

Steps to a Successful Play Structure



FACILITIES AND ASSET MANABEMENT This document is available on-line at: <u>http://www.pps.k12.or.us/depts/fam/safe_play_structure.pdf</u>



Table of Contents

Step 1 Talk with the Principal / Enlist Support	3
Donor Group Submittals	3
Step 2 Define your Mission	4
■ ■ ■ ■ Step 3 Review Your Assets / Determine Your Needs	5
Safety Assessment Survey	5
ADA Assessment Survey	7
Site Assessment Survey	8
Potential Grant Sources	9
Examples of Fund-Raising Projects:	10
■ ■ ■ ■ ■ Step 4 Select Your Vendor and Equipment	11
Pre Approved Equipment – Local Vendor List	11
Trial Basis Equipment – Local Vendor List	11
New Equipment & Surfacing Checklist	12
Equipment & Surfacing Vendor Submittals	14
• • • • • • • Step 5 Choose Your Safety Surfacing	15
Pre Approved Safety Surfacing – Local Vendor List	15
Pre Approved Safety Surfacing – Local Vendor List (continued)	
Trial Basis Safety Surfacing – Local Vendor List	
■ ■ ■ ■ ■ ■ ■ ■ Step 6 Prepare Your Plan	17
■ ■ ■ ■ ■ ■ ■ ■ ■ Step 7 Install Your Playground	
Typical Installation Procedure:	
Pre Approved Installers – Local Vendor List	
Contractor Submittals	
• • • • • • • • • • • • • • • • • • •	
Project Close-out	

This Document contains hyperlinked graphics and text



• Step 1 <u>Talk with the Principal / Enlist Support</u>

- Express your willingness to help; communicate your ideas.
- Get the Principal's signed, written approval to proceed. (This can be in the form of a letter or a Project Application Form)
- □ Enlist Support.
 - Form a Donor Group. Seek Community Involvement.
 - Contact Facilities and Asset Management (503-916-3401)

Choo	Choose PPS Facility from drop list				
	Donor Group Submittals Have the following submittals been received by Facilities and Asset Management?				
Yes	No	Submittal:	Date: Comments:		
Yes	No	Authorization	Provide a "Project Application Form" or a letter from the school		
		letter or Project	principal authorizing your project and designating a primary		
		Application Form	contact for the project at the school.		
Yes	No	Certificate of	The donor group should carry general liability insurance for their		
		General Liability	project prior to final inspection and district possession. There is a		
		Insurance	minimum \$1,000,000 single limit required on this policy. PTA's		
Yes	No	Hold Harmless	are generally covered if they belong to the National PTA.This is required when volunteering labor on District property.		
		Agreement (A)	This is required when volunteering fabor on District property.		
		Agreement (A)			
Yes	No	Request for	This form is provided by the District and is forwarded to the		
		Authorization to	DOSA for your school when it is received.		
		Receive Donation	<u>District policy 7.10.021</u> requires that the Office of the		
		of \$5,000 or	Superintendent approve donations over \$5000.		
Yes	No	Above. Permits for	The District provides these forms to you. (2) Signed copies are		
		Donated	required. The District will keep one on record and one will be		
		Improvements.	signed by the District and returned (after the School Board passes		
		improvements.	a Resolution of Exemption from State Public Procurement Laws		
			for your project). The Resolution must be advertised a min. of 14		
			days prior to a Board Meeting, so plan accordingly. Board		
			meetings are typically on the second and fourth Monday of each		
			month at 6:30 pm		
Yes	No	A copy of the	Any contracts guarantees etc.		
		Donor Groups			
		Agreement with			
		any Contractors.			



Step 2 <u>Define your Mission</u>

For Example:

□ We envision our children enjoying a safe, accessible and durable play structure, by the start of school next year. The structure will engage their imaginations and their playful spirits and provide them with a range of social & physical activities. It will be attractive, respectful of the neighbors, and will be an asset to our community. It will be environmentally friendly. It will be fun!



