SECTION 11 68 00 - PLAYFIELD EQUIPMENT

1. GENERAL
	1. ADMINISTRATIVE REQUIREMENTS
		1. Pre-Installation Conference:
			1. Attendance: [Architect,] [Owner,] [Contractor,] [Construction Manager,] [Design/Builder] installer, and related trades.
			2. Review: Project conditions, manufacturer requirements, delivery and storage, staging and sequencing, and protection of completed work.
	2. SUBMITTALS
		1. Action Submittals:
			1. Shop Drawings: Illustrate products, installation, and relationship to adjacent construction.
			2. Product Data: Manufacturer’s descriptive data and product attributes.
			3. Samples: [Selection samples.] [Verification samples.]
		2. Informational Submittals:
			1. Certificate of Compliance: Certification that installed products meet specified design and performance requirements.
		3. Closeout Submittals:
			1. Operation and Maintenance Data.
	3. QUALITY ASSURANCE
		1. Installer Qualifications:
			1. Minimum [2] [\_\_] years’ experience in work of this Section.
			2. Approved by [\_\_\_\_] manufacturer.
	4. WARRANTY
		1. Manufacturer’s standard warranty against failures as follows:
			1. Aluminum: Life of installation against material failure and corrosion.
			2. Steel: 25 years against material failure and defects.
			3. Powder Coat Finishes (200 and 500 series): 10 years.
			4. Vinyl Targets, Perimeters, Wraps, and Other Products Not Listed, Including Hardware: 3 years.
			5. Fiberglass products. Model 1590 Adjustable Basketball Systems, HD Tennis Posts, and Nets & Protective Pads: 1 year.
			6. All Products: 1 year against defects in materials and workmanship.
2. PRODUCTS
	1. MANUFACTURERS
		1. Contract Documents are based on products by PW Athletic Manufacturing Co., 2 Industrial Dr, PO Box 1290, Salem, IL 62881; phone 866-402-2893; fax 618-548-2890; www.pwathletic.com.
		2. Substitutions: [Refer to Division 01.] [Not permitted.]
	2. Baseball
		1. Backstop Construction: Pipe or tubing frame with chain link mesh covering.
			1. Frame Finish: [Galvanized.] [Powder coated.]
			2. Mesh Finish: [Galvanized.] [Vinyl coated.]
		2. Net Backstop: Knot-less netting suspended from four steel posts with tensioned wire rope. Provide complete with 1-7/8 inch black netting roped nylon [winches] and all Hardware and Wire Rope for [permanent] [hoisted] installation.
		3. Outfield Fence Windscreens: Knitted high density polyethylene privacy fabric with non-corrosive hanging eyelets.
		4. Outfield Fence Protective Cap: Corrugated polyethylene with nylon securement ties.
		5. Foul Poles: Vertical poles [with flag] for [in-ground] [surface] installation [with anti-spin ground sleeves with neoprene caps].
			1. Value Series Poles: 3-1/2" inch O.D. Schedule 40 galvanized steel pipe.
				1. Height: [12'-0"] [15'-0"] [20'-0"].
				2. Flags: [6'-0"] [12'-0"] high by 1'-0" wide galvanized steel pipe infilled with expanded metal mesh.
			2. Pro-Series Poles: [4-1/2] [5-9/16] [6-5/8] inch O.D. Schedule 40 galvanized steel pipe.
				1. Height: [20'-0"] [30'-0"] [40'-0"].
				2. Flags: [12'-0"] [22'-0"] [32'-0"] high by 1'-6" wide galvanized steel pipe infilled with expanded metal mesh.
	3. FOOTBALL
		1. Football Goals: Single post [4] [6] [8] foot offset gooseneck style with windflags on uprights.
			1. Support and Crossbars: [4-1/2] [5-9/16] [6-5/8] inch O.D. ASTM A53 Schedule 40 galvanized steel pipe for [permanent] [removable] installation [with ground sleeves].
