

BID TABULATION-DESIGN AND BUILD PLAYGROUND AREA

DESIGN AND BUILD PLAYGROUND AREA	FRY & ASSOCIATES INC	ALL INCLUSIVE REC	MIRACLE RECREATION	S BOLLINGER AND ASSOCIATES LLC	LANDSCAPE STRUCTURES INC	LANDSCAPE STRUCTURES INC
BID OPENING 6-3-14	101 E 15TH AVE NORTH KANSAS CITY MO 64116	PO BOX 72 FARMINGTON MO 63640	878 E HWY 60 MONETT MO 65708	PO BOX 856 HILLSBORO MO 63050	601 7TH STREET S DELANO MN 55328	601 7TH STREET S DELANO MN 55328
TURN KEY BID						OPTION 2
Total Equipment Cost:	\$82,949.00	\$84,496.00	\$88,070.00	\$75,000.00	\$87,175.00	\$85,011.00
Total Shipping Cost:	\$1,121.00	FREE	FREE	\$3,000.00	\$2,165.00	\$2,165.00
Total Installation Cost:	\$34,000.00	\$31,200.00	\$30,000.00	\$40,000.00	\$27,977.00	\$27,310.00
Total Turn Key Project Cost:	\$118,070.00	\$115,696.00	\$118,070.00	\$118,000.00	\$117,317.00	\$114,486.00
ALTERNATE BID						
Total Equipment Cost:	\$82,949.00	\$84,496.00	\$113,170.00	\$75,000.00	\$87,175.00	\$85,011.00
Total Shipping Cost:	\$1,121.00	FREE	FREE	\$3,000.00	\$2,165.00	\$2,165.00
Total Installation Assistance Cost:	\$900.00	\$4,800.00	\$4,900.00	\$10,000.00	\$4,125.00	\$4,125.00
Total Alternate Bid Cost:	\$84,970.00	\$89,296.00	\$118,070.00	\$88,000.00	\$93,465.00	\$91,301.00
TOTAL BID PRICE TURN KEY	\$118,070.00	\$115,696.00	\$118,070.00	\$118,000.00	\$117,317.00	\$114,486.00
TOTAL BID PRICE ALTERNATE	\$84,970.00	\$89,296.00	\$118,070.00	\$88,000.00	\$93,465.00	\$91,301.00
BID BOND INCLUDED	5%	5%	5%	5%	5%	5%
AFFIDAVIT COMPLETED	YES	YES	YES	YES	YES	YES
COPY OF INSURANCE PROVIDED	NO	YES	YES	YES	YES	YES
COMMENTS:	See attached documents.	Entire Bid Packet is missing, no initialed pages. See attached documents.	See quote breakdowns. For Turn Key Bid- Option A,B,C,D includes wood fiber. Option F includes rubber mulch. Option E includes wood fiber for Alternate Bid. For Total Bid Price Turn Key, Options A,B,C,D w/WF & opt F w/RM. Total Bid Price Alternate Option E w/WF.	See attached documents.	See attached documents. Total Installation Assistance Cost is for 5 Days Assistance.	See attached documents. Total Installation Assistance Cost is for 5 Days Assistance.



JEFFERSON COUNTY
DEPARTMENT OF ADMINISTRATIVE SERVICES
729 MAPLE ST / PO BOX 100
HILLSBORO MO 63050
WWW.JEFFCOMO.ORG

Request for Proposal: DESIGN AND BUILD PLAYGROUND AREA

Date Issued: 5-5-14

PROPOSALS SHALL BE ACCEPTED UNTIL: TUESDAY, JUNE 3, 2014, AT 2:00 P.M. LOCAL TIME.

**Specification
Contact:**

MIKE GINGER
Department of the Parks & Recreation
636-797-5037

**Contract
Contact:**

VICKIE PRATT
Department of Administrative Services
636-797-5382

**Mail (3) Three
Complete Copies
With Vendor And
Proposal
Information As
Shown In Sample:**

**Contract Term:
upon approval by
the County Council
and County
Executive**

**Vendor
Information:**

SAMPLE ENVELOPE

VENDOR NAME

VENDOR ADDRESS

CONTACT NUMBER

DEPARTMENT OF THE COUNTY CLERK

JEFFERSON COUNTY MISSOURI

729 MAPLE ST / PO BOX 100

HILLSBORO MO 63050-0100

SEALED PROPOSAL: (PROPOSAL NAME)

The undersigned certifies that he/she has the authority to bind this company in an agreement/contract to supply the commodity or service in accordance with all terms, conditions, and pricing specified. This Proposal, if accepted, will constitute an Agreement and Contract with Jefferson County, Missouri, upon approval of the County Council and County Executive. Prices are firm during this agreement term, unless agreed upon in writing by the County. The County has the option to renew this agreement at the same terms and conditions as the original agreement for one additional one-year term with the written consent of the successful bidder. Price increases for renewals are not authorized unless approved in writing by the County.

S. Bollinger and Associates LLC Eric Friedrich
Company Name *Eric Friedrich* Authorized Agent (Print)
P.O. Box 856 *EF* Signature
Address *Hillsboro Mo 63050* *estimator* Title
City/State/Zip Code *Telephone #* *Date* *Tax ID #*
(636) 797-5820 *steve.bollinger@att.net* *(636) 797-5881* *Fax #*
E-mail

DESIGN AND BUILD PLAYGROUND AREA

TURN KEY BID

TOTAL EQUIPMENT COST: \$ 75,000.00

TOTAL SHIPPING COST: \$ 3000.00

TOTAL INTALLATION COST: \$ 40,000.00

TOTAL TURN KEY PROJECT COST:

\$ 118,000.00

ALTERNATE BID

TOTAL EQUIPMENT COST: \$ 75,000.00

TOTAL SHIPPING COST: \$ 3000.00

TOTAL INTALLATION ASSISTANCE COST:

\$ 10,000.00

TOTAL ALTERNATE BID COST: \$ 88,000.00

NOTICE TO BIDDER - Bidders must complete the submitted section in its entirety.

5. Bidder agrees that the work will be completed as specified before August 31, 2014 and the work shall progress until completed or the CONTRACTOR shall pay the County, not as a penalty but as liquidated damages, a sum equal to two hundred dollars (\$200.00) each working day (excluding Saturdays, Sundays and Legal Holidays) elapsing between the expiration of such time limit plus such extensions as may be necessary to cover contingencies beyond the CONTRACTOR'S control and the date of full completion.



Western Surety Company

BID BOND (Percentage)

Bond Number: 71530584KNOW ALL PERSONS BY THESE PRESENTS, That we S. Bollinger and Associates, LLC

P. O. Box 856, Hillsboro, MO 63050, hereinafter referred to as the Principal, and Western Surety Company, as Surety, are held and firmly bound unto County of Jefferson, of 729 Maple St., Hillsboro, MO 63050

hereinafter referred to as the Obligee, in the sum of Five (5 %) percent of the greatest amount bid, for the payment of which we bind ourselves, our legal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has submitted or is about to submit a proposal to Obligee on a contract for Design/Build Playground Area, Byrnesville Rd.

NOW, THEREFORE, if the said contract be awarded to Principal and Principal shall, within such time as may be specified, enter into the contract in writing and give such bond or bonds as may be specified in the bidding or contract documents with surety acceptable to Obligee; or if Principal shall fail to do so, pay to Obligee the damages which Obligee may suffer by reason of such failure not exceeding the penalty of this bond, then this obligation shall be void; otherwise to remain in full force and effect.

SIGNED, SEALED AND DATED this 10th day of June, 2014.

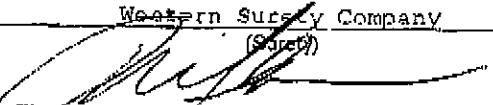
S. Bollinger and Associates, LLC

(Principal)

By  (Seal)

Western Surety Company

(Surety)

By  (Seal)

ROBERT C. FEUERBACHER Attorney-in-Fact



**JEFFERSON COUNTY
DEPARTMENT OF ADMINISTRATIVE SERVICES
729 MAPLE ST / PO BOX 100
HILLSBORO MO 63050
WWW.JEFFCOMO.ORG**

**Request for Proposal: DESIGN AND BUILD PLAYGROUND
AREA**

Date Issued: 5-5-14

PROPOSALS SHALL BE ACCEPTED UNTIL: TUESDAY, JUNE 3, 2014, AT 2:00 P.M. LOCAL TIME.

**Specification
Contact:** **MIKE GINGER**
Department of the Parks & Recreation
636-797-5037

**Contract
Contact:** **VICKIE PRATT**
Department of Administrative Services
636-797-5382

**Mail (3) Three
Complete Copies
With Vendor And
Proposal
Information As
Shown In Sample:**

**Contract Term:
upon approval by
the County Council
and County
Executive**

**Vendor
Information:**

SAMPLE ENVELOPE

VENDOR NAME	
VENDOR ADDRESS	
CONTACT NUMBER	DEPARTMENT OF THE COUNTY CLERK
	JEFFERSON COUNTY MISSOURI
	729 MAPLE ST / PO BOX 100
	HILLSBORO MO 63050-0100
SEALED PROPOSAL: (PROPOSAL NAME)	

The undersigned certifies that he/she has the authority to bind this company in an agreement/contract to supply the commodity or service in accordance with all terms, conditions, and pricing specified. This Proposal, if accepted, will constitute an Agreement and Contract with Jefferson County, Missouri, upon approval of the County Council and County Executive. Prices are firm during this agreement term, unless agreed upon in writing by the County. The County has the option to renew this agreement at the same terms and conditions as the original agreement for one additional one-year term with the written consent of the successful bidder. Price increases for renewals are not authorized unless approved in writing by the County.

Fry & Associates, Inc	John Fry, President
Company Name	Authorized Agent (Print)
101 E. 15th Ave	Signature
Address	
North Kansas City, MO 64116	President
City/State/Zip Code	Title
800-444-9787	6/9/2014
Telephone #	Date
fun@fryinc.com	Tax ID #
E-mail	877-221-4831
	Fax #

Division. The Alternate Bid shall include the same playground designed in the base bid but shall not include installation of the playground. The bidder shall define in the Alternate Bid the cost of the bidder providing on-site supervision and instruction to Department employees to install all elements of the designed playground.

TURN KEY BID

TOTAL EQUIPMENT COST: \$82,949.00

TOTAL SHIPPING COST: \$1121.00

TOTAL INTALLATION COST: \$34,000.00

TOTAL TURN KEY PROJECT COST: \$118,070.00

ALTERNATE BID

TOTAL EQUIPMENT COST: \$82,949.00

TOTAL SHIPPING COST: \$1121.00

TOTAL INTALLATION ASSISTANCE COST: \$900.00

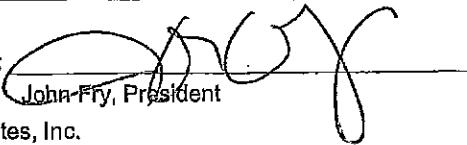
TOTAL ALTERNATE BID COST: \$84,970.00

I have read and understand the bid specifications, including the appendix for this project and I am aware of all elements associated with this project that impact the bid price, and I have submitted a bid reflecting all elements impacting the cost of this project.

TOTAL BID PRICE TRUN KEY: \$118,070.00

TOTAL BID PRICE ALTERNATE: \$84,970.00

Signature of Authorized Representative:


John Fry, President

Company Name (Print): Fry & Associates, Inc.

Company Address: 101 E. 15th Ave, North Kansas City, MO 64116

Phone: (OFFICE) 800-444-9787 (CELL) 816-507-5929 (FAX) 877-221-4831

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we

Fry & Associates, Inc.

101 East 15th Avenue North Kansas City, MO 64116

as Principal, hereinafter called the Principal, and the

Hudson Insurance Company

100 William Street, 5th Floor New York, NY 10038

a corporation duly organized under the laws of the State of DE ,

and authorized to transact business in the State of MO ,

hereinafter called the Surety, are held and firmly bound unto

Jefferson County

P.O. Box 100 Hillsboro, MO 63050

as Obligee, hereinafter called the Obligee, in the sum of Five Percent of the Bidder's maximum
Bid price

Dollars 5%),

for the payment of which sum well and truly to be made, the said Principal and the said
Surety, bind themselves, their heirs, executors, administrators, successors and assigns,
jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for

Design and Build Playground Area

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the
Principal shall enter into a Contract with the Obligee in accordance with the terms of
such bid, and give such bond or bonds as may be specified in the bidding or Contract
Documents with good and sufficient surety acceptable to the Obligee, then this
obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this 3rd day of June , 2014

Principal: Fry & Associates, Inc.

By:

John O. Fry
President (CEO)

John O. Fry

Surety: Hudson Insurance Company

By:

Linda Dozier

Attorney-in-Fact

Bridget A. Magee

Witness



c.314-800-5101 o.573-701-9787 866-701-9787 f.573-701-9312

Peter Wiss

peterw@allinclusiverec.com

PO Box 72 - Farmington, MO 63640

www.allinclusiverec.com

DESIGN AND BUILD PLAYGROUND AREA

TURN KEY BID

TOTAL EQUIPMENT COST: 84,496.00

TOTAL SHIPPING COST: free

TOTAL INSTALLATION COST: 31,200.00

TOTAL TURN KEY PROJECT COST: 115,696.00

ALTERNATE BID

TOTAL EQUIPMENT COST: 84,496.00

TOTAL SHIPPING COST: free

TOTAL INSTALLATION ASSISTANCE COST: 4,800.00

TOTAL ALTERNATE BID COST: 89,296.00

NOTICE TO BIDDER

Bidders must complete the submitted section in its entirety.

5. Bidder agrees that the work will be completed as specified before August 31, 2014 and the work shall progress until completed or the CONTRACTOR shall pay the County, not as a penalty but as liquidated damages, a sum equal to two hundred dollars (\$200.00) each working day (excluding Saturdays, Sundays and Legal Holidays) elapsing between the expiration of such time limit plus such extensions as may be necessary to cover contingencies beyond the CONTRACTOR'S control and the date of full completion.

Design and Build Playground Area

BID BOND

Suitable bid security in the amount of:

(\$ 5,900) Dollars and equal to five (5%) percent of the bid as called for in the proposal specifications. This sum is to be forfeited to the County of Jefferson if the party or parties making the proposal fail to enter into a contract with the approved securities within fifteen (15) days after the Notice of Award has been made.

The undersigned has examined the Plans and Specifications for the work to be done and has satisfied himself as to the work to be done and the conditions under which it must be carried out.

The Contractor shall commence work within the time stipulated in the Notice To Proceed from the County and shall fully complete all work under this proposal with the schedule established by the Contract Documents. The proposal shall be equally binding to all heirs, executors, successors and assigns.

FIRM NAME PlayPower LT Farmington, Inc. (f/k/a Little Tikes Commercial Play Systems)

BY

Valerie Callaway

TITLE

Customer Services Manager

ATTEST

Michele Morris

ADDRESS

878 E. US Hwy 60

Monett, MO 65708

TELEPHONE

573-760-7318

SURETY NAME

Atlantic Specialty Insurance Company

BY

Anne Potter
Anne Potter, Attorney-in-Fact



JEFFERSON COUNTY
DEPARTMENT OF ADMINISTRATIVE SERVICES
729 MAPLE ST / PO BOX 100
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MIKE GINGER
Department of the Parks & Recreation
636-797-5037

**Contract
Contact:**

VICKIE PRATT
Department of Administrative Services
636-797-5382

**Mail (3) Three
Complete Copies
With Vendor And
Proposal
Information As
Shown In Sample:**

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upon approval by
the County Council
and County
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**Vendor
Information:**

SAMPLE ENVELOPE

<i>VENDOR NAME</i>	
<i>VENDOR ADDRESS</i>	
<i>CONTACT NUMBER</i>	DEPARTMENT OF THE COUNTY CLERK
	JEFFERSON COUNTY MISSOURI
	729 MAPLE ST / PO BOX 100
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SEALED PROPOSAL: (PROPOSAL NAME)

The undersigned certifies that he/she has the authority to bind this company in an agreement/contract to supply the commodity or service in accordance with all terms, conditions, and pricing specified. This Proposal, if accepted, will constitute an Agreement and Contract with Jefferson County, Missouri, upon approval of the County Council and County Executive. Prices are firm during this agreement term, unless agreed upon in writing by the County. The County has the option to renew this agreement at the same terms and conditions as the original agreement for one additional one-year term with the written consent of the successful bidder. Price increases for renewals are not authorized unless approved in writing by the County.

Landscape Structures Inc.

Company Name

601 7th Street S.

Address

Delano, MN 55328

City/State/Zip Code

763-972-3391

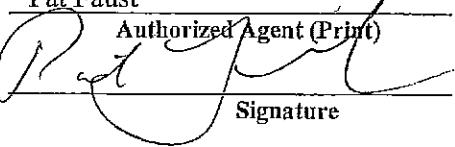
Telephone #

elaineharkess@playlsi.com

E-mail

Pat Faust

Authorized Agent (Print)


Signature

President

Title

6/6/14

41-0971842

Date

Tax ID #

763-972-3185

Fax #

Division. The Alternate Bid shall include the same playground designed in the base bid but shall not include installation of the playground. The bidder shall define in the Alternate Bid the cost of the bidder providing on-site supervision and instruction to Department employees to install all elements of the designed playground.

TURN KEY BID

TOTAL EQUIPMENT COST: \$87,175.00

TOTAL SHIPPING COST: \$2,165.00

TOTAL INTALLATION COST: \$27,977.00

TOTAL TURN KEY PROJECT COST: \$117,317.00

ALTERNATE BID

TOTAL EQUIPMENT COST: \$87,175.00

TOTAL SHIPPING COST: \$2,165.00

TOTAL INTALLATION ASSISTANCE COST: \$4,125.00 for 5 Days Assistance

TOTAL ALTERNATE BID COST: \$93,465.00

I have read and understand the bid specifications, including the appendix for this project and I am aware of all elements associated with this project that impact the bid price, and I have submitted a bid reflecting all elements impacting the cost of this project.

TOTAL BID PRICE TRUN KEY: \$117,317.00

TOTAL BID PRICE ALTERNATE: \$93,465.00

Signature of Authorized Representative: 

Company Name (Print): Landscape Structures Inc.

Company Address: 601 7th Street S., Delano, MN 55328

Phone: (OFFICE) 763-972-3391 (CELL) _____ (FAX) 763-972-3185

Division. The Alternate Bid shall include the same playground designed in the base bid but shall not include installation of the playground. The bidder shall define in the Alternate Bid the cost of the bidder providing on-site supervision and instruction to Department employees to install all elements of the designed playground.

TURN KEY BID OPTION 2

TOTAL EQUIPMENT COST: \$85,011.00

TOTAL SHIPPING COST: \$2,165.00

TOTAL INTALLATION COST: \$27,310.00

TOTAL TURN KEY PROJECT COST: \$114,486.00

ALTERNATE BID

TOTAL EQUIPMENT COST: \$85,011.00

TOTAL SHIPPING COST: \$2,165.00

TOTAL INTALLATION ASSISTANCE COST: \$4,125.00 for 5 Days Assistance

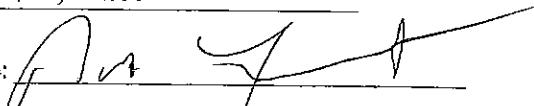
TOTAL ALTERNATE BID COST: \$91,301.00

I have read and understand the bid specifications, including the appendix for this project and I am aware of all elements associated with this project that impact the bid price, and I have submitted a bid reflecting all elements impacting the cost of this project.

TOTAL BID PRICE TRUN KEY: \$114,486.00

TOTAL BID PRICE ALTERNATE: \$91,301.00

Signature of Authorized Representative:



Company Name (Print): Landscape Structures Inc.

Company Address: 601 7th Street S.; Delano, MN 55328

Phone: (OFFICE) 763-972-3391 (CELL) _____ (FAX) 763-972-3185

Design and Build Playground Area

BID BOND

Suitable bid security in the amount of:

Five thousand eight hundred sixty-five and 85/100 dollars

(\$ 5,865.85) Dollars and equal to five (5%) percent of the bid as called for in the proposal specifications. This sum is to be forfeited to the County of Jefferson if the party or parties making the proposal fail to enter into a contract with the approved securities within fifteen (15) days after the Notice of Award has been made.

The undersigned has examined the Plans and Specifications for the work to be done and has satisfied himself as to the work to be done and the conditions under which it must be carried out.

The Contractor shall commence work within the time stipulated in the Notice To Proceed from the County and shall fully complete all work under this proposal with the schedule established by the Contract Documents. The proposal shall be equally binding to all heirs, executors, successors and assigns.

FIRM NAME Landscape Structures Inc.

BY Pat Faust Pat Faust

TITLE President

ATTEST Fred Caslavka Fred Caslavka, CFO

ADDRESS 601 7th Street S.

Delano, MN 55328

TELEPHONE 763-972-3391



JEFFERSON COUNTY
DEPARTMENT OF ADMINISTRATIVE SERVICES
729 MAPLE ST / PO BOX 100
HILLSBORO MO 63050
WWW.JEFFCOMO.ORG

Request for Proposal: DESIGN AND BUILD PLAYGROUND AREA Date Issued: 5-5-14

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Department of the Parks & Recreation
636-797-5037

Contract
Contact:

VICKIE PRATT
Department of Administrative Services
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VENDOR ADDRESS	
CONTACT NUMBER	DEPARTMENT OF THE COUNTY CLERK
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MIRACLE RECREATION
Company Name

CURT HUTCHINSON
Authorized Agent (Print)

878 E Hwy 60

Curt Hutchinson
Signature

Address

Monett, MO 65708
City/State/Zip Code

District Sales Consultant
Title

800-848-5616

6-5-14
Date

43-1595099
Tax ID #

Telephone #

636-528-8413

Fax #

curt@hutchinson-recreation.com
E-mail

636-528-8413
Fax #

Division. The Alternate Bid shall include the same playground designed in the base bid but shall not include installation of the playground. The bidder shall define in the Alternate Bid the cost of the bidder providing on-site supervision and instruction to Department employees to install all elements of the designed playground.

TURN KEY BID

TOTAL EQUIPMENT COST: \$88,070.00 **OPTION A-B-C-D Includes Wood Fiber (SEE QUOTE BREAKDOWNS)**
TOTAL SHIPPING COST: Free **OPTION F Includes Rubber Mulch**
TOTAL INSTALLATION COST: \$30,000.00
TOTAL TURN KEY PROJECT COST: \$118,070.00

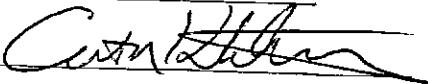
ALTERNATE BID

TOTAL EQUIPMENT COST: \$113,170.00 **OPTION E -Includes Wood Fiber (SEE QUOTE BREAKDOWN)**
TOTAL SHIPPING COST: Free
TOTAL INSTALLATION ASSISTANCE COST: \$4,900.00
TOTAL ALTERNATE BID COST: \$118,070.00

I have read and understand the bid specifications, including the appendix for this project and I am aware of all elements associated with this project that impact the bid price, and I have submitted a bid reflecting all elements impacting the cost of this project.

TOTAL BID PRICE TURN KEY: \$118,070.00 **OPT A-B-C-D w/WF & OPT F w/RM**

TOTAL BID PRICE ALTERNATE: \$118,070.00 **OPTION E w/WF**

Signature of Authorized Representative: 

Company Name (Print): MIRACLE RECREATION

Company Address: PO BOX 194, TROY, MO 63379

Phone: (OFFICE) 800-848-5616 (CELL) 314-749-4088 (FAX) 636-528-8413

DESIGN AND BUILD PLAYGROUND AREA

TURN KEY BID

TOTAL EQUIPMENT COST: \$88,070.00 OPTION A-B-C-D Includes Wood Fiber (SEE QUOTE BREAKDOWN)
OPTION F Includes Rubber Mulch

TOTAL SHIPPING COST:

FREE

TOTAL INTALLATION COST: \$30,000.00

TOTAL TURN KEY PROJECT COST:

\$118,070.00

ALTERNATE BID

TOTAL EQUIPMENT COST: \$113,170.00 OPTION E Includes Wood Fiber (SEE QUOTE BREAKDOWN)

TOTAL SHIPPING COST:

FREE

TOTAL INTALLATION ASSISTANCE COST:

\$4900.00

TOTAL ALTERNATE BID COST: \$118,070.00

NOTICE TO BIDDER - Bidders must complete the submitted section in its entirety.

5. Bidder agrees that the work will be completed as specified before August 31, 2014 and the work shall progress until completed or the CONTRACTOR shall pay the County, not as a penalty but as liquidated damages, a sum equal to two hundred dollars (\$200.00) each working day (excluding Saturdays, Sundays and Legal Holidays) elapsing between the expiration of such time limit plus such extensions as may be necessary to cover contingencies beyond the CONTRACTOR'S control and the date of full completion.

Design and Build Playground Area

BID BOND

Suitable bid security in the amount of:

(\$ _____) Dollars and equal to five (5%) percent of the bid as called for in the proposal specifications. This sum is to be forfeited to the County of Jefferson if the party or parties making the proposal fail to enter into a contract with the approved securities within fifteen (15) days after the Notice of Award has been made.

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FIRM NAME Miracle Recreation Equipment Co.
BY *Keen Walker*
TITLE _____
ATTEST *John Adams*
ADDRESS 878 E. US Hwy 60
 Monett, MO 65708
TELEPHONE 417-235-6917
SURETY NAME Atlantic Specialty Insurance Company
BY *Anne Potter*
 Anne Potter, Attorney-in-Fact



MIRACLE RECREATION C/O
Hutchinson Recreation & Design Inc.
P.O Box 194
Troy, MO 63379

Miracle A

Name/Address		
Jefferson County Park Department 725 Maple Street PO BOX 100 Hillsboro, MO 63050		
Date	Quotation #	REP
06/03/14	7295	CRH

Quantity	Description	Terms	Total
	Miracle Recreation is made in Monett, MO! Miracle TX Series Playsystems 47" Square Decks. Age 2-5/5-12 and Shade Toppers Freight. Unload and Store by owner unless listed Installation of Equipment Storage container on site for 1 month and unload IPEMA Wood Fiber Delivered to Site Wood Fiber Installed Delivery/Install of 2-3" drain rock under wood fiber. Raise site up above flood stage with dirt. Owner to provide dirt. Backfill dirt to timbers slope 3:1 Site Restoration Fabric Installed Deliver/Install plastic timbers around perimeter 12" high. Includes ADA Plastic ramp into play area. Fence Galvanized Chain link fence 125' installed Hutchinson Recreation & Design, Inc. Donation Performance Bond Tax Exempt		118,070.00

The acceptance signature below serves as authorization to order the items quoted & indicates acceptance of the listed prices and payment terms enclosed. Signature will not substitute for a Purchase Order.

Acceptance Signature: _____

Total **\$118,070.00**

Unloading, storage and installation of equipment upon arrival is not included in above pricing unless specifically noted on quote.

Signature: _____

Phone: (800) 848.5616

www.hutchinson-recreation.com

Fax: (636) 528.8413

NOTE: Purchase orders & checks for equipment should be made out to Miracle Recreation.

Hutchinson Recreation & Design, Inc. - Terms and Conditions

Page 1 of 4 (Terms and Conditions & Proposal Facts)

The quotation, terms and conditions, and proposal facts must be attached and included as an exhibit to any contract, which is entered into as a result of this quotation. Failure to do so will result in such contract being returned unsigned until these items have been included, thus delaying the processing of your order.

Equipment orders with Installation service: Continuous access will be provided to the installation crew for heavy equipment traffic without obstruction for delivery and installation of equipment, safety surfacing, and any other materials or furnishing provided on this quotation throughout the installation. The site is free of any private utilities or underground items unless marked by owner. All items below are not included unless specifically stated on the quotation. Excessive rock excavation is not included in standard pricing. Proper site grade has been completed prior to the arrival of the installation crew. Additional mobilization costs will be charged for each trip if site is not ready for the installation of the equipment. Core drilling or saw cutting of existing or new concrete or asphalt is not included. The installation of all furnishings and equipment not indicated as surface mount or portable should be scheduled for installation prior to concrete or asphalt construction or blocked out for in concrete forms. Installation prices assume normal soil conditions, easy access to site with trucks. If it becomes necessary to cross landscaping, sidewalks, or grass areas to reach playground area, re-seeding or sodding may be necessary - the customer will be responsible unless otherwise noted. Installation does not include any allowance for moving or repairing any underground utility lines such as electrical, telephone, gas, water or sprinkler lines that may be encountered during installation operations. Any additional costs incurred as a result of hard rock conditions requiring extra equipment, or for utility removal or repair resulting in delay is for customer's account, unless they are detailed on as built site drawings or marked on the ground prior to quotation, fabrication and installation.

Owner/Contractor site preparation and installation notes and instructions:

- DO NOT SPREAD SAFETY SURFACE OR GRAVEL DRAINAGE PRIOR TO INSTALLATION OF PLAYGROUND EQUIPMENT.
- If site conditions become too wet to install equipment, drying agents such as lime can be applied at additional costs to be borne by Owner. The application of drying agents must be pre-approved via written instrument, signed by both Owner and Hutchinson Recreation & Design, Inc., before application begins.
- Any on-site installation, site work, or surfacing change orders must be pre-approved via written instrument, signed by Owner & Hutchinson Recreation & Design, Inc. before change orders are executed. Hutchinson Recreation & Design, Inc. is not responsible or liable for any verbal or other negotiations with installers made without approval and a signed change order from our office.
- Removal and replacement of existing surfacing materials is not included unless specifically indicated on the quotation.
- Owner is responsible for locating and marking all private utility locations and notification of any other underground items prior to quotation, fabrication, and installation. Hutchinson Recreation & Design, Inc. will not be responsible for any underground items encountered or any damage to such items not marked or pointed out by the owner. Any delay or cost to repair as a result will be at an additional cost to the owner.
- Quotations for Engineered Wood Fiber do not include gravel drainage systems; gravel sumps or daylight drains unless specifically noted.
- Required installation grade includes: Site excavated to proper depth and grade should be no greater than 2% for drainage.

Owner/Contractor will provide safety/storage of equipment/security fencing until equipment and surfacing is ready for installation and use – unless specifically noted on quote.

Additional information regarding Safety Surfacing (Unless Noted Specifically on the quotation):

- Prices quoted are for delivery of products only – installation services are available upon request.
- Purchaser shall be responsible for storage of all products and security, as needed, to prevent vandalism and/or damage of any type to the surface during installation process, curing time, and after the installation is completed. Surface quotes are based on thickness/critical fall heights performances as tested by an accredited laboratory, and are not subject to results generated by hand held, suspect field testing equipment.
- Purchaser is responsible for storage of all resin, glue, and binder in a temperature controlled environment. Any materials left outside will be at the sole cost of the purchaser if replacement products are needed.
- If site is prepared by other and if the site is over the square foot agreed upon the customer will be charged for the additional square foot based on the critical fall height of equipment and price/square foot.
- Price excludes concrete, asphalt, site work, base aggregate, compaction or preparation etc.
- If loose fill engineered wood fiber is being purchased customer is aware that: Due to the nature of wood fiber, wood fiber will vary in size and type of wood if purchased in differing time frames. Engineered Wood fiber surfacing is for safety purposes 1" and the aesthetic look and feel of the wood fiber is inconsistent. The variance will meet all required guidelines/specifications from the manufacturer.

Owner/Contractor delivery and receipt of shipment:

- The Owner/Contractor will be notified 24 hours prior to delivery whenever possible.
- It is assumed that all materials can be delivered to the jobsite, and the Owner/Contractor will provide a secure location to store the equipment prior to installation. Installation price does not include transportation of materials from a secondary secure delivery location to job site.
- Delivery does not include lift-gate service-unless specifically noted on quote/bid. Those services are available by request for an extra cost to the owner.
- Lead-times vary by manufacturer anywhere from 2 to 12 weeks and are subject to change without notice. Please ask our office at the time of order for approximate shipping lead times. Please provide firm shipment schedules at time of order, delivery dates requested beyond 180 days are subject price increases from suppliers for materials and freight.

Insurance: This proposal contains standard General Liability and Workers Compensation coverage. Any waivers of subrogation and primary no-contributory endorsement requirements require additional premium to the provider. Any additional such charges to our policies as a result of the awarding of a contract based upon this proposal will be passed through to you at your additional expense.

Quotation does NOT include the following: taxes, prevailing wages, permits, state or local approvals, performance/payment bond, engineering seals, testing, site preparation, or storage of equipment, installation, supervision, removal of excess dirt, borders, safety surfacing, unloading of equipment, security, fencing, or landscaping! Unless specifically stated on the quotation.