Step 3 <u>Review Your Assets / Determine Your Needs</u>

 Review your existing play structure for safety. (Facilities and Asset Management can assist you with this.)

			afety Assessment Survey
Yes	No	Inspection items:	Comments:
Yes	No	Is the area free of toxins?	Older structures may contain toxins such as lead or arsenic, which can be ingested or absorbed. Peeling paint or wooden structures are indicators that these toxins may be present. <u>CPSC Staff Recommendations for Identifying and Controlling</u> <u>Lead Paint on Public Playground Equipment</u>
			Protocol Sampling Chromated Copper Arsenate (CCA)
Yes	No	Is there adequate protective surfacing?	The surface beneath the play structure should be soft, minimally 12" deep (if loose fill) and free of hazards (rocks, glass, needles etc.). The fall zone should extend at least 6 ft. uniformly about the structure, and even further at slide ends (the height of the slide plus 4 ft) and tire swings (the height of the pivot plus 6 ft)
Yes	No	Are the decks at safe	No deck should be over 6' high. No climbing equipment should
		heights?	be attached to a deck over 5'-4" high. All decks and ramps should have guardrails. There should be no gap between the outside face of decks and the inside face of guardrails.
Yes	No	Is the equipment free of	There should be no protrusions that could puncture, cut or scrape
		protrusions?	a child, or become a point of entanglement.
Yes	No	Is the equipment free of	Entanglements are leading cause of playground fatality!
		entanglement hazards?	There should be no place where a drawstring, a piece of loose clothing or a bicycle helmet could get caught.
Yes	No	Is the equipment free of	There should be no openings between 3.5 and 9 inches on the
		entrapment hazards?	play structure. Stair risers should be enclosed. Deck should extend to the outside face of railings.
Yes	No	Is the equipment free of	Proper supervision is essential. Are there any panels or
		hiding places?	enclosures (like tubes) that hamper proper supervision? Concealment will promote unwanted and unintended uses.



		Safety Assess	sment Survey (continued)
Yes	No	Inspection items:	Comments:
Yes	No	Is the equipment free of hazardous moving parts?	Moving parts can pinch crush or shear appendages. Check tire swings for worn swivel boots. Check suspension bridges for pinch points, Wheels for leverage, suspended balance activities for pounding, etc. Consider removing track rides, merry go-rounds, teeter totters and swingsets.
Yes	No	Is the area free of tripping hazards?	There should be no tree roots, curbs, exposed footings etc. that could trip a child.
Yes	No	Is the equipment properly maintained and in good repair?	There should be no loose or missing fasteners There should be no splintering rotting rusting or peeling. There should be no broken or excessively worn parts. Surfacing should be of proper depth and uniformly distributed.
Yes	No	Is the equipment age appropriate?	No piece of equipment should be beyond the skill level of the intended users (5-12 yrs old)
Yes	No	Have the children been instructed on the proper use of play equipment?	 Children should be taught: To wait their turn (no pushing) Not to wear clothing that can choke. (hooded sweatshirts, drawstrings,bicyle helmets, etc.) To watch where they are going and to stay clear of moving equipment. Not to use equipment they're not ready for. Etc.
Yes	No	Are the play activities being supervised?	An adult should be on hand to supervise. It is recommended that a ratio of 1:20 (teacher / student) not be exceeded for proper supervision.
Furt Inf		(Handbook for Public Playground Office of Information and Public U.S. Consumer Product Safety Co Washington, D.C. 20207	Affairs



 Review your existing play structure for accessibility. (Facilities and Asset Management can assist you with this.)

		ADA Assessn	nent Survey	
Yes	No	Inspection items:	Comments:	
Yes	No	Is there an accessible route to the play area?	ADAAG Section 4.3	
Yes	No	Is the safety surfacing within the play area accessible?	ASTM F1951-99 (PPS requires that <u>all</u> surf structure be accessible)	facing beneath a new play
Yes	No	Does the structure incorporate a transfer platform or a ramp?	Play areas with less than components may use a tr ramps to connect 50% of components. Play areas v components must use rar those components.	ansfer system instead of f the elevated with 20 or more elevated
Yes	No □	Are there enough appropriate ground based activities?	Elevated Components 1 2-4 5-7 8-10 11-13 14-16 17-19 20-22 23-25 >25	Min. No. of Ground Components / type NA 1/1 2/2 3/3 4/3 5/3 6/3 6/3 7/4 8/4 8+1 for ea. 3 over 25/5
Yes	No □	If a piece of equipment is not accessible, is there a like piece of equipment that is?	Your play structure shoul experiences for both able users.	d provide like
Yes	No □	Are the accessible steps on your play structure adequate?	Steps should be a maximum of 8" high; and should be at least 24" wide and be 14" deep	
Yes	No	Are the special needs of disabled students and /or parents being met?	You are encouraged to ad students at your school. D just in terms of a wheelch	Oon't think of disabilities
Furt Inf		A Guide to the ADA Accessibility Guide ADA Accessibility Guidelines for Play A Copies of the play area accessibility guide obtained from the U.S. Access Board, 133 20004-1111; 800-872-2253, 800-993-282	Areas elines and further technical 31 F Street, NW, Suite 1000	0,Washington, DC



□ Assess your site to determine an appropriate location for your play structure. (Facilities and Asset Management can assist you with this.)