			2. Uprights: 2-3/8 inch O.D. ASTM A53 Schedule 40 galvanized steel pipe.
				1. Height: 30'-0".
		2. Football Goals: Dual post 4 foot offset gooseneck style.
			1. Support and Crossbars: 3-1/2 inch O.D. Schedule 40 galvanized steel pipe.
			2. Uprights: 2-3/8 inch O.D. Schedule 40 galvanized steel pipe.
				1. Height: 30'-0".
		3. Combination Football/Soccer Goals: For [permanent] [portable] installation [with ground sleeves]
			1. Uprights and Crossbars: 2-7/8 inch O.D. Schedule 40 galvanized steel pipe.
				1. Upright Height: 20'-0".
			2. Net Supports: [Two] [Three] 2-3/8 inch O.D. Schedule 40 galvanized steel pipe.
		4. H-Type Football/Rugby Goals: For [permanent] [portable] installation [with ground sleeves]
			1. Uprights: 3-1/2 inch O.D. Schedule 40 galvanized steel pipe.
				1. Upright Height: [20'-0". football.] [27'-0" rugby.]
			2. Crossbar: 2-3/8 inch O.D. Schedule 40 galvanized steel pipe.
		5. Foul Poles: Vertical poles [with flag] for [in-ground] [surface] installation [with anti-spin ground sleeves with neoprene caps].
			1. Value Series Poles: 3-1/2" inch O.D. Schedule 40 galvanized steel pipe.
				1. Height: [12'-0"] [15'-0"] [20'-0"].
				2. Flags: [6'-0"] [12'-0"] high by 1'-0" wide galvanized steel pipe infilled with expanded metal mesh.
			2. Pro-Series Poles: [4-1/2] [5-9/16] [6-5/8] inch O.D. Schedule 40 galvanized steel pipe.
				1. Height: [20'-0"] [30'-0"] [40'-0"].
				2. Flags: [12'-0"] [22'-0"] [32'-0"] high by 1'-6" wide galvanized steel pipe infilled with expanded metal mesh.
	4. SOCCER
		1. Complete Goal Systems: 2 by 4 inch [galvanized steel] [aluminum] crossbars and posts [with 2 net supports] [with European Style net supports] [end frames and rear spreader] for [permanent] [portable] installation [with ground sleeves]; complete with heavy-duty soccer nets, steel stakes, and nylon Velcro net ties.
			1. [Net Supports] [End Frames] [Rear Spreader]: 2-3/8 inch O.D. galvanized steel tubing.
			2. Accessories: Provide transport wheel assemblies and mounts for portable units.
		2. Heavy-Duty NCAA Regulation Goal Systems: 4 by 4 inch [galvanized steel] [aluminum] crossbars and posts [without net supports] [with [2] [3] net supports] [with European Style net supports] [end frames and rear spreader] for [permanent] [portable] installation [with ground sleeves].
			1. [Net Supports] [End Frames and Rear Spreader]: 2-3/8 inch O.D. galvanized steel tubing.
		3. Extra-Heavy-Duty NCAA Regulation Goal Systems: 4 by 4 inch [galvanized steel] [aluminum] crossbars and posts with three 2-3/8 inch O.D. galvanized steel tubing net supports, end frames, rear spreader, and additional top cross support for portable installation.
		4. Round Goal Systems: 4-1/2 inch [galvanized steel] [aluminum] crossbars and posts [without net supports] [with 2 net supports] [with European Style net supports] [end frames and rear spreader] for [permanent] [portable] installation [with ground sleeves]; complete with heavy-duty soccer nets, steel stakes, and nylon Velcro net ties.
		5. Youth Goal Systems: 2-3/8 inch O.D. galvanized steel tubing crossbars and posts [without net supports] [with 2 net supports] [end frames and rear spreader] for [permanent] [portable] installation [with ground sleeves]; complete with heavy-duty soccer nets, steel stakes, and nylon Velcro net ties.