Order and Payment Terms: Checks and purchase orders are to be made out to: Manufacturing Company of the equipment, C/O Hutchinson Recreation & Design, Inc – unless otherwise noted on quote or at the time of order by Hutchinson Recreation & Design, Inc. All orders require tax-exempt certificate. All applicable tax will be added to final invoice. Net 30 days with approved credit, Visa or MasterCard. If applying for credit - unless credit is approved by Manufacturing Company a 50% or 100% prepayment may be required. Cash in advance to receive a 3% discount on certain equipment, NO retainage/retentions allowed. Quotation is valid for 30 days. Past due accounts will be assessed interest at the rate of 1.5% per month. Hutchinson Recreation & Design, Inc. shall be entitled to recover its reasonable attorneys' fees and costs if legal action is brought to collect amounts due.

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Failure to comply with these terms and conditions will result in additional charges or contract change orders. Please contact our office with any questions concerning the attached quotation or terms and conditions, or if any additional services are required for your Project. Thank you for the opportunity to provide this quotation.

Acceptance of Quotation:

The undersigned, by its duly authorized representative hereby authorizes Hutchinson Recreation to have the manufacturer ship the equipment listed on the accompanying quote, and complete the specified tasks, for which the undersigned agrees to pay the total amount specified. The undersigned acknowledges that it has read and agreed to the Terms and Conditions. Payment terms are Net-30 days from invoice date with approved credit. Non-taxable customers must provide proper tax exemption certificate to manufacturer at time of order or tax will be added to final invoice.

Customer Acceptance Signature

Date

Hutchinson Recreation & Design, Inc. – PROPOSAL FACTS

PROPOSAL/QUOTE (PLEASE NOTE: UNLESS SPECIFICALLY NOTED ON PROPOSAL/QUOTE PRICES DO NOT INCLUDE ANY OF THE FOLLOWING ITEMS.)

Unloading the truck	Liftgate services	Removal of excess material, dirt or old equipment from site.	Concrete pad prices are (plus/minus) one-degree grade.
Extensive site preparation (EARTH BURME) (plus/minus) one-degree grade.	Site drainage (Geotextile fabric, drain rock or drain pipe).	Safety surface retention wall or barrier.	Installation of equipment.
Safety Surfacing (Wood Fiber, Poured in Place, Tile etc) (plus/minus) one-degree grade.	Installation of safety surface.	Any extra material/labor necessary to get grade is additional costs.	Commemorative signs
Taxes	Supervision	Prevailing wages	Performance and Payment Bonds
Storage	Security	Fencing or Landscaping	Testing/Permits/State or Local Approvals/Engineering Seals
Location of all utilities (Public or Private) must be located by owner			

NOTE: INSTALLATION WILL BE UNDER A SEPARATE CONTRACT BILLED BY AN INDEPENDENT INSTALLER, UNLESS PRIOR ARRANGEMENT IS MADE TO BILL THROUGH MANUFACTURER. INSTALLATION QUOTE IS BASED ON "NORMAL" MISSOURI/ILLINOIS SOIL AND OR WATER TABLE CONDITIONS AND LEVELS. SEE TERMS SHEET FOR MORE INFORMATION ON INSTALLATION LIMITATIONS AND CUSTOMER RESPONSIBILITIES.

OWNER SITE PREPARATION AND INSTALLATION NOTES:

Owner **MUST** provide safety fencing to be used around the site by the installer – unless specifically noted on our proposal.

Desired install grade includes: sod removal flat/level surface w/drainage.

DO NOT SPREAD SAFETY SURFACE PRIOR TO INSTALLATION.

READ installation specifications brochures prior to installation.

Install equipment according to manufacturer's specifications.

You **MUST** call underground utilities prior to excavation – public and private lines.

DELIVERY INFORMATON:

Delivery day assistance needed to unload - the driver will be either a factory representative who may assist you or commercial carrier depending on manufacture. Depending on manufacture and equipment it will take anywhere between **2-5 sturdy people to unload equipment.** Shelters, and some bigger equipment may require use of machinery to assist in the unloading of equipment. The cost of that machinery is not included in our pricing unless specifically noted on the quotation or bid. Liftgate services are available upon request at an additional cost to the owner. Delivery point should be close to construction site - in secured area. Equipment should be inventoried carefully after unloading, along with notations of any discrepancies. **NOTE: MISSING PARTS CLAIMED AFTER 30 DAYS FROM THE DATE OF DELIVERY WILL NOT BE HONORED. MISSING PARTS NOTIFIED TO US AFTER 30 DAYS WILL REQUIRE RE-PURCHASE OF PARTS.**

CUSTOMER RESPONSIBILITY:

At the completed installation or installation sign-off, the owner becomes responsible for keeping children off of the playground for 72 hours to allow cement to set up. If poured-in-place surfacing is installed the owner is responsible to keep children off to allow for the surfacing to properly cure – which may be up to 72 hours. It is advised to have security throughout the poured-in-place surfacing installation and during this curing process to prevent damage to the surfacing. It is the owner's responsibility to maintain the safety surfacing and schedule regular safety and maintenance inspections of the equipment.

PLEASE NOTE:

To the best of our knowledge, the proposed components/parts bring your play structure into compliance with current guidelines and standards. If it is determined at a later date that additional components/parts are required there will be an additional cost for these components/parts. The proposed equipment from the manufacturer meets applicable federal guidelines and is not ensured to meet specific state and local codes. The customer is responsible, if applicable, to bring any concerns for state and local codes to the attention of Hutchinson Recreation & Design, Inc. prior to quotation, ordering, and installation of equipment – otherwise any additional costs incurred will be the full responsibility of the owner.

NOTICE TO OWNER

FAILURE OF THIS CONTRACTOR TO PAY THOSE PERSONS SUPPLYING MATERIAL OR SERVICES TO COMPLETE THIS CONTRACT CAN RESULT IN THE FILING OF A MECHANIC'S LIEN ON THE PROPERTY WHICH IS THE SUBJECT OF THIS CONTRACT PURSUANT TO CHAPTER 429, RSMO. TO AVOID THIS RESULT YOU MAY ASK THIS CONTRACTOR FOR "LIEN WAIVERS" FROM ALL PERSONS SUPPLYING MATERIAL OR SERVICES FOR THE WORK DESCRIBED IN THIS CONTRACT. FAILURE TO SECURE LIEN WAIVERS MAY RESULT IN YOUR PAYING FOR LABOR AND MATERIAL TWICE.

Acceptance of Proposal Facts:

The undersigned acknowledges that it has read and agreed to the proposal facts.

Customer Acceptance Signature

Date

Jefferson County - Opt A · GENERAL SPECIFICATIONS

SAFETY STANDARDS & GUIDELINES All public playground equipment supplied shall meet all applicable provisions of the current "Handbook for Public Playground Safety" published by the Consumer Product Safety Commission (CPSC), and of ASTM F1487-01 "Standard Consumer Safety Performance Specification for Playground Equipment for Public Use," published by the American Society for Testing and Materials (ASTM). Products bearing the certification seal of the International Play Equipment Manufacturers Association (IPEMA) have received written validation of compliance with ASTM F1487-01.

TRADEMARKS Aquarius (R), Big Kahuna (R), Big Timber (R), Bongo (TM), Boulder Ridge (R), Bug Bites (R), Camel Back (TM), Center Stage (R), Chameleon (TM), Coil Curler (TM), Connexion (R), Dupli-Gator (R), Flex Jet (R), Flippo (TM), Flippopotamus (R), Fun Fone (TM), Fun Tunnel (R), Funnel Tunnel (TM), Funshades (TM), Gator Grip (R), Gemini (TM), Gravity (TM), Grizz-Lee Bear (R), Groove (TM), Groove II (R) Slide, Hang-A-Round (R), Interaxion (TM), JAX (R), Kidrox (R), Kids' Choice (R), Kids' Perch (TM), Legacy Cantilever (R), Legacy Contempo (R), Legacy Heritage (R), Libra (R), Linkz (TM), Loopz (TM), Mega Tower (R), Miracle (R), Miracle Recreation (R), MiracleTech (R), Mira-Cote (R), Mira-Lam (TM), Mira-Lene (TM), Mira-Therm2 (TM), Mogul (TM), Mountain Trail (R), N-Dure Cycle (R), Nexus (R), Observation Deck (R), Offspring (TM), OrbX (R), ParkWatch (TM), Pegasus (R), Perma-Guard (TM), Perseus (TM), Phyzics (R), Play Cover (R), Play Terrain (R), Power Pedaler (TM), Pull Up/Lift (R), Rainbow Bend (TM), Reflex (R), Relay Racer (R), Rock-ite (R), Rodeo Rocky (TM), Schnozz Womp (TM), Serpent Trek (TM), SiteBrite (TM), Sneak-A-View (TM), SonicScreen (R), Spray Stations (R), Sun Sparkle (TM), Surfer (R), Tensile Tough (TM), Tensile Tower (TM), Thunder Tunnel (TM), Timber Topper (TM), Toboggan (TM), Toddlers' Choice (R), Tots' Choice (R), Tots' Choice (R) Expansion, Tots' Choice (TM) for Toddlers, Trim Timber (R), Triple Play (TM), Typhoon (TM), Versalok (R), View Groove (TM), Wavy Waffle Wall Walker (TM), Webscapes (R), Whirlwind (TM), Xcalator (R), and X-Cavator (TM) are trademarks of Miracle Recreation Equipment Company. Tornado (TM), Multi-Pondo (TM), and Pirouette (TM) are trademarks of HAGS (TM). Miracle and HAGS are divisions of PlayPower, Inc. PlayPower (R) is a trademark of PlayPower, Inc.

QUALITY SYSTEM CERTIFICATION The manufacturer's quality system is certified to ISO 9001 since December 1998.

PRODUCT CHANGES At Miracle Recreation Equipment Company, we strive for the utmost in quality and safety in our entire product line. Therefore, in order to honor this commitment to you, our customers, we reserve the right to make changes on any product released and/or published in our annual catalog and other promotional or technical literature.

WARRANTY

Buyer agrees that products sold by Miracle Recreation Equipment Company carry only the following warranties:

- 1. LIMITED WARRANTY FOR AS LONG AS YOU OWN THE PRODUCT** against structural failure due to corrosion or defects in materials and workmanship on aluminum deck posts, steel deck posts, the VersaLok (R) fastening system and associated fastening hardware.
- 2. LIMITED FIFTEEN (15) YEAR WARRANTY** against structural failure due to corrosion or defects in materials and workmanship on steel support legs and Mira-Therm2 (TM) 2 on MEGA TOWER (R), TOTS' CHOICE (R), KIDS' CHOICE (R), CENTER STAGE (R), NEXUS (R) and Boulder Ridge (R) Rock Wall; on playsystem steel components including railings, rungs, and rigid climbers; and Rockite (R).
- 3. LIMITED FIFTEEN (15) YEAR WARRANTY** against structural failure due to corrosion or defects in materials and workmanship on all Play Cover (R) steel frames.

These limited warranties apply only to Miracle products that are erected and installed in conformance with Miracle's installation instructions, and that are maintained and inspected in conformance with Miracle's maintenance and operational instructions. These limited warranties specifically do not cover Miracle products: that have been modified, altered, or misused; that have not been used as designed or intended; to which non-Miracle parts have been added or substituted; or that have been damaged due to excessive wear and tear, vandalism, abnormal use, abuse, negligence, extraordinary weather or acts of God. MiracleTech Security (R) systems limited warranties do not cover products serviced or repaired by unauthorized service providers. These limited warranties do not protect against color fade, except for PlayCover (R) as noted above. Buyer, by acceptance and use of these limited warranties, waives any rights it would otherwise have to claim or assert that this limited warranty fails of its essential purpose. Buyer agrees that venue for any court action to enforce these limited warranties shall be in Barry or Greene Counties in the State of Missouri.

EXCEPT AS EXPRESSLY WARRANTED HEREIN, MIRACLE EXPRESSLY DISCLAIMS ANY OTHER WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THOSE ARISING BY STATUTE OR OTHERWISE IN LAW OR FROM COURSE OF DEALING OR USAGE OF TRADE. IN NO EVENT SHALL MIRACLE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, WHETHER BASED UPON CONTRACT, TORT, OR ANY OTHER LEGAL THEORY (INCLUDING WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION, LOSS OF INFORMATION, CONSEQUENTIAL, INCIDENTAL, INDIRECT OR SPECIAL DAMAGES OR OTHER PECUNIARY LOSS).

*Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes"
for specifications of items listed in bold type.*

- **TOTS' CHOICE EXPANSION (TCX) DECKS** shall be Mira-Therm2 deck models designed for use with Tots' Choice 3-1/2" deck posts, which shall feature an inside dimension of 43" (like standard Kids' Choice decks) to accommodate Kids' Choice type (TCX) components instead of Tots' Choice components. The TCX Triangle Split Deck is an isosceles triangle play surface designed to be used as a Step Platform at 18" and lower for 2-5 year old users or 30" and lower for 5-12 year old users. The deck shall be constructed of folded 11 ga. steel sheet forming 3" tall sides with 3/16" x 1-1/2" flat steel braces solid welded. The decking shall be perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center and primer coated prior to polyvinyl coating. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. All deck surfaces shall have a Mira-Therm2 or Mira-Therm2 PE finish. Clamps shall have a Mira-Cote finish. The TCX/TC Transition Deck (Model # 704-512-9) shall be an adaptor platform with one side designed for attachment to a standard Tots' Choice deck or component (i.e. one side shall have an inside dimension of 38-1/2") while its remaining sides shall accommodate TCX components or decks (i.e. three sides shall have inside dimensions of 43"). The TCX/KC Transition Deck (Model # 704-514-9) shall be an adaptor platform with one side designed for attachment to a Tots' Choice Expansion deck (i.e. one side shall have two corners for 3-1/2" O.D. posts) while its opposite side shall be designed for attachment to a Kids' Choice deck (i.e. it has two corners for 5" O.D. posts). The two sides in between shall accommodate TCX components. (All sides shall have inside dimensions of 43".) The TCX Triangle Deck (Model # 704-501-9) shall require 3 posts and shall have a deck top surface area of 6.47 sq. ft. The TCX Square Deck (Model # 704-502-9) shall require 4 posts and shall have a deck top surface area of 14.82 sq. ft. The TCX Half Hex Deck (Full) (Model # 704-503-9) shall require 4 posts and shall have a deck top surface area of 19.44 sq. ft. The TCX Half Hex Deck (Open) (Model # 704-504-9) shall require 5 posts and shall have a deck top surface area of 19.40 sq. ft. The TCX Rectangle Deck (Open) (Model # 704-510-9) shall require 6 posts and shall have a deck top surface area of 29.43 sq. ft. The TCX/TC Transition Deck shall require 4 posts and shall have a deck top surface area of 13.99 sq. ft. The TCX/KC Transition Deck shall require two 3-1/2" O.D. posts and two 5" O.D. posts and shall have a deck top surface area of 14.74 sq. ft. The TCX Flippo Deck (Model # 704-515-9) shall require 4 posts and shall have a deck top surface of 18.95 sq. ft. TCX Flippo Deck shall only be used with Model # 704-770-9. With the exception of the TCX/KC Transition Deck, the TCX decks shall be designed on a 46-1/2" center-to-center spacing on 3-1/2" deck posts, at equal or varied heights. All deck-to-post connections shall be made with a deck support casting and clamp. All deck connections shall be made beneath the deck with no exposed fasteners on deck perimeter. All decks shall be constructed with folded 11 ga. steel sheet forming 3" tall sides. Decking sheets shall be perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. The decking shall have 7 ga. by 2" flat steel braces and corner braces of 7 ga. steel. The entire assembly shall be solid welded prior to polyvinyl coating. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. All deck surfaces shall be coated in Mira-Therm2. Clamps and castings shall have a Mira-Cote finish.

- **TOTS' CHOICE STEEL POSTS:** The steel posts shall be constructed of 3-1/2" tube with 3-1/2" round end caps mechanically fastened to the top end. Posts for roof attachment shall not receive end caps. After fabrication, all posts and end caps shall have a Mira-Cote finish.

• **CANYON CLIMBER** shall be challenging vertical climbers used to access and egress deck systems of various heights. The assemblies shall contain arch enclosures. The climber shall comprise a frame and curved rungs constructed of 1" pipe, solid welded, with a swaged extension tube constructed of 1-1/4" pipe, 10 ga. with threaded aluminum insert for field assembly to arch enclosure. The rungs shall be curved in a semi-circle shape with a 19" diameter and shall alternate sides of the frame as they ascend. The Kids' Choice arch enclosure shall comprise top supports, extension tube, and arched upright constructed of 1" pipe, drilled, formed and mashed, and vertical rungs constructed of 3/4" x 1" oval tube, all solid welded. The Tots' Choice arch enclosure shall comprise two top supports and infill of 1" tube with a climbing pole support and arch support of 1" pipe, all solid welded. Kids' Choice arch enclosure for split decks shall consist of top rails, a receiver tube, an arched upright and outer upright, which shall be constructed of 1" pipe, drilled, formed and mashed, and vertical spokes which shall be constructed of 3/4" x 1" oval tube. The enclosure assembly shall be solid welded. Enclosure shall measure 55" in width and 62" in height. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The climber, enclosure and clamps shall have a Mira-Cote finish.

• **CLIMBING WALLS, VERTICAL AND SLOPED (KIDS' CHOICE & TCX ONLY)** shall consist of an arch entry deck enclosure and panel sections with climbing holds fastened to a steel frame. The rails and archway of the enclosure assembly shall be constructed of 1" pipe, with vertical rungs of 1" tube, solid welded. The panels shall be constructed of high density polyethylene sheets. The climbing holds shall be constructed of molded sand and polyester resin mixture. The frame shall comprise vertical outer rails (which serve as legs) constructed of 2" square tube, solid welded to horizontal support rails of 1-1/2" square tube and 11 ga. galvanized 1-1/2" x 3" rectangular tube. The fill block shall be folded 11 ga. steel sheet, perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart, center-to-center, solid welded with 7 ga. by 2" flat steel braces. TCX Model # 704-757-25, Model # 704-757-26, and Model # 704-757-28 shall be solid welded with 11 ga. x 2" flat steel braces. TCX Model # 704-757-34 shall be solid welded with 11 ga. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The enclosure, frame, and clamps shall have a Mira-Cote finish. The fill block shall be finished in Mira-Therm2 or Mira-Therm2 PE.

• **CURVED LOOP CLIMBERS/UPHILL CLIMBER** shall be ground-to-deck climbers, or uphill climber may also be used as a deck-to-deck model, rising either 6' or 8'. The side rails shall be curved 1-1/2" pipe with blind fasteners inside top end, with curved rungs constructed of 1" tube, die formed and welded to side rails (*except Tots' Choice curved loop climber models which shall have side rails of curved 1" pipe*). The deck enclosure assembly for Kids' Choice models shall consist of top supports, a bottom support, an outer upright, and an arched upright, which shall be constructed of 1" pipe, formed, mashed and punched, and vertical rungs which shall be constructed of 3/4" x 1" oval tube with bolting tabs of 11 ga. sheet. The enclosure assembly for Tots' Choice models shall consist of top supports and an arched upright, which shall be constructed of 1" tube formed, mashed and punched. For all systems, the deck enclosure shall be solid welded. Loop climber and handholds shall have a Mira-Cote finish.

• **HONEYCOMB CLIMBERS (KIDS' CHOICE & TOTS' CHOICE)** shall consist of handrails and a climber assembly which shall connect to the deck with a bracket. The Kids' Choice models shall feature an arched deck enclosure. The Tots' Choice models shall feature a handhold. The rails and archway of the Kids' Choice arched enclosure shall be constructed of 1" pipe, with vertical rungs of 3/4" x 1" oval tube, solid welded. The handhold on the Tots' Choice models shall be constructed of 1" tube. The handrails, which also serve as legs, shall be constructed of 1" pipe, drilled, with 3/8" aluminum inserts in the top ends. On Kids' Choice handrails for 5' and 6'-6" decks, a drilled stub of 1" pipe, 12 ga. is welded. The climber assembly shall consist of Honeycomb segments constructed of Rockite and rungs made of 1" pipe, drilled, with either plastic pipe plugs or threaded aluminum inserts factory-installed. The deck-climber bracket shall be constructed of 3" x 3" x 3/16" angle, 7 ga. black HR CQ steel and 780 series Plastisol resin. The enclosure or handhold, handrails, and fasteners shall have a Mira-Cote finish. The bracket shall have a Mira-Therm2 or Mira-Therm2 PE finish. The Honeycomb segments shall have molded-in color.

• **TOT ROCK CLIMBER** shall be a ground-to-deck climber assembly (for 3' decks only) featuring a formed "bedway" with protrusions for users to grasp and step upon, and a single-user safety canopy. Some Rock Climber protrusions shall feature molded-in graphics of various fossil types. The climber shall be constructed of formed and drilled double-wall Rockite, and shall have an overall width of approximately 27-1/2" and an inside width at lowest point of 16". The assembly's top end shall have factory-installed threaded inserts for field attachment to canopy panel. The canopy panel shall be constructed of formed and drilled Rockite with all corners rounded, and shall measure 35-1/2" wide by 44-1/4" tall by 12-1/4" deep (panel alone 2-1/2" deep.) The opening shall measure approximately 24" wide by 31" tall. The front leg shall be 1-1/2" tube welded to a 7 ga. A-60 Galvannealed mounting bracket. The deck enclosures (for Kids' Choice model only) shall consist of uprights and support bars, to be constructed of 1" pipe, drilled, formed and solid welded. The panel support rung (for Tots' Choice model only) shall be a 37-3/16" length of 1" pipe. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. The climber and canopy shall have color molded in. The leg, deck enclosures, and clamps shall be finished in Mira-Cote. The panel support rung shall have a galvanized finish.

contain **Versalok Fasteners** and **Fastener Style A** hardware. The panels shall have molded-in color. The rung, bottom support, and clamps shall be finished in **Mira-Cote**.

• **HALF-PANELS** for below deck or freestanding installation shall feature two-color schemes, routed designs, and steering wheels, and when mounted at suggested heights, will permit wheelchair access. The Roller Racer models shall also feature an interactive ball game which users operate by turning a knob to raise and release enclosed balls into routed pathways (the balls then re-enter the lift mechanism). Half-panels shall be constructed of **Mira-Lene** with all corners rounded, measuring 36-1/2" x 15-1/2", except Calypso 2-Drum panel, which shall measure 36-1/2" x 20". Calypso 2-Drum panel shall also contain 2 rotational molded drums of low density polyethylene resin. Each drum shall be attached to the panel through a cover plate constructed of 11 ga. galvanized sheet steel with a **Mira-Cote**. Rung brackets shall be constructed of 1" pipe (except *Tots' Choice* models which shall be 1" tube) with tabs of 11 ga. A-60 Galvannealed sheet, solid welded. The Roller Racer models shall be constructed as above and shall also have a clear polycarbonate cover fastened to enclose various contents. A black high density polyethylene gear handle mounted outside the cover shall turn on a bronze bushing to drive a 1/4" thick polyethylene gear behind the cover, which shall carry 1/2" steel balls and release them in routed channels. The steering wheel shall be constructed of a high density polyethylene produced from high performance, U.V. stabilized rotational molding grade resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693 (b), D-638, D-790 and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance, and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection molded polypropylene which shall contain U.V. light stabilizers. Each assembly shall contain **Fastener Style A** hardware and **Versalok Fasteners**. Half-panels and steering wheels shall have molded-in color. Rung brackets and clamps shall have a **Mira-Cote** finish.

• **LOOKOUT TOWER/COMMAND POST** shall be curved deck extensions/overhangs and enclosure components for deck systems, designed to stimulate imaginative play. Panels for both models shall be constructed of **Rockite**, with wall thickness approximately 1/4", formed to extend the deck surface in a semi-circle (approximately 40" long with a radius of 9-7/16") and also formed to serve as an enclosure. The panels shall have four 3/8" threaded inserts factory-installed along bottom of deck edge and a top rung of 1" pipe inserted at the factory for field attachment to deck and posts respectively. The panels shall contain five 2" wide view slots evenly spaced, with all corners rounded. The steering wheel shall be constructed of a high-density blow-molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D-638, D-790 and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection-molded polypropylene which shall contain U.V. light stabilizers. All **Versalok Fasteners** for deck and component attachment shall be aluminum alloy, and hardware shall be **Fastener Style A**. The **Rockite** panel shall have color molded in. The top rung and **Versalok Fasteners** shall have a **Mira-Cote** finish.

• **MAGIC BALL POPPER PANEL** shall contain a clear bubble on one side and on the other a clear sheet and steering wheel which shall turn an internal paddle and a quantity of multi-colored balls. The Magic Ball Popper Panel shall be constructed of **Rockite** measuring 36" x 38" x 15" with all corners rounded. One side shall contain a clear bubble as described above. The other side shall contain a window of clear polycarbonate sheet. Both shall be fastened to the panel at the factory using tamper-proof screws and flat washers. The window shall hold a steering wheel constructed of H.D.P.E. Black with mounting bracket of hot rolled steel strip, which shall drive a shaft of zinc coated cold finished steel round to be mounted to the bubble, facilitating turns of a paddle device of polyethylene inside the assembly. The paddle shall contain two 4" holes allowing for stirring, spinning, balancing and passage of 3" diameter polyurethane balls of several colors. All hardware shall be **Fastener Style A**. All **Versalok Fasteners** for deck and component attachment shall be aluminum alloy. The panels shall have molded-in color. The enclosure uprights and **Versalok Fasteners** shall have a **Mira-Cote** finish.

• **XYLOPHONE PANEL** shall be a below-deck creative play component. Attached mallet allows children to strike graduated aluminum keys, creating musical sounds. Xylophone easily installs between existing Deck Posts and is situated at a comfortable 45 degree angle, 24" above surfacing, so children of all abilities may play. Frame shall consist of two loop halves constructed of 2" pipe, solid welded to each other to create a single loop. Each loop half shall measure 32-5/8" in length and 14-11/16" in height. Two 4-1/2" stubs shall be solid welded to short sides of loop and shall be constructed of 2" pipe. Panel assembly shall consist of the xylophone panel and graduated xylophone bars. Panel shall be constructed of 3/4 sheet HDPE, 2 color. Bars shall be constructed of aluminum, 2" in width and 1/4" thick, and be attached to the panel 1" apart from edge to edge. The seven bars shall graduate in length; 10", 9-3/16", 8-3/8", 7-9/16", 6-3/4", 5-15/16" and 5-1/8". Mallet assembly shall comprise a glider wheel, mallet handle and tether assembly. Fully assembled mallet shall measure 12-9/16" in length. Glider wheel shall be urethane constructed and measure 2-1/8" in diameter. Mallet handle shall be 5" in length and be constructed of UHMW plastic. Tether assembly shall include

• **CHAMELEON II SLIDE SYSTEM** shall be feature an interchangeable bedway sections to present maximum versatility in design configuration. The componentized, open bedway slide assembly may be attached to 2'-8" - 8' decks. The bedway sections, entry panel and exit section shall be constructed of double wall Rockite with a 18" bedway and 13-3/4" high sidewalls. The entry panel shall be supported by a rung of 1" pipe. The "T" front leg shall be constructed of 1.5" X 16 ga. square tube and a bracket of 7 ga. galvanized sheet steel. Support legs shall be constructed of 1.66 OD x 13 ga. tube and a mounting bracket of 7 ga. sheet, solid welded. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The rung, front leg, support legs and leg brackets shall have a Mira-Cote finish. The Rockite slide sections shall have color molded in.

• **GROOVE II SLIDES** shall feature a hooded canopy and a streamline slide design. Groove II is designed to exit from 4', 5', 6'-6" or 8' decks. The canopy panel and one-piece slide shall be constructed of double wall Rockite. The slide shall have 6" high side rails, an overall width of 25" an 18" wide sliding surface and approximate 7' (4' decks) bedway length, 9' (5' decks) bedway length, 12' (6'-6" decks) bedway length and 15' (8' decks) bedway length. The canopy panel shall be field mounted to deck and post clamps via a 41-1/2" long rung constructed of 1" pipe. The leg shall be 2" pipe, welded to an 11 ga. A-60 Galvannealed mounting bracket. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. The rung, legs and clamps shall have a Mira-Cote finish. The Rockite slide and canopy shall have molded-in color.

• **ROCKITE "L" SLIDE** shall be an open bedway slide which shall exit to the right from a 3' deck and shall include a canopy panel. The one-piece slide and the canopy panel shall be constructed of double wall Rockite. The slide shall have 6-1/4" high side rails, an overall width of 25-5/8", and an 18" wide sliding surface. The front leg shall be constructed of 1-1/2" tube, solid welded to a 7 ga. A-60 Galvannealed mounting bracket. A top rail used for mounting the canopy between deck posts shall be 1" pipe. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. The top rail, front leg, and clamps shall be finished in Mira-Cote. The Rockite slide and canopy shall have color molded in.

• **ROCKITE TUBE SLIDES** shall be available in straight, left and right "L" and "S" bedway configurations. The entry panels shall be Rockite with a molded in 30 degree extension. The panel rungs shall be constructed of 1" pipe measuring 44" long (except Tots' Choice models which shall be constructed of 1" tube measuring 36-1/2" long). The straight tube sections shall be Rockite measuring 35" or 46" long with an inside diameter of 24" (except Kids' Choice, Center Stage, and City Parks Series models which shall have an inside diameter option of 24" or 30"). Models attaching to 3' decks shall have bedway lengths of approximately 8'; for 4' decks, bedways approximately 10' long; for 5' decks, bedways approximately 12' long; and 6'-6" decks, bedways approximately 16' long.

24" DIAMETER MODELS

Each end shall have a 1" wide flange. The elbow shall be Rockite. The Rockite tube joints shall be externally flanged and overlapping. The male flange shall be 1" deep, the female flange shall be 1-1/2" deep, 24" diameter. The bedway shall have no exposed internal fasteners. The 29 degree exit section shall be constructed of double wall Rockite. It shall have a 34" centerline radius and dimensions similar to the tube above. The leg bracket shall be constructed of sand cast aluminum alloy. Front leg shall consist of an upright and a bolting plate. The upright shall be constructed of 2" pipe. The bolting plate shall be constructed of 11 ga. A-60 Galvannealed sheet, and shall measure 7" x 7", drilled and welded to the upright. "L" legs shall be constructed of 1-1/4" pipe. Rockite panel and slide shall have molded in color. Legs and leg bracket shall have a Mira-Cote finish.

30" DIAMETER MODELS

Each end shall have a 1" wide flange. All pieces shall be Rockite with a 30" I.D. The elbow shall have a 22" centerline radius. Tube to tube connections will have a Rockite flange cover. The bedway shall have no exposed internal fasteners. The exit section shall be constructed of double wall Rockite with a 25" centerline radius. The front leg shall consist of an upright and a bolting plate. The upright shall be constructed of 2" pipe. The bolting plate shall be constructed of 11 ga. A-60 Galvannealed sheet and shall measure 7" x 7", drilled and welded to the upright. Legs shall be constructed of 1-1/4" pipe. Rockite panel and slide shall have molded in color. Legs and leg bracket shall have a Mira-Cote finish. Some models shall contain windows in their straight tube sections measuring approximately 13" x 40" to be constructed of clear polycarbonate.

• **SADDLE SEAT** shall be a freestanding, spinning component that supports the principles of inertia by keeping kids spinning merely by use of body weight. Entire assembly shall measure 70-5/8" in height, 18-5/8" in width and 16-13/16" in length. The seat shall be constructed of Rockite and shall measure 18-5/8" in width, 16-13/16" in length, and 18-5/8" in height at seat's back. Seat front shall taper upward to measure 16-13/16" in height to create a "saddle" for the rider to straddle. The post shall be constructed of 3-1/2" tube, galvanized solid welded to a base plate of 11 ga. sheet steel, galvanized. A spindle comprising cold rolled carbon steel shall be inserted into top of post assembly through an upper spacer of 3/8" steel plate and a lower spacer of 7 ga. galvanized sheet steel. Entire post assembly is fully welded. Post assembly shall measure 64-1/2". Model # 945-1 post assembly shall have a 10 degree bend. Hub assembly shall comprise a cast iron painted hub, an elastomeric shaft seal and tapered, greased roller bearings. Assembly shall be fastened to post assembly with **Fastener Style A** hardware. All fastening hardware shall be **Fastener Style A**. The Rockite seat shall have color molded in. The post assembly shall be finished in **Mira-Cote**.

• **STEERING WHEEL, POST MOUNT** shall be designed to provide driving stimulation on any pre-existing deck post. The steering wheel shall be constructed of a high-density blow-molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D-638, D-790 and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection-molded polypropylene which shall contain U.V. light stabilizers. The Steering Column shall be constructed of 2" pipe. The assembly shall contain **Fastener Style A** hardware. The Steering Column shall have a **Mira-Cote** finish.

