT FOR THE EQUIPMENT (REF. ASTM F1487 STANDARD CONSUMER SAFETY PERFORMANCE SPECIFICATION FOR PLAYGROUND EQUIPMENT FOR PUBLIC USE, SECTION 8 CURRENT REVISION). THE SURFACING MUST BE WELL DRAINED. IF THE SOIL DOES NOT DRAIN NATURALLY IT MUST BE TILED OR SLOPED 1/8" TO 1/4" PER FOOT TO A STORM SEWER OR A "FRENCH DRAIN".

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 DELANO, MINNESOTA 55328
 PH: 1-800-328-0035 FAX: 1-763-972-6091

Date	Previous Drawing #	Initials



249558
 WE-GO-ROUND
 W/TRANSPORTATION
 DIGIFUSE
 PANELS
 3 SEATS

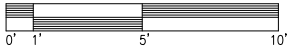
Freestanding Play
 (2-12 years)

Max Fall Height: 40 inches

TOTAL SQUARE FOOTAGE
 341 SQ.FT.

TOTAL ELEVATED PLAY COMPONENTS	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY RAMP	0	REQUIRED	0
TOTAL ELEVATED COMPONENTS ACCESSIBLE BY TRANSFER	0	REQUIRED	0
TOTAL ACCESSIBLE GROUND LEVEL COMPONENTS SHOWN	1	REQUIRED	0
TOTAL DIFFERENT TYPES OF GROUND LEVEL COMPONENTS	1	REQUIRED	1

SCALE: IN FEET



We-Go-Round (DigiFuse Panels)
 249558

Landscape
 Structures

SYSTEM TYPE:
 Freestanding

DRAWING #:



249558 We-Go-Round (Digifuse Panels)

December 17, 2018 249558 We-Go-Round (Digifuse Panels)



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