	5. Basketball
		1. Goal Systems: Steel posts [and offset framing]; [galvanized] [powder-coated] for [permanent in-ground mounting in concrete footing] [removable mounting with ground sleeves].
		2. Backboards: [White powder-coated finish] [White powder-coated finish] [Custom graphic on UV-resistant vinyl wrap]; size and type as scheduled.
		3. Goals: Orange powder-coated finish with universal mounting plate.
		4. Accessories:
			1. Net: Type as scheduled.
			2. Post Pads: 6 foot high wrap-around pads with hook and loop fasteners; 18 ounce coated vinyl covering on 4 inch thick, high density, urethane foam.
	6. Volleyball
		1. Posts: [Steel] [Aluminum] posts; [galvanized] [powder-coated] for removable mounting with ground sleeves.
		2. Competition Nets: 4 inch square mesh of 3 mm black nylon. Headband of 2 inch white PVC tape; side and bottom bindings of 1 inch white PVC tape; non-corroding grommets.
		3. Accessories: As scheduled.
	7. Tennis
		1. Posts: Steel posts, powder-coated, with matching cast aluminum caps and gear housings; for [permanent in-ground mounting in concrete footing] [removable mounting with ground sleeves]. Equip posts with an internal top cap to help seal out the elements.
			1. Gear Plate and Handle: Internally wound with a self-locking gear mechanism; chrome plated.
		2. Competition Nets: 1-3/4 inch square mesh of 3 mm black nylon. Headband of 2 inch white PVC tape; side and bottom bindings of 1 inch white PVC tape; non-corroding grommets.
		3. Accessories: As scheduled.
	8. Pickleball
		1. Posts: Steel posts, powder-coated, with matching cast aluminum caps; for [permanent in-ground mounting in concrete footing] [removable mounting with ground sleeves].
		2. Competition Nets: 1-3/4 inch square mesh of 3 mm black nylon. Headband of 2 inch white PVC tape; side and bottom bindings of 1 inch white PVC tape; non-corroding grommets.
		3. Accessories: As scheduled.
	9. Tetherball
		1. Posts: [Single-length] [Two-piece] galvanized steel posts; for [permanent in-ground mounting in concrete footing] [removable mounting with ground sleeves]. Equip with 3/8 inch plated eyebolt, 30 inch by 7/32 inch plated chain and a swivel snap for ball attachment.
		2. Ball and Rope: Regulation size and shape manufactured of molded butyl bladder and nylon.
		3. Accessories: As scheduled.
	10. ACCESSORIES
		1. Steel Bolts and Nuts: ASTM A307, Grade A regular hexagon-head bolts; with ASTM A563 hex nuts; and, where indicated, flat washers; hot-dip galvanized per ASTM F2329.
		2. Stainless Steel Bolts and Nuts: ASTM F593 regular hexagon-head annealed stainless steel bolts; with ASTM F594 hex nuts; and flat washers; Alloy Group 1.
		3. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
		4. Nonshrink, Nonmetallic Grout: ASTM C 1107; recommended by manufacturer for exterior applications.
		5. Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching, and grouting compound.
			1. Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended by manufacturer for exterior use.
	11. metal FINISHES
		1. Steel: Manufacturer's [standard] [anti-graffiti] TGIC polyester powder coat, comparable in performance to AAMA 2605 coatings.
			1. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions to achieve 6 to 9 mil DFT finish coat [over a 2 to 3 mil thick zinc-rich primer].
			2. Color: [As indicated.] [As selected from manufacturer's full range.] [Match Architect's sample.] [\_\_\_\_\_.]
			3. Gloss/Sheen: [As selected.] [\_\_\_\_\_.]
		2. Aluminum: Manufacturer's [standard] [anti-graffiti] TGIC polyester powder complying with AAMA 2604 powder coating except with a minimum 3 mil DFT finish coat. Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.