• **TEN SPIN** shall be an ADA merry-go-round type component that allows 10 children to play at one time. Ten Spin body shall be constructed of low density, 1/4" wall polyethylene. Body shall have an 86" diameter and measure 40" in height. Body shall have 5 indentations to allow children with disabilities to sit/recline, and 5 indentations for children to stand around outer edges. Rotomold shall have molded in footgrips to reduce slips. Body shall be pre-assembled with upper and lower ball bearings mounted into laminated sheet, HDPE 3/4" thick, with bottom cover constructed of 11 ga. sheet, A-60. Post assembly shall comprise a top friction plate, half bottom friction plate, post weldment, spring, half bottom cover plate and connector stub. Top friction plate, half bottom friction plate and half bottom cover plate shall be constructed of laminated sheet, HDPE, 3/4" thick. Post weldment shall comprise a post bottom, post shaft, bottom post plate and post friction plate. Post bottom shall be constructed of 5" tube, 11 ga., post shaft will be constructed of round, 2-3/4" OD CRR 1018, and bottom post plate and post friction plate shall be constructed of 3/8" black sheet, ASTM A-36. Spring shall measure 3/4" OD x 2" long. Connector stub shall comprise a 1.31 5" OD, 14 ga. smooth tube, pipe plug and 3/8-16 aluminum insert. Entire post assembly shall measure 116-7/8" in height. Tube shall be constructed of 5" tube, 11 ga. and 1/2" black sheet, ASTM A-36. Wheel-Spin shall be constructed of low density, 1/4" wall polyethylene and shall measure 35-1/2" in diameter by 4" high. Handgrips shall be constructed of an 11 ga. sheet, A-60 plate with solid welded grips constructed of **Gator Grip**. Entire assembly shall measure 7" in height and 3-3/8" in width. All fastening hardware shall be **Fastener Style A**. Ten Spin shall be finished in Rockite and Post in **Mira-Cote**.

• **JAX PACK** shall feature a "jacks" shaped rotomolded piece on a curved post. JAX Pack shall be available in one, two, three or four JAX configurations. JAX Pack one and two shall have one or two 5" tube post(s) measuring 81-1/16" with a 40" radius bent through 42 degrees. JAX Pack Three shall have 5" tube posts; one 95-7/8" with a 60" radius bent through 44 degrees and two 81-1/16" posts with a 40" radius bent through 42 degrees. JAX Pack four shall have 5" tube posts; two 103-3/16" posts with a 24" radius bent through 66 degrees, one 95-7/8" post with a 60" radius bent through 44 degrees and one 81-1/16" post with a 40" radius bent through 42 degrees. All posts shall have predrilled holes for support assembly. JAX body shall be a rotomolded piece measuring 63" in greatest width and 18" in greatest height. One solid piece, JAX shall feature a triangular body that flows into 3 spheres, each 18" in diameter. Support assembly shall consist of a support plate, support straps and a cam lock spacer. Triangular shaped support plate shall be constructed of 7 ga. sheet and shall measure 20-13/16". Support straps shall be solid welded to support plate. Straps shall measure 8-3/4" and 3" in length and shall be constructed of 1/4" x 1 flat. Straps shall have a 7/16" hole cut 1-1/2" from bottom. The 8-3/4" strap shall also have a 1/4" hole cut 8-1/4" from bottom. Cam lock spacer shall be welded to strap at the top bolt hole location. Spacer shall be 1/2" in diameter and 5/16" tall, constructed of AISI 1020 CR steel, zinc plated. Cam lock assembly shall comprise a cam lock plate and cover plate. Cam lock plate shall be constructed of 11 ga. A-60 sheet and shall have a 4-13/16" by 9/16" serrated cut-out for locking purposes. Plate shall be constructed of 11 ga. A-60 sheet. Entire assembly shall be welded and shall measure 2-1/2" in height with an 8" diameter. All fastening hardware shall be **Fastener Style A**. Post and Support Assembly shall be finished in **Mira-Cote**. JAX body shall be finished in Rockite.

• **8' DOUBLE SUPPORT SWING FRAMES AND EXTENSION** shall consist of legs, a top rail, and yokes which shall assemble to form an 8' high swing frame. Model # 2901X, 2903X, 2901HX, 2903HX, 2901HHX and 2903HHX shall comprise end legs, a top rail, and yokes. The swing frames

- 3-1/2" round end cap is die cast aluminum alloy.

- Fastener Style A is a corrosion resistant, 18-8, stainless steel, vandal resistant fastener.

- Fastener Style B is an all aluminum blind rivet or aluminum drive rivet with stainless steel pin. Both are corrosion resistant and vandal resistant fasteners.

- Flo-Coat (R) is a patented triple coat corrosion protection process of Allied Tube and Conduit's Mechanical Tube Division, wherein steel pipe or tube first receives a hot-dipped uniform zinc galvanized coating followed by a conversion coating followed by a clear, high performance organic polymer coating. The interior of the tube has an 81% minimum zinc rich primer applied, capable of providing excellent rust protection and fabrication characteristics. All coatings are applied inside and out after welding. Flo-Coat processed tube exceeds the test results of galvanized Sch 40 pipe in salt spray tests conducted in accordance with ASTM B-117. The term "Flo-Coat" is a registered trademark of Allied Tube and Conduit, used with permission.

- GATOR GRIP (TM) is a three dimensional textured pattern exclusive to Miracle, embossed in steel to a depth of .014" to .017".

- G-90 galvanized indicates that a coating of .90 ounces of zinc per square foot has been applied on each surface side.

- A-60 Galvannealed indicates that a coating of .60 ounces of zinc per square foot alloyed with substrate steel has been applied on each surface side.

- Mira-Cote (TM) is a Super Durable formulation of a polyester powder coating finish that is applied to a thickness of 3-5 mil. This finish gives metal parts long term protection from chipping, fading and peeling. Miracle's finishing system washes the metal parts with detergent and etches the metal for optimum adhesion. The part is then rinsed clean with water. Next the part is coated with a non-chromic sealer and dried. The Mira-Cote powder is then applied electrostatically to the metal part. The metal parts are then baked at a high temperature to fuse a hard, smooth durable finish to the metal. Mira-Cote has an impact value of 160 in. lbs., flexibility value of 180 degree-1/4" mandrel, shore hardness value H and a crosshatch adhesion of 100%. Mira-Cote is tested in accordance with ASTM D-792, D-523, D-2794, D-1737, D-3363, D-3359 (b), B117 and D-2247. Mira-Cote will withstand over a 1,500 hours of salt spray exposure and 1,500 hours of weatherometer testing with minimal loss of gloss and color.

- Mira-Lene (TM) is compression-molded, 3/4" thick, high density polyethylene that has been specifically formulated for optimum U.V. stability and color retention. Compression-molded products have a density of .952 g/cm3 per ASTM D1505 and tensile strength of 3900 PSI per ASTM D638.

- Mira-Therm2 PE is a non-toxic copolymer polyethylene coating applied to a thickness of 1/16". Mira-Therm2 PE contains U.V. light stabilizers, anti-microbial additives and color pigments. Mira-Therm2 PE contains no orthophthalates or other banned substances. Mira-Therm2 PE is a proprietary brand of PE coating. Materials are tested in accordance with ASTM D-638, ASTM D-412, ASTM D-2240 and ASTM D-1004. Mira-Therm2 PE meets the FMVS 302 flammability rating, the requirements of California State Law and the 2008 CPSI Act.

• **round tube** is fabricated of 1010 hot rolled, Flo-Coat, galvanized tube manufactured from steel, cold formed and high frequency induction welded continuously. It conforms to ASTM A-135 and ASTM A-500 and is tested in accordance with ASTM E-8. The minimum mechanical properties of the tube are yield strength of 50,000 p.s.i. and tensile strength of 55,000 p.s.i.

• **square tube** is fabricated of 1010 hot rolled, Flo-Coat, galvanized tube manufactured from steel, cold formed and high frequency induction welded continuously. It conforms to ASTM A-135 and ASTM A-500 and is tested in accordance with ASTM E-8. The minimum mechanical properties of the tube are yield strength of 50,000 p.s.i. and tensile strength of 55,000 p.s.i.

• **3/4" x 1" oval tube** is 15 ga. wall. It is fabricated of 1008 hot rolled, Flo-Coat, galvanized tube manufactured from steel, cold formed and high frequency induction welded continuously. It conforms to ASTM A-135 and ASTM A-500 and is tested in accordance with ASTM E-8. The minimum mechanical properties of the tube are yield strength of 50,000 p.s.i. and tensile strength of 55,000 p.s.i.

• **1-1/2" square tube** is 16 ga., 1-1/2" square tube.

• **1" tube** is 1" OD, 15 ga. fluted round tube. It conforms to ASTM A-500.

• **1-1/2" tube** is 1-1/2" OD, 16 ga. round tube. It conforms to ASTM A-500.

• **2-3/8" tube** is 2-3/8" OD, 9 ga. round tube. It conforms to ASTM A-500.

• **3-1/2" tube** is 3-1/2" OD, 13 ga. round tube. It conforms to ASTM A-500.

• **4-1/2" tube** is 4-1/2" OD, 7 ga. round tube. It conforms to ASTM A-500.

• **4-5/8" tube** is 4-5/8" OD (3/16" wall) round tube. It conforms to ASTM A-500.

• **5" tube** is 5" OD, 13 ga. round tube. It conforms to ASTM A-500.

• **5" tube, 11 ga.** is 5" OD, 11 ga. round tube. It conforms to ASTM A-500.

Jefferson County – Option B - GENERAL SPECIFICATIONS

SAFETY STANDARDS & GUIDELINES All public playground equipment supplied shall meet all applicable provisions of the current "Handbook for Public Playground Safety" published by the Consumer Product Safety Commission (CPSC), and of ASTM F1487-01 "Standard Consumer Safety Performance Specification for Playground Equipment for Public Use," published by the American Society for Testing and Materials (ASTM). Products bearing the certification seal of the International Play Equipment Manufacturers Association (IPEMA) have received written validation of compliance with ASTM F1487-01.

TRADEMARKS Aquarius (R), Big Kahuna (R), Big Timber (R), Bongo (TM), Boulder Ridge (R), Bug Bites (R), Camel Back (TM), Center Stage (R), Chameleon (TM), Coil Curfer (TM), Connexion (R), Dupli-Gator (R), Flex Jet (R), Flippo (TM), Flippopotamus (R), Fun Fone (TM), Fun Tunnel (R), Funnel Tunnel (TM), Funshades (TM), Gator Grip (R), Gemini (TM), Gravity (TM), Grizz-Lee Bear (R), Groove (TM), Groove II (R) Slide, Hang-A-Round (R), Interaxion (TM), JAX (R), Kidrox (R), Kids' Choice (R), Kids' Perch (TM), Legacy Cantilever (R), Legacy Contempo (R), Legacy Heritage (R), Libra (R), Linkz (TM), Loopz (TM), Mega Tower (R), Miracle (R), Miracle Recreation (R), MiracleTech (R), Mira-Cote (R), Mira-Lam (TM), Mira-Lene (TM), Mira-Therm2 (TM), Mogul (TM), Mountain Trail (R), N-Dure Cycle (R), Nexus (R), Observation Deck (R), Offspring (TM), OrbX (R), ParkWatch (TM), Pegasus (R), Perma-Guard (TM), Perseus (TM), Physzics (R), Play Cover (R), Play Terrain (R), Power Pedaler (TM), Pull Up/Lift (R), Rainbow Bend (TM), Reflex (R), Relay Racer (R), Rock-It (R), Rodeo Rocky (TM), Schnozz Womp (TM), Serpent Trek (TM), SiteBrite (TM), Sneak-A-View (TM), SonicScreen (R), Spray Stations (R), Sun Sparkle (TM), Surfer (R), Tensile Tough (TM), Tensile Tower (TM), Thunder Tunnel (TM), Timber Topper (TM), Toboggan (TM), Toddlers' Choice (R), Tots' Choice (R), Tots' Choice (R) Expansion, Tots' Choice (TM) for Toddlers, Trim Timber (R), Triple Play (TM), Typhoon (TM), Versalok (R), View Groove (TM), Wavy Waffle Wall Walker (TM), Webscapes (R), Whirlwind (TM), Xcalator (R), and X-Cavator (TM) are trademarks of Miracle Recreation Equipment Company. Tomato (TM), Multi-Pondo (TM), and Pirouette (TM) are trademarks of HAGS (TM). Miracle and HAGS are divisions of PlayPower, Inc. PlayPower (R) is a trademark of PlayPower, Inc.

QUALITY SYSTEM CERTIFICATION The manufacturer's quality system is certified to ISO 9001 since December 1998.

PRODUCT CHANGES At Miracle Recreation Equipment Company, we strive for the utmost in quality and safety in our entire product line. Therefore, in order to honor this commitment to you, our customers, we reserve the right to make changes on any product released and/or published in our annual catalog and other promotional or technical literature.

WARRANTY

Buyer agrees that products sold by Miracle Recreation Equipment Company carry only the following warranties:

1. **LIMITED WARRANTY FOR AS LONG AS YOU OWN THE PRODUCT** against structural failure due to corrosion or defects in materials and workmanship on aluminum deck posts, steel deck posts, the VersaLok (R) fastening system and associated fastening hardware.
2. **LIMITED FIFTEEN (15) YEAR WARRANTY** against structural failure due to corrosion or defects in materials and workmanship on steel support legs and Mira-Therm2 (TM) 2 on MEGA TOWER (R), TOTS' CHOICE (R), KIDS' CHOICE (R), CENTER STAGE (R), NEXUS (R) and Boulder Ridge (R) Rock Wall; on playsystem steel components including railings, rungs, and rigid climbers; and Rockite (R).
3. **LIMITED FIFTEEN (15) YEAR WARRANTY** against structural failure due to corrosion or defects in materials and workmanship on all Play Cover (R) steel frames.

These limited warranties apply only to Miracle products that are erected and installed in conformance with Miracle's installation instructions, and that are maintained and inspected in conformance with Miracle's maintenance and operational instructions. These limited warranties specifically do not cover Miracle products: that have been modified, altered, or misused; that have not been used as designed or intended; to which non-Miracle parts have been added or substituted; or that have been damaged due to excessive wear and tear, vandalism, abnormal use, abuse, negligence, extraordinary weather or acts of God. MiracleTech Security (R) systems limited warranties do not cover products serviced or repaired by unauthorized service providers. These limited warranties do not protect against color fade, except for PlayCover (R) as noted above. Buyer, by acceptance and use of these limited warranties, waives any rights it would otherwise have to claim or assert that this limited warranty fails of its essential purpose. Buyer agrees that venue for any court action to enforce these limited warranties shall be in Barry or Greene Counties in the State of Missouri.

EXCEPT AS EXPRESSLY WARRANTED HEREIN, MIRACLE EXPRESSLY DISCLAIMS ANY OTHER WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THOSE ARISING BY STATUTE OR OTHERWISE IN LAW OR FROM COURSE OF DEALING OR USAGE OF TRADE. IN NO EVENT SHALL MIRACLE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, WHETHER BASED UPON CONTRACT, TORT, OR ANY OTHER LEGAL THEORY (INCLUDING WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION, LOSS OF INFORMATION, CONSEQUENTIAL, INCIDENTAL, INDIRECT OR SPECIAL DAMAGES OR OTHER PECUNIARY LOSS).

*Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes"
for specifications of items listed in bold type.*

- **KIDS' CHOICE MEGA TOWER 2-LEVEL DECK** shall comprise two octagonal decks – 2' and 8' or 4' and 10' – on common posts with an enclosed center climber for ascending to upper level. The assembly requires a roof as well as barriers or other play components. The overall height of the assembly (with roof and cupola) shall be approximately 21' from finished grade. Eight sided decks shall consist of a center deck section (48" square on 2' or 4' level, 24" x 48" rectangle on 8' or 10' level to create opening for ladder access) surrounded by four hexagon shaped deck sections to form a single octagon deck with a deck top surface area of 77.3 square feet (69.3 square feet for 8' or 10' level). The deck length shall be 125.4" post to opposite post and 116" flat edge to flat edge. The deck frame shall be constructed with folded 11 ga. steel sheet forming 3" tall sides. Decking sheets shall be perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. Each shall contain deck support members of 3/16" x 2" flat and decking supports of 1/4" x 1" flat. Each section shall be solid **welded**. Post assemblies shall be constructed of 5" tube. The assembly shall contain four 5" round end caps for field assembly to the four center posts. The remaining posts shall be uncapped in readiness for roof attachment. A center climber shall comprise a ladder and enclosure assembly. The ladder shall be constructed of two 1-1/2" pipe side rails with seven 1" pipe rungs solid **welded** between them. Two vertical spokes of 3/4" x 1" oval tube shall be solid welded to bottom rung. Top ends of the rails shall contain 3/8" threaded inserts for field attachment to upper deck. Bottom end of ladder shall have a 7 ga. steel sheet punched mounting plate for field assembly to lower deck. The overall width of the ladder assembly shall be 17-1/16". The angle of ascent shall be 69 degree. The enclosure assembly shall comprise two parts: a main enclosure and a side enclosure. Each shall be constructed of top and bottom rails of formed 1" pipe with uprights of 3/4" x 1" oval tube, solid **welded**. The main enclosure shall have three uprights of 1" pipe, solid **welded**, in addition to oval uprights. Both enclosures shall be 66-5/16" from top of top rail to bottom of bottom rail. The assembly shall contain **Versalok Fasteners** and **Fastener Style A** hardware. The decks shall be finished in Mira-Therm2 or Mira-Therm2 PE. The center climber, posts, caps and clamps shall be finished in Mira-Cote.
- **CENTER STAGE MIRA-THERM2 DECKS** shall consist of pedestal-mounted decks in 4, 6, and 8-sided configurations. Each deck shall be available for installation at 3', 4', 5', 6'-6", and 8' heights. Decks with model numbers in the 714-52X series shall be designed to have capped posts with no roof. Decks with model numbers in the 714-53X series shall have posts designed to allow field attachment of a roof assembly. Deck frames shall be constructed with folded 11 ga. steel sheeting forming 3" tall sides. Decking sheets shall be perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. Each section shall contain deck support members of 3/16" x 2" flat and decking supports of 1/4" x 1" flat. The deck assemblies shall be solid **welded** and primer coated prior to polyvinyl coating. Each model shall also contain posts formed and solid **welded** to pedestal assemblies. For all Model #'s which end with numeral "9" (nine), posts shall be constructed of 5" tube, 11 ga. Posts for models without roofs shall each have a 5" round endcap pressed into top ends. Deck mounts of 11 ga. A-50 Galvannealed shall be solid **welded**. Octagonal (8-sided) decks shall consist of a 48" square deck piece surrounded by four hexagon-shaped deck sections which shall combine to form a single octagon deck with a deck top surface area of 77.3 square feet (11,131.2 sq. in.) and deck length of 125.4" post-to-opposite-post or 116" flat-edge-to-flat-edge. Octagonal deck pedestal shall be a single 24" diameter x .134 wall A139B spiral weld tube. Hexagonal (6-sided) decks shall consist of two mirror image half-hexagon-shaped sections which shall combine to form a hexagon deck with a deck top surface area of 41.6 square feet (5,990.4 sq. in.) and deck length of 96" post-to-opposite-post or 83.2" flat-edge-to-flat-edge. Hexagonal deck pedestal shall be a single 18"

tube of 1" pipe, 10 ga. Enclosure assemblies shall be solid welded. The cliff climber, trap door climber, climbing pole, spiral climber, bumper ladder pole, and enclosure assembly shall have a Mira-Cote finish. The Rockite bumpers shall have color molded in.

• **FOSSIL BLUFF WALL SYSTEM** shall be inclined rock walls designed for attachment to 5', 6'-6", or 8' decks and shall contain an arch entry enclosure. The climbing surface shall feature realistic shapes, dimensions and textures of a natural stone escarpment, and factory-assembled climbing stubs. The arch entry enclosure shall consist of a frame (top and inside support rails and arched upright) of 1" pipe and vertical rungs within the frame of 3/4" x 1" oval tube, all solid welded. The panel shall be constructed of Rockite. The climbing stubs shall be constructed of molded sand and polyester resin mixture. The wall frame shall be constructed of 1-1/2" square tube, solid welded. The fill block shall be constructed of 11 ga. A-60 Galvannealed sheet steel. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The clamps, enclosure and frame shall be finished in Mira-Cote. The fill block shall be finished in Mira-Therm2 or Mira-Therm2 PE. The panel and climbing stubs shall have molded in color.

• **MONSTER PIPE CLIMBER** shall be a ground-to-deck component featuring foot step gussets welded to a single 2" pipe leading to 4' through 6'-6" decks. The climber shall comprise a climber mounting bracket, tall foot step gussets and short foot step gussets, all solid welded to a tube support. Tube support shall be constructed of 2" pipe. Climber mounting bracket and gussets shall be comprised of 7 ga. sheet. Hand support shall be constructed of 2" pipe. Model # 704-615-5, 714-615-5 and 718-615-5 shall measure 62-1/16" in length and 120-13/16" in height. Model # 704-615-6, 714-615-6 and 718-615-6 shall measure 80-1/2" in length and 138-13/16" in height. Foot step covers shall be constructed of 11 ga. sheet perforated with a staggered pattern of .375" diameter holes at 5/8" apart center to center. Foot step covers shall be 15" in length. Enclosure for KC and TCX shall comprise top rails, L rail and arch of 1" pipe, Gator Grip, spokes of 3/4" x 1" oval tube and a 7 ga. sheet bracket. Enclosure for TC shall comprise an arch upright of 1" pipe, Gator Grip, top rails, L rails and spokes of 1" tube, and a 7 ga. bracket. Enclosure shall measure 62-3/8" in length and 41-1/2" in width for KC and TCX and 62-3/8" in length and 38-15/16" in width for TC. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. The climber, hand support and enclosure shall have a Mira-Cote finish. Steps shall have a Mira-Therm2 or Mira-Therm2 PE finish.

• **TOT ROCK CLIMBER** shall be a ground-to-deck climber assembly (for 3' decks only) featuring a formed "bedway" with protrusions for users to grasp and step upon, and a single-user safety canopy. Some Rock Climber protrusions shall feature molded-in graphics of various fossil types. The climber shall be constructed of formed and drilled double-wall Rockite, and shall have an overall width of approximately 27-1/2" and an inside width at lowest point of 16". The assembly's top end shall have factory-installed threaded inserts for field attachment to canopy panel. The canopy panel shall be constructed of formed and drilled Rockite with all corners rounded, and shall measure 35-1/2" wide by 44-1/4" tall by 12-1/4" deep (panel alone 2-1/2" deep.) The opening shall measure approximately 24" wide by 31" tall. The front leg shall be 1-1/2" tube welded to a 7 ga. A-60 Galvannealed mounting bracket. The deck enclosures (for Kids' Choice model only) shall consist of uprights and support bars, to be constructed of 1" pipe, drilled, formed and solid welded. The panel support rung (for Tots' Choice model only) shall be a 37-3/16" length of 1" pipe. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. The climber and canopy shall have color molded in. The leg, deck enclosures, and clamps shall be finished in Mira-Cote. The panel support rung shall have a galvanized finish.

• **TREE-O CLIMBER** shall be a vertical climbing challenge featuring alternating, 60 degree rungs rising to 3', 4', 5', 6'-6", 8' or 10' deck heights with arch enclosure. The climber shall comprise 3 side rails, 60 degree rungs, an upper arm, and plastic pipe plug. The side rails shall be constructed of 1" pipe and shall be 175-3/16" in length. Rungs shall be constructed of 1" pipe and shall measure 19-9/16" in length. Upper arm shall consist of swaged tube constructed of 1-1/4" pipe. Support header shall be composed of 1" pipe, solid welded to a support sleeve of 1-1/4" pipe, all solid welded. The arch enclosure shall comprise top supports and an arched upright of 1" pipe and spoked infill of 1" tube, all solid welded. All models shall contain Fastener Style A hardware.

• **VERTICAL CARGO CLIMBER** shall be a ground-to-deck climber. The cargo climber shall consist of 11 ga. sheet bracket and 1" tube rungs connected by three vertical supports of 4/0 straight link coil chain. The rungs shall be solid welded to the chain. The chain shall be attached to an anchor and the bracket by 5/16" "S"-hooks. The cargo climber for the 3', 4', 5', and 6'-6" decks shall measure 45-1/2", 56-1/2", and 67-1/2", and 86-3/4" in length respectively. The anchor shall be constructed of 1" pipe, formed, with three "U" shaped loops of 5/16" diameter wire welded to the top. The arch enclosure shall comprise top supports and an arched upright of 1" pipe and spoked infill of 1" tube, all solid welded. All Versalok Fasteners for deck and component attachment shall be aluminum alloy. All fastening hardware shall be Fastener Style A. The anchor and Versalok Fasteners shall have a Mira-Cote finish. The vertical cargo climber chain shall be polyvinyl coated.

steering wheel hub cover shall be constructed of injection-molded polypropylene which shall contain U.V. light stabilizers. The assembly shall contain **Versalok Fasteners** and **Fastener Style A** hardware.

• **ROCKITE BUBBLE PANEL/ROCKITE PANEL WITH HOLE/VIEW GROOVE PANEL/30 DEGREE LOOK-OUT PANEL** shall be constructed of Rockite with all corners rounded. The 30 degree Look-Out panel shall have a molded in 30 degree extension. The enclosure shall consist of uprights and support bars, all constructed of 1" pipe, drilled and formed (except Tots' Choice models which shall have an enclosure consisting of a top rail of 1" tube with two tabs and two brackets of 11 ga. galvanized sheet, solid welded). The bubble shall be vacuum formed from clear polycarbonate sheet. The spherical bubble shall measure 24" in diameter and shall be attached to the panel in the factory using tamper proof screws and flat washers. The view groove panel shall have six 2" view slots evenly spaced at 5-1/4" with slant of 20 degrees from vertical. Horizontal rungs shall have a Mira-Cote finish. Rockite panels shall have color molded in.

• **STEEL PANELS** shall be durable above or below deck components designed to enhance imaginative play. All assemblies shall comprise 1" pipe, Gator Grip rungs and panels composed of 11 ga. sheet, laser cut. Above deck Ocean Play, Butterfly, Moon, Eagle Family, and Wilderness Flock shall measure 33-5/8" x 36. Above deck Window panel, Steel Steering Wheel panel and KC and TCX Tic Tac Toe Panel shall measure 41-1/6" x 41-1/2". Above Deck TC Tic Tac Toe Panel shall measure 40-11/16" in height and 37" in width. Below deck Window panel and Steel Steering Wheel panel shall measure 41-1/2" in width and 36-1/4" in length. Below deck Door panel shall measure 41-1/2" x 36-1/4" for KC and TCX, and 37" x 37-1/2" for TC and Tots' Choice for Toddlers. Below deck Counter panel shall measure 41-1/2" x 18-1/16" for KC and TCX, and 37" x 18-1/16" for TC and Tots' Choice for Toddlers. Below deck Valance shall measure 41-1/2" x 12-1/16" for KC and TCX, and 37" x 12-1/16" for TC. Below deck Tic Tac Toe Panel shall measure 37-5/16" in width and 36-1/4" in height for KC and TCX. Below deck Tic Tac Toe Panel for TC shall measure 37" in width and 37-1/2" in height. Steering wheel and knob for Steel Steering Wheel panel shall be constructed of aluminum. Tic Tac Toe Cylinders shall be constructed of cast aluminum with etched "x's" and "o's". Cylinders will attach to panel via an axle constructed of 1" OD x 14 ga. tube, A-60 with stainless steel hardware and plastic spacers. The assemblies shall contain **Versalok Fasteners** and **Fastener Style A** hardware. The rungs and panels shall have a Mira-Cote finish.

• **WALL ENCLOSURE/WALL WITH STEERING WHEEL/CLOSURES/HANDHOLD FOR TRANSFER POINT/TREEHOUSE SEAT** shall be barrier assemblies. The handhold for transfer point shall be used as a support rail to assist wheelchair user access on a 1-6" transfer point deck. The wall enclosure and transfer point handhold supports shall consist of a welded assembly handrail system with a top and bottom rail constructed of 1" pipe (except Tots' Choice models which shall be 1" tube) and uprights constructed of 3/4" x 1" oval tube (except Tots' Choice models which shall be 1" tube), solid welded. The mounting bracket shall be 11 ga. A-60 Galvannealed sheet steel, welded to the wall enclosure. The steering wheel on vehicle-themed panels shall be constructed of a high-density blow molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D-638, D-790 and D-746. Resin's properties exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection molded polypropylene which shall contain U.V. light stabilizers. The Treehouse Wall with Seat shall comprise a top and bottom rail and end uprights constructed of 1" pipe and spoked infill of 3/4" x 1" oval tube and a seat assembly, all solid welded. The seat assembly shall comprise a frame of 1" pipe with bolting brackets of 3/16" x 1-1/4" HR flat and a factory-assembled 19" wide seat constructed of 11 ga. sheet, perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. The seat surface shall be approximately 14" from the deck, if applicable. The enclosure rungs, uprights, handhold for transfer point, enclosure with seat assembly, steering wheel, and steering wheel mounting bracket shall have a Mira-Cote finish. The seat shall be finished in Mira-Therm2 or Mira-Therm2 PE. The steering wheel shall have molded in color.

• **MIRA-THERM2 SQUARE TRANSFER POINTS** shall be designed to assist disabled users gain access to and egress from a deck system. The stair assembly shall be constructed of 11 ga. steel stringers solid welded to 11 ga. steel sheet decking that is perforated in a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. Approximate dimensions of stair assembly shall be 26" overall width, 14" deep step tread and 8" high step rise. The 26" square (approximate) transfer point shall be constructed of 11 ga. steel sheet folded to form approximately 3" high sidewalls. The decking shall be perforated as described above. It shall be reinforced with cross braces of 3/16" x 2" HR flat solid welded. The bottom step shall be constructed of 11 ga. steel sheet (with folded edges) perforated as described above. The step shall be approximately 26" wide by 14" deep by 6-1/2" high. Kids' Choice deck enclosures shall be constructed of formed 1" pipe, including a welded upright of the same material. Tots' Choice deck enclosures shall be constructed of 1" pipe and a formed and welded upright of 1" tube. Each deck enclosure assembly shall be drilled for field assembly of a stair handrail, and shall have its bottom end mashed and punched for field assembly to deck. Stair handrail assemblies shall be welded upper and lower handrails of formed 1" pipe. Closed handrails shall contain vertical uprights of 3/4" x 1" oval tube welded within. Swaged handrail extensions for field assembly to handrails shall be constructed of 1" pipe. A transfer deck handrail constructed of formed 1" pipe shall be

3/4" x 1" oval tube, and 3/8" aluminum inserts in the rail ends for attachment to the step enclosures. The deck enclosure assembly shall be solid welded. The 35" platform barrel shall be Rockite, with a canopy painted alternating colors with polyurethane paint. The barrel shall have molded-in view grooves for viewing children. The back-up plate used to connect the step assembly and the barrel shall be constructed of 1/4" x 1" x 6" flat steel. The front leg shall be constructed of 2" pipe and shall be attached to the slide using a channel constructed of 7 ga. sheet. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. The Rockite slide and platform canopy shall have color molded-in. The step shall be finished in Mira-Therm2 or Mira-Therm2 PE. The handrail assemblies, deck enclosures, front leg, front leg channel, and clamps shall have a Mira-Cote finish. The back-up plate shall have a zinc plate finish.

- **TYPHOON 270 DEGREE SPIRAL SLIDES** shall be one-piece open bedway slides, with 5' or 5'-2" platform, barrel canopy and step or ramp assembly, designed for attachment to 3', 4' and 5' decks. The slide bedway shall be constructed of 1/4" to 5/16" wall Rockite. The slide bedway shall be 30" wide with a 15" high side wall. The center post shall be constructed of 4-1/2" tube. The step assembly shall be constructed of 11 ga. steel sheet folded and perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center, solid welded to stringers of 11 ga. black steel. The handrail assembly shall consist of a top and bottom rail and newel post formed, constructed of 1" pipe with infill of 3/4" x 1" oval tube. The step enclosure assembly shall be solid welded. Plastic pipe plugs shall close open ends. The deck enclosures shall consist of a vertical rail, and top and bottom rail, formed, constructed of 1" pipe with an upright of 3/4" x 1" oval tube, and 3/8" aluminum inserts in the rail ends for attachment to the step enclosures. The deck enclosure assemblies shall be solid welded. The 35" platform barrel shall be Rockite, with a Rockite canopy available in either one solid color or trimmed in two alternating colors. The barrel shall have molded-in view grooves for viewing children. The back-up plates used to connect the step assembly and the barrel shall be constructed of 1/4" x 1" x 4-1/2" flat steel. The front leg shall be constructed of 2" pipe and shall be attached to the slide using a channel constructed of 7 ga. sheet. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The Rockite slide and platform canopy shall have color molded in. The step shall be finished in Mira-Therm. The handrail assemblies, deck enclosures, front leg, and clamps shall have a Mira-Cote finish. The back-up plate shall have a zinc plate finish.