		Site Assessm	ient Survey
Yes	No	Inspection items:	Comments:
Yes	No	Will the existing play pit accommodate	If your play pit is over-sized or if you are
		the new structure?	removing an outmoded play structure; Consider
			the existing play pit as the location for your new
			play structure.
Yes	No	Is there adequate drainage?	If there are signs of ponding, or if a percolation
			test fails (soil doesn't drain), additional drainage
			will be required. Close proximity to a catch basin will be advantageous.
Yes	No	Is the location visible from the street?	Visibility from the street will facilitate
		is the focution visible from the street.	supervision, and decrease vandalism and misuse.
Yes	No	Is the area free of overhead power lines?	There should be no overhead power lines above
			your proposed site.
Yes	No	Is the area free of buried utilities?	Call before you finalize your site selection.
			Call before you dig. When you are ready for a
			locate, call 1-800-322-2344
Yes	No	Is the area free of conflicting uses?	The location of the structure should not interfere
			with other current or foreseen activities It should
			not hamper access by emergency vehicles.
			Before selecting a work staging area (locating
			storage containers or fencing) verify the areas availability with Civic Use of Buildings
			503-916-3268
Yes	No	Are there existing site amenities that	Shade trees, benches, drinking fountain, parking,
		would compliment a play structure?	etc.
		"ourd compriment a play structure:	

□ Review your funding goals and establish a budget and schedule that will meet your objectives.

(*Typical play structures cost between \$15,000 and \$25,000; but can cost more depending on size and other variables*)

- Create a plan to raise needed funding. (You may appeal for funds from any and all potential donors, however the PPS Office of the Superintendent must approve donations of \$5000. and over.)
 - o Solicit Grants



	Poten	tial Grant Sources	
Foundation	Contact Name	Mailing Address	Phone
Oregon School Safety Association Oregon School Safety Association	Name	220 NW 2nd Ave., Suite 800 Portland, OR 97209	(503) 219-3232
Portland Parks & Recreation		1120 SW Fifth Ave. Suite 1302 Portland, Oregon 97204	503-823-PLAY
Nike P.L.A.Y. Foundation		Public Affairs Department One Bowerman Drive Beaverton, OR 97005	503-671-6453
Ronald McDonald Children's Charities		5000 SW Meadows #200 Portland OR 97034	503-282-1234
Meyer Memorial Trust MEYER TRUS T	Charles S. Rooks	Executive Director 1515 SW Fifth Avenue, Suite 500 Portland OR 97201	503-228-5512
Intel Foundation	Peter Broffman	Executive Director 5200 NE Elam Young Parkway Hillsboro, OR 97124-6497	503-696-8094
The Ford Family Foundation		1600 NW Stewart Parkway Roseburg, OR 97470	(541) 957-5574
The Collins Foundation	Cynthia Addams	1618 SW First Avenue Suite 505 Portland, Oregon 97201	(503) 227-7171
Dean & Gladys Webster Charitable Trust	Gladys Webster	MAC 6540-141 Trust Tax Department P.O. Box 2971 Portland, OR 97208	
Sidney & Alyne Schlesinger Charitable Foundation	S. Miles Schlesinger	7000 SW Hampton St. Suite 1124, Tigard OR 97223	503-968-6500
Further Information:	Council on I The Foundar		

(B) (D) (A) (M)
Portland Public Schools

Examples of Fu	nd-Raising Projects:
Encouraged	Discouraged
Auctions. Auditorium Shows Book Sales Coin Pitch Dinners and luncheons, food sales, refreshment centers Gift wrap sales (with approved vendor through Purchasing Department) Hobby shows. Home tours Movies Plant Sales	 Discouraged Singo Cake Walks Based on Chance Donkey Basketball Door Prizes Fish ponds based on chance Guessing number of articles in a receptacle Lotteries and raffles Pony rides (danger involved) Roulette-type games. Sales of home-baked goods. Used clothing sales
Play and Movie Sponsorships Rummage sales (off school premises) School Store	
Sporting events Staff talent shows T-shirt, sweatshirt sales.	