			1. Color: [As indicated.] [As selected from manufacturer's full range.] [Match Architect's sample.] [\_\_\_\_\_.]
			2. Gloss/Sheen: [As selected.] [\_\_\_\_\_.]
3. EXECUTION
	1. INSTALLATION
		1. Comply with manufacturer's written installation instructions and recommendations and approved submittals.
		2. Set support posts [into blockouts in footings to required elevations] [on concrete foundations][in sleeves], aligned plumb and level. Grout permanent installations in place with [nonshrink grout] [or] [anchoring cement] filling voids and anchors.
	2. CLEANING
		1. Clean as recommended by manufacturer. Do not use materials or methods which may damage finish surfaces.
	3. SCHEDULES
		1. Baseball Equipment:
			1. Arch Backstop Configuration: [Perpendicular Arch] [Perpendicular Arch with [5 foot] [10 foot]extension.] [Layback Arch.]
				1. Height: [\_\_\_\_.]
				2. Width: [\_\_\_\_.]
				3. Depth: [\_\_\_\_.]
			2. Hooded Backstop Configuration: [Triple wide.] [Double wide.] [Single wide.]
				1. Front Height: [\_\_\_\_.]
				2. Front Width: [\_\_\_\_.]
				3. Side Height: [\_\_\_\_.]
				4. Side Width: [\_\_\_\_.]
				5. Rear Height: [\_\_\_\_.]
				6. Rear Width: [\_\_\_\_.]
				7. Depth: [\_\_\_\_.]
			3. Color: [As selected.] [Black.] [Brown.] [Hunter green.]
			4. Net Backstop Configuration:
				1. Height: [20.] [30.]
				2. Side Width: [30.] [40.]
				3. Rear Width: [30.] [40.]
			5. Foul Poles:
				1. Height: [12'-0"] [15'-0"] [20'-0"].
				2. Flags: [Not required.] [12'-0"] [22'-0"] [32'-0"] high by 1'-6" wide.
			6. Accessories:
				1. Outfield fence windscreens; [4] [6] [8] foot height; width to cover out field fence [and baseline fences to extent indicated].
				2. Outfield fence protective cap in [yellow] [green] color.
		2. Football Equipment:
			1. Style: [Single post.] [Dual post.] [Combination Football/Soccer.] [H-Type Football.] [H-Type Rugby.]
			2. Width Between Uprights: [23'-4" high school] [18'6" college] [18-4" rugby.].
			3. Accessories:
				1. Post pads.
				2. Soccer nets.
			4. Ground Sleeve Cap: [None.] [Neoprene.]
		3. Soccer Equipment:
			1. Complete Goal System Size: [4'-2" by 6'-0"] [6'-6" by 12'-0"] [6'-6" by 18'-0"] [7'-0" by 21'-0"] [8'-0" by 24'-0"].
			2. [Extra-Heavy-Duty] [Heavy-Duty] NCAA Regulation Goal System Size: 8'-0" by 24'-0".
			3. Round Goal System Size: [6'-6" by 12'-0"] [6'-6" by 18'-0"] [7'-0" by 21'-0"] [8'-0" by 24'-0"].
			4. Youth Goal Systems: 8'-0" by 24'-0".
			5. Accessories:
				1. Field corner flags.
				2. Auger style anchor system for portable systems.
			6. Crossbars and Upright Finish: White powder coat.
		4. Basketball Equipment:
			1. Goal System Type: [Single gooseneck posts] [Back-to-back gooseneck posts] [Single post with adjustable offsets] [Back-to-back single post with adjustable offsets] [Dual posts] [Truss post gooseneck] [Square post] [Adjustable height square post] [with ground sleeve].
				1. Post Diameter: [\_\_\_\_.]
				2. Offset: [\_\_\_\_.]
			2. Rectangular Backboards: [Perforated Steel.] [Steel.] [Aluminum.] [Fiberglass with Painted Target and Perimeter.] [Polyethylene with Painted Target.] [Polycarbonate with Aluminum Frame.]