- **MIRA-THERM2 ATA STAIRS BETWEEN DECKS** shall be stair assemblies, with spoked or open handrails, designed to connect decks of different heights. The steps shall be constructed of 7 ga. steel stringers with treads constructed of 11 ga. steel sheet perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center, solid welded, with polyvinyl coating. The braces shall be constructed of 11 ga. black. The spoked handrails shall consist of a top and bottom rail and newel post, all of 1" pipe, and uprights constructed of 3/4" x 1" oval tube, all solid welded, with plastic pipe plugs inserted in open ends. Top rails shall have 3/8" aluminum inserts. The open handrails shall consist of a top and bottom rail and newel post of 1" pipe, all solid welded, with plastic pipe plugs inserted in open ends. Top rails shall have 3/8" aluminum inserts. The top deck enclosure shall consist of enclosure rails and an upright, both to be constructed of 1" pipe, drilled and solid welded, with one end of upright mashed for field attachment to deck. The bottom deck enclosure shall consist of horizontal rails and an upright of 1" pipe, drilled and solid welded, and a spoke upright of 3/4" x 1" oval tube. The upright shall be mashed on one end for field attachment to deck. Inserted in open ends will be plastic pipe plugs. The assembly shall include Fastener Style A hardware and Versalok Fasteners. The step assemblies shall be finished in Mira-Therm2 or Mira-Therm2 PE. The deck enclosures, handrails, and clamps shall be finished in Mira-Cote.

- **BONGO BRIDGES** shall be designed to enter/exit 2' or lower deck systems, either as a bridge between decks, a ground-to-deck "stair," or as a freestanding assembly with no decks. When installed as a bridge, pods may be installed at ascending/descending heights or all level, but should follow a straight course between decks. Freestanding pods may ascend and descend and may follow any course so long as pods are set 7" to 9" edge-to-edge. Pods may also be clustered and installed flush with each other to create a table, seats, small climber, etc. Regardless of layout and design, pod steps top surface may be set no greater than 24" from finished grade. Note: If designing as bridge between 2'-0" decks intended for 2 to 5 year old users, deck enclosures Model # 714-813-5 must be installed on each deck, which shall be sold separately. Each pod step shall be constructed of Rockite and shall contain a honeycomb textured, hex-shaped top surface measuring approximately 16" diameter. Pod steps shall measure 12" high without posts. Posts shall be constructed of 1-1/2" pipe with a 5-7/8" diameter mounting plate of 11 ga. G-90 galvanized solid welded to the posts. Post lengths shall be 38-5/16" before field assembly to pods. Overall assembled length shall be 42". All fasteners shall be Fastener Style A. The Rockite pod steps shall have color molded in. The posts shall be finished in Mira-Cote.

- **DELIGHT-O-SCOPE TELESCOPE AND BINOCULARS (BARRIER MOUNTING)** shall stimulate creative play and provide visual experiences for users and shall be designed for mounting on various types of barrier. The telescope features reflective facets set within the tube to offer a kaleidoscopic view, while the binocular model contains parallel tubes that constrain the user's field of vision to simulate a "search" effect, though neither model contains magnifying elements. They rotate 360 degrees horizontally and vertically between -45 and 45 degrees. Model # 714-961-R1, # 714-961-R2, # 718-961-R1, and # 718-961-R2 shall require a deck mounting or freestanding Rockite Panel, 2-1/2" thick, with side enclosures (no

- **SADDLE SEAT** shall be a freestanding, spinning component that supports the principles of inertia by keeping kids spinning merely by use of body weight. Entire assembly shall measure 70-5/8" in height, 18-5/8" in width and 16-13/16" in length. The seat shall be constructed of Rockite and shall measure 18-5/8" in width, 16-13/16" in length, and 18-5/8" in height at seat's back. Seat front shall taper upward to measure 16-13/16" in height to create a "saddle" for the rider to straddle. The post shall be constructed of 3-1/2" tube, galvanized solid welded to a base plate of 11 ga. sheet steel, galvanized. A spindle comprising cold rolled carbon steel shall be inserted into top of post assembly through an upper spacer of 3/8" steel plate and a lower spacer of 7 ga. galvanized sheet steel. Entire post assembly is fully welded. Post assembly shall measure 64-1/2". Model # 945-1 post assembly shall have a 10 degree bend. Hub assembly shall comprise a cast iron painted hub, an elastomeric shaft seal and tapered, greased roller bearings. Assembly shall be fastened to post assembly with Fastener Style A hardware. All fastening hardware shall be Fastener Style A. The Rockite seat shall have color molded in. The post assembly shall be finished in Mira-Cote.

- **STEERING WHEEL, POST MOUNT** shall be designed to provide driving stimulation on any pre-existing deck post. The steering wheel shall be constructed of a high-density blow-molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D-638, D-790 and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection-molded polypropylene which shall contain U.V. light stabilizers. The Steering Column shall be constructed of 2" pipe. The assembly shall contain Fastener Style A hardware. The Steering Column shall have a Mira-Cote finish.

- **TEN SPIN** shall be an ADA merry-go-round type component that allows 10 children to play at one time. Ten Spin body shall be constructed of low density, 1/4" wall polyethylene. Body shall have an 86" diameter and measure 40" in height. Body shall have 5 indentations to allow children with disabilities to sit/recline, and 5 indentations for children to stand around outer edges. Rotomold shall have molded in footgrips to reduce slips. Body shall be pre-assembled with upper and lower ball bearings mounted into laminated sheet, HDPE 3/4" thick, with bottom cover constructed of 11 ga. sheet, A-60. Post assembly shall comprise a top friction plate, half bottom friction plate, post weldment, spring, half bottom cover plate and connector stub. Top friction plate, half bottom friction plate and half bottom cover plate shall be constructed of laminated sheet, HDPE, 3/4" thick. Post weldment shall comprise a post bottom, post shaft, bottom post plate and post friction plate. Post bottom shall be constructed of 5" tube, 11 ga., post shaft will be constructed of round, 2-3/4" OD CRR 1018, and bottom post plate and post friction plate shall be constructed of 3/8" black sheet, ASTM A-36. Spring shall measure 3/4" OD x 2" long. Connector stub shall comprise a 1.31 5" OD, 14 ga. smooth tube, pipe plug and 3/8-16 aluminum insert. Entire post assembly shall measure 116-7/8" in height. Tube shall be constructed of 5" tube, 11 ga. and 1/2" black sheet, ASTM A-36. Wheel-Spin shall be constructed of low density, 1/4" wall polyethylene and shall measure 35-1/2" in diameter by 4" high. Handgrips shall be constructed of an 11 ga. sheet, A-60 plate with solid welded grips constructed of Gator Grip. Entire assembly shall measure 7" in height and 3-3/8" in width. All fastening hardware shall be Fastener Style A. Ten Spin shall be finished in Rockite and Post in Mira-Cote.

- **JAX PACK** shall feature a "jacks" shaped rotomolded piece on a curved post. JAX Pack shall be available in one, two, three or four JAX configurations. JAX Pack one and two shall have one or two 5" tube post(s) measuring 81-1/16" with a 40" radius bent through 42 degrees. JAX Pack Three shall have 5" tube posts; one 95-7/8" with a 60" radius bent through 44 degrees and two 81-1/16" posts with a 40" radius bent through 42 degrees. JAX Pack four shall have 5" tube posts; two 103-3/16" posts with a 24" radius bent through 66 degrees, one 95-7/8" post with a 60" radius bent through 44 degrees and one 81-1/16" post with a 40" radius bent through 42 degrees. All posts shall have predrilled holes for support assembly. JAX body shall be a rotomolded piece measuring 63" in greatest width and 18" in greatest height. One solid piece, JAX shall feature a triangular body that flows into 3 spheres, each 18" in diameter. Support assembly shall consist of a support plate, support straps and a cam lock spacer. Triangular shaped support plate shall be constructed of 7 ga. sheet and shall measure 20-13/16". Support straps shall be solid welded to support plate. Straps shall measure 8-3/4" and 3" in length and shall be constructed of 1/4" x 1 flat. Straps shall have a 7/16" hole cut 1-1/2" from bottom. The 8-3/4" strap shall also have a 1/4" hole cut 8-1/4" from bottom. Cam lock spacer shall be welded to strap at the top bolt hole location. Spacer shall be 1/2" in diameter and 5/16" tall, constructed of AISI 1020 CR steel, zinc plated. Cam lock assembly shall comprise a cam lock plate and cover plate. Cam lock plate shall be constructed of 11 ga. A-60 sheet and shall have a 4-13/16" by 9/16" serrated cut-out for locking purposes. Plate shall be constructed of 11 ga. A-60 sheet. Entire assembly shall be welded and shall measure 2-1/2" in height with an 8" diameter. All fastening hardware shall be Fastener Style A. Post and Support Assembly shall be finished in Mira-Cote. JAX body shall be finished in Rockite.

- **ARCH SWING FRAMES & EXTENSION (TOTS' CHOICE)** shall consist of arches, header(s) and two clevises per bay which shall assemble to form a swing frame. The swing frames shall be available in 1, 2, 3, or 4 bay models providing for 2, 4, 6, or 8 swing configurations. Arch assemblies shall consist of the arch, which serves as the legs for the swing frame, and the arch stub, which supports the header. Arches shall be constructed of 3-1/2" tube and shall measure 118" from leg end to the plane of the underside of the arch apex. Stubs shall measure approximately 5-3/4" with two

- **Flo-Coat (R)** is a patented triple coat corrosion protection process of Allied Tube and Conduit's Mechanical Tube Division, wherein steel pipe or tube first receives a hot-dipped uniform zinc galvanized coating followed by a conversion coating followed by a clear, high performance organic polymer coating. The interior of the tube has an 81% minimum zinc rich primer applied, capable of providing excellent rust protection and fabrication characteristics. All coatings are applied inside and out after welding. Flo-Coat processed tube exceeds the test results of galvanized Sch 40 pipe in salt spray tests conducted in accordance with ASTM B-117. The term "Flo-Coat" is a registered trademark of Allied Tube and Conduit, used with permission.
- **GATOR GRIP (TM)** is a three dimensional textured pattern exclusive to Miracle, embossed in steel to a depth of .014" to .017".
- **G-90 galvanized** indicates that a coating of .90 ounces of zinc per square foot has been applied on each surface side.
- **A-60 Galvannealed** indicates that a coating of .60 ounces of zinc per square foot alloyed with substrate steel has been applied on each surface side.
- **Mira-Cote (TM)** is a Super Durable formulation of a polyester powder coating finish that is applied to a thickness of 3-5 mil. This finish gives metal parts long term protection from chipping, fading and peeling. Miracle's finishing system washes the metal parts with detergent and etches the metal for optimum adhesion. The part is then rinsed clean with water. Next the part is coated with a non-chromic sealer and dried. The Mira-Cote powder is then applied electrostatically to the metal part. The metal parts are then baked at a high temperature to fuse a hard, smooth durable finish to the metal. Mira-Cote has an impact value of 160 in. lbs., flexibility value of 180 degree-1/4" mandrel, shore hardness value H and a crosshatch adhesion of 100%. Mira-Cote is tested in accordance with ASTM D-792, D-523, D-2794, D-1737, D-3363, D-3359 (b), B117 and D-2247. Mira-Cote will withstand over a 1,500 hours of salt spray exposure and 1,500 hours of weatherometer testing with minimal loss of gloss and color.
- **Mira-Therm2 PE** is a non-toxic copolymer polyethylene coating applied to a thickness of 1/16". Mira-Therm2 PE contains U.V. light stabilizers, anti-microbial additives and color pigments. Mira-Therm2 PE contains no orthophthalates or other banned substances. Mira-Therm2 PE is a proprietary brand of PE coating. Materials are tested in accordance with ASTM D-638, ASTM D-412, ASTM D-2240 and ASTM D-1004. Mira-Therm2 PE meets the FMVS 302 flammability rating, the requirements of California State Law and the 2008 CPSI Act.
- **pipe sized tube** is 1010 hot rolled, Flo-Coat, galvanized pipe manufactured from steel, cold formed and high frequency induction welded continuously. It conforms to ASTM A-135 and ASTM A-500 and is tested in accordance with ASTM E-8.
- **schedule 40 galvanized pipe** consists of a hot dip process of coating the pipe inside and out with not less than 1.6 ounces per square foot with an average of 1.8 ounces per square foot. Schedule 40 pipe conforms to ASTM standards A-53.
- **1" pipe is GATOR GRIP embossed 14 ga., 1" pipe sized tube (1.315" OD; approx. 1-5/16" OD.)**
- **1" pipe, 10 ga. is 10 ga., 1" pipe sized tube (1.315" OD; approx. 1-5/16" OD.)**

• **3/4" x 1" oval tube** is 15 ga. wall. It is fabricated of 1008 hot rolled, Flo-Coat, galvanized tube manufactured from steel, cold formed and high frequency induction **welded** continuously. It conforms to ASTM A-135 and ASTM A-500 and is tested in accordance with ASTM E-8. The minimum mechanical properties of the tube are yield strength of 50,000 p.s.i. and tensile strength of 55,000 p.s.i.

• **1-1/2" square tube** is 16 ga., **1-1/2" square tube**.

• **1" tube** is 1" OD, 15 ga. **fluted round tube**. It conforms to ASTM A-500.

• **1-1/4" tube** is 1.315" OD (approx. 1-5/16" OD), 14 ga. **diamond embossed round tube**. It conforms to ASTM A-500.

• **1-1/2" tube** is 1-1/2" OD, 16 ga. **round tube**. It conforms to ASTM A-500.

• **2-3/8" tube** is 2-3/8" OD, 9 ga. **round tube**. It conforms to ASTM A-500.

• **3-1/2" tube** is 3-1/2" OD, 13 ga. **round tube**. It conforms to ASTM A-500.

• **4-1/2" tube** is 4-1/2" OD, 7 ga. **round tube**. It conforms to ASTM A-500.

• **5" tube** is 5" OD, 13 ga. **round tube**. It conforms to ASTM A-500.

• **5" tube, 11 ga.** is 5" OD, 11 ga. **round tube**. It conforms to ASTM A-500.

• **welded** refers to welds that are made by certified welders, tested in accordance with AWS D1.1-94, structural welding code specifications for steel. Welds conform to AWS A5.17 ASME SFA-5.17 EML3K and AWS A-5.18ER70S-3 ASME SFA-5.18 ER70s-3 LE332- C and LE-559-L.

• **Specification Policy:** Specifications were current at the time of publication. Miracle Recreation Equipment Company has a policy of ongoing product improvement and therefore reserves the right to modify specifications or discontinue products without notice.

Jefferson County - Option C · GENERAL SPECIFICATIONS

SAFETY STANDARDS & GUIDELINES All public playground equipment supplied shall meet all applicable provisions of the current "Handbook for Public Playground Safety" published by the Consumer Product Safety Commission (CPSC), and of ASTM F1487-01 "Standard Consumer Safety Performance Specification for Playground Equipment for Public Use," published by the American Society for Testing and Materials (ASTM). Products bearing the certification seal of the International Play Equipment Manufacturers Association (IPEMA) have received written validation of compliance with ASTM F1487-01.

TRADEMARKS Aquarius (R), Big Kahuna (R), Big Timber (R), Bongo (TM), Boulder Ridge (R), Bug Bites (R), Camel Back (TM), Center Stage (R), Chameleon (TM), Coil Curler (TM), Connexion (R), Dupli-Gator (R), Flex Jet (R), Flippo (TM), Flippopotamus (R), Fun Fone (TM), Fun Tunnel (R), Funnel Tunnel (TM), Funshades (TM), Gator Grip (R), Gemini (TM), Gravity (TM), Grizz-Lee Bear (R), Groove (TM), Groove II (R) Slide, Hang-A-Round (R), Interaxion (TM), JAX (R), Kidrox (R), Kids' Choice (R), Kids' Perch (TM), Legacy Cantilever (R), Legacy Contempo (R), Legacy Heritage (R), Libra (R), Linkz (TM), Loopz (TM), Mega Tower (R), Miracle (R), Miracle Recreation (R), MiracleTech (R), Mira-Cote (R), Mira-Lam (TM), Mira-Lene (TM), Mira-Therm2 (TM), Mogul (TM), Mountain Trail (R), N-Dure Cycle (R), Nexus (R), Observation Deck (R), Offspring (TM), OrbX (R), ParkWatch (TM), Pegasus (R), Perma-Guard (TM), Perseus (TM), Phyzics (R), Play Cover (R), Play Terrain (R), Power Pedaler (TM), Pull Up!Lift (R), Rainbow Bend (TM), Reflex (R), Relay Racer (R), Rock-ite (R), Rodeo Rocky (TM), Schnozz Womp (TM), Serpent Trek (TM), SiteBrite (TM), Sneak-A-View (TM), SonicScreen (R), Spray Stations (R), Sun Sparkle (TM), Surfer (R), Tensile Tough (TM), Tensile Tower (TM), Thunder Tunnel (TM), Timber Topper (TM), Toboggan (TM), Toddlers' Choice (R), Tots' Choice (R), Tots' Choice (TM) for Toddlers, Trim Timber (R), Triple Play (TM), Typhoon (TM), Versalok (R), View Groove (TM), Wavy Waffle Wall Walker (TM), Webscapes (R), Whirlwind (TM), Xcalator (R), and X-Cavator (TM) are trademarks of Miracle Recreation Equipment Company. Tornado (TM), Multi-Pondo (TM), and Pirouette (TM) are trademarks of HAGS (TM). Miracle and HAGS are divisions of PlayPower, Inc. PlayPower (R) is a trademark of PlayPower, Inc.

QUALITY SYSTEM CERTIFICATION The manufacturer's quality system is certified to ISO 9001 since December 1998.

PRODUCT CHANGES At Miracle Recreation Equipment Company, we strive for the utmost in quality and safety in our entire product line. Therefore, in order to honor this commitment to you, our customers, we reserve the right to make changes on any product released and/or published in our annual catalog and other promotional or technical literature.

WARRANTY

Buyer agrees that products sold by Miracle Recreation Equipment Company carry only the following warranties:

1. **LIMITED WARRANTY FOR AS LONG AS YOU OWN THE PRODUCT** against structural failure due to corrosion or defects in materials and workmanship on aluminum deck posts, steel deck posts, the VersaLok (R) fastening system and associated fastening hardware.
2. **LIMITED FIFTEEN (15) YEAR WARRANTY** against structural failure due to corrosion or defects in materials and workmanship on steel support legs and Mira-Therm2 (TM) 2 on MEGA TOWER (R), TOTS' CHOICE (R), KIDS' CHOICE (R), CENTER STAGE (R), NEXUS (R) and Boulder Ridge (R) Rock Wall; on playsystem steel components including railings, rungs, and rigid climbers; and Rockite (R).
3. **LIMITED FIFTEEN (15) YEAR WARRANTY** against structural failure due to corrosion or defects in materials and workmanship on all Play Cover (R) steel frames.

These limited warranties apply only to Miracle products that are erected and installed in conformance with Miracle's installation instructions, and that are maintained and inspected in conformance with Miracle's maintenance and operational instructions. These limited warranties specifically do not cover Miracle products: that have been modified, altered, or misused; that have not been used as designed or intended; to which non-Miracle parts have been added or substituted; or that have been damaged due to excessive wear and tear, vandalism, abnormal use, abuse, negligence, extraordinary weather or acts of God. MiracleTech Security (R) systems limited warranties do not cover products serviced or repaired by unauthorized service providers. These limited warranties do not protect against color fade, except for PlayCover (R) as noted above. Buyer, by acceptance and use of these limited warranties, waives any rights it would otherwise have to claim or assert that this limited warranty fails of its essential purpose. Buyer agrees that venue for any court action to enforce these limited warranties shall be in Barry or Greene Counties in the State of Missouri.

EXCEPT AS EXPRESSLY WARRANTED HEREIN, MIRACLE EXPRESSLY DISCLAIMS ANY OTHER WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THOSE ARISING BY STATUTE OR OTHERWISE IN LAW OR FROM COURSE OF DEALING OR USAGE OF TRADE. IN NO EVENT SHALL MIRACLE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, WHETHER BASED UPON CONTRACT, TORT, OR ANY OTHER LEGAL THEORY (INCLUDING WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION, LOSS OF INFORMATION, CONSEQUENTIAL, INCIDENTAL, INDIRECT OR SPECIAL DAMAGES OR OTHER PECUNIARY LOSS).

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of items listed in bold type.

- **KIDS' CHOICE MIRA-THERM2 DECKS:** The deck models in the 714-50X-9 series shall consist of a (3) sided equilateral triangle deck: Model # 714-501-9, with a *deck top surface area of 7 sq. ft. (1008 sq. in.)*; a (4) sided square deck: Model # 714-502-9, with a *deck top surface area of 16 sq. ft. (2304 sq. in.)*; (4) sided (3) opening half hex decks: Model #s 714-503-9 and 714-504-9, with a *deck top surface area of 21 sq. ft. (3024 sq. in.)*; (4) sided (6) opening rectangular decks: Model #s 714-508-9, 714-509-9 and 714-510-9, with a *deck top surface area of 32 sq. ft. (4808 sq. in.)*; a (5) sided pentagon deck: Model # 714-512-9, with a *deck top surface area of 23.8 sq. ft. (3427 sq. in.)*; an (8) sided octagon deck: Model # 714-519-9, with a *deck top surface area of 60 sq. ft. (8640 sq. in.)*; (4) sided (6) opening parallelogram decks: Model #s 714-505-9, 714-506-9 and 714-507-9, with a *deck top surface area of 28 sq. ft. (4032 sq. in.)*; and a (7) sided heptagon deck: Model # 714-517-9, with a *deck top surface area of 55 sq. ft. (7,920 sq. in.)*.

Model # 714-511-9 shall be an isosceles triangle split deck (single section) designed to serve as a step platform for lower deck heights: 18" or lower for 2-5 year olds, and 30" or lower for 5-12 year olds. All other Model # 714-511-X9 split decks shall feature two triangular deck sections which shall be mounted between four posts at different heights so that a 6", 12", 18", or 24" (X) rise shall be formed along the hypotenuse between two posts. Models which rise greater than 6" shall contain a riser plate; models which rise greater than 12" shall also contain an arched enclosure assembly. *The deck top surface area of split deck models shall be 8 sq. ft. each for both sections, or total 16 sq. ft.* Riser plates shall be constructed of 11 ga. A-60 Galvannealed sheet; risers for 18" and 24" rises shall contain a rung and vertical supports of 1" tube, solid welded, all finished in Mira-Cote. The arch enclosure assembly accompanying models which rise 18" and 24" shall comprise top and bottom supports and an arched upright constructed of 1" pipe, drilled, formed and mashed, all solid welded, and vertical rungs of 1" tube, with plastic pipe plugs inserted in open ends, and finished in Mira-Cote. Decks shall be designed for maximum flexibility in height of deck surface, from 0" to 6'-6" (in 6" increments,) though 3', 5' and 6'-6" shall be considered standard heights. Decks shall be designed on a 48" center-to-center spacing on 5" deck posts, at equal or varied heights. All deck-to-post connections shall be made with a deck support clamp. All deck connections shall be made beneath deck with no exposed fasteners on deck perimeter. Decks with 8' wide open side shall be designed to attach to another deck with 8' wide open side at same deck height, or to a Model # 714-770-6 Flippopotamus Slide/Climber. All decks shall be constructed with folded 11 ga. steel sheet forming 3" tall sides. Decking sheets shall be perforated with a staggered pattern of 3/8" diameter holes (5/16" after dipping) at 5/8" apart center-to-center. The decking shall have 7 ga. by 2" flat steel braces and corner braces of 7 ga. steel. The entire assembly shall be solid welded prior to polyvinyl coating. Each assembly shall contain **Versalok Fasteners** and **Fastener Style A** hardware. All deck surfaces shall be coated in Mira-Therm2 or Mira-Therm2 PE.

- **KIDS' CHOICE HEPTAGON MEGA TOWER 2-LEVEL DECK** shall comprise two heptagonal decks – 8' and 14' for Model # 714-520-27, or 2' and 8' for Model # 714-521-7 and # 714-521-7NR – on common posts with an enclosed center climber for ascending to upper level. The assembly requires a roof as well as barriers or other play components. The overall height of the assembly (with roof) is approximately 25' from finished grade. Seven-sided decks shall each consist of one (1) 3-Section Deck and one (1) 2-Section Deck, with 2' Deck also consisting of one (1) Center Deck Plug. Top deck surface area shall be 57 square feet. The deck length shall be 105" flat to post. The deck frame shall be constructed with folded 11 ga. Steel sheet forming 3" tall sides. Decking sheets shall be perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-

contain Versalok Fasteners and Fastener Style A hardware. The enclosure assemblies, legs, bar assemblies, stubs, and clamps shall be finished in Mira-Cote. The climber shall have color molded in.

- CLIMBING POLE/SPIDER CLIMBER/BUMPER LADDER/SPIRAL CLIMBER/CLIFF CLIMBER/TRAP DOOR CLIMBER shall each be used as an entry to or an exit from a deck. The *cliff climber* side rails and rungs shall be constructed of 1" pipe, formed, drilled and all solid welded construction, with an extension tube constructed of 1-1/4" pipe, 10 ga. The *trap door climber* pole shall be formed 1-1/4" pipe. The "U" shaped rungs shall be formed 1" pipe. The extension shall have a 3/8" aluminum insert. The climber shall be a welded assembly. The *climbing pole* shall be constructed of 1" pipe, formed, drilled and all solid welded construction with plastic pipe plugs inserted in open ends. For the Tots' Choice system, the *spiral climber* center pole shall be constructed of 1" pipe, formed, drilled and all solid welded construction with plastic pipe plugs inserted in open ends and the spiral shall be constructed of 1" tube and shall be attached to the center pole by means of six spacers, also constructed of 1" tube. The assembly shall be solid welded. The *bumper ladder* shall be constructed of Rockite bumpers supported internally by a pole constructed of 1" pipe, 10 ga. Each bumper shall measure 18" high x 19" wide. The Kids' Choice arch enclosure assembly shall consist of top supports, a bottom support, and an arched upright, which shall be constructed of 1" pipe, formed, mashed, and punched, with vertical infill of 3/4" x 1" oval tube. The Tots' Choice arch enclosure shall comprise two top supports and infill of 1" tube and a climbing pole support and arch support of 1" pipe, all solid welded. Kids' Choice arch enclosure for split decks shall consist of top rails, a receiver tube, an arched upright and outer upright, which shall be constructed of 1" pipe, drilled, formed and mashed, and vertical spokes which shall be constructed of 3/4" x 1" oval tube. The enclosure assembly shall be solid welded. Enclosure shall measure 55" in width and 62" in height. All enclosure assemblies shall have an extension tube of 1" pipe, 10 ga. Enclosure assemblies shall be solid welded. The cliff climber, trap door climber, climbing pole, spiral climber, bumper ladder pole, and enclosure assembly shall have a Mira-Cote finish. The Rockite bumpers shall have color molded in.
- CURVED LOOP CLIMBERS/UPHILL CLIMBER shall be ground-to-deck climbers, or uphill climber may also be used as a deck-to-deck model, rising either 6' or 8'. The side rails shall be curved 1-1/2" pipe with blind fasteners inside top end, with curved rungs constructed of 1" tube, die formed and welded to side rails (except Tots' Choice curved loop climber models which shall have side rails of curved 1" pipe). The deck enclosure assembly for Kids' Choice models shall consist of top supports, a bottom support, an outer upright, and an arched upright, which shall be constructed of 1" pipe, formed, mashed and punched, and vertical rungs which shall be constructed of 3/4" x 1" oval tube with bolting tabs of 11 ga. sheet. The enclosure assembly for Tots' Choice models shall consist of top supports and an arched upright, which shall be constructed of 1" tube formed, mashed and punched. For all systems, the deck enclosure shall be solid welded. Loop climber and handholds shall have a Mira-Cote finish.
- FOSSIL BLUFF WALL SYSTEM shall be inclined rock walls designed for attachment to 5', 6'-6", or 8' decks and shall contain an arch entry enclosure. The climbing surface shall feature realistic shapes, dimensions and textures of a natural stone escarpment, and factory-assembled climbing stubs. The arch entry enclosure shall consist of a frame (top and inside support rails and arched upright) of 1" pipe and vertical rungs within the frame of 3/4" x 1" oval tube, all solid welded. The panel shall be constructed of Rockite. The climbing stubs shall be constructed of molded sand and polyester resin mixture. The wall frame shall be constructed of 1-1/2" square tube, solid welded. The fill block shall be constructed of 11 ga. A-60 Galvannealed sheet steel. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The clamps, enclosure and frame shall be finished in Mira-Cote. The fill block shall be finished in Mira-Therm2 or Mira-Therm2 PE. The panel and climbing stubs shall have molded in color.
- TOT ROCK CLIMBER shall be a ground-to-deck climber assembly (for 3' decks only) featuring a formed "bedway" with protrusions for users to grasp and step upon, and a single-user safety canopy. Some Rock Climber protrusions shall feature molded-in graphics of various fossil types. The climber shall be constructed of formed and drilled double-wall Rockite, and shall have an overall width of approximately 27-1/2" and an inside width at lowest point of 16". The assembly's top end shall have factory-installed threaded inserts for field attachment to canopy panel. The canopy panel shall be constructed of formed and drilled Rockite with all corners rounded, and shall measure 35-1/2" wide by 44-1/4" tall by 12-1/4" deep (panel alone 2-1/2" deep.) The opening shall measure approximately 24" wide by 31" tall. The front leg shall be 1-1/2" tube welded to a 7 ga. A-60 Galvannealed mounting bracket. The deck enclosures (for Kids' Choice model only) shall consist of uprights and support bars, to be constructed of 1" pipe, drilled, formed and solid welded. The panel support rung (for Tots' Choice model only) shall be a 37-3/16" length of 1" pipe. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. The climber and canopy shall have color molded in. The leg, deck enclosures, and clamps shall be finished in Mira-Cote. The panel support rung shall have a galvanized finish.

Calypso 2-Drum panel shall also contain 2 rotational molded drums of low density polyethylene resin. Each drum shall be attached to the panel through a cover plate constructed of 11 ga. galvanized sheet steel with a Mira-Cote. Rung brackets shall be constructed of 1" pipe (except Tots' Choice models which shall be 1" tube) with tabs of 11 ga. A-60 Galvannealed sheet, solid welded. The Roller Racer models shall be constructed as above and shall also have a clear polycarbonate cover fastened to enclose various contents. A black high density polyethylene gear handle mounted outside the cover shall turn on a bronze bushing to drive a 1/4" thick polyethylene gear behind the cover, which shall carry 1/2" steel balls and release them in routed channels. The steering wheel shall be constructed of a high density polyethylene produced from high performance, U.V. stabilized rotational molding grade resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693 (b), D-638, D-790 and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance, and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection molded polypropylene which shall contain U.V. light stabilizers. Each assembly shall contain **Fastener Style A** hardware and **Versalok Fasteners**. Half-panels and steering wheels shall have molded-in color. Rung brackets and clamps shall have a Mira-Cote finish.

- **LEAN OUT ENCLOSURE** for 14' level of Mega Tower 3-Level Deck shall be designed to fully enclose the area between deck posts, deck and roof (an approximate height of 6'). The welded framework enclosure shall contain top, bottom and formed side rungs of 1" pipe, a frame tie of 1/8" x 1" flat, vertical spokes of 3/4" x 1" oval tube on each side, vertical spokes of 1" tube on its front (above and below frame tie), and a formed rail of 1" tube welded to the top rail. The assembly shall contain **Versalok Fasteners** and **Fastener Style A** hardware. The enclosure assembly and clamps shall be finished in Mira-Cote.

- **LOOKOUT TOWER/COMMAND POST** shall be curved deck extensions/overhangs and enclosure components for deck systems, designed to stimulate imaginative play. Panels for both models shall be constructed of **Rockite**, with wall thickness approximately 1/4", formed to extend the deck surface in a semi-circle (approximately 40" long with a radius of 9-7/16") and also formed to serve as an enclosure. The panels shall have four 3/8" threaded inserts factory-installed along bottom of deck edge and a top rung of 1" pipe inserted at the factory for field attachment to deck and posts respectively. The panels shall contain five 2" wide view slots evenly spaced, with all corners rounded. The steering wheel shall be constructed of a high-density blow-molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D- 638, D-790 and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection-molded polypropylene which shall contain U.V. light stabilizers. All **Versalok Fasteners** for deck and component attachment shall be aluminum alloy, and hardware shall be **Fastener Style A**. The Rockite panel shall have color molded in. The top rung and **Versalok Fasteners** shall have a Mira-Cote finish.