When planning fund-raising projects consider the following criteria:

- Children shall not be exploited in any way. (Activities imposing on classroom schedules, unnecessary involvement of children during school time, etc.)
- Health and sanitation codes shall be observed. This rules out such activities as pony rides, beauty shops, etc.
- Activities wherein the result is determined primarily by the laws of chance rather than through the skills of the individual are contrary to the laws of the State of Oregon; and should not be used for fund-raising.
- You can donate either a "turn-key" play structure to the District, or donate funds directed toward a play structure. If you choose to donate funds they will be apportioned on a 2:1 ratio (67% to the local school and 33% to the District wide foundation). Also since the donation dollars become public dollars, contractors will need to pay prevailing wage rates, and a formal bidding process may also be required.



• • • • • • Step 4 <u>Select Your Vendor and Equipment</u>

The new play equipment must:

• Comply with <u>ASTM F1487-01</u> <u>Standard Consumer Safety Performance Specification for Playground Equipment</u> <u>for Public use</u>. (IPEMA certification is preferred)

Pre Approved Equipment – Local Vendor List				
Equipment Line	Vendor	Contact Name	Contact Information	Comments:
LANDSCAPE STRUCTURESINC Play Booster	Recreation Resource	Jack Dalton	P.O. Box 4508 Salem OR 97302 1-800-635-2525 Fax: (503) 581-7863 Jack Dalton@4funlsi.com	CERTIFIED ASTM P1487
PipeLine Playground Equipment	Columbia Cascade	Phil Gibbs	1975 SW Fifth Avenue Portland OR 97201-5293 503-223-1157 Fax: 503-223-4530 hq@timberform.com	
Super Max	Wildwood Playgrounds	Steve Lebwohl	3707 NE Columbia Blvd. Portland Oregon 97211 503- 288-5797 Fax: 503- 288-7908	IPE MA CERTIFIED ASTM P1897
Camaline	SiteLines Park & Playground Products. Inc	<u>Doug Buell</u>	PO Box 25156 Portland, OR 97298 (800) 304-5587 <u>doug@sitelines.com</u>	CERTIFIED ASTM F1487

	Trial Basis Equipment – Local Vendor List				
Equipment Line	Vendor	Contact Name	Contact Information	Comments:	
PLAYCRAFT	Northwest Recreation	Terry Johnston	PO Box 608 Tualatin, OR 97062-0608 (503) 201-8658	Installed at Peninsula	
PLAYWORLD SYSTEMS,	Northwest Playground Equipment, Inc.		PO Box 2410 Issaquah, WA 98027 (800) 726-0031	Installed at Scott	

BFAM
Portland Public Schools

	New Equipment & Surfacing Checklist					
Yes	No	Inspection items:	Comments:			
Yes	No	Is the new equipment in	All Equipment must comply with the Standard Consumer			
		compliance with ASTM	Safety Performance Specification for Playground			
I		F1487-01 ?	Equipment for Public Use.			
Yes	No	Is the new surfacing in	All Surfacing must comply with F1292 Standard			
		compliance with ASTM	Specification for Impact Attenuation of Surface Systems			
		F1292 and ASTM F1951 ?	Under and Around Playground Equipment and F1951			
			Standard Specification for Determination of Accessibility			
			of Surface Systems Under and Around Playground			
			Equipment			
Yes	No	If you have selected rubber	To discourage tiles from being pulled up, rubber tiles should			
		tiles as your safety surface, are	have positive attachments between tiles. Edge tiles should be			
		they vandal resistant?	securely affixed to substrate.			
Yes	No	Are all colored metal	All metal parts and components other than galvanized			
		components Powder Coated?	fasteners or stainless steel items and specially treated decks,			
		1	should be finished as follows:			
			Substrate preparation should consist first of mechanical			
			cleaning to remove heavy mill scale, rust, varnish, grease,			
			etc., then chemical cleaning in accordance with TT-E-490C,			
			Methods I and III.			
			After cleaning, the metal substrate should receive a			
			corrosion-inhibiting iron phosphate coating in accordance			
			with TT-C-490C, Type H, before application of the final			
			color coat.			
			The coating powder should be uniformly applied by the			
			electrostatic method to a thickness of four to five mils.			
			Promptly after the application of the powder, the coating			
			shall be oven-cured at 400 degrees Fahrenheit to chemically			
			bond the finish to the substrate and to render the color coated			
			surface resistant to abrasion, impact, household chemicals,			
			weathering, and rusting.			
			The applicator should test the finish of each lot for correct			
			millage, chemical resistance, hardness, and internal bond in			
			accordance with industry standard test methods. Records of			
			this quality control procedure shall be made and retained for			
			two years.			
			The powder coated system should comply with the following			
			ASTM Standards:			
			a. D-3395B (adhesion) b. D-1735 (flexibility)			
			c. D-3363 (hardness) d. D-2454 (overbake resistance)			
			e.B-117 (salt spray resistance)			
			(our sprag resistance)			
<u> </u>	1	l				