				1. Size: [\_\_\_\_.]
			3. Fan-Shaped Backboards: [Steel.] [Galvanized Steel.] [Cast Aluminum with Painted Target and Perimeter.] [Fiberglass with Painted Target and Perimeter.] [Polyethylene with Painted Target.]
			4. Goals: [Extra Heavy-Duty Double Rim.] [Breakaway Extra Heavy-Duty Double Rim.] [Heavy-Duty Double Rim for Chain Net.] [Heavy-Duty Double Rim for [Nylon.] [Vinyl] Net.]
			5. Net: [Chain Net.] [Super Nylon.] [Super Chain.] [Vinyl cable.]
			6. Post Pad Color: [As selected.] [\_\_\_\_.]
		5. Volleyball Equipment:
			1. Posts: [Competition round] [Deluxe Competition round] [Pro Series Competition square] outside posts [and center posts at adjoining courts].
				1. Material: [Galvanized steel] [Aluminum] [with powder-coat finish].
				2. Size: [\_\_\_\_] inch [diameter] [square].
				3. Net Attachment to Posts: [Fixed eyes top and bottom of all posts.] [Main post has standard net tightener with removable handle, side pulley, and one fixed eye with rope clamp. Opposite post has two fixed eyes.] [Center post has two fixed eyes top and bottom.] [Center post has standard net tightener with removable handle, side pulley, and one fixed eye with rope clamp on one side and two fixed eyes top and bottom on other side.]
			2. Competition Net: [Top and bottom rope.] [Top cable, bottom rope.]
				1. Size: [30] [32] feet by 36 inch high.
			3. Accessories:
				1. Boundary markers [1 inch wide strap] [2 inch wide strap] [1-1/4 inch rope] [3/4 inch rope] [1/4 inch rope] of length to outline a 30 by 60 foot court, complete with corner [anchors] [stakes].
				2. Ground Sleeve Cap: [None.] [Hinged.] [Neoprene.] [Brass [with removal tool].]
		6. Tennis Equipment:
			1. Posts:
				1. Material: Galvanized steel with powder-coat finish.
				2. Size: 3 inch [diameter] [square].
				3. Post Color: [Green.] [Black.]
				4. Net Attachment to Posts: Main post has standard net tightener, top pulley, and one fixed eye. Opposite post has top pulley and one fixed eye.
			2. Net: [Champion.] [Premium.]
				1. Size: 42 feet by 42 inch high.
			3. Accessories:
				1. Boundary markers [1 inch wide strap] [2 inch wide strap] [1-1/4 inch rope] [3/4 inch rope] [1/4 inch rope] of length to outline a 30 by 60 foot court, complete with corner [anchors] [stakes].
				2. Ground Sleeve Cap: [None.] [Hinged.] [Neoprene.] [Brass [with removal tool].]
				3. [Ground anchor and strap net tie-down.]
		7. Pickleball Equipment:
			1. Posts:
				1. Material: Galvanized steel with powder-coat finish.
				2. Size: 3-1/2 inch diameter.
				3. Post Color: [Green.] [Black.]
				4. Net Attachment to Posts: Main post has standard net tightener with removable handle, top pulley, and one fixed eye. Opposite post has top pulley and one fixed eye.
			2. Net: [Champion.] [Premium.]
				1. Size: 22 feet by 36 inch high.
			3. Accessories:
				1. Boundary markers [1 inch wide strap] [2 inch wide strap] [1-1/4 inch rope] [3/4 inch rope] [1/4 inch rope] of length to outline a 30 by 60 foot court, complete with corner [anchors] [stakes].
				2. Ground Sleeve Cap: [None.] [Hinged.] [Neoprene.] [Brass [with removal tool].]
				3. [Ground anchor and strap net tie-down.]
		8. Tetherball Equipment:
			1. Posts: Standard [single-length] [two-piece].
			2. Accessories:
				1. Ground Sleeve Cap: [None.] [Hinged.] [Neoprene.] [Brass [with removal tool].]

END OF SECTION