- **ROCKITE BUBBLE PANEL/ROCKITE PANEL WITH HOLE/VIEW GROOVE PANEL/30 DEGREE LOOK-OUT PANEL** shall be constructed of **Rockite** with all corners rounded. The 30 degree Look-Out panel shall have a molded in 30 degree extension. The enclosure shall consist of uprights and support bars, all constructed of 1" pipe, drilled and formed (except Tots' Choice models which shall have an enclosure consisting of a top rail of 1" tube with two tabs and two brackets of 11 ga. galvanized sheet, solid welded). The bubble shall be vacuum formed from clear polycarbonate sheet. The spherical bubble shall measure 24" in diameter and shall be attached to the panel in the factory using tamper proof screws and flat washers. The view groove panel shall have six 2" view slots evenly spaced at 5-1/4" with slant of 20 degrees from vertical. Horizontal rungs shall have a Mira-Cote finish. Rockite panels shall have color molded in.

- **WALL ENCLOSURE/WALL WITH STEERING WHEEL/CLOSURES/HANDHOLD FOR TRANSFER POINT/TREEHOUSE SEAT** shall be barrier assemblies. The handhold for transfer point shall be used as a support rail to assist wheelchair user access on a 1'-6" transfer point deck. The wall enclosure and transfer point handhold supports shall consist of a welded assembly handrail system with a top and bottom rail constructed of 1" pipe (except Tots' Choice models which shall be 1" tube) and uprights constructed of 3/4" x 1" oval tube (except Tots' Choice models which shall be 1" tube), solid welded. The mounting bracket shall be 11 ga. A-60 Galvannealed sheet steel, welded to the wall enclosure. The steering wheel on vehicle-themed panels shall be constructed of a high-density blow molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D- 638, D-790 and D-746. Resin's properties exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection molded polypropylene which shall contain U.V. light stabilizers. The Treehouse Wall with Seat shall comprise a top and bottom rail and end uprights constructed of 1" pipe and spoked infill of 3/4" x 1" oval tube and a seat assembly, all solid welded. The seat assembly shall comprise a frame of 1" pipe with bolting brackets of 3/16" x 1-1/4" HR flat and a factory-assembled 19" wide seat constructed of 11 ga. sheet, perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. The seat surface shall be approximately 14" from the deck, if applicable. The enclosure rungs, uprights,

perforated with 3/16" holes in a pattern, with a formed "lip" at the panel's top edge to provide additional stability during installation. A length of 1" pipe shall be welded to the panel bottom. The recycled roof panels shall be constructed of 100% post consumer recycled plastic and approximately 3/4" thick. A panel mount formed of 11 ga. G-90 galvanized shall be field assembled to trusses and roof panels. Roof truss assemblies shall be constructed of a roof mount stub of either 5" tube for Kids' Choice or 3-1/2" tube for Tots' Choice Expansion, solid welded at a 54 degree angle to truss of 5" tube containing bolting tabs on both sides of 11 ga. G-90 galvanized. 5" round end caps shall close open ends of trusses. All hardware shall be Fastener Style A. The steel roof panels and trusses shall have a Mira-Cote finish. The recycled panels shall have a natural finish. The panel mounts shall have a galvanized finish. Note that a hybrid model (with alternating recycled plastic and perf steel roof panels) is not available for heptagon or pentagon decks due to the odd number of panels.

- **SQUARE ROOF:** The square roof shall measure 60" square by 32" high and shall be constructed of double wall Rockite with a shingle pattern. The roof shall attach to the top of posts with four roof brackets. For Kids' Choice, the roof brackets shall be constructed of 4" Sch 40 pipe welded to a 5" x 18-1/2" plate made of 11ga. A-60 Galvannealed. For Tots' Choice Expansion, the roof brackets shall be constructed of 3-1/4" Sch 40 pipe welded to a 6" x 20" plate made of 11 ga. A-60 Galvannealed. Roof clearance for the square roof shall be 72" from deck surface to roof edge. The Rockite roof shall have color molded in. The roof brackets shall have a Mira-Cote finish.

- **TUBE SLIDES FOR 14' DECK** shall be 30" I.D. tube slides with windows designed to exit a 14' high deck system such as the Mega Tower 3-Level Deck. Bedway length for Model # 714-742-14 (Right Turn) shall be 29'-4". Bedway length for Model # 714-742-141 (Straight) shall be 25'-10". Bedway length for Model #s 714-742-143R and 714-742-143L (Right and Left "S") shall be 26'-2". All pieces shall be Rockite with a 30" inner diameter. Tube-to-tube connections shall have a Rockite flange cover. The bedway shall have no exposed internal fasteners. The exit section shall be constructed of double-wall Rockite with a 25" centerline radius. All slide pieces shall be constructed with a 1/4" to 3/8" wall thickness. The tube joints shall be externally flanged and overlapping, with a 1" wide flange. The windows shall be clear polycarbonate and shall measure 13" x 40". The slide entry panels shall be Rockite and shall measure 47" x 38" x 3" with a molded in 30 degree extension, and shall be supported by a horizontal rung of 1" pipe. Support legs of various lengths shall be die-formed of 1-1/4" pipe or 2" pipe. The front leg shall comprise an upright and a bolting plate. The upright shall be constructed of 2" pipe. The bolting plate shall be constructed of 11 ga. sheet A-60 Galvannealed measuring 7" x 7", welded to the upright. The slide warning sign shall comprise a Mira-Lene sign panel and two support posts constructed of 2-3/8" O.D. tube, 12 ga. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The slide assembly shall have color molded in. The support legs, front leg and clamps shall have a Mira-Cote finish.

- **TYPHOON 270 DEGREE SPIRAL SLIDES** shall be one-piece open bedway slides, with 5' or 5'-2" platform, barrel canopy and step or ramp assembly, designed for attachment to 3', 4' and 5' decks. The slide bedway shall be constructed of 1/4" to 5/16" wall Rockite. The slide bedway shall be 30" wide with a 15" high side wall. The center post shall be constructed of 4-1/2" tube. The step assembly shall be constructed of 11 ga. steel sheet folded and perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center, solid welded to stringers of 11 ga. black steel. The handrail assembly shall consist of a top and bottom rail and newel post formed, constructed of 1" pipe with infill of 3/4" x 1" oval tube. The step enclosure assembly shall be solid welded. Plastic pipe plugs shall close open ends. The deck enclosures shall consist of a vertical rail, and top and bottom rail, formed, constructed of 1" pipe with an upright of 3/4" x 1" oval tube, and 3/8" aluminum inserts in the rail ends for attachment to the step enclosures. The deck enclosure assemblies shall be solid welded. The 35" platform barrel shall be Rockite, with a Rockite canopy available in either one solid color or trimmed in two alternating colors. The barrel shall have molded-in view grooves for viewing children. The back-up plates used to connect the step assembly and the barrel shall be constructed of 1/4" x 1" x 4-1/2" flat steel. The front leg shall be constructed of 2" pipe and shall be attached to the slide using a channel constructed of 7 ga. sheet. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The Rockite slide and platform canopy shall have color molded in. The step shall be finished in Mira-Therm. The handrail assemblies, deck enclosures, front leg, and clamps shall have a Mira-Cote finish. The back-up plate shall have a zinc plate finish.

- **MIRA-THERM2 ATA STAIRS BETWEEN DECKS** shall be stair assemblies, with spoked or open handrails, designed to connect decks of different heights. The steps shall be constructed of 7 ga. steel stringers with treads constructed of 11 ga. steel sheet perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center, solid welded, with polyvinyl coating. The braces shall be constructed of 11 ga. black. The spoked handrails shall consist of a top and bottom rail and newel post, all of 1" pipe, and uprights constructed of 3/4" x 1" oval tube, all solid welded, with plastic pipe plugs inserted in open ends. Top rails shall have 3/8" aluminum inserts. The open handrails shall consist of a top and bottom rail and newel post of 1" pipe, all solid welded, with plastic pipe plugs inserted in open ends. Top rails shall have 3/8" aluminum inserts. The top deck enclosure shall consist of enclosure rails and an upright, both to be constructed of 1" pipe, drilled and solid welded, with one end of upright mashed for field attachment to deck. The bottom deck enclosure shall consist of horizontal rails and an upright of 1" pipe, drilled and solid welded, and a

shall consist of the arch, which serves as the legs for the swing frame, and the arch stub, which supports the header. Arches shall be constructed of 3-1/2" tube and shall measure 118" from leg end to the plane of the underside of the arch apex. Stubs shall measure approximately 5-3/4" with two 5/8" holes drilled 1-1/2" from flush end and shall be solid welded to the arches. The header assembly must be installed 7'-4" above the finished surfacing. The header shall be constructed of 3" pipe. Headers for Model #s 718-852-2, 718-852-4, 718-852-6, 718-852-8 and 718-852-2X shall measure 10'-6" long. Headers for Model #s 718-852-1H and 718-852-1HX shall measure 7'-2" long. Headers for Model # 718-852-2HH and 718-852-2HHX shall measure 11'-11" long. Headers shall have 1-1/4" O.D. steel bushing housings solid welded to them with 9/16" oil-impregnated bushings installed after painting. Clevises shall be cast of ductile iron grade 60-40-18 and shall be zinc plated. All fastener hardware shall be **Fastener Style A**. The arches and header shall be finished in Mira-Cote. Swings and Therapeutic Swing Seat must be ordered separately.

Technical Data for Processes and Finishes

of the Highlighted Items

- **aluminum alloy** conforms to the following: ASTM 356, ANSI 322, Chrysler MS 2417 and General Motors GM 4323-M. Parts or components constructed of aluminum alloy are either *sand cast* or *die cast*. *Sand cast aluminum alloy* is 319 with tensile strength of 27,000 p.s.i. and yield strength of 18,000 p.s.i. *Die cast aluminum alloy* is 383.1 with tensile strength of 45,000 p.s.i. and yield strength of 22,000 p.s.i.
- **4/0 straight link coil chain** is hot dipped galvanized with a 670 pound working load limit. All chain shall be manufactured to ASTM A467-86A Class CS specifications.
- **Mira-Therm2 coated chain** is a welded chain with links sufficiently wide to allow them to pass one another freely, eliminating the tendency to kink. The links are low carbon zinc plated steel with a polyvinyl chloride coating.
- **Versalok Fasteners (R)** are cast aluminum alloy. Each fastener consists of two die cast aluminum alloy "half ring" pieces, which were designed to fasten onto the round posts by use of a male/female interlock. For 3-1/2" post, outside dimension of the completed fastener (joined "half-rings") is 5". For 5" post, outside dimension of the completed fastener is 6-1/2". *Rungs and components* connect to clamps on posts by means of die cast aluminum alloy, two-piece socket receptors which may be assembled to a previously-installed clamp ring and secured to the clamp and component by set screws (and tek screws in some cases). *Decks* connect to clamps on posts by means of die cast aluminum alloy, one-piece deck support castings. The clamp assembly and socket receptor have a Mira-Cote finish. Kids' Choice components with 2" pipe mounting points attach to 5" posts using aluminum alloy sand cast header supports.
- **3-1/2" round end cap** is die cast aluminum alloy.
- **5" round end cap** is die cast aluminum alloy.
- **Fastener Style A** is a corrosion resistant, 18-8, stainless steel, vandal resistant fastener.

- 1" pipe is GATOR GRIP embossed 14 ga., 1" pipe sized tube (1.315" OD; approx. 1-5/16" OD.)

- 1" pipe, 10 ga. is 10 ga., 1" pipe sized tube (1.315" OD; approx. 1-5/16" OD.)

- 1" pipe, 12 ga. is 12 ga., 1" pipe sized tube (1.315" OD; approx. 1-5/16" OD.)

- 1-1/4" pipe is 13 ga., 1-1/4" pipe sized tube (1.660" OD; approx. 1-11/16" OD.)

- 1-1/4" pipe, 10 ga. is 10 ga., 1-1/4" pipe sized tube (1.660" OD; approx. 1-11/16" OD.)

- 1-1/2" pipe is 13 ga., 1-1/2" pipe sized tube (1.900" OD; approx. 1-7/8" OD.)

- 2" pipe is 12 ga., 2" pipe sized tube (2.375" OD; approx. 2-3/8" OD.)

- 3" pipe is 5 ga., 3" pipe sized tube (3.500" OD; 3-1/2" OD.)

- 2" Sch 40 pipe is 2" schedule 40 galvanized pipe (2.375" OD; approx. 2-3/8" OD.)

- 4" Sch 40 pipe is 4" schedule 40 galvanized pipe (4.500" OD; 4-1/2" OD.)

- plastic pipe plugs are injection molded polypropylene containing U.V. light stabilizers.

- Rockite (R) (Rotational Molded Polyethylene) is a low density polyethylene produced from high performance, U.V. stabilized rotational molding grade resins with a comprehensive additive package. These resins are tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D-638, D-790 and D-746. Resin's properties exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness of molded components is 3/16" to 1/4".

Jefferson County - Option D • GENERAL SPECIFICATIONS

SAFETY STANDARDS & GUIDELINES All public playground equipment supplied shall meet all applicable provisions of the current "Handbook for Public Playground Safety" published by the Consumer Product Safety Commission (CPSC), and of ASTM F1487-01 "Standard Consumer Safety Performance Specification for Playground Equipment for Public Use," published by the American Society for Testing and Materials (ASTM). Products bearing the certification seal of the International Play Equipment Manufacturers Association (IPEMA) have received written validation of compliance with ASTM F1487-01.

TRADEMARKS Aquarius (R), Big Kahuna (R), Big Timber (R), Bongo (TM), Boulder Ridge (R), Bug Bites (R), Camel Back (TM), Center Stage (R), Chameleon (TM), Coil Curler (TM), Connexion (R), Dupli-Gator (R), Flex Jet (R), Flippo (TM), Flippopotamus (R), Fun Fone (TM), Fun Tunnel (R), Funnel Tunnel (TM), Funshades (TM), Gator Grip (R), Gemini (TM), Gravity (TM), Grizz-Lee Bear (R), Groove (TM), Groove II (R) Slide, Hang-A-Round (R), Interaxion (TM), JAX (R), Kidrox (R), Kids' Choice (R), Kids' Perch (TM), Legacy Cantilever (R), Legacy Contempo (R), Legacy Heritage (R), Libra (R), Linkz (TM), Loopz (TM), Mega Tower (R), Miracle (R), Miracle Recreation (R), MiracleTech (R), Mira-Cote (R), Mira-Lam (TM), Mira-Lene (TM), Mira-Therm2 (TM), Mogul (TM), Mountain Trail (R), N-Dure Cycle (R), Nexus (R), Observation Deck (R), Offspring (TM), OrbX (R), ParkWatch (TM), Pegasus (R), Perma-Guard (TM), Perseus (TM), Phyzics (R), Play Cover (R), Play Terrain (R), Power Pedaler (TM), Pull Up!Lift (R), Rainbow Bend (TM), Reflex (R), Relay Racer (R), Rock-ite (R), Rodeo Rocky (TM), Schnozz Womp (TM), Serpent Trek (TM), SiteBrite (TM), Sneak-A-View (TM), SonicScreen (R), Spray Stations (R), Sun Sparkle (TM), Surfer (R), Tensile Tough (TM), Tensile Tower (TM), Thunder Tunnel (TM), Timber Topper (TM), Toboggan (TM), Toddlers' Choice (R), Tots' Choice (R), Tots' Choice (R) Expansion, Tots' Choice (TM) for Toddlers, Trim Timber (R), Triple Play (TM), Typhoon (TM), Versalok (R), View Groove (TM), Wavy Waffle Wall Walker (TM), Webscapes (R), Whirlwind (TM), Xcalator (R), and X-Cavator (TM) are trademarks of Miracle Recreation Equipment Company. Tornado (TM), Multi-Pondo (TM), and Pirouette (TM) are trademarks of HAGS (TM). Miracle and HAGS are divisions of PlayPower, Inc. PlayPower (R) is a trademark of PlayPower, Inc.

QUALITY SYSTEM CERTIFICATION The manufacturer's quality system is certified to ISO 9001 since December 1998.

PRODUCT CHANGES At Miracle Recreation Equipment Company, we strive for the utmost in quality and safety in our entire product line. Therefore, in order to honor this commitment to you, our customers, we reserve the right to make changes on any product released and/or published in our annual catalog and other promotional or technical literature.

WARRANTY

Buyer agrees that products sold by Miracle Recreation Equipment Company carry only the following warranties:

1. **LIMITED WARRANTY FOR AS LONG AS YOU OWN THE PRODUCT** against structural failure due to corrosion or defects in materials and workmanship on aluminum deck posts, steel deck posts, the VersaLok (R) fastening system and associated fastening hardware.
2. **LIMITED FIFTEEN (15) YEAR WARRANTY** against structural failure due to corrosion or defects in materials and workmanship on steel support legs and Mira-Therm2 (TM) 2 on MEGA TOWER (R), TOTS' CHOICE (R), KIDS' CHOICE (R), CENTER STAGE (R), NEXUS (R) and Boulder Ridge (R) Rock Wall; on playsystem steel components including railings, rungs, and rigid climbers; and Rockite (R).
3. **LIMITED FIFTEEN (15) YEAR WARRANTY** against structural failure due to corrosion or defects in materials and workmanship on all Play Cover (R) steel frames.

These limited warranties apply only to Miracle products that are erected and installed in conformance with Miracle's installation instructions, and that are maintained and inspected in conformance with Miracle's maintenance and operational instructions. These limited warranties specifically do not cover Miracle products: that have been modified, altered, or misused; that have not been used as designed or intended; to which non-Miracle parts have been added or substituted; or that have been damaged due to excessive wear and tear, vandalism, abnormal use, abuse, negligence, extraordinary weather or acts of God. MiracleTech Security (R) systems limited warranties do not cover products serviced or repaired by unauthorized service providers. These limited warranties do not protect against color fade, except for PlayCover (R) as noted above. Buyer, by acceptance and use of these limited warranties, waives any rights it would otherwise have to claim or assert that this limited warranty fails of its essential purpose. Buyer agrees that venue for any court action to enforce these limited warranties shall be in Barry or Greene Counties in the State of Missouri.

EXCEPT AS EXPRESSLY WARRANTED HEREIN, MIRACLE EXPRESSLY DISCLAIMS ANY OTHER WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THOSE ARISING BY STATUTE OR OTHERWISE IN LAW OR FROM COURSE OF DEALING OR USAGE OF TRADE. IN NO EVENT SHALL MIRACLE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, WHETHER BASED UPON CONTRACT, TORT, OR ANY OTHER LEGAL THEORY (INCLUDING WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION, LOSS OF INFORMATION, CONSEQUENTIAL, INCIDENTAL, INDIRECT OR SPECIAL DAMAGES OR OTHER PECUNIARY LOSS).

Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes" for specifications of items listed in bold type.

- **KIDS' CHOICE MIRA-THERM2 DECKS:** The deck models in the 714-50X-9 series shall consist of a (3) sided equilateral triangle deck: Model # 714-501-9, with a *deck top surface area of 7 sq. ft. (1008 sq. in.)*; a (4) sided square deck: Model # 714-502-9, with a *deck top surface area of 16 sq. ft. (2304 sq. in.)*; (4) sided (3) opening half hex decks: Model #s 714-503-9 and 714-504-9, with a *deck top surface area of 21 sq. ft. (3024 sq. in.)*; (4) sided (6) opening rectangular decks: Model #s 714-508-9, 714-509-9 and 714-510-9, with a *deck top surface area of 32 sq. ft. (4608 sq. in.)*; a (5) sided pentagon deck: Model # 714-512-9, with a *deck top surface area of 23.8 sq. ft. (3427 sq. in.)*; an (8) sided octagon deck: Model # 714-519-9, with a *deck top surface area of 60 sq. ft. (8640 sq. in.)*; (4) sided (6) opening parallelogram decks: Model #s 714-505-9, 714-506-9 and 714-507-9, with a *deck top surface area of 28 sq. ft. (4032 sq. in.)*; and a (7) sided heptagon deck: Model # 714-517-9, with a *deck top surface area of 55 sq. ft. (7,920 sq. in.)*.

Model # 714-511-9 shall be an isosceles triangle split deck (single section) designed to serve as a step platform for lower deck heights: 18" or lower for 2-5 year olds, and 30" or lower for 5-12 year olds. All other Model # 714-511-X9 split decks shall feature two triangular deck sections which shall be mounted between four posts at different heights so that a 6", 12", 18", or 24" (X) rise shall be formed along the hypotenuse between two posts. Models which rise greater than 6" shall contain a riser plate; models which rise greater than 12" shall also contain an arched enclosure assembly. *The deck top surface area of split deck models shall be 8 sq. ft. each for both sections, or total 16 sq. ft.* Riser plates shall be constructed of 11 ga. A-60 Galvannealed sheet; risers for 18" and 24" rises shall contain a rung and vertical supports of 1" tube, solid welded, all finished in Mira-Cote. The arch enclosure accompanying models which rise 18" and 24" shall comprise top and bottom supports and an arched upright constructed of 1" pipe, drilled, formed and mashed, all solid welded, and vertical rungs of 1" tube, with plastic pipe plugs inserted in open ends, and finished in Mira-Cote. Decks shall be designed for maximum flexibility in height of deck surface, from 0" to 6'-6" (in 6" increments,) though 3', 5' and 6'-6" shall be considered standard heights. Decks shall be designed on a 48" center-to-center spacing on 5" deck posts, at equal or varied heights. All deck-to-post connections shall be made with a deck support clamp. All deck connections shall be made beneath deck with no exposed fasteners on deck perimeter. Decks with 8" wide open side shall be designed to attach to another deck with 8" wide open side at same deck height, or to a Model # 714-770-6 Flippopotamus Slide/Climber. All decks shall be constructed with folded 11 ga. steel sheet forming 3" tall sides. Decking sheets shall be perforated with a staggered pattern of 3/8" diameter holes (5/16" after dipping) at 5/8" apart center-to-center. The decking shall have 7 ga. by 2" flat steel braces and corner braces of 7 ga. steel. The entire assembly shall be solid welded prior to polyvinyl coating. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. All deck surfaces shall be coated in Mira-Therm2 or Mira-Therm2 PE.

- **KIDS' CHOICE POSTS: STEEL POSTS:** The steel posts each shall be constructed of 5" tube, 11 ga. with a 5" round end cap pressed into its top end. Post and end cap shall have a Mira-Cote finish.

than standard posts for proper assembly. The climber resembles a cartoon-like bear character. Climbing pattern between the barriers resembles paw prints. The assembly contains rungs on its underside for additional play value. The one-piece climber shall be constructed of double-wall Rockite with wall thickness between 1/4" and 3/8", shall measure approximately 4'-3" x 6'-10" x 8'-10", and shall weigh approximately 300 lbs. Legs for ground-to-deck models shall be constructed of 1" pipe and 11 ga. A-60 Galvannealed sheet, solid welded and drilled. Deck and angle enclosures for ground-to-deck models shall consist of top supports, a bottom support, and uprights constructed of 1" pipe. The enclosures shall contain spoke infill of 3/4" x 1" oval tube. The assemblies shall be solid welded and drilled. The deck enclosure uprights shall have mashed ends for field assembly to decks. The angle enclosures' top rail shall have threaded inserts factory-installed for field attachment to deck enclosure. Deck enclosures for between-deck models shall consist of top supports, a bottom support and uprights constructed of 1" pipe and spoke infill of 3/4" x 1" oval tube. The assemblies shall be solid welded and drilled. The uprights shall have mashed ends for field assembly to decks. Stubs for between-deck models shall be constructed of 6" long segments of 1" pipe with factory-installed threaded inserts in one end. Bar assemblies (used as overhead climbing rungs) shall be constructed of 1" pipe with solid welded mounting plates of 11 ga. A-60 Galvannealed. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The enclosure assemblies, legs, bar assemblies, stubs, and clamps shall be finished in Mira-Cote. The climber shall have color molded in.

- **CANYON CLIMBER** shall be challenging vertical climbers used to access and egress deck systems of various heights. The assemblies shall contain arch enclosures. The climber shall comprise a frame and curved rungs constructed of 1" pipe, solid welded, with a swaged extension tube constructed of 1-1/4" pipe, 10 ga. with threaded aluminum insert for field assembly to arch enclosure. The rungs shall be curved in a semi-circle shape with a 19" diameter and shall alternate sides of the frame as they ascend. The Kids' Choice arch enclosure shall comprise top supports, extension tube, and arched upright constructed of 1" pipe, drilled, formed and mashed, and vertical rungs constructed of 3/4" x 1" oval tube, all solid welded. The Tots' Choice arch enclosure shall comprise two top supports and infill of 1" tube with a climbing pole support and arch support of 1" pipe, all solid welded. Kids' Choice arch enclosure for split decks shall consist of top rails, a receiver tube, an arched upright and outer upright, which shall be constructed of 1" pipe, drilled, formed and mashed, and vertical spokes which shall be constructed of 3/4" x 1" oval tube. The enclosure assembly shall be solid welded. Enclosure shall measure 55" in width and 62" in height. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The climber, enclosure and clamps shall have a Mira-Cote finish.
- **CURVED LOOP CLIMBERS/UPHILL CLIMBER** shall be ground-to-deck climbers, or uphill climber may also be used as a deck-to-deck model, rising either 6' or 8'. The side rails shall be curved 1-1/2" pipe with blind fasteners inside top end, with curved rungs constructed of 1" tube, die formed and welded to side rails (except Tots' Choice curved loop climber models which shall have side rails of curved 1" pipe). The deck enclosure assembly for Kids' Choice models shall consist of top supports, a bottom support, an outer upright, and an arched upright, which shall be constructed of 1" pipe, formed, mashed and punched, and vertical rungs which shall be constructed of 3/4" x 1" oval tube with bolting tabs of 11 ga. sheet. The enclosure assembly for Tots' Choice models shall consist of top supports and an arched upright, which shall be constructed of 1" tube formed, mashed and punched. For all systems, the deck enclosure shall be solid welded. Loop climber and handholds shall have a Mira-Cote finish.
- **HONEYCOMB CLIMBERS (KIDS' CHOICE & TOTS' CHOICE)** shall consist of handrails and a climber assembly which shall connect to the deck with a bracket. The Kids' Choice models shall feature an arched deck enclosure. The Tots' Choice models shall feature a handhold. The rails and archway of the Kids' Choice arched enclosure shall be constructed of 1" pipe, with vertical rungs of 3/4" x 1" oval tube, solid welded. The handhold on the Tots' Choice models shall be constructed of 1" tube. The handrails, which also serve as legs, shall be constructed of 1" pipe, drilled, with 3/8" aluminum inserts in the top ends. On Kids' Choice handrails for 5' and 6'-6" decks, a drilled stub of 1" pipe, 12 ga. is welded. The climber assembly shall consist of Honeycomb segments constructed of Rockite and rungs made of 1" pipe, drilled, with either plastic pipe plugs or threaded aluminum inserts factory-installed. The deck-climber bracket shall be constructed of 3" x 3" x 3/16" angle, 7 ga. black HR CQ steel and 780 series Plastisol resin. The enclosure or handhold, handrails, and fasteners shall have a Mira-Cote finish. The bracket shall have a Mira-Therm2 or Mira-Therm2 PE finish. The Honeycomb segments shall have molded-in color.
- **VERTICAL LADDER/LOOK-OUT LADDER** shall be designed for use as an entrance and exit for decks of various heights. Each assembly shall consist of side rails and rungs constructed of 1" pipe, all solid welded. Models shall have threaded inserts in the ends of the side rails and an arch enclosure. The Kids' Choice enclosure assembly shall consist of top supports, a bottom support, and an arched upright constructed of 1" pipe, formed, mashed and punched, and vertical infill of 3/4" x 1" oval tube with mounting tabs of 7 ga. sheet, all solid welded. The Tots' Choice enclosure assembly shall comprise top supports and an arch upright of 1" pipe, spoked infill of 1" tube with mounting tabs of 7 ga. sheet, all solid welded. The ladders and enclosure assemblies shall have a Mira-Cote finish.

exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection-molded polypropylene which shall contain U.V. light stabilizers. All **Versalok Fasteners** for deck and component attachment shall be aluminum alloy, and hardware shall be **Fastener Style A**. The **Rockite** panel shall have color molded in. The top rung and **Versalok Fasteners** shall have a **Mira-Cote** finish.

- **MIRA-THERM2 KID'S PERCH/KID'S PERCH WITH WHEEL** shall each consist of a curved deck extension/overhang and an enclosure which provide for imaginative play. Model # 714-992-69 shall feature a steering wheel attached to the enclosure. Model # 714-992-69A shall feature a steering wheel attached to enclosure crossbars to be more easily grasped by wheelchair-bound users. The platform shall be constructed with 11 ga. steel sheet perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. The frame shall be constructed by folding edges to form 3" tall walls and shall be supported by solid **welded** supports of 1/4" x 1-1/2" flat steel. The platform shall be approximately 40" long with a radius of 9-7/16". The enclosure shall consist of enclosure rails, uprights, and a center stub which shall support the bottom rail. The enclosure rails and center stub shall be constructed of 1" **pipe**. The uprights shall be constructed of 3/4" x 1" oval tube. The crossbars for Model # 714-992-69A shall be constructed of 1" **tube**. The entire assembly shall be solid **welded**. The steering wheel mounting bracket (if applicable) shall be 11 ga. A-60 **Galvannealed** sheet steel **welded** to the wall enclosure. The steering wheel (if applicable) shall be constructed of a high-density blow-molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D-638, D-790 and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection-molded polypropylene which shall contain U.V. light stabilizers. The assembly shall contain **Versalok Fasteners** and **Fastener Style A** hardware. The platform shall be finished in **Mira-Therm2** or **Mira-Therm2 PE**. The enclosure and clamps shall have a **Mira-Cote** finish.
- **SHIP-THEMED PANELS** shall be deck-mounting representational activity panels designed to enhance imagination and creative play. The panels shall be constructed of **Mira-Lene** with all corners rounded, measuring 36-1/2" x 40". The cannonball panels shall contain a vacuum-formed, clear polycarbonate bubble 12" in diameter (14-1/2" with flange) mechanically fastened to the panel. The cabin window panels shall contain a clear polycarbonate window mechanically fastened to the panel. The rung brackets for Kids' Choice models shall be constructed of 1" **pipe** with bolting tabs of 11 ga. A-60 **Galvannealed** sheet, all solid **welded**. The rung brackets for Tots' Choice models shall be constructed of 1" **tube** with bolting tabs of 11 ga. A-60 **Galvannealed** sheet, all solid **welded**. Each assembly shall contain **Versalok Fasteners** and **Fastener Style A** hardware. The panels shall have molded-in color. Each panel assembly shall have a two-color scheme with routed nautical designs. The rung brackets and clamps shall have a **Mira-Cote** finish.
- **STEEL PANELS** shall be durable above or below deck components designed to enhance imaginative play. All assemblies shall comprise 1" **pipe**, Gator Grip rungs and panels composed of 11 ga. sheet, laser cut. Above deck Ocean Play, Butterfly, Moon, Eagle Family, and Wilderness Flock shall measure 33-5/8" x 36. Above deck Window panel, Steel Steering Wheel panel and KC and TCX Tic Tac Toe Panel shall measure 41-1/6" x 41-1/2". Above Deck TC Tic Tac Toe Panel shall measure 40-11/16" in height and 37" in width. Below deck Window panel and Steel Steering Wheel panel shall measure 41-1/2" in width and 36-1/4" in length. Below deck Door panel shall measure 41-1/2" x 36-1/4" for KC and TCX, and 37" x 37-1/2" for TC and Tots' Choice for Toddlers. Below deck Counter panel shall measure 41-1/2" x 18-1/16" for KC and TCX, and 37" x 18-1/16" for TC and Tots' Choice for Toddlers. Below deck Valance shall measure 41-1/2" x 12-1/16" for KC and TCX, and 37" x 12-1/16" for TC. Below deck Tic Tac Toe Panel shall measure 37-5/16" in width and 36-1/4" in height for KC and TCX. Below deck Tic Tac Toe Panel for TC shall measure 37" in width and 37-1/2" in height. Steering wheel and knob for Steel Steering Wheel panel shall be constructed of aluminum. Tic Tac Toe Cylinders shall be constructed of cast aluminum with etched "x's" and "o's". Cylinders will attach to panel via an axle constructed of 1" OD x 14 ga. tube, A-60 with stainless steel hardware and plastic spacers. The assemblies shall contain **Versalok Fasteners** and **Fastener Style A** hardware. The rungs and panels shall have a **Mira-Cote** finish.
- **WALL ENCLOSURE/WALL WITH STEERING WHEEL/CLOSURES/HANDHOLD FOR TRANSFER POINT/TREEHOUSE SEAT** shall be barrier assemblies. The handhold for transfer point shall be used as a support rail to assist wheelchair user access on a 1'-6" transfer point deck. The wall enclosure and transfer point handhold supports shall consist of a **welded** assembly handrail system with a top and bottom rail constructed of 1" **pipe** (except Tots' Choice models which shall be 1" **tube**) and uprights constructed of 3/4" x 1" oval tube (except Tots' Choice models which shall be 1" **tube**), solid **welded**. The mounting bracket shall be 11 ga. A-60 **Galvannealed** sheet steel, **welded** to the wall enclosure. The steering wheel on vehicle-themed panels shall be constructed of a high-density blow molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D-638, D-790 and D-746. Resin's properties exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection molded polypropylene which shall

• **GROOVE II SLIDES** shall feature a hooded canopy and a streamline slide design. Groove II is designed to exit from 4', 5', 6'-6" or 8' decks. The canopy panel and one-piece slide shall be constructed of double wall Rockite. The slide shall have 6" high side rails, an overall width of 25" an 18" wide sliding surface and approximate 7' (4' decks) bedway length, 9' (5' decks) bedway length, 12' (6'-6" decks) bedway length and 15' (8' decks) bedway length. The canopy panel shall be field mounted to deck and post clamps via a 41-1/2" long rung constructed of 1" pipe. The leg shall be 2" pipe, welded to an 11 ga. A-60 Galvannealed mounting bracket. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. The rung, legs and clamps shall have a Mira-Cote finish. The Rockite slide and canopy shall have molded-in color.