	New Equipment & Surfacing Checklist (continued)					
Yes	No	Inspection items:	Comments:			
Yes	No	Are all fittings and fasteners	Equipment should be difficult to dismantle or loosen			
		tamper-resistant?	without special tools. This will deter theft, vandalism, and			
			prevent injuries due to structural collapse.			
Yes	No	Are all fittings and fasteners	This will prevent corrosion.			
		stainless steel?				
Yes	No	Are other metal items hot-dip	This will prevent corrosion.			
		galvanized after fabrication?				
Yes	No	Are pipe columns heavy guage?	Schedule 40 pipe is recommended to resist denting.			
Yes	No	Do collar connections have	Collar type connections held in place with set-screws are			
		secure connections to the pipe	not acceptable. All collars should be pinned as well as			
		columns to prevent slipping or	clamped.			
		collapse, should they become loose?				
Yes	No	Are decks durable? Do they	Expanded metal decks are not acceptable. Decks should be			
		provide secure footing even in	of heavy guage steel, perforated for drainage and coated			
	-	the rain?	with a durable slip resistant surface.			
Yes	No	Are slides durable? Are they	Metal slides are discouraged, because they can cause burns.			
		safe?	All Slides should have safety hoods at their entries. Plastic			
Yes	No	Are tire swings safe?	slides should be heavy guage and have UV protection. Tire Swings should have swivels that are pinch free. They			
		The the swings sure:	should <u>not</u> hold water, and <u>not</u> use steel belted tires. "S"			
			hooks should <u>not</u> be used to connect chains to the swivel or			
			the tire.			
Yes	No	Are Cargo Nets safe?	Cargo Nets (Chain climbers) Should be PVC coated for slip			
			resistance. Chains should be spaced widely enough to			
Yes	No	Are climbers durable and safe?	prevent entrapment. Arch climbers, or any climber where there is a potential of			
			hitting the climber when you fall are not allowed.			
I			Deck entrances at the top of climbers should be limited to			
			15" in width. Climbers should be heavy guage and be			
			formed in a way that adequately transfers forces to the			
Yes	No	Are clatter bridges safe?	ground. Bridges should be of heavy guage steel, perforated for			
			drainage and coated with a durable slip resistant surface.			
			There should be no pinch points, or gaps between the bridge			
			and adjoining platform.			



Cho	Choose PPS Facility from drop list Project:						
H	Equipment & Surfacing Vendor Submittals Have the following submittals been received and approved by Facilities and Asset Management?						
Yes	No	Submittal:	Date Received:	Comments:			
Yes	No	Product Liability Insurance		Provide a certificate of Product Liability Insurance (min. \$1,000,000.)			
Yes	No □	Shop drawings		Provide complete shop drawings of all proposed work indicating location in relation to existing site and building elements, design, size, material, connections, finish etc.			
Yes	No □	Installation Instructions		Provide complete installation instructions keyed to all equipment furnished, identifying members and relationship to adjacent members and to whole assembly. (This is to be included with each piece of equipment delivered to site.)			
Yes	No □	Maintenance Instructions		Provide manufacturers complete maintenance instructions for proper care of furnished equipment / surfacing. (Maintenance instructions should be kept on file at the school.)			
Yes	No □	Guarantee		Provide a written guarantee covering all materials for a minimum period of <u>ten</u> years from date of delivery (exclusive of vandalism).			
Yes	No □	Samples / Examples		The District Project Manager may request Samples or Examples of other equipment installations prior to approving product.			



(D) (D) (D) (D) (Step 5 <u>Choose Your Safety Surfacing</u>

The new safety surface must:

• Comply with ASTM F1292-99

Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment

• Comply with ASTM F1951-99

Determination of Accessibility of Surface Systems Under and Around Playground Equipment

There are three types of safety surfacing allowed by the District:

- <u>Engineered wood fiber</u> low initial cost, but high life cycle cost. (Requires intensive maintenance)
- <u>Rubber tiles</u> moderate initial cost, low life-cycle cost, but sometimes subject to vandalism (can be installed over paved surfaces– low maintenance, unless vandalized)
- <u>Poured in place rubber</u> highest initial cost, but low life cycle cost. (Can be installed over paved surfaces low maintenance)

Make sure the safety surface you are selecting is compatible with the equipment you are selecting, pay close attention to the required depth of material for proper fall protection.