• **MIRA-THERM2 TYPHOON II SPIRAL SLIDES** shall be 360 degree, one-piece, open bedway spiral slides with two-color barrel canopy and step or ramp assembly, designed for attachment to 4', 5', 6' and 8'-6" decks. The slide bedway shall be constructed of 1/4" to 5/16" wall Rockite. The slide bedway shall be 30" wide with a 15" high side wall. The center post shall be constructed of 4-1/2" tube. The step assembly shall be constructed of 11 ga. steel sheet folded and perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center, solid welded to stringers of 7 ga. black steel. The handrail assembly shall consist of a top and bottom rail and newel post, formed, constructed of 1" pipe with infill of 3/4" x 1" oval tube. The step enclosure assembly shall be solid welded and plastic pipe plugs shall close open ends. The deck enclosures shall consist of a vertical rail, and top and bottom rail, formed, constructed of 1" pipe with an upright of 3/4" x 1" oval tube, and 3/8" aluminum inserts in the rail ends for attachment to the step enclosures. The deck enclosure assemblies shall be solid welded. The 35" platform barrel shall be Rockite, with a canopy painted alternating colors with polyurethane paint. The barrel shall have molded-in view grooves for viewing children. The back-up plate used to connect the step assembly and the barrel shall be constructed of 1/4" x 1" x 6" flat steel. The front leg shall be constructed of 2" pipe and shall be attached to the slide using a channel constructed of 7 ga. sheet. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. The Rockite slide and platform canopy shall have color molded in. The step shall be finished in Mira-Therm2 or Mira-Therm2 PE. The handrail assemblies, deck enclosures, front leg, and clamps shall have a Mira-Cote finish. The back-up plate shall have a zinc plate finish.

• **ROCKITE "L" SLIDE** shall be an open bedway slide which shall exit to the right from a 3' deck and shall include a canopy panel. The one-piece slide and the canopy panel shall be constructed of double wall Rockite. The slide shall have 6-1/4" high side rails, an overall width of 25-5/8", and an 18" wide sliding surface. The front leg shall be constructed of 1-1/2" tube, solid welded to a 7 ga. A-60 Galvannealed mounting bracket. A top rail used for mounting the canopy between deck posts shall be 1" pipe. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. The top rail, front leg, and clamps shall be finished in Mira-Cote. The Rockite slide and canopy shall have color molded in.

• **ROCKITE TUBE SLIDES** shall be available in straight, left and right "L" and "S" bedway configurations. The entry panels shall be Rockite with a molded in 30 degree extension. The panel rungs shall be constructed of 1" pipe measuring 44" long (except *Tots' Choice models which shall be constructed of 1" tube measuring 36-1/2" long*). The straight tube sections shall be Rockite measuring 35" or 46" long with an inside diameter of 24" (except *Kids' Choice, Center Stage, and City Parks Series models which shall have an inside diameter option of 24" or 30"*). Models attaching to 3' decks shall have bedway lengths of approximately 8'; for 4' decks, bedways approximately 10' long; for 5' decks, bedways approximately 12' long; and 6'-6" decks, bedways approximately 16' long.

24" DIAMETER MODELS

Each end shall have a 1" wide flange. The elbow shall be Rockite. The Rockite tube joints shall be externally flanged and overlapping. The male flange shall be 1" deep, the female flange shall be 1-1/2" deep, 24" diameter. The bedway shall have no exposed internal fasteners. The 29 degree exit section shall be constructed of double wall Rockite. It shall have a 34" centerline radius and dimensions similar to the tube above. The leg bracket shall be constructed of sand cast aluminum alloy. Front leg shall consist of an upright and a bolting plate. The upright shall be constructed of 2" pipe. The bolting plate shall be constructed of 11 ga. A-60 Galvannealed sheet, and shall measure 7" x 7", drilled and welded to the upright. "L" legs shall be constructed of 1-1/4" pipe. Rockite panel and slide shall have molded in color. Legs and leg bracket shall have a Mira-Cote finish.

30" DIAMETER MODELS

Each end shall have a 1" wide flange. All pieces shall be Rockite with a 30" I.D. The elbow shall have a 22" centerline radius. Tube to tube connections will have a Rockite flange cover. The bedway shall have no exposed internal fasteners. The exit section shall be constructed of double wall Rockite with a 25" centerline radius. The front leg shall consist of an upright and a bolting plate. The upright shall be constructed of 2" pipe. The bolting plate shall be constructed of 11 ga. A-60 Galvannealed sheet and shall measure 7" x 7", drilled and welded to the upright. Legs shall

• **TEN SPIN** shall be an ADA merry-go-round type component that allows 10 children to play at one time. Ten Spin body shall be constructed of low density, 1/4" wall polyethylene. Body shall have an 86" diameter and measure 40" in height. Body shall have 5 indentations to allow children with disabilities to sit/recline, and 5 indentations for children to stand around outer edges. Rotomold shall have molded in footgrips to reduce slips. Body shall be pre-assembled with upper and lower ball bearings mounted into laminated sheet, HDPE 3/4" thick, with bottom cover constructed of 11 ga. sheet, A-60. Post assembly shall comprise a top friction plate, half bottom friction plate, post weldment, spring, half bottom cover plate and connector stub. Top friction plate, half bottom friction plate and half bottom cover plate shall be constructed of laminated sheet, HDPE, 3/4" thick. Post weldment shall comprise a post bottom, post shaft, bottom post plate and post friction plate. Post bottom shall be constructed of 5" tube, 11 ga., post shaft will be constructed of round, 2-3/4" OD CRR 1018, and bottom post plate and post friction plate shall be constructed of 3/8" black sheet, ASTM A-36. Spring shall measure 3/4" OD x 2" long. Connector stub shall comprise a 1.31 5" OD, 14 ga. smooth tube, pipe plug and 3/8-16 aluminum insert. Entire post assembly shall measure 116-7/8" in height. Tube shall be constructed of 5" tube, 11 ga. and 1/2" black sheet, ASTM A-36. Wheel-Spin shall be constructed of low density, 1/4" wall polyethylene and shall measure 35-1/2" in diameter by 4" high. Handgrips shall be constructed of an 11 ga. sheet, A-60 plate with solid welded grips constructed of Gator Grip. Entire assembly shall measure 7" in height and 3-3/8" in width. All fastening hardware shall be **Fastener Style A**. Ten Spin shall be finished in Rockite and Post in **Mira-Cote**.

• **JAX PACK** shall feature a "jacks" shaped rotomolded piece on a curved post. JAX Pack shall be available in one, two, three or four JAX configurations. JAX Pack one and two shall have one or two 5" tube post(s) measuring 81-1/16" with a 40" radius bent through 42 degrees. JAX Pack Three shall have 5" tube posts; one 95-7/8" with a 60" radius bent through 44 degrees and two 81-1/16" posts with a 40" radius bent through 42 degrees. JAX Pack four shall have 5" tube posts; two 103-3/16" posts with a 24" radius bent through 66 degrees, one 95-7/8" post with a 60" radius bent through 44 degrees and one 81-1/16" post with a 40" radius bent through 42 degrees. All posts shall have predrilled holes for support assembly. JAX body shall be a rotomolded piece measuring 63" in greatest width and 18" in greatest height. One solid piece, JAX shall feature a triangular body that flows into 3 spheres, each 18" in diameter. Support assembly shall consist of a support plate, support straps and a cam lock spacer. Triangular shaped support plate shall be constructed of 7 ga. sheet and shall measure 20-13/16". Support straps shall be solid welded to support plate. Straps shall measure 8-3/4" and 3" in length and shall be constructed of 1/4" x 1 flat. Straps shall have a 7/16" hole cut 1-1/2" from bottom. The 8-3/4" strap shall also have a 1/4" hole cut 8-1/4" from bottom. Cam lock spacer shall be welded to strap at the top bolt hole location. Spacer shall be 1/2" in diameter and 5/16" tall, constructed of AISI 1020 CR steel, zinc plated. Cam lock assembly shall comprise a cam lock plate and cover plate. Cam lock plate shall be constructed of 11 ga. A-60 sheet and shall have a 4-13/16" by 9/16" serrated cut-out for locking purposes. Plate shall be constructed of 11 ga. A-60 sheet. Entire assembly shall be welded and shall measure 2-1/2" in height with an 8" diameter. All fastening hardware shall be **Fastener Style A**. Post and Support Assembly shall be finished in **Mira-Cote**. JAX body shall be finished in Rockite.

• **8' DOUBLE SUPPORT SWING FRAMES AND EXTENSION** shall consist of legs, a top rail, and yokes which shall assemble to form an 8' high swing frame. Model # 2901X, 2903X, 2901HX, 2903HX, 2901HHX and 2903HHX shall comprise end legs, a top rail, and yokes. The swing frames shall be available in 2, 4, 6, or 8 swing, and 1 or 2 Therapeutic Swing Seat configurations. Swing seats and Therapeutic Swing Seats must be ordered separately. Top rails shall be constructed of 2-3/8" tube measuring 10'-6" long. There shall be either two or four bushing housings solid welded to the top rail to which the swing clevises shall be attached. These bushing housings shall be made of 1-1/4" O.D. x 9/16" I.D. hot rolled, TRW, ASTM A-519 tubing. Each housing shall have an oil-impregnated bushing installed at the factory. Legs shall be constructed of 2" pipe measuring 10'-6" long each. Yokes shall be constructed of 2-1/2" Sch 40 pipe, solid welded. All fastener hardware shall be **Fastener Style A**. The legs, top rails, and yokes on Model # 2901, # 2901X, # 2917, # 2925, # 2933, 2901H, 2901HX, 2901HH and 2901HHX shall have a **Mira-Cote** finish. The top rails and yokes on Model # 2902, # 2918, # 2926, and # 2934 shall have a **Mira-Cote** finish. The legs for Model # 2902, # 2918, # 2926, and # 2934 shall have a galvanized finish. The yokes on Model # 2903, # 2919, # 2927, # 2935, # 2903X, 2903H, 2903HX, 2903HH and 2903HHX shall have a **Mira-Cote** finish while the top rails and legs shall have a galvanized finish.

• **ARCH SWING FRAMES & EXTENSION (TOTS' CHOICE)** shall consist of arches, header(s) and two clevises per bay which shall assemble to form a swing frame. The swing frames shall be available in 1, 2, 3, or 4 bay models providing for 2, 4, 6, or 8 swing configurations. Arch assemblies shall consist of the arch, which serves as the legs for the swing frame, and the arch stub, which supports the header. Arches shall be constructed of 3-1/2" tube and shall measure 118" from leg end to the plane of the underside of the arch apex. Stubs shall measure approximately 5-3/4" with two 5/8" holes drilled 1-1/2" from flush end and shall be solid welded to the arches. The header assembly must be installed 7'-4" above the finished surfacing. The header shall be constructed of 3" pipe. Headers for Model #'s 718-852-2, 718-852-4, 718-852-6, 718-852-8 and 718-852-2X shall measure 10'-6" long. Headers for Model #'s 718-852-1H and 718-852-1HX shall measure 7'-2" long. Headers for Model # 718-852-2HH and 718-852-2HHX shall measure 11'-11" long. Headers shall have 1-1/4" O.D. steel bushing housings solid welded to them with 9/16" oil-impregnated bushings installed after painting. Clevises shall be cast of ductile iron grade 60-40-18 and shall be zinc plated. All fastener hardware shall be **Fastener Style A**. The arches and header shall be finished in **Mira-Cote**. Swings and Therapeutic Swing Seat must be ordered separately.

- **GATOR GRIP (TM)** is a three dimensional textured pattern exclusive to Miracle, embossed in steel to a depth of .014" to .017".

- **A-60 Galvannealed** indicates that a coating of .60 ounces of zinc per square foot alloyed with substrate steel has been applied on each surface side.

- **Mira-Cote (TM)** is a Super Durable formulation of a polyester powder coating finish that is applied to a thickness of 3-5 mil. This finish gives metal parts long term protection from chipping, fading and peeling. Miracle's finishing system washes the metal parts with detergent and etches the metal for optimum adhesion. The part is then rinsed clean with water. Next the part is coated with a non-chromic sealer and dried. The Mira-Cote powder is then applied electrostatically to the metal part. The metal parts are then baked at a high temperature to fuse a hard, smooth durable finish to the metal. Mira-Cote has an impact value of 160 in. lbs., flexibility value of 180 degree-1/4" mandrel, shore hardness value H and a crosshatch adhesion of 100%. Mira-Cote is tested in accordance with ASTM D-792, D-523, D-2794, D-1737, D-3363, D-3359 (b), B117 and D-2247. Mira-Cote will withstand over a 1,500 hours of salt spray exposure and 1,500 hours of weatherometer testing with minimal loss of gloss and color.

- **Mira-Lene (TM)** is compression-molded, 3/4" thick, high density polyethylene that has been specifically formulated for optimum U.V. stability and color retention. Compression-molded products have a density of .952 g/cm3 per ASTM D1505 and tensile strength of 3900 PSI per ASTM D638.

- **Mira-Therm2 PE** is a non-toxic copolymer polyethylene coating applied to a thickness of 1/16". Mira-Therm2 PE contains U.V. light stabilizers, anti-microbial additives and color pigments. Mira-Therm2 PE contains no orthophthalates or other banned substances. Mira-Therm2 PE is a proprietary brand of PE coating. Materials are tested in accordance with ASTM D-638, ASTM D-412, ASTM D-2240 and ASTM D-1004. Mira-Therm2 PE meets the FMVS 302 flammability rating, the requirements of California State Law and the 2008 CPSI Act.

- **pipe sized tube** is 1010 hot rolled, Flo-Coat, galvanized pipe manufactured from steel, cold formed and high frequency induction **welded** continuously. It conforms to ASTM A-135 and ASTM A-500 and is tested in accordance with ASTM E-8.

- **schedule 40** galvanized pipe consists of a hot dip process of coating the pipe inside and out with not less than 1.6 ounces per square foot with an average of 1.8 ounces per square foot. Schedule 40 pipe conforms to ASTM standards A-53.

- **1" pipe** is **GATOR GRIP** embossed 14 ga., **1" pipe sized tube** (1.315" OD; approx. 1-5/16" OD.)

- **1" pipe, 12 ga.** is 12 ga., **1" pipe sized tube** (1.315" OD; approx. 1-5/16" OD.)

- **1-1/4" pipe** is 13 ga., **1-1/4" pipe sized tube** (1.660" OD; approx. 1-11/16" OD.)

- **1-1/4" pipe, 10 ga.** is 10 ga., **1-1/4" pipe sized tube** (1.660" OD; approx. 1-11/16" OD.)

- 4-1/2" tube is 4-1/2" OD, 7 ga. round tube. It conforms to ASTM A-500.

- 5" tube is 5" OD, 13 ga. round tube. It conforms to ASTM A-500.

- 5" tube, 11 ga. is 5" OD, 11 ga. round tube. It conforms to ASTM A-500.

• **welded** refers to welds that are made by certified welders, tested in accordance with AWS D1.1-94, structural welding code specifications for steel. Welds conform to AWS A5.17 ASME SFA-5.17 EML3K and AWS A-5.18ER70S-3 ASME SFA-5.18 ER70s-3 LE332- C and LE-559-L.

• **PLAYCOVER SHADES** shall attach to Kids' Choice, Tots' Choice and Tots' Choice Expansion decks to provide shade to play structures. All structures are designed to meet the requirements of ASCE 7-05 (IBC 2006, IBC 2009, CBC2010) and ASCE 7-10 (IBC 2012). Shades will have alive load of 5 PSF, snow load of 10 PSF, design wind speed of 90 MPH (3-sec gust), exposure C (from ASCE 7-05), and a design wind speed of 115 MPH, risk category II (from ASCE 7-10). All tube shall conform to ASTM A500. Steel plate shall conform to ASTM A572, Fy = 50 KSI. All fabrication and erection of structural steel shall conform with the current edition of AISC "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings". All fabrication and erection of the light gauge pipes shall conform to AISI cold-formed steel specifications. Steel welds shall conform to AWS D.1: Electrodes, Class E70XX, Low Hydrogen. Frames have primer and 3 mils of powder coat electrostatically applied. Structural Steel Columns are made of 88.9 mm (3.5") O.D. pre-galvanized tubing for PB and are made of 127 mm (5") O.D. pre-galvanized tubing for KB. Structural Steel Rafters are made of 88.9 mm (3.5") O.D. pre-galvanized tubing. Fabric shade cloth has been specifically developed to produce a very strong and stable outdoor fabric for use in tension structures and shade awnings. This range offers the ultimate combination of maximum sun protection plus the strength and durability to ensure maintenance-free, long life performance. Mildew and Rot resistant. Heat and hail resistant. Maintains color in all weather conditions. High Density Polyethylene (HDPE), UV stabilized with a monofilament and lockstitch sewing construction producing a fabric that will not tear or fray if cut. Available in Standard and Fire Retardant Fabric. 6 Colors in Standard Fabric and 7 Colors in Fire Retardant Fabric. Provides shade factors up to 94% and blocks up to 95% of dangerous UV solar radiation for Standard Fabric. Provides shade factors up to 86% and blocks up to 84% of dangerous UV solar radiation for Fire Retardant Fabric. Temperature reduction of up to 30 degrees. It is recommended to remove Shade fabric prior to snowfall. Structural framing may remain in place during winter months.

• **Specification Policy:** Specifications were current at the time of publication. Miracle Recreation Equipment Company has a policy of ongoing product improvement and therefore reserves the right to modify specifications or discontinue products without notice.

Jefferson County - Option E - GENERAL SPECIFICATIONS

SAFETY STANDARDS & GUIDELINES All public playground equipment supplied shall meet all applicable provisions of the current "Handbook for Public Playground Safety" published by the Consumer Product Safety Commission (CPSC), and of ASTM F1487-01 "Standard Consumer Safety Performance Specification for Playground Equipment for Public Use," published by the American Society for Testing and Materials (ASTM). Products bearing the certification seal of the International Play Equipment Manufacturers Association (IPEMA) have received written validation of compliance with ASTM F1487-01.

TRADEMARKS Aquarius (R), Big Kahuna (R), Big Timber (R), Bongo (TM), Boulder Ridge (R), Bug Bites (R), Camel Back (TM), Center Stage (R), Chameleon (TM), Coil Curler (TM), Connexion (R), Dupli-Gator (R), Flex Jet (R), Flippo (TM), Flippopotamus (R), Fun Fone (TM), Fun Tunnel (R), Funnel Tunnel (TM), Funshades (TM), Gator Grip (R), Gemini (TM), Gravity (TM), Grizz-Lee Bear (R), Groove (TM), Groove II (R) Slide, Hang-A-Round (R), Interaxion (TM), JAX (R), Kidrox (R), Kids' Choice (R), Kids' Perch (TM), Legacy Cantilever (R), Legacy Contempo (R), Legacy Heritage (R), Libra (R), Linkz (TM), Loopz (TM), Mega Tower (R), Miracle (R), Miracle Recreation (R), MiracleTech (R), Mira-Cote (R), Mira-Lam (TM), Mira-Lene (TM), Mira-Therm2 (TM), Mogul (TM), Mountain Trail (R), N-Dure Cycle (R), Nexus (R), Observation Deck (R), Offspring (TM), OrbX (R), ParkWatch (TM), Pegasus (R), Perma-Guard (TM), Perseus (TM), Phyzics (R), Play Cover (R), Play Terrain (R), Power Pedaler (TM), Pull Up!Lift (R), Rainbow Bend (TM), Reflex (R), Relay Racer (R), Rock-ite (R), Rodeo Rocky (TM), Schnozz Womp (TM), Serpent Trek (TM), SiteBrite (TM), Sneak-A-View (TM), SonicScreen (R), Spray Stations (R), Sun Sparkle (TM), Surfer (R), Tensile Tough (TM), Tensile Tower (TM), Thunder Tunnel (TM), Timber Topper (TM), Toboggan (TM), Toddlers' Choice (R), Tots' Choice (R), Tots' Choice (R) Expansion, Tots' Choice (TM) for Toddlers, Trim Timber (R), Triple Play (TM), Typhoon (TM), Versalok (R), View Groove (TM), Wavy Waffle Wall Walker (TM), Webscapes (R), Whirlwind (TM), Xcalator (R), and X-Cavator (TM) are trademarks of Miracle Recreation Equipment Company. Tornado (TM), Multi-Pondo (TM), and Pirouette (TM) are trademarks of HAGS (TM). Miracle and HAGS are divisions of PlayPower, Inc. PlayPower (R) is a trademark of PlayPower, Inc.

QUALITY SYSTEM CERTIFICATION The manufacturer's quality system is certified to ISO 9001 since December 1998.

PRODUCT CHANGES At Miracle Recreation Equipment Company, we strive for the utmost in quality and safety in our entire product line. Therefore, in order to honor this commitment to you, our customers, we reserve the right to make changes on any product released and/or published in our annual catalog and other promotional or technical literature.

WARRANTY

Buyer agrees that products sold by Miracle Recreation Equipment Company carry only the following warranties:

- 1. LIMITED WARRANTY FOR AS LONG AS YOU OWN THE PRODUCT** against structural failure due to corrosion or defects in materials and workmanship on aluminum deck posts, steel deck posts, the VersaLok (R) fastening system and associated fastening hardware.
- 2. LIMITED FIFTEEN (15) YEAR WARRANTY** against structural failure due to corrosion or defects in materials and workmanship on steel support legs and Mira-Therm2 (TM) 2 on MEGA TOWER (R), TOTS' CHOICE (R), KIDS' CHOICE (R), CENTER STAGE (R), NEXUS (R) and Boulder Ridge (R) Rock Wall; on playsystem steel components including railings, rungs, and rigid climbers; and Rockite (R).
- 3. LIMITED FIFTEEN (15) YEAR WARRANTY** against structural failure due to corrosion or defects in materials and workmanship on all Play Cover (R) steel frames.

These limited warranties apply only to Miracle products that are erected and installed in conformance with Miracle's installation instructions, and that are maintained and inspected in conformance with Miracle's maintenance and operational instructions. These limited warranties specifically do not cover Miracle products: that have been modified, altered, or misused; that have not been used as designed or intended; to which non-Miracle parts have been added or substituted; or that have been damaged due to excessive wear and tear, vandalism, abnormal use, abuse, negligence, extraordinary weather or acts of God. MiracleTech Security (R) systems limited warranties do not cover products serviced or repaired by unauthorized service providers. These limited warranties do not protect against color fade, except for PlayCover (R) as noted above. Buyer, by acceptance and use of these limited warranties, waives any rights it would otherwise have to claim or assert that this limited warranty fails of its essential purpose. Buyer agrees that venue for any court action to enforce these limited warranties shall be in Barry or Greene Counties in the State of Missouri.

EXCEPT AS EXPRESSLY WARRANTED HEREIN, MIRACLE EXPRESSLY DISCLAIMS ANY OTHER WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THOSE ARISING BY STATUTE OR OTHERWISE IN LAW OR FROM COURSE OF DEALING OR USAGE OF TRADE. IN NO EVENT SHALL MIRACLE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, WHETHER BASED UPON CONTRACT, TORT, OR ANY OTHER LEGAL THEORY (INCLUDING WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION, LOSS OF INFORMATION, CONSEQUENTIAL, INCIDENTAL, INDIRECT OR SPECIAL DAMAGES OR OTHER PECUNIARY LOSS).

*Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes"
for specifications of items listed in bold type.*

- **KIDS' CHOICE MIRA-THERM2 DECKS:** The deck models in the 714-50X-9 series shall consist of a (3) sided equilateral triangle deck: Model # 714-501-9, with a *deck top surface area of 7 sq. ft. (1008 sq. in.)*; a (4) sided square deck: Model # 714-502-9, with a *deck top surface area of 16 sq. ft. (2304 sq. in.)*; (4) sided (3) opening half hex decks: Model #s 714-503-9 and 714-504-9, with a *deck top surface area of 21 sq. ft. (3024 sq. in.)*; (4) sided (6) opening rectangular decks: Model #s 714-508-9, 714-509-9 and 714-510-9, with a *deck top surface area of 32 sq. ft. (4608 sq. in.)*; a (5) sided pentagon deck: Model # 714-512-9, with a *deck top surface area of 23.8 sq. ft. (3427 sq. in.)*; an (8) sided octagon deck: Model # 714-519-9, with a *deck top surface area of 60 sq. ft. (8640 sq. in.)*; (4) sided (6) opening parallelogram decks: Model #s 714-505-9, 714-506-9 and 714-507-9, with a *deck top surface area of 28 sq. ft. (4032 sq. in.)*; and a (7) sided heptagon deck: Model # 714-517-9, with a *deck top surface area of 55 sq. ft. (7,920 sq. in.)*.

Model # 714-511-9 shall be an isosceles triangle split deck (single section) designed to serve as a step platform for lower deck heights: 18" or lower for 2-5 year olds, and 30" or lower for 5-12 year olds. All other Model # 714-511-X9 split decks shall feature two triangular deck sections which shall be mounted between four posts at different heights so that a 6", 12", 18", or 24" (X) rise shall be formed along the hypotenuse between two posts. Models which rise greater than 6" shall contain a riser plate; models which rise greater than 12" shall also contain an arched enclosure assembly. *The deck top surface area of split deck models shall be 8 sq. ft. each for both sections, or total 16 sq. ft.* Riser plates shall be constructed of 11 ga. A-60 Galvannealed sheet; risers for 18" and 24" rises shall contain a rung and vertical supports of 1" tube, solid welded, all finished in Mira-Cote. The arch enclosure assembly accompanying models which rise 18" and 24" shall comprise top and bottom supports and an arched upright constructed of 1" pipe, drilled, formed and mashed, all solid welded, and vertical rungs of 1" tube, with plastic pipe plugs inserted in open ends, and finished in Mira-Cote. Decks shall be designed for maximum flexibility in height of deck surface, from 0" to 6'-6" (in 6" increments,) though 3', 5' and 6'-6" shall be considered standard heights. Decks shall be designed on a 48" center-to-center spacing on 5" deck posts, at equal or varied heights. All deck-to-post connections shall be made with a deck support clamp. All deck connections shall be made beneath deck with no exposed fasteners on deck perimeter. Decks with 8' wide open side shall be designed to attach to another deck with 8' wide open side at same deck height, or to a Model # 714-770-6 Flippopotamus Slide/Climber. All decks shall be constructed with folded 11 ga. steel sheet forming 3" tall sides. Decking sheets shall be perforated with a staggered pattern of 3/8" diameter holes (5/16" after dipping) at 5/8" apart center-to-center. The decking shall have 7 ga. by 2" flat steel braces and corner braces of 7 ga. steel. The entire assembly shall be solid welded prior to polyvinyl coating. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. All deck surfaces shall be coated in Mira-Therm2 or Mira-Therm2 PE.

- **KIDS' CHOICE HEPTAGON MEGA TOWER 2-LEVEL DECK** shall comprise two heptagonal decks – 8' and 14' for Model # 714-520-27, or 2' and 8' for Model # 714-521-7 and # 714-521-7NR – on common posts with an enclosed center climber for ascending to upper level. The assembly requires a roof as well as barriers or other play components. The overall height of the assembly (with roof) is approximately 25' from finished grade. Seven-sided decks shall each consist of one (1) 3-Section Deck and one (1) 2-Section Deck, with 2' Deck also consisting of one (1) Center Deck Plug. Top deck surface area shall be 57 square feet. The deck length shall be 105" flat to post. The deck frame shall be constructed with folded 11 ga. Steel sheet forming 3" tall sides. Decking sheets shall be perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-

The top chain of the chain assembly shall be 3/8" proof coil chain. The upright chains shall be constructed of 4/0 straight link coil chain. The chain shall be hung by means of 5/16" "S"-hooks constructed of steel rod. Bridge sections and fill blocks shall be welded. The bridge sections shall be constructed with folded 11 ga. steel sheet forming 3" tall sides with 3/16" x 1-1/2" flat steel braces. Decking sheets shall be perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. Sections shall measure 10-1/2" x 40". Fill blocks shall be constructed as bridge sections and shall measure 4" x 40". The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The bridge sections and fill blocks shall have a Mira-Therm2 or Mira-Therm2 PE finish. The enclosure assemblies, rails, and clamps shall have a Mira-Cote finish. The chain assembly and "S"-hooks shall be zinc plated.

- **BIG TIMBER GRIZZ-LEE BEAR CLIMBER** shall be available in two forms: a ground-to-6'-6"-deck model (Model # 714-624-6), and a between-decks-with-2'-rise model (Model # 714-624-2) which may not be mounted to upper decks greater than 8' in height, and which shall require longer than standard posts for proper assembly. The climber resembles a cartoon-like bear character. Climbing pattern between the barriers resembles paw prints. The assembly contains rungs on its underside for additional play value. The one-piece climber shall be constructed of double-wall Rockite with wall thickness between 1/4" and 3/8", shall measure approximately 4'-3" x 6'-10" x 8'-10", and shall weigh approximately 300 lbs. Legs for ground-to-deck models shall be constructed of 1" pipe and 11 ga. A-60 Galvannealed sheet, solid welded and drilled. Deck and angle enclosures for ground-to-deck models shall consist of top supports, a bottom support, and uprights constructed of 1" pipe. The enclosures shall contain spoke infill of 3/4" x 1" oval tube. The assemblies shall be solid welded and drilled. The deck enclosure uprights shall have mashed ends for field assembly to decks. The angle enclosures' top rail shall have threaded inserts factory-installed for field attachment to deck enclosure. Deck enclosures for between-deck models shall consist of top supports, a bottom support and uprights constructed of 1" pipe and spoke infill of 3/4" x 1" oval tube. The assemblies shall be solid welded and drilled. The uprights shall have mashed ends for field assembly to decks. Stubs for between-deck models shall be constructed of 6" long segments of 1" pipe with factory-installed threaded inserts in one end. Bar assemblies (used as overhead climbing rungs) shall be constructed of 1" pipe with solid welded mounting plates of 11 ga. A-60 Galvannealed. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The enclosure assemblies, legs, bar assemblies, stubs, and clamps shall be finished in Mira-Cote. The climber shall have color molded in.
- **BIG TIMBER MOUNTAIN TRAIL CLIMBERS** shall be ground-to-deck climbing components that attach to a 4' deck only. Climbers are available in Log Climber/Bear Paw Climber only, Log Climber/Bear Paw Climber with one or two Rock Climbers, Steps with Transfer Points to deck in left, right or inline configurations only, or Steps with Transfer Points and one Rock Climber in left, right or inline configurations. Rock climber shall be constructed of Rockite and shall have a sculpted rock pattern. Rock climber shall measure 46-5/8" in height, 52-1 1/4" in length and 4-1/4" in width. Underside of rock climber shall have access holes 5" in diameter for stair and Log/Bear Paw climber attachments. The transfer platform shall be constructed of Rockite with a sculpted wood pattern. Transfer platform shall measure 41" in length, 29-1/2" in width and 15-9/16" in height at tallest point. Bottom step shall be 7-11/16" in height. Transfer platforms shall have pre-drilled attachment holes in varying configurations dependent upon transfer being inline, right, or left. Transfer Steps shall be constructed of Rockite with a sculpted wood pattern. Transfer steps shall be 51-1/2" in length, 29-1/4" in width and 39-13/16" in height. Steps shall measure 8" apart in height. Log Climber and Bear Paw Climber shall be constructed of Rockite with a sculpted log and wood pattern. Bear Paw Climber shall have staggered paw prints along its length. Log Climber and Bear Paw Climber shall measure 47" in length, 21-58" in width and 15-9/16" in height. Hand supports shall comprise leg brackets, a leg, pipe plugs, formed hand support and cross pieces. Leg brackets shall be constructed of 7 ga sheet and shall measure 14" in length and 7-7/16" in height. Leg shall be constructed of 1" pipe, 14 ga. Pipe plugs shall be constructed of gray plastic. Formed hand support shall be constructed of 1" pipe, 14 ga. and shall measure 69-11/16" in length. Cross piece shall be constructed of 1" pipe, 14 ga. and shall measure 29-1/4" in length. Entire hand support will be solid welded. Transfer leg shall comprise an upright and a leg bracket. Upright shall be constructed of 1-1/2" pipe and shall measure 29-13/16" in height, solid welded to a 6-9/16" x 6-9/16" triangular bracket constructed of 7 ga. sheet. Climber leg shall comprise an upright and angle bracket. Upright shall be constructed of 1-1/2" pipe and shall measure 29-13/16" in height, solid welded to a 20" x 2-1/2" angle bracket constructed of 11 ga. sheet. Rock Climber leg shall comprise an upright and leg bracket. Upright shall be constructed of 1-1/2" pipe and shall measure 29-13/16" in height, solid welded to a 5-1/2" x 4" leg bracket constructed of 7 ga. sheet. Handrails shall be constructed of 1" pipe, 14 ga. Handrails shall measure 49-11/16". Enclosure for Steps and Transfer models shall comprise a handhold and spoke. Handhold shall be constructed of Gator Grip and spoke shall be constructed of 1" O.D. x 15 ga. fluted A-60. Enclosure assembly shall measure 41-1/8" in length. Enclosure shall have mashed ends for installation to deck face. Enclosure for all other models shall comprise top rails, L rails and arch of 1" pipe, Gator Grip and spokes of 3/4" x 1" oval tube. Enclosure shall have a 7 ga. galvanized sheet constructed hand support bracket solid welded to inside uprights. Enclosure shall measure 62-3/8" in length and 41-1/2" in width. Hand Supports, legs and enclosures shall have a Mira-Cote finish. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware.
- **CANYON CLIMBER** shall be challenging vertical climbers used to access and egress deck systems of various heights. The assemblies shall contain arch enclosures. The climber shall comprise a frame and curved rungs constructed of 1" pipe, solid welded, with a swaged extension tube constructed of 1-1/4" pipe, 10 ga. with threaded aluminum insert for field assembly to arch enclosure. The rungs shall be curved in a semi-circle shape with a 19" diameter and shall alternate sides of the frame as they ascend. The Kids' Choice arch enclosure shall comprise top supports,

constructed of 1" pipe, formed, mashed and punched, and vertical run infill constructed of 1" tube, all solid welded. Loop enclosure assembly for TC shall consist of balusters, a support rail and arched upright constructed of 1" pipe, formed, mashed, punched and solid welded. Hand supports shall be constructed of 2" pipe. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The Rockite pods shall have color molded in. The post assemblies, hand supports, enclosure and clamps shall be finished in Mira-Cote.

- **TOT ROCK CLIMBER** shall be a ground-to-deck climber assembly (for 3' decks only) featuring a formed "bedway" with protrusions for users to grasp and step upon, and a single-user safety canopy. Some Rock Climber protrusions shall feature molded-in graphics of various fossil types. The climber shall be constructed of formed and drilled double-wall Rockite, and shall have an overall width of approximately 27-1/2" and an inside width at lowest point of 16". The assembly's top end shall have factory-installed threaded inserts for field attachment to canopy panel. The canopy panel shall be constructed of formed and drilled Rockite with all corners rounded, and shall measure 35-1/2" wide by 44-1/4" tall by 12-1/4" deep (panel alone 2-1/2" deep.) The opening shall measure approximately 24" wide by 31" tall. The front leg shall be 1-1/2" tube welded to a 7 ga. A-60 Galvannealed mounting bracket. The deck enclosures (for Kids' Choice model only) shall consist of uprights and support bars, to be constructed of 1" pipe, drilled, formed and solid welded. The panel support rung (for Tots' Choice model only) shall be a 37-3/16" length of 1" pipe. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. The climber and canopy shall have color molded in. The leg, deck enclosures, and clamps shall be finished in Mira-Cote. The panel support rung shall have a galvanized finish.
- **VERTICAL LADDER/LOOK-OUT LADDER** shall be designed for use as an entrance and exit for decks of various heights. Each assembly shall consist of side rails and rungs constructed of 1" pipe, all solid welded. Models shall have threaded inserts in the ends of the side rails and an arch enclosure. The Kids' Choice enclosure assembly shall consist of top supports, a bottom support, and an arched upright constructed of 1" pipe, formed, mashed and punched, and vertical infill of 3/4" x 1" oval tube with mounting tabs of 7 ga. sheet, all solid welded. The Tots' Choice enclosure assembly shall comprise top supports and an arch upright of 1" pipe, spoked infill of 1" tube with mounting tabs of 7 ga. sheet, all solid welded. The ladders and enclosure assemblies shall have a Mira-Cote finish.
- **VINE CLIMBERS AND TWISTED VINE CLIMBERS** shall feature horizontal rungs on a vertical rail field-assembled to an arched entry deck enclosure. The rungs shall contain a routed leaf design and shall ascend the climber on opposite sides of the rail for Vine Climbers, or slightly offset to wind upward around the rail for Twisted Vine Climbers. The climber rail shall be constructed of 1-1/4" pipe, 10 ga. with mounting plate support tubes of 1" tube solid welded, and mounting plates of 7 ga. galvanized also solid welded. Closing support stub ends shall be plastic pipe plugs. The rail's top end shall be swaged and shall have a threaded aluminum insert factory-installed. Leaf pads shall be constructed of Mira-Lene and routed with an oak leaf design. The arch enclosure assembly shall comprise top supports, an arched upright, and extension tube sleeve, all constructed of 1" pipe, drilled, formed and mashed, and vertical rungs constructed of 3/4" x 1" oval tube, all solid welded. Kids' Choice arch enclosure for split decks shall consist of top rails, a receiver tube, an arched upright and outer upright, which shall be constructed of 1" pipe, drilled, formed and mashed, and vertical spokes which shall be constructed of 3/4" x 1" oval tube. Tots' Choice enclosure shall comprise an arched upright constructed 1" pipe, drilled, formed and mashed, receiver tube constructed of 1-1/4" pipe and vertical and horizontal rungs constructed of 1" tube, all solid welded. The enclosure assembly shall be solid welded. Enclosure shall measure 55" in width and 62" in height. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The climber rail with support tubes and mounting plates and arched entry enclosure shall be finished in Mira-Cote. The leaf pads shall have color molded in.
- **FULL ENCLOSURE WITH SEAT** (or without) for 14' level of Mega Tower 3-Level Deck shall be designed to fully enclose the area between deck posts, deck and roof (an approximate height of 6'). The enclosure shall comprise welded horizontal and vertical rungs and a seat assembly. The outer uprights, top, middle and bottom rungs and formed seat rails shall be constructed of 1" pipe. The outer uprights shall have mashed and punched bottom ends for field attachment to deck. The inner spokes shall be constructed of 3/4" x 1" oval tube. The seat rails shall have formed and punched bolting brackets of 3/16" x 1-1/4" HR flat. The 19" wide seat shall be constructed of formed 11 ga. sheet perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. When enclosure is assembled to deck, the seat surface shall be approximately 14" from the deck surface. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The enclosure assembly and clamps shall be finished in Mira-Cote. The seat shall be finished in Mira-Therm2 or Mira-Therm2 PE.
- **HALF-PANELS** for below deck or freestanding installation shall feature two-color schemes, routed designs, and steering wheels, and when mounted at suggested heights, will permit wheelchair access. The Roller Racer models shall also feature an interactive ball game which users operate by turning a knob to raise and release enclosed balls into routed pathways (the balls then re-enter the lift mechanism). Half-panels shall be

• **MIRA-THERM2 KID'S PERCH/KID'S PERCH WITH WHEEL** shall each consist of a curved deck extension/overhang and an enclosure which provide for imaginative play. Model # 714-992-69 shall feature a steering wheel attached to the enclosure. Model # 714-992-69A shall feature a steering wheel attached to enclosure crossbars to be more easily grasped by wheelchair-bound users. The platform shall be constructed with 11 ga. steel sheet perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. The frame shall be constructed by folding edges to form 3" tall walls and shall be supported by solid welded supports of 1/4" x 1-1/2" flat steel. The platform shall be approximately 40" long with a radius of 9-7/16". The enclosure shall consist of enclosure rails, uprights, and a center stub which shall support the bottom rail. The enclosure rails and center stub shall be constructed of 1" pipe. The uprights shall be constructed of 3/4" x 1" oval tube. The crossbars for Model # 714-992-69A shall be constructed of 1" tube. The entire assembly shall be solid welded. The steering wheel mounting bracket (if applicable) shall be 11 ga. A-60 Galvannealed sheet steel welded to the wall enclosure. The steering wheel (if applicable) shall be constructed of a high-density blow-molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D-638, D-790 and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection-molded polypropylene which shall contain U.V. light stabilizers. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The platform shall be finished in Mira-Therm2 or Mira-Therm2 PE. The enclosure and clamps shall have a Mira-Cote finish.

• **OBSERVATION DECKS** shall each consist of a curved deck extension and a curved deck enclosure designed to enhance imaginative play. Model # 714-849-A is designed to be used with vertical climbing attachments. Model # 714-849-6 features an extended steering wheel attached to enclosure crossbars to be more easily grasped by wheelchair-bound users. The platform shall be constructed with 11 ga. steel sheet perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. The frame shall be constructed by folding edges to form 3" tall walls and shall be supported by solid welded supports of 1/4" x 1-1/2" flat steel. The platform shall be approximately 40" long with a radius of 9-7/16". The enclosure shall consist of enclosure rails, uprights, and two center stubs which shall support the bottom rail. The enclosure rails shall be constructed of 3/4" x 1" oval tube. The uprights shall be constructed of 1-1/4" tube, mashed on both ends. The top and bottom rails shall be constructed of 1-1/4" tube. The arch for Model # 714-849-A shall be constructed of 1-1/4" tube. The entire assembly shall be solid welded. The mounting bracket shall be 11 ga. A-60 Galvannealed sheet steel welded to the wall enclosure. The steering wheel shall be constructed of a high-density blow-molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D-638, D-790 and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection-molded polypropylene which shall contain U.V. light stabilizers. The assembly shall contain Versalok Fasteners and Fastener Style A hardware.

• **ROCKITE BENCH PANEL** shall permit users to sit for rest, play, or group activities. Models may be installed so that the bench seat will face either the area beneath the deck or the area outside the deck system, as well as in freestanding individual or clustered arrangements. The panel shall contain view grooves for watching children at play. The bench panel shall be constructed of Rockite measuring 36" high by 40" wide by 2-1/2" thick (approximately 20" to peak) with all corners rounded, containing rotomolded flanges for field attachment of support rungs. One side of panel shall contain a 14" deep seat. Rungs shall be 1" pipe approximately 41" long. All Versalok Fasteners for deck and component attachment shall be aluminum alloy. All hardware shall be Fastener Style A. The rungs and clamps shall have a Mira-Cote finish. The panel shall have color molded in.

• **ROCKITE BUBBLE PANEL/ROCKITE PANEL WITH HOLE/VIEW GROOVE PANEL/30 DEGREE LOOK-OUT PANEL** shall be constructed of Rockite with all corners rounded. The 30 degree Look-Out panel shall have a molded in 30 degree extension. The enclosure shall consist of uprights and support bars, all constructed of 1" pipe, drilled and formed (except Tots' Choice models which shall have an enclosure consisting of a top rail of 1" tube with two tabs and two brackets of 11 ga. galvanized sheet, solid welded). The bubble shall be vacuum formed from clear polycarbonate sheet. The spherical bubble shall measure 24" in diameter and shall be attached to the panel in the factory using tamper proof screws and flat washers. The view groove panel shall have six 2" view slots evenly spaced at 5-1/4" with slant of 20 degrees from vertical. Horizontal rungs shall have a Mira-Cote finish. Rockite panels shall have color molded in.

• **WALL ENCLOSURE/WALL WITH STEERING WHEEL/CLOSURES/HANDHOLD FOR TRANSFER POINT/TREEHOUSE SEAT** shall be barrier assemblies. The handhold for transfer point shall be used as a support rail to assist wheelchair user access on a 1'-6" transfer point deck. The wall

• **CUPOLA FOR HEPTAGON ROOF** shall be designed to cap the open top of standard "Roof for Heptagon Decks" models. Model # 714-862-7CF shall feature a flag pole with mounting brackets for a customer-provided flag (24" maximum height). The peaked cupola roof top halves, when fastened together, shall measure 36-1/4" O.D. by 13-3/4" high with a 54 degree slope. Each half shall be constructed of 14 ga. HRPO black, perforated with 3/16" holes spaced 1/2" apart center-to-center in a staggered pattern, and shall be punched and solid welded. The soffit shall measure 33" O.D. (after bending to create bolting tabs on perimeter) with an 18" I.D. opening, and shall be constructed of 11 ga. sheet, punched and formed, with 3/8" weldnuts on its bottom side. Extension trusses each shall comprise a receiver of 4.6875" O.D. by 0.188" thick tube with flange of 11 ga. A-60 Galvannealed sheet solid welded to a stub of 1-1/2" pipe capped by a 1-3/4" by 3/8" thick CRS threaded insert. The interior wall shall be constructed of 24 ga. 304 SS sheet measuring 9-1/4" high by 69-5/8" wide (laid flat), punched and formed. The flag pole mounting plate shall comprise an 8" high receiver of 2" Sch 40 pipe with 3/8" weldnuts and gussets of 11 ga. black sheet on a 21-1/4" O.D. plate of 7 ga. black, all solid welded. The 72" flag pole shall be constructed of 1-1/2" pipe with cross plates of 7 ga. black sheet, formed and punched, welded to its top end and links of 4/0 straight link coil chain solid welded to its side. When assembled, the top of the flag pole shall extend approximately 65-1/2" above the cupola's peak. The assembly shall contain **Fastener Style A** hardware and **Fastener Style B** hardware. The cupola top, soffit, extension trusses, flag pole, and flag pole mounting plate shall be finished in **Mira-Cote**. The interior wall shall have a stainless steel finish.

• **PLAYCOVER SHADES** shall attach to Kids' Choice, Tots' Choice and Tots' Choice Expansion decks to provide shade to play structures. All structures are designed to meet the requirements of ASCE 7-05 (IBC 2006, IBC 2009, CBC2010) and ASCE 7-10 (IBC 2012). Shades will have alive load of 5 PSF, snow load of 10 PSF, design wind speed of 90 MPH (3-sec gust), exposure C (from ASCE 7-05), and a design wind speed of 115 MPH, risk category II (from ASCE 7-10). All tube shall conform to ASTM A500. Steel plate shall conform to ASTM A572, Fy = 50 KSI. All fabrication and erection of structural steel shall conform with the current edition of AISC "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings". All fabrication and erection of the light gauge pipes shall conform to AISI cold-formed steel specifications. Steel welds shall conform to AWS D.1: Electrodes, Class E70XX, Low Hydrogen. Frames have primer and 3 mils of powder coat electrostatically applied. Structural Steel Columns are made of 88.9 mm (3.5") O.D. pre-galvanized tubing for PB and are made of 127 mm (5") O.D. pre-galvanized tubing for KB. Structural Steel Rafters are made of 88.9 mm (3.5") O.D. pre-galvanized tubing. Fabric shade cloth has been specifically developed to produce a very strong and stable outdoor fabric for use in tension structures and shade awnings. This range offers the ultimate combination of maximum sun protection plus the strength and durability to ensure maintenance-free, long life performance. Mildew and Rot resistant. Heat and hail resistant. Maintains color in all weather conditions. High Density Polyethylene (HDPE), UV stabilized with a monofilament and lockstitch sewing construction producing a fabric that will not tear or fray if cut. Available in Standard and Fire Retardant Fabric. 6 Colors in Standard Fabric and 7 Colors in Fire Retardant Fabric. Provides shade factors up to 94% and blocks up to 95% of dangerous UV solar radiation for Standard Fabric. Provides shade factors up to 86% and blocks up to 84% of dangerous UV solar radiation for Fire Retardant Fabric. Temperature reduction of up to 30 degrees. It is recommended to remove Shade fabric prior to snowfall. Structural framing may remain in place during winter months.

• **ROOFS WITH PERFORATED STEEL, RECYCLED PLASTIC OR HYBRID PANELS** with open tops for square, pentagon, heptagon, hexagon and octagon decks shall offer superior durability in most environmental conditions. The steel roof panels shall be constructed of 16 ga. A-60 Galvannealed sheet perforated with 3/16" holes in a pattern, with a formed "lip" at the panel's top edge to provide additional stability during installation. A length of 1" pipe shall be welded to the panel bottom. The recycled roof panels shall be constructed of 100% post consumer recycled plastic and approximately 3/4" thick. A panel mount formed of 11 ga. G-90 galvanized shall be field assembled to trusses and roof panels. Roof truss assemblies shall be constructed of a roof mount stub of either 5" tube for Kids' Choice or 3-1/2" tube for Tots' Choice Expansion, solid welded at a 54 degree angle to truss of 5" tube containing bolting tabs on both sides of 11 ga. G-90 galvanized. 5" round end caps shall close open ends of trusses. All hardware shall be **Fastener Style A**. The steel roof panels and trusses shall have a **Mira-Cote** finish. The recycled panels shall have a natural finish. The panel mounts shall have a galvanized finish. Note that a hybrid model (with alternating recycled plastic and perf steel roof panels) is not available for heptagon or pentagon decks due to the odd number of panels.

• **SQUARE ROOF:** The square roof shall measure 60" square by 32" high and shall be constructed of double wall Rockite with a shingle pattern. The roof shall attach to the top of posts with four roof brackets. For Kids' Choice, the roof brackets shall be constructed of 4" Sch 40 pipe welded to a 5" x 18-1/2" plate made of 11ga. A-60 Galvannealed. For Tots' Choice Expansion, the roof brackets shall be constructed of 3-1/4" Sch 40 pipe welded to a 6" x 20" plate made of 11 ga. A-60 Galvannealed. Roof clearance for the square roof shall be 72" from deck surface to roof edge. The Rockite roof shall have color molded in. The roof brackets shall have a **Mira-Cote** finish.

• **CHAMELEON SLIDE SYSTEM** shall be a componentized, modular slide assembly system designed to provide maximum configuration versatility. The slides, which can be configured from left, right, or straight sections, shall be constructed of double wall Rockite that shall have a 23" bedway width and 11-1/2" high sidewalls. These slides shall be designed to attach to 3' 4", 5', 6', 6'-6", and 8' decks. The entry and exit sections also shall

• **BIG TIMBER STEPS WITH TRANSFER POINT** shall attach to 4" Deck and are available with inline, left or right hand transfer points, and one Rock Climber available in left or right configurations. Transfer Steps shall be constructed of Rockite with a sculpted wood pattern. Transfer steps shall be 51-1/2" in length, 29-1/4" in width and 39-13/16" in height. Steps shall measure 8" apart in height. Rock climber shall be constructed of Rockite and shall have a sculpted rock pattern. Rock climber shall measure 46-5/8" in height, 52-1 1/4" in length and 4-1/4" in width. Underside of rock climber shall have 3 access holes 5" in diameter for stair attachment. Legs shall comprise an upright and a leg bracket. Upright shall be constructed of 1-1/2" pipe and shall measure 29-13/16" in height, solid welded to a 6-9/16" x 6-9/16" triangular bracket constructed of 7 ga. sheet. Rock Climber leg shall comprise an upright and leg bracket. Upright shall be constructed of 1-1/2" pipe and shall measure 29-13/16" in height, solid welded to a 5-1/2" x 4" leg bracket constructed of 7 ga. sheet. Hand supports shall comprise leg brackets, a leg, pipe plugs, formed hand support and cross pieces. Leg brackets shall be constructed of 7 ga. sheet and shall measure 14" in length and 7-7/16" in height. Leg shall be constructed of 1" pipe, 14 ga. Pipe plugs shall be constructed of gray plastic. Formed hand support shall be constructed of 1" pipe, 14ga. and shall measure 69-11/16" in length. Cross piece shall be constructed of 1" pipe, 14ga. and shall measure 29-1/4" in length. Entire hand support will be solid welded. Enclosure shall comprise a handhold and spokes. Handhold shall be constructed of Gator Grip and spokes shall be constructed of 1" O.D. x 15 ga. fluted A-60. Entire assembly shall measure 41-1/8" in length. Enclosure shall have mashed ends for installation to Deck face. Handrails shall be constructed of 1" pipe, 14 ga. Handrails shall measure 49-11/16". Model #s 714-635IC, 714-635LC, 714-635RC handrails shall be constructed of 3/4" X 1" oval tube spokes with uprights and rails. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. Handrails, enclosures and legs shall have a Mira-Cote finish.

• **MIRA-THERM2 ATA STAIRS BETWEEN DECKS** shall be stair assemblies, with spoked or open handrails, designed to connect decks of different heights. The steps shall be constructed of 7 ga. steel stringers with treads constructed of 11 ga. steel sheet perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center, solid welded, with polyvinyl coating. The braces shall be constructed of 11 ga. black. The spoked handrails shall consist of a top and bottom rail and newel post, all of 1" pipe, and uprights constructed of 3/4" x 1" oval tube, all solid welded, with plastic pipe plugs inserted in open ends. Top rails shall have 3/8" aluminum inserts. The open handrails shall consist of a top and bottom rail and newel post of 1" pipe, all solid welded, with plastic pipe plugs inserted in open ends. Top rails shall have 3/8" aluminum inserts. The top deck enclosure shall consist of enclosure rails and an upright, both to be constructed of 1" pipe, drilled and solid welded, with one end of upright mashed for field attachment to deck. The bottom deck enclosure shall consist of horizontal rails and an upright of 1" pipe, drilled and solid welded, and a spoke upright of 3/4" x 1" oval tube. The upright shall be mashed on one end for field attachment to deck. Inserted in open ends will be plastic pipe plugs. The assembly shall include Fastener Style A hardware and Versalok Fasteners. The step assemblies shall be finished in Mira-Therm2 or Mira-Therm2 PE. The deck enclosures, handrails, and clamps shall be finished in Mira-Cote.

• **BIG TIMBER BONGO STUMP BRIDGES** shall be designed to enter/exit 2' or lower deck systems, either as a bridge between decks, a ground-to-deck "stair," or as a freestanding assembly with no decks. When installed as a bridge, stumps may be installed at ascending/descending heights or all level, but should follow a straight course between decks. Freestanding stumps may ascend and descend and may follow any course so long as stumps are set 7" to 9" apart. Stumps may also be clustered and installed flush with each other to create a table, seats, small climber, etc. Regardless of layout and design, stumps' top surface may be set no greater than 24" from finished grade. Note: If designing as bridge between 2'-0" decks intended for 2 to 5 year old users, deck enclosures Model # 714-813-5, 704-813-5 or 718-813-5 must be installed on each deck, which shall be sold separately. Each Bongo Perch comprises a stump and post assembly. Stumps shall be constructed of Rockite and shall comprise a log-shaped top surface measuring approximately 17" diameter. Stumps shall measure 12" high without posts. Posts shall be constructed of 1-1/2" pipe with a 5-7/8" diameter mounting plate of 11 ga. G-90 galvanized solid welded to the posts. Post length shall be 38-5/16" before field assembly to stump. Overall assembled length shall be 42". All fasteners shall be Fastener Style A. The Rockite stump steps shall have color molded in. The posts shall be finished in Mira-Cote.

• **CRUNCH STATION** shall be a semi-circular horizontal rung assembly designed for mounting on a 5" steel deck post with the rung set 50" - 80" from finished grade. The Crunch Station shall enable the user to perform leg lifts and crunches in a standing position. It shall be constructed of a cut and formed 1" pipe segment solid welded to support and bolt plates of 7 ga. galvanized steel. All hardware shall be Fastener Style A. The assembly shall have a Mira-Cote finish.

• **DELIGHT-O-SCOPE TELESCOPE AND BINOCULARS (BARRIER MOUNTING)** shall stimulate creative play and provide visual experiences for users and shall be designed for mounting on various types of barrier. The telescope features reflective facets set within the tube to offer a kaleidoscopic view, while the binocular model contains parallel tubes that constrain the user's field of vision to simulate a "search" effect, though neither model contains magnifying elements. They rotate 360 degrees horizontally and vertically between -45 and 45 degrees. Model # 714-961-R1, # 714-961-R2, # 718-961-R1, and # 718-961-R2 shall require a deck mounting or freestanding Rockite Panel, 2-1/2" thick, with side enclosures (no

post shaft will be constructed of round, 2-3/4" OD CRR 1018, and bottom post plate and post friction plate shall be constructed of 3/8" black sheet, ASTM A-36. Spring shall measure 3/4" OD x 2" long. Connector stub shall comprise a 1.31 5" OD, 14 ga. smooth tube, pipe plug and 3/8-16 aluminum insert. Entire post assembly shall measure 116-7/8" in height. Tube shall be constructed of 5" tube, 11 ga. and 1/2" black sheet, ASTM A-36. Wheel-Spin shall be constructed of low density, 1/4" wall polyethylene and shall measure 35-1/2" in diameter by 4" high. Handgrips shall be constructed of an 11 ga. sheet, A-60 plate with solid welded grips constructed of Gator Grip. Entire assembly shall measure 7" in height and 3-3/8" in width. All fastening hardware shall be **Fastener Style A**. Ten Spin shall be finished in Rockite and Post in Mira-Cote.

- **JAX WEB** shall feature 8 "jacks" shaped rotomolded pieces on a curved arch with an attached web-shaped rope climbing event. JAX body shall be a rotomolded piece measuring 63" in greatest width and 18" in greatest height. One solid piece, JAX shall feature a triangular body that flows into 3 spheres, each 18" in diameter. Arch shall be constructed of 5" tube and shall comprise two legs and an arch, all solid welded. Arch shall be on a 142 degree radius a 55 degree rotation. At the top of the arch there shall be a two welded tabs constructed of 3/8 black plate, 1-3/4" in length, with a 10 x 13 x 10 mm bushing in the center for rope attachment. Support assembly shall consist of a support plate, support straps and a cam lock spacer. Triangular shaped support plate shall be constructed of 7 ga. sheet and shall measure 20-13/16" slots cut into sheet. Support straps shall be solid welded to support plate. Straps shall measure 8-3/4" in length and shall be constructed of 1/8" x 1 flat. Straps shall have two 1/4" holes cut 6-3/4" apart, 1-1/2" from bottom. Cam lock spacer shall be solid welded to strap at the bottom bolt hole location. Spacer shall be 1/2" in diameter and 5/16" tall, constructed of AISI 1020 CR steel, zinc plated. Cam lock assembly shall comprise a cam lock plate and cover plate with center hole. Cam lock plate shall be constructed of 11 ga. A-60 sheet and shall have a 4-13/16" by 9/16" serrated cut-out for locking purposes. Plate shall be constructed of 11 ga. A-60 sheet. Entire assembly shall be solid welded and shall measure 2-1/2" in height with a 8" diameter. Rope shall be constructed of 16 mm diameter, steel reinforced nylon braided rope with heavy duty aluminum joints hydraulically pressed into position (with a bursting strength in excess of 2.5 metric tons), and galvanized foundation steelwork. The nylon rope is specially woven to produce a durable yet extremely soft covering. The rope shall have a minimum safe working load of 9,000 kg and shall comply with ISO R114/DS2114 and ISO 2232. Corners will terminate with 2-9/16" loops. Rope shall measure 77-3/4" in greatest height, 133-1/4" in greatest width and 110-7/16" in greatest length. Tensioning assembly shall be galvanized and comprise a loop and bracket. Loop shall be constructed of .500 bar round, 7-3/16" in length, solid welded to tensioning bracket constructed of 3/8" black sheet, A-60, 2-3/4" in diameter. Entire assembly shall measure 3-1/8" in height, 3" in length and 2-3/4" in width. Chain shall measure 8-11/16" in length and be constructed of 4/0 straight coil, hot dipped galvanized. Chain shall have 6 links. Upright assembly shall comprise an upright, base-ground anchor, top plate and nut. Upright shall be constructed of 3 x 3 x 11 ga. wall, T304 SS and shall measure 17" in length by 3" square. Base shall be constructed of 10 ga. sheet, 316 SS and shall measure 5-1/2" square. Base shall have 4 7/16" slots in the corners, one 1/2" center hole and 4 7/16" holes spaced 1-13/16" from center. Top plate shall measure 2-11/16" square and be constructed of 10 ga. sheet, 316 SS. Top plate shall have a center 5/8" bolt hole. Top plate shall have a 5/8-11, 18-8 SS self locking nut solid welded in its center directly underneath 5/8" bolt hole. Leg with tabs shall be constructed of 2" pipe and shall measure 147" in height. Leg shall have 8 tabs welded to it. Tabs shall be constructed of 3/8" black plate and measure 1-1/4" x 1-3/4". A 1/2" diameter hole shall be drilled in center with an inserted 10 x 13 x 10 mm bushing. All ground sleeves shall be constructed of 5" tube, 11ga. Ground sleeve, bottom, shall measure 26" in length and shall have a 7 ga. sheet, 8" diameter plate welded to it. Ground sleeve, top, shall measure 8" in length and have a 7 ga. sheet, 8" diameter plate welded to it. All fastening hardware shall be **Fastener Style A**. Arch and Support Assembly shall be finished in Mira-Cote. JAX body shall be finished in Rockite. Rope shall be blue, black, red or green in color.

- **ARCH SWING FRAMES & EXTENSION (TOTS' CHOICE)** shall consist of arches, header(s) and two clevises per bay which shall assemble to form a swing frame. The swing frames shall be available in 1, 2, 3, or 4 bay models providing for 2, 4, 6, or 8 swing configurations. Arch assemblies shall consist of the arch, which serves as the legs for the swing frame, and the arch stub, which supports the header. Arches shall be constructed of 3-1/2" tube and shall measure 118" from leg end to the plane of the underside of the arch apex. Stubs shall measure approximately 5-3/4" with two 5/8" holes drilled 1-1/2" from flush end and shall be solid welded to the arches. The header assembly must be installed 7'-4" above the finished surfacing. The header shall be constructed of 3" pipe. Headers for Model #s 718-852-2, 718-852-4, 718-852-6, 718-852-8 and 718-852-2X shall measure 10'-6" long. Headers for Model #s 718-852-1H and 718-852-1HX shall measure 7'-2" long. Headers for Model # 718-852-2HH and 718-852-2HHX shall measure 11'-11" long. Headers shall have 1-1/4" O.D. steel bushing housings solid welded to them with 9/16" oil-impregnated bushings installed after painting. Clevises shall be cast of ductile iron grade 60-40-18 and shall be zinc plated. All fastener hardware shall be **Fastener Style A**. The arches and header shall be finished in Mira-Cote. Swings and Therapeutic Swing Seat must be ordered separately.