Pre Approved Safety Surfacing – Local Vendor List				
Product Type		Local Vendor Contact Comments		
SFIBAR'	Engineered Wood fiber	Jim Ringelberg SiteLines Park & Playground PO Box 25156 Portland, OR 97298 (800) 304-5587 jimringelberg@attbi.com	ASTM F1292	
Sof' Fall	Engineered Wood fiber	Jack Dalton P.O. Box 4508 Salem OR 97302 1-800-635-2525 Fax: (503) 581-7863 Jack_Dalton@4funlsi.com	ASTM F1292	
	Engineered Wood fiber	Steve Lebwohl Wildwood Playgrounds 3707 NE Columbia Blvd. Portland Oregon 97211 503- 288-5797	ASTM F1292	

(B F A M
Portland Public Schools

Pre Approved Safety Surfacing – Local Vendor List (continued)				
Product Type		Local Vendor Contact	Local Vendor Contact Comments	
PlayBound™	Rubber Tile	Jack Dalton P.O. Box 4508 Salem OR 97302 1-800-635-2525 Fax: (503) 581-7863 Jack_Dalton@4funlsi.com	ASTM F1292	
VITRITURF Poured in place rubber		Playscapes North West Greg Noson Toll Free: (800) 982-1484 Telephone: (253) 851-9090 Fax: (253) 858-5398 g1@plascapesnw.com	ASTM F1292	
PlayBound™	Poured in place rubber	Jack Dalton P.O. Box 4508 Salem OR 97302 1-800-635-2525 Fax: (503) 581-7863 Jack_Dalton@4funlsi.com	ASTM F1292	
Others as approved.				

Trial Basis Safety Surfacing – Local Vendor List				
Product Type		Vendor Contact	Comments	
Smarter Cushioning	Poured in place rubber	SKYDEX Technologies, Inc. 12503 E. Euclid Drive, Suite 60 Englewood, CO 80111 303.790.4003 Fax 303.799.6434	Installed at Markham	
DFI Delta Flex	Rubber Tile	Terry Johnston PO Box 608 Tualatin, OR 97062-0608 (503) 201-8658	Installed at Peninsula	



• • • • • • • • • • Step 6 <u>Prepare Your Plan</u>

Facilities and Asset Management must review and approve your proposed plan prior to installation. Vendors should provide you with scaled drawings, which you can submit for District approval.

- When selecting your equipment, remember that, merry go-rounds, teeter-totters, arch-climbers, geodesic domes, track rides, tube slides, tubes, in-line swings and log-rolls, are no longer accepted by PPS.
- When selecting your safety surfacing, remember that, sand, pea gravel, and loose fill shredded rubber, are no longer accepted by PPS.
- Strive for a well-rounded mix of activities that are multi-sensory and appropriate for elementary school children.
- 25 40 1220.33 SPYROSLIDE PHASE 2 120 RING 120902 HOLE PANEL IANDHOLD (BELOW DECK) LEG LIFT 72 16 123537 CORKSCREW ANEL (S 40' 64 111240 ALCONY DECK W/WHEEL *RELOCATE* BAL 120891 INDEP TIRESWING W/5" ARCHES DECK TO DE STEPS (2) 127953 HANDHOI 32 @ PHASE 2 PANELS 40 40 123331 DOUBLE POLY SLIDE 123393 FIREPOLE L23320 CURVED TRANSFER MODULE 24 32 8 16 **PHASE 3** PHASE
- Strive for circulation patterns that prevent traffic conflicts.

Illustrated above, is a compact phased plan of acceptable equipment, which is safe and accessible.



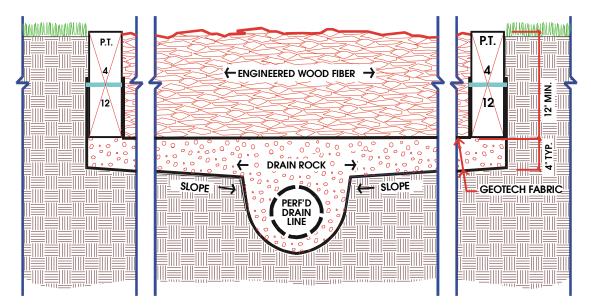
(D) (D) (D)

- Before you proceed with your installation Facilities and Asset Management must review and approve all required donor, vendor and contractor submittals.
- Playgrounds may be installed by a District approved contractors or by volunteers under the supervision of a District approved contractor.
- When your installation is completed, PPS will need to inspect the project. The Play structure should not be used until, it has successfully passed inspection. It is also recommended that you retain adequate funds, to encourage vendors and installers to make any necessary repairs in a timely manner.

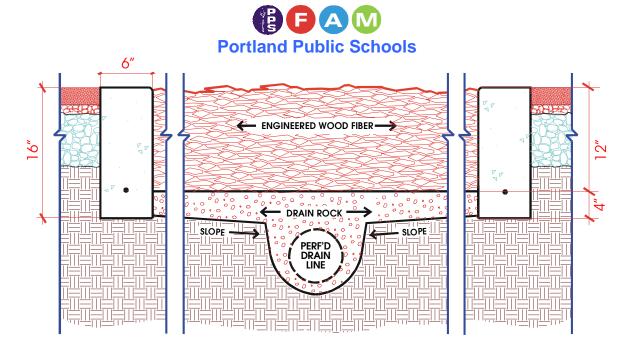
Bridger Elementary is an example of a volunteer installed play structure. (Click here)

Typical Installation Procedure:

SITE PREPARATION: First use temporary cyclone fencing to secure the work area. If your play structure calls for a new play pit, you will need to excavate. The fall zone of the equipment determines the pit's plan dimensions, and the fall height of the equipment and the specific drainage requirements of your site determine the pit's depth. A minimum depth of engineered wood fiber is 12", and an average depth of drain rock is 4". Pit floors should slope to drain. Locate your drain lines where they will not interfere with column and footing placements. Refer to your manufacturers specification to determine the drainage and depth requirements for the engineered wood fiber system that you have chosen.



Play pits in unpaved areas may utilise treated heavy timbers, or approved manufactured units as curbing. (see detail above)



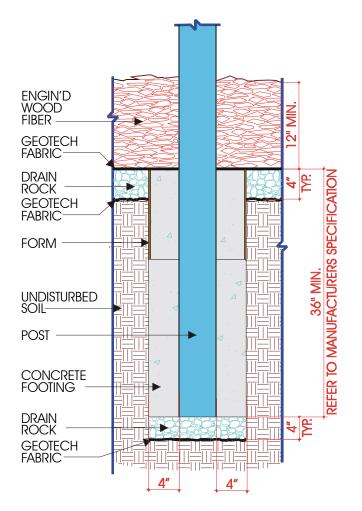
Play pits in paved areas are required to have reinforced concrete curbing. Typical sectional dimensions are 6"x16" (see detail above)

The surplus soil from the pit excavation should be removed from the school site. (For information on recycling the surplus soil contact Metro Recycling 503-234-3000)

Next layout play area accurately in accordance with Drawings. Locate footings to suit each piece of equipment.



EXCAVATING FOR FOOTINGS: Drill holes for footings with power auger into firm, undisturbed, or well compacted soil. Size holes 8" larger than diameter of pipe posts and 8" larger than diagonal dimension of square or rectangular posts, minimum Excavate holes at least 3" deeper than bottom of posts. Extend posts to depths indicated on approved shop drawings. Depth as recommended by manufacturer to provide rigid support for equipment supported by each footing. Minimum depth, 36".



CONCRETE FORMING: Provide round removable or permanent forms for each post to a depth of not less than 12" below subgrade under wood chips fill material. Terminate forms level with subgrade. Provide rectangular forms at concrete footings for anchoring bottom edges of chain cargo nets. Terminate forms level with subgrade and extend at least 12" below subgrade. Footing depth as recommended by equipment manufacturer

SETTING POSTS AND ACCESSORIES: Set posts in excavations to required depths. Center posts in forms and space posts required distances apart to conform with equipment being installed. Pre-assemble equipment supported on posts prior to placing concrete whenever spacing of posts is critical. Set posts plumb in all directions. Brace and shore up posts as required to hold them firmly in place during concrete placement.



Place anchors for cargo nets, geodesic dome, and other anchors in forms prior to placement of concrete. Fasten anchors securely to forms in manner to preclude dislodgement during concrete placement. Accurately locate anchors prior to placing concrete.

<u>CONCRETE PLACEMENT</u>: Wet forms and post holes thoroughly with water prior to depositing concrete therein. Place concrete around posts in one continuous operation. Continuously rod and tamp concrete to consolidate material and to remove air pockets during placement operations. Trowel top surface of footings to form slope or dome configuration to direct water away. from posts and anchoring devices.

<u>CONCRETE CURING AND BACKFILLING</u>: Remove forms approximately 24 hours after placing concrete. Thoroughly dampen concrete with clean water or coat with continuous application of a membrane-forming curing compound. Backfill around footings with moist materials. Thoroughly compact backfill to within 95% of maximum density at optimum moisture content as determined by AASHTO Standards T-99. Maintain concrete foundations in a moist condition for at least 5 days

EQUIPMENT INSTALLATION: Terminate concrete footings at surface of subgrade below wood chips or other resilient fill material. Do not install equipment until concrete footings supporting such equipment have cured for at least 7 days. Do not allow anyone to use equipment until concrete has cured at least 28 days.

Fully erect each piece of equipment or cluster of equipment before tightening fasteners. Align all members of equipment properly and progressively tighten fasteners until all are firmly tightened in place.

Provide tamper-proof connections throughout. Securely tighten all connections.

Follow manufacturer's step-by-step instructions furnished with each piece of equipment.

<u>CLEANING UP</u>: Leave playground area clean and orderly. Remove clay, rocks, gravel, surplus materials, wrappings and similar debris from the Site. Leave area free of concrete dribbles, scraps of materials and the like. Remove fencing only after PPS has inspected and accepted the installation.

INSPECTIONS:

- <u>Manufacturers' Inspection</u>: The Manufacturers' representative should inspect the installation of each play structure to insure that the components have been properly and safely installed. A Certificate of inspection and approval should accompany the Manufacturers' Warranty.
- <u>PPS Facilities and Asset Management's Inspection</u>: A representative should inspect the installation of each play structure prior to acceptance by the District. No play structure should be open for use prior to inspection by a FAM representative.

Portland Public Schools

Pre Approved Installers – Local Vendor List				
Company	Equipment Line	Contact Name	Mailing Address	Phone, Fax, email
R E Hill		Roger	8220 SW 166th Pl	
Construction Co.	All	Hill	Beaverton OR 97007	591-0291
				(503) 452-4268
G. R. Morgan George 10536 SW 25th Ave. Fax: (503) 245-4872				
Construction	All	Morgan	Portland OR 97219	Mobile: 860-1776
Others as approved				

Choose	PPS Facility	r from drop list	 Project: 			
	Contractor Submittals Have the following submittals been received by Facilities and Asset Management?					
Yes	No	Submittal: Date:	Comments:			
Yes	No	General Liability	Provide a certificate of General Liability Insurance			
		Insurance	(min. \$1,000,000 single limit)			
Yes	No	Registration	The Contractor should be licensed pursuant to ORS			
			<u>701.035</u> and Provide a current certificate of			
			registration with the Oregon State Contractor's			
			<u>Board.</u> 888-366-5635			
Yes	No	SAIF	Provide proof of coverage by Oregon's Workman's			
			Compensation Insurance. SAIF 1-800-285-8525			
Yes	No	Bond	ORS 279.029 Provide verification of a Performance			
			Bond sufficient in amount to the valuation of the			
			project when project costs will exceed \$10,000.			
Yes	No	Hold Harmless	Return District form provided at the back of the			
		Agreement (C)	Guideline Packet for Small Projects by Volunteers,			
-			PTA, Booster Club and Etc.			
Yes	No	Certified Labor	ORS 279.350 Provide Certified Labor Reports			
		Reports	indicating that prevailing wage rates are being met.			
			only when project costs will exceed \$25,000 and			
			public agency funds are involved.			
Yes	No	Warranty	Provide a one year warranty on workmanship			



Congratulations, and thanks for your hard work and commitment. We know it wasn't always easy and we're grateful for your support. Its time to celebrate your success and acknowledge your contributors.

	Project Close-out				
Yes	No	Items:	Comments:		
Yes	No	Has the manufacturers	This is an important step so that manufacturers warranties and		
		representative inspected the installation?	product liability insurance remain in force		
Yes	No	Has PPS Facilities	The play structure should be inspected and approved by the		
		Department inspected the installation?	District prior to opening the structure for use. If things need to be corrected, the District will provide a punch-list of items that need to be addressed. If nothing needs to be corrected, the District will send you a letter acknowledging and accepting your donation. The play structure will be the districts responsibility from this point forward.		
Yes	No	Have you paid the bill?	Once the installation has been accepted by the District, any		
			retainage should be released.		
Yes	No	Have you thanked your	There are many ways to say thanks;		
		contributors?	Hold a ribbon cutting, open house or dedication ceremony.		
			Create a web page that documents your project and acknowledges its contributors. Send letters of recommendation for work well done. Send notes of thanks to financial donors.		
Yes	No	Have you shared your	Whether things all went well or some things went wrong, others		
		lessons learned?	can benefit from your experience. Let PPS know about your		
			vendors, contractors and donors. Let us know how we did too and where we can make improvements.		