Technical Data for Processes and Finishes

of the Highlighted Items

- **GATOR GRIP (TM)** is a three dimensional textured pattern exclusive to Miracle, embossed in steel to a depth of .014" to .017".
- **G-90 galvanized** indicates that a coating of .90 ounces of zinc per square foot has been applied on each surface side.
- **A-60 Galvannealed** indicates that a coating of .60 ounces of zinc per square foot alloyed with substrate steel has been applied on each surface side.
- **Mira-Cote (TM)** is a Super Durable formulation of a polyester powder coating finish that is applied to a thickness of 3-5 mil. This finish gives metal parts long term protection from chipping, fading and peeling. Miracle's finishing system washes the metal parts with detergent and etches the metal for optimum adhesion. The part is then rinsed clean with water. Next the part is coated with a non-chromic sealer and dried. The Mira-Cote powder is then applied electrostatically to the metal part. The metal parts are then baked at a high temperature to fuse a hard, smooth durable finish to the metal. Mira-Cote has an impact value of 160 in. lbs., flexibility value of 180 degree-1/4" mandrel, shore hardness value H and a crosshatch adhesion of 100%. Mira-Cote is tested in accordance with ASTM D-792, D-523, D-2794, D-1737, D-3363, D-3359 (b), B117 and D-2247. Mira-Cote will withstand over a 1,500 hours of salt spray exposure and 1,500 hours of weatherometer testing with minimal loss of gloss and color.
- **Mira-Lene (TM)** is compression-molded, 3/4" thick, high density polyethylene that has been specifically formulated for optimum U.V. stability and color retention. Compression-molded products have a density of .952 g/cm³ per ASTM D1505 and tensile strength of 3900 PSI per ASTM D638.
- **Mira-Therm2 PE** is a non-toxic copolymer polyethylene coating applied to a thickness of 1/16". Mira-Therm2 PE contains U.V. light stabilizers, anti-microbial additives and color pigments. Mira-Therm2 PE contains no orthophthalates or other banned substances. Mira-Therm2 PE is a proprietary brand of PE coating. Materials are tested in accordance with ASTM D-638, ASTM D-412, ASTM D-2240 and ASTM D-1004. Mira-Therm2 PE meets the FMVS 302 flammability rating, the requirements of California State Law and the 2008 CPSI Act.
- **pipe sized tube** is 1010 hot rolled, Flo-Coat, galvanized pipe manufactured from steel, cold formed and high frequency induction welded continuously. It conforms to ASTM A-135 and ASTM A-500 and is tested in accordance with ASTM E-8.
- **schedule 40 galvanized** pipe consists of a hot dip process of coating the pipe inside and out with not less than 1.6 ounces per square foot with an average of 1.8 ounces per square foot. Schedule 40 pipe conforms to ASTM standards A-53.
- **1" pipe is GATOR GRIP embossed 14 ga., 1" pipe sized tube (1.315" OD; approx. 1-5/16" OD.)**
- **1" pipe, 10 ga. is 10 ga., 1" pipe sized tube (1.315" OD; approx. 1-5/16" OD.)**
- **1" pipe, 12 ga. is 12 ga., 1" pipe sized tube (1.315" OD; approx. 1-5/16" OD.)**

- **1-1/2" square tube** is 16 ga., **1-1/2" square tube**.
- **1" tube** is 1" OD, 15 ga. **fluted round tube**. It conforms to ASTM A-500.
- **1-1/4" tube** is 1.315" OD (approx. 1-5/16" OD), 14 ga. **diamond embossed round tube**. It conforms to ASTM A-500.
- **1-1/2" tube** is 1-1/2" OD, 16 ga. **round tube**. It conforms to ASTM A-500.
- **3-1/2" tube** is 3-1/2" OD, 13 ga. **round tube**. It conforms to ASTM A-500.
- **4-1/2" tube** is 4-1/2" OD, 7 ga. **round tube**. It conforms to ASTM A-500.
- **5" tube** is 5" OD, 13 ga. **round tube**. It conforms to ASTM A-500.
- **5" tube, 11 ga.** is 5" OD, 11 ga. **round tube**. It conforms to ASTM A-500.
- **welded** refers to welds that are made by certified welders, tested in accordance with AWS D1.1-94, structural welding code specifications for steel. Welds conform to AWS A5.17 ASME SFA-5.17 EML3K and AWS A-5.18ER70S-3 ASME SFA-5.18 ER70s-3 LE332- C and LE-559-L.
- **PLAYCOVER SHADES** shall attach to Kids' Choice, Tots' Choice and Tots' Choice Expansion decks to provide shade to play structures. All structures are designed to meet the requirements of ASCE 7-05 (IBC 2006, IBC 2009, CBC2010) and ASCE 7-10 (IBC 2012). Shades will have alive load of 5 PSF, snow load of 10 PSF, design wind speed of 90 MPH (3-sec gust), exposure C (from ASCE 7-05), and a design wind speed of 115 MPH, risk category II (from ASCE 7-10). All tube shall conform to ASTM A500. Steel plate shall conform to ASTM A572, Fy = 50 KSI. All fabrication and erection of structural steel shall conform with the current edition of AISC "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings". All fabrication and erection of the light gauge pipes shall conform to AISI cold-formed steel specifications. Steel welds shall conform to AWS D.1: Electrodes, Class E70XX, Low Hydrogen. Frames have primer and 3 mils of powder coat electrostatically applied. Structural Steel Columns are made of 88.9 mm (3.5") O.D. pre-galvanized tubing for PB and are made of 127 mm (5") O.D. pre-galvanized tubing for KB. Structural Steel Rafters are made of 88.9 mm (3.5") O.D. pre-galvanized tubing. Fabric shade cloth has been specifically developed to produce a very strong and stable outdoor fabric for use in tension structures and shade awnings. This range offers the ultimate combination of maximum sun protection plus the strength and durability to ensure maintenance-free, long life performance. Mildew and Rot resistant. Heat and hail resistant. Maintains color in all weather conditions. High Density Polyethylene (HDPE), UV stabilized with a monofilament and lockstitch sewing construction producing a fabric that will not tear or fray if cut. Available in Standard and Fire Retardant Fabric. 6 Colors in Standard Fabric and 7 Colors in Fire Retardant Fabric. Provides shade factors up to 94% and blocks up to 95% of dangerous UV solar radiation for Standard Fabric. Provides shade factors up to 86% and blocks up to 84% of dangerous UV solar radiation for Fire Retardant Fabric. Temperature reduction of up to 30 degrees. It is recommended to remove Shade fabric prior to snowfall. Structural framing may remain in place during winter months.

Jefferson County - Option F - GENERAL SPECIFICATIONS

SAFETY STANDARDS & GUIDELINES All public playground equipment supplied shall meet all applicable provisions of the current "Handbook for Public Playground Safety" published by the Consumer Product Safety Commission (CPSC), and of ASTM F1487-01 "Standard Consumer Safety Performance Specification for Playground Equipment for Public Use," published by the American Society for Testing and Materials (ASTM). Products bearing the certification seal of the International Play Equipment Manufacturers Association (IPEMA) have received written validation of compliance with ASTM F1487-01.

TRADEMARKS Aquarius (R), Big Kahuna (R), Big Timber (R), Bongo (TM), Boulder Ridge (R), Bug Bites (R), Camel Back (TM), Center Stage (R), Chameleon (TM), Coil Curler (TM), Connexion (R), Dupli-Gator (R), Flex Jet (R), Flippo (TM), Flippopotamus (R), Fun Fone (TM), Fun Tunnel (R), Funnel Tunnel (TM), Funshades (TM), Gator Grip (R), Gemini (TM), Gravity (TM), Grizz-Lee Bear (R), Groove (TM), Groove II (R) Slide, Hang-A-Round (R), Interaxion (TM), JAX (R), Kidrox (R), Kids' Choice (R), Kids' Perch (TM), Legacy Cantilever (R), Legacy Contempo (R), Legacy Heritage (R), Libra (R), Linkz (TM), Loopz (TM), Mega Tower (R), Miracle (R), Miracle Recreation (R), MiracleTech (R), Mira-Cote (R), Mira-Lam (TM), Mira-Lene (TM), Mira-Therm2 (TM), Mogul (TM), Mountain Trail (R), N-Dure Cycle (R), Nexus (R), Observation Deck (R), Offspring (TM), OrbX (R), ParkWatch (TM), Pegasus (R), Perma-Guard (TM), Perseus (TM), Phyzics (R), Play Cover (R), Play Terrain (R), Power Pedaler (TM), Pull Up! Lift (R), Rainbow Bend (TM), Reflex (R), Relay Racer (R), Rock-ite (R), Rodeo Rocky (TM), Schnozz Womp (TM), Serpent Trek (TM), SiteBrite (TM), Sneak-A-View (TM), SonicScreen (R), Spray Stations (R), Sun Sparkle (TM), Surfer (R), Tensile Tough (TM), Tensile Tower (TM), Thunder Tunnel (TM), Timber Topper (TM), Toboggan (TM), Toddlers' Choice (R), Tots' Choice (R), Tots' Choice (R) Expansion, Tots' Choice (TM) for Toddlers, Trim Timber (R), Triple Play (TM), Typhoon (TM), Versalok (R), View Groove (TM), Wavy Waffle Wall Walker (TM), Webscapes (R), Whirlwind (TM), Xcalator (R), and X-Cavator (TM) are trademarks of Miracle Recreation Equipment Company. Tornado (TM), Multi-Pondo (TM), and Pirouette (TM) are trademarks of HAGS (TM). Miracle and HAGS are divisions of PlayPower, Inc. PlayPower (R) is a trademark of PlayPower, Inc.

QUALITY SYSTEM CERTIFICATION The manufacturer's quality system is certified to ISO 9001 since December 1998.

PRODUCT CHANGES At Miracle Recreation Equipment Company, we strive for the utmost in quality and safety in our entire product line. Therefore, in order to honor this commitment to you, our customers, we reserve the right to make changes on any product released and/or published in our annual catalog and other promotional or technical literature.

WARRANTY

Buyer agrees that products sold by Miracle Recreation Equipment Company carry only the following warranties:

- 1. LIMITED WARRANTY FOR AS LONG AS YOU OWN THE PRODUCT** against structural failure due to corrosion or defects in materials and workmanship on aluminum deck posts, steel deck posts, the VersaLok (R) fastening system and associated fastening hardware.
- 2. LIMITED FIFTEEN (15) YEAR WARRANTY** against structural failure due to corrosion or defects in materials and workmanship on steel support legs and Mira-Therm2 (TM) 2 on MEGA TOWER (R), TOTS' CHOICE (R), KIDS' CHOICE (R), CENTER STAGE (R), NEXUS (R) and Boulder Ridge (R) Rock Wall; on playsystem steel components including railings, rungs, and rigid climbers; and Rockite (R).
- 3. LIMITED FIFTEEN (15) YEAR WARRANTY** against structural failure due to corrosion or defects in materials and workmanship on all Play Cover (R) steel frames.

These limited warranties apply only to Miracle products that are erected and installed in conformance with Miracle's installation instructions, and that are maintained and inspected in conformance with Miracle's maintenance and operational instructions. These limited warranties specifically do not cover Miracle products: that have been modified, altered, or misused; that have not been used as designed or intended; to which non-Miracle parts have been added or substituted; or that have been damaged due to excessive wear and tear, vandalism, abnormal use, abuse, negligence, extraordinary weather or acts of God. MiracleTech Security (R) systems limited warranties do not cover products serviced or repaired by unauthorized service providers. These limited warranties do not protect against color fade, except for PlayCover (R) as noted above. Buyer, by acceptance and use of these limited warranties, waives any rights it would otherwise have to claim or assert that this limited warranty fails of its essential purpose. Buyer agrees that venue for any court action to enforce these limited warranties shall be in Barry or Greene Counties in the State of Missouri.

EXCEPT AS EXPRESSLY WARRANTED HEREIN, MIRACLE EXPRESSLY DISCLAIMS ANY OTHER WARRANTIES, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THOSE ARISING BY STATUTE OR OTHERWISE IN LAW OR FROM COURSE OF DEALING OR USAGE OF TRADE. IN NO EVENT SHALL MIRACLE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, WHETHER BASED UPON CONTRACT, TORT, OR ANY OTHER LEGAL THEORY (INCLUDING WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION, LOSS OF INFORMATION, CONSEQUENTIAL, INCIDENTAL, INDIRECT OR SPECIAL DAMAGES OR OTHER PECUNIARY LOSS).

*Consult Miracle's "Glossary of Technical Data for Materials, Processes and Finishes"
for specifications of items listed in bold type.*

- **TOTS' CHOICE EXPANSION (TCX) DECKS** shall be Mira-Therm2 deck models designed for use with Tots' Choice 3-1/2" deck posts, which shall feature an inside dimension of 43" (like standard Kids' Choice decks) to accommodate Kids' Choice type (TCX) components instead of Tots' Choice components. The TCX Triangle Split Deck is an isosceles triangle play surface designed to be used as a Step Platform at 18" and lower for 2-5 year old users or 30" and lower for 5-12 year old users. The deck shall be constructed of folded 11 ga. steel sheet forming 3" tall sides with 3/16" x 1-1/2" flat steel braces solid welded. The decking shall be perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center and primer coated prior to polyvinyl coating. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. All deck surfaces shall have a Mira-Therm2 or Mira-Therm2 PE finish. Clamps shall have a Mira-Cote finish. The TCX/TC Transition Deck (Model # 704-512-9) shall be an adaptor platform with one side designed for attachment to a standard Tots' Choice deck or component (i.e. one side shall have an inside dimension of 38-1/2") while its remaining sides shall accommodate TCX components or decks (i.e. three sides shall have inside dimensions of 43"). The TCX/KC Transition Deck (Model # 704-514-9) shall be an adaptor platform with one side designed for attachment to a Tots' Choice Expansion deck (i.e. one side shall have two corners for 3-1/2" O.D. posts) while its opposite side shall be designed for attachment to a Kids' Choice deck (i.e. it has two corners for 5" O.D. posts). The two sides in between shall accommodate TCX components. (All sides shall have inside dimensions of 43".) The TCX Triangle Deck (Model # 704-501-9) shall require 3 posts and shall have a deck top surface area of 6.47 sq. ft. The TCX Square Deck (Model # 704-502-9) shall require 4 posts and shall have a deck top surface area of 14.82 sq. ft. The TCX Half Hex Deck (Full) (Model # 704-503-9) shall require 4 posts and shall have a deck top surface area of 19.44 sq. ft. The TCX Half Hex Deck (Open) (Model # 704-504-9) shall require 5 posts and shall have a deck top surface area of 19.40 sq. ft. The TCX Rectangle Deck (Open) (Model # 704-510-9) shall require 6 posts and shall have a deck top surface area of 29.43 sq. ft. The TCX/TC Transition Deck shall require 4 posts and shall have a deck top surface area of 13.99 sq. ft. The TCX/KC Transition Deck shall require two 3-1/2" O.D. posts and two 5" O.D. posts and shall have a deck top surface area of 14.74 sq. ft. The TCX Flippo Deck (Model # 704-515-9) shall require 4 posts and shall have a deck top surface of 18.95 sq. ft. TCX Flippo Deck shall only be used with Model # 704-770-9. With the exception of the TCX/KC Transition Deck, the TCX decks shall be designed on a 46-1/2" center-to-center spacing on 3-1/2" deck posts, at equal or varied heights. All deck-to-post connections shall be made with a deck support casting and clamp. All deck connections shall be made beneath the deck with no exposed fasteners on deck perimeter. All decks shall be constructed with folded 11 ga. steel sheet forming 3" tall sides. Decking sheets shall be perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. The decking shall have 7 ga. by 2" flat steel braces and corner braces of 7 ga. steel. The entire assembly shall be solid welded prior to polyvinyl coating. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. All deck surfaces shall be coated in Mira-Therm2. Clamps and castings shall have a Mira-Cote finish.
- **TOTS' CHOICE STEEL POSTS:** The steel posts shall be constructed of 3-1/2" tube with 3-1/2" round end caps mechanically fastened to the top end. Posts for roof attachment shall not receive end caps. After fabrication, all posts and end caps shall have a Mira-Cote finish.

series Plastisol resin. The enclosure or handhold, handrails, and fasteners shall have a **Mira-Cote** finish. The bracket shall have a **Mira-Therm2** or **Mira-Therm2 PE** finish. The Honeycomb segments shall have molded-in color.

• **TOT ROCK CLIMBER** shall be a ground-to-deck climber assembly (for 3' decks only) featuring a formed "bedway" with protrusions for users to grasp and step upon, and a single-user safety canopy. Some Rock Climber protrusions shall feature molded-in graphics of various fossil types. The climber shall be constructed of formed and drilled double-wall Rockite, and shall have an overall width of approximately 27-1/2" and an inside width at lowest point of 16". The assembly's top end shall have factory-installed threaded inserts for field attachment to canopy panel. The canopy panel shall be constructed of formed and drilled Rockite with all corners rounded, and shall measure 35-1/2" wide by 44-1/4" tall by 12-1/4" deep (panel alone 2-1/2" deep.) The opening shall measure approximately 24" wide by 31" tall. The front leg shall be 1-1/2" tube welded to a 7 ga. A-60 Galvannealed mounting bracket. The deck enclosures (for Kids' Choice model only) shall consist of uprights and support bars, to be constructed of 1" pipe, drilled, formed and solid welded. The panel support rung (for Tots' Choice model only) shall be a 37-3/16" length of 1" pipe. Each assembly shall contain **Versalok Fasteners** and **Fastener Style A** hardware. The climber and canopy shall have color molded in. The leg, deck enclosures, and clamps shall be finished in **Mira-Cote**. The panel support rung shall have a galvanized finish.

• **VERTICAL CARGO CLIMBER** shall be a ground-to-deck climber. The cargo climber shall consist of 11 ga. sheet bracket and 1" tube rungs connected by three vertical supports of 4/0 straight link coil chain. The rungs shall be solid welded to the chain. The chain shall be attached to an anchor and the bracket by 5/16" "S"-hooks. The cargo climber for the 3', 4', 5', and 6'-6" decks shall measure 45-1/2", 56-1/2", and 67-1/2", and 86-3/4" in length respectively. The anchor shall be constructed of 1" pipe, formed, with three "U" shaped loops of 5/16" diameter wire welded to the top. The arch enclosure shall comprise top supports and an arched upright of 1" pipe and spoked infill of 1" tube, all solid welded. All **Versalok Fasteners** for deck and component attachment shall be aluminum alloy. All fastening hardware shall be **Fastener Style A**. The anchor and **Versalok Fasteners** shall have a **Mira-Cote** finish. The vertical cargo climber chain shall be polyvinyl coated.

• **WAVE WALKER** Climbers shall be ground-to-deck or between deck climbing components that encourage balance and coordination. Models shall include top and bottom rails and a half enclosure. All models shall be attached to or between either a 4', 5', 6'-6" or 8' deck. Components shall have a 3', 4', 5'-6" or 7' rise from one end of top/bottom rails to the opposite end. Top rail shall be constructed of 1" pipe, 12 ga. Bottom rail shall be constructed of 1-1/4" pipe, 10 ga. Top and bottom rails shall have 'waves' flowing from one end of the component to the other, created by uniform bends. Rails shall measure 96" (3' rise), 101-9/16" (4' rise), 111-3/16" (5'-6" rise) or 122-3/4" (7' rise) in length. The half enclosure assembly shall consist of an outer upright, cross bar, enclosure upright and 5 spokes. Outer upright, cross bar and enclosure shall be constructed of 1" pipe Gator Grip. Spokes shall be constructed of 3/4" x 1" oval tube. Enclosure assembly shall measure 41-1/16" in height and 28-7/16" in width. Enclosure assembly shall be solid welded. Climber and enclosure assemblies shall include **Versalok Fasteners** and **Fastener Style A** hardware. The enclosure, rails and **Versalok Fasteners** shall have a **Mira-Cote** finish.

• **HORIZONTAL LADDERS** shall be available in multiple configurations. The ladder rails shall be constructed of 2" pipe measuring 95" long (except *Tot's Choice models which shall have rails of 1" pipe measuring 72"*). Ladder rungs shall be constructed of 1" pipe, solid welded (except *Tot's Choice models which shall have rungs of 1" tube*). For models with optional end climbers, the end climber assembly shall be constructed of 1" pipe, formed. The assembly shall be solid welded. For models with optional deck enclosures, the enclosure assemblies shall consist of enclosure rails and uprights. The enclosure rails shall be constructed of 1" pipe (except *Tots' Choice models which shall be 1" tube*), drilled, with plastic pipe plugs inserted in open ends. The uprights shall be constructed of 3/4" x 1" oval tube (except *Tots' Choice models which shall be 1" tube*), mashed on both ends. The enclosure assemblies shall be solid welded. The posts shall be constructed and finished in the same manner as deck posts (*The Kids' Choice system also offers an option of aluminum posts for this component*.) Each assembly shall include **Versalok Fasteners** and **Fastener Style A** and **Fastener Style B** hardware. The assemblies shall have a **Mira-Cote** finish.

• **SERPENT TREK** assemblies shall consist of a series of open-ended hangers attached to two rails. The hangers shall be constructed of 1" pipe. The hanger configuration shall measure approximately 10-3/4" along the side by 16" along the grip. The hangers shall be evenly spaced starting approximately 9" from either crossbar on the 8' model. The rails shall be constructed of 2" pipe and bent to form a series of serpentine rises and dips along the rail. The crossbars shall also be constructed of 2" pipe. The assembly shall be solid welded. Each assembly shall include **Versalok Fasteners** and **Fastener Style A** and **Fastener Style B** hardware. The serpent trek assemblies shall have a **Mira-Cote** finish. For models with optional end climbers, the end climber assembly shall be constructed of 1" pipe, formed. The assembly shall be solid welded, finished in **Mira-Cote**.

which shall turn on bronze bushings. The piston panel shall also contain connecting rod and piston shapes of 1/4" thick high-density polyethylene. The reverse side of both panels shall contain routed text and/or designs. The Sliding Tile panel shall contain 15 moveable, tongue-and-groove tiles with routed numerals to be constructed of 1/4" thick high-density polyethylene. The panels and steering wheel shall have molded in color with each panel assembly having a laminated, two-color scheme. Calypso drum panel shall contain 3 rotational molded drums of low density polyethylene resin. Each drum shall be attached to the panel through a cover plate constructed of 11 ga. galvanized steel sheet with a Mira-Cote finish. Each assembly shall include Fastener Style A hardware and Versalok Fasteners. Panels and steering wheels shall have color molded in, and rung brackets and clamps shall be finished in Mira-Cote.

• **LOOKOUT TOWER/COMMAND POST** shall be curved deck extensions/overhangs and enclosure components for deck systems, designed to stimulate imaginative play. Panels for both models shall be constructed of Rockite, with wall thickness approximately 1/4", formed to extend the deck surface in a semi-circle (approximately 40" long with a radius of 9-7/16") and also formed to serve as an enclosure. The panels shall have four 3/8" threaded inserts factory-installed along bottom of deck edge and a top rung of 1" pipe inserted at the factory for field attachment to deck and posts respectively. The panels shall contain five 2" wide view slots evenly spaced, with all corners rounded. The steering wheel shall be constructed of a high-density blow-molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D- 638, D-790 and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection-molded polypropylene which shall contain U.V. light stabilizers. All Versalok Fasteners for deck and component attachment shall be aluminum alloy, and hardware shall be Fastener Style A. The Rockite panel shall have color molded in. The top rung and Versalok Fasteners shall have a Mira-Cote finish.

• **WALL ENCLOSURE/WALL WITH STEERING WHEEL/CLOSURES/HANDHOLD FOR TRANSFER POINT/TREEHOUSE SEAT** shall be barrier assemblies. The handhold for transfer point shall be used as a support rail to assist wheelchair user access on a 1'-6" transfer point deck. The wall enclosure and transfer point handhold supports shall consist of a welded assembly handrail system with a top and bottom rail constructed of 1" pipe (except Tots' Choice models which shall be 1" tube) and uprights constructed of 3/4" x 1" oval tube (except Tots' Choice models which shall be 1" tube), solid welded. The mounting bracket shall be 11 ga. A-60 Galvannealed sheet steel, welded to the wall enclosure. The steering wheel on vehicle-themed panels shall be constructed of a high-density blow molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D- 638, D-790 and D-746. Resin's properties exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection molded polypropylene which shall contain U.V. light stabilizers. The Treehouse Wall with Seat shall comprise a top and bottom rail and end uprights constructed of 1" pipe and spoked infill of 3/4" x 1" oval tube and a seat assembly, all solid welded. The seat assembly shall comprise a frame of 1" pipe with bolting brackets of 3/16" x 1-1/4" HR flat and a factory-assembled 19" wide seat constructed of 11 ga. sheet, perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center. The seat surface shall be approximately 14" from the deck, if applicable. The enclosure rungs, uprights, handhold for transfer point, enclosure with seat assembly, steering wheel, and steering wheel mounting bracket shall have a Mira-Cote finish. The seat shall be finished in Mira-Therm2 or Mira-Therm2 PE. The steering wheel shall have molded in color.

• **XYLOPHONE PANEL** shall be a below-deck creative play component. Attached mallet allows children to strike graduated aluminum keys, creating musical sounds. Xylophone easily installs between existing Deck Posts and is situated at a comfortable 45 degree angle, 24" above surfacing, so children of all abilities may play. Frame shall consist of two loop halves constructed of 2" pipe, solid welded to each other to create a single loop. Each loop half shall measure 32-5/8" in length and 14-11/16" in height. Two 4-1/2" stubs shall be solid welded to short sides of loop and shall be constructed of 2" pipe. Panel assembly shall consist of the xylophone panel and graduated xylophone bars. Panel shall be constructed of 3/4 sheet HDPE, 2 color. Bars shall be constructed of aluminum, 2" in width and 1/4" thick, and be attached to the panel 1" apart from edge to edge. The seven bars shall graduate in length; 10", 9-3/16", 8-3/8", 7-9/16", 6-3/4", 5-15/16" and 5-1/8". Mallet assembly shall comprise a glider wheel, mallet handle and tether assembly. Fully assembled mallet shall measure 12-9/16" in length. Glider wheel shall be urethane constructed and measure 2-1/8" in diameter. Mallet handle shall be 5" in length and be constructed of UHMW plastic. Tether assembly shall include a 1/8" cable swage stud of SS Type 303, a tether cable of 316 grade SS rope, 7 x 19, and a swage eye of 303 SS. The assembly shall contain Versalok Fasteners and Fastener Style A hardware. The Xylophone shall be finished in Mira-Cote.

• **RISER PLATES** shall be used between adjacent decks of 12" rise or greater. Riser plates shall be constructed of 11 ga. A-60 Galvannealed. The step rung and supports (on 24" models and certain 18" models) shall be constructed of 1" tube, solid welded. The risers shall bolt to the edge of the upper and lower decks. Kids' Choice 18" and 24" riser assemblies shall feature an arch enclosure assembly comprising top supports, a bottom

11 ga. steel sheet folded and perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center, solid welded to stringers of 7 ga. black steel. The handrail assembly shall consist of a top and bottom rail and newel post, formed, constructed of 1" pipe with infill of 3/4" x 1" oval tube. The step enclosure assembly shall be solid welded and plastic pipe plugs shall close open ends. The deck enclosures shall consist of a vertical rail, and top and bottom rail, formed, constructed of 1" pipe with an upright of 3/4" x 1" oval tube, and 3/8" aluminum inserts in the rail ends for attachment to the step enclosures. The deck enclosure assemblies shall be solid welded. The 35" platform barrel shall be Rockite, with a canopy painted alternating colors with polyurethane paint. The barrel shall have molded-in view grooves for viewing children. The back-up plate used to connect the step assembly and the barrel shall be constructed of 1/4" x 1" x 6" flat steel. The front leg shall be constructed of 2" pipe and shall be attached to the slide using a channel constructed of 7 ga. sheet. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. The Rockite slide and platform canopy shall have color molded in. The step shall be finished in Mira-Therm2 or Mira-Therm2 PE. The handrail assemblies, deck enclosures, front leg, and clamps shall have a Mira-Cote finish. The back-up plate shall have a zinc plate finish.

• **ROCKITE "L" SLIDE** shall be an open bedway slide which shall exit to the right from a 3' deck and shall include a canopy panel. The one-piece slide and the canopy panel shall be constructed of double wall Rockite. The slide shall have 6-1/4" high side rails, an overall width of 25-5/8", and an 18" wide sliding surface. The front leg shall be constructed of 1-1/2" tube, solid welded to a 7 ga. A-60 Galvannealed mounting bracket. A top rail used for mounting the canopy between deck posts shall be 1" pipe. Each assembly shall contain Versalok Fasteners and Fastener Style A hardware. The top rail, front leg, and clamps shall be finished in Mira-Cote. The Rockite slide and canopy shall have color molded in.

• **ROCKITE TUBE SLIDES** shall be available in straight, left and right "L" and "S" bedway configurations. The entry panels shall be Rockite with a molded in 30 degree extension. The panel rungs shall be constructed of 1" pipe measuring 44" long (except *Tots' Choice models which shall be constructed of 1" tube measuring 36-1/2" long*). The straight tube sections shall be Rockite measuring 35" or 40" long with an inside diameter of 24" (except *Kids' Choice, Center Stage, and City Parks Series models which shall have an inside diameter option of 24" or 30"*). Models attaching to 3' decks shall have bedway lengths of approximately 8'; for 4' decks, bedways approximately 10' long; for 5' decks, bedways approximately 12' long; and 6-6" decks, bedways approximately 16' long.

24" DIAMETER MODELS

Each end shall have a 1" wide flange. The elbow shall be Rockite. The Rockite tube joints shall be externally flanged and overlapping. The male flange shall be 1" deep, the female flange shall be 1-1/2" deep, 24" diameter. The bedway shall have no exposed internal fasteners. The 29 degree exit section shall be constructed of double wall Rockite. It shall have a 34" centerline radius and dimensions similar to the tube above. The leg bracket shall be constructed of sand cast aluminum alloy. Front leg shall consist of an upright and a bolting plate. The upright shall be constructed of 2" pipe. The bolting plate shall be constructed of 11 ga. A-60 Galvannealed sheet, and shall measure 7" x 7", drilled and welded to the upright. "L" legs shall be constructed of 1-1/4" pipe. Rockite panel and slide shall have molded in color. Legs and leg bracket shall have a Mira-Cote finish.

30" DIAMETER MODELS

Each end shall have a 1" wide flange. All pieces shall be Rockite with a 30" I.D. The elbow shall have a 22" centerline radius. Tube to tube connections will have a Rockite flange cover. The bedway shall have no exposed internal fasteners. The exit section shall be constructed of double wall Rockite with a 25" centerline radius. The front leg shall consist of an upright and a bolting plate. The upright shall be constructed of 2" pipe. The bolting plate shall be constructed of 11 ga. A-60 Galvannealed sheet and shall measure 7" x 7", drilled and welded to the upright. Legs shall be constructed of 1-1/4" pipe. Rockite panel and slide shall have molded in color. Legs and leg bracket shall have a Mira-Cote finish. Some models shall contain windows in their straight tube sections measuring approximately 13" x 40" to be constructed of clear polycarbonate.

• **TYPHOON 270 DEGREE SPIRAL SLIDES** shall be one-piece open bedway slides, with 5' or 5'-2" platform, barrel canopy and step or ramp assembly, designed for attachment to 3', 4' and 5' decks. The slide bedway shall be constructed of 1/4" to 5/16" wall Rockite. The slide bedway shall be 30" wide with a 15" high side wall. The center post shall be constructed of 4-1/2" tube. The step assembly shall be constructed of 11 ga. steel sheet folded and perforated with a staggered pattern of 3/8" diameter holes at 5/8" apart center-to-center, solid welded to stringers of 11 ga. black steel. The handrail assembly shall consist of a top and bottom rail and newel post formed, constructed of 1" pipe with infill of 3/4" x 1" oval tube. The step enclosure assembly shall be solid welded. Plastic pipe plugs shall close open ends. The deck enclosures shall consist of a vertical rail, and top and bottom rail, formed, constructed of 1" pipe with an upright of 3/4" x 1" oval tube, and 3/8" aluminum inserts in the rail ends for attachment to the step enclosures. The deck enclosure assemblies shall be solid welded. The 35" platform barrel shall be Rockite, with a Rockite

- **CHUNKY TREKKER** shall comprise a rail constructed of 2-3/8" tube, two legs constructed of 2" pipe and foot step brackets constructed of 7 ga sheet, all solid welded. Rail shall measure 75-1/2" in length and legs shall measure 61-3/4" in length. Brackets shall be graduated in height from 3-1/2", 4-1/8", 4-1/2" and 4-3/4". All brackets shall be 12-7/8" in length. Foot step covers shall be constructed of 11 ga. sheet perforated with a staggered pattern of .375" diameter holes at 5/8" apart center to center. Steps shall be 15" in length. Each assembly shall contain **Versalok Fasteners and Fastener Style A** hardware. The Chunky Trekker shall have a **Mira-Cote** finish. Foot step covers shall have a **Mira-Therm2** or **Mira-Therm2 PE** finish.

- **BARREL RIDE** shall be an inventive motion component is designed to provide a spinning, rocking action. Barrel Ride shall consist of a lower post weldment, a barrel assembly and a standoff weldment with a cast hub, machined spindle, bearings, and associated hardware. Weldments shall be constructed from 4.5 OD x 1/4" wall galvanized with 3/8" plate. Barrel Assembly shall be fabricated from 1.315 OD x 14 ga galvanized tubing with 7 ga. galvanized plate and a 13ga. galvanized floor plate. Entire assembly shall measure 7'-3" with 4' showing above surfacing. The Barrel Ride shall be finished in **Mira-Cote**.

- **BELL, POST MOUNT** shall be designed to provide noisy, imaginative play to any pre-existing deck post. The Bell Assembly shall consist of a Bell, A Bell Support, a 6-link Chain, and eyebolt, and **Fastener Style A** hardware. The Bell shall be constructed of **A-60 Galvannealed**. The Bell Support shall be constructed of 1" pipe, **Gator Grip**. The Bell Chain shall be constructed of 4/0 straight link coil chain. The Bell shall have a **Mira-Cote** finish.

- **STEERING WHEEL, POST MOUNT** shall be designed to provide driving stimulation on any pre-existing deck post. The steering wheel shall be constructed of a high-density blow-molded polyethylene produced from high performance, U.V. stabilized resins with a comprehensive additive package. These resins shall be tested in accordance with ASTM testing procedures D-1505, D-1248, D-1693(b), D-638, D-790 and D-746. Resin's properties shall exhibit a balance of toughness, rigidity, environmental stress crack resistance and excellent low temperature impact performance. Wall thickness shall be 1/8". The steering wheel hub cover shall be constructed of injection-molded polypropylene which shall contain U.V. light stabilizers. The Steering Column shall be constructed of 2" pipe. The assembly shall contain **Fastener Style A** hardware. The Steering Column shall have a **Mira-Cote** finish.

- **TEN SPIN** shall be an ADA merry-go-round type component that allows 10 children to play at one time. Ten Spin body shall be constructed of low density, 1/4" wall polyethylene. Body shall have an 86" diameter and measure 40" in height. Body shall have 5 indentations to allow children with disabilities to sit/recline, and 5 indentations for children to stand around outer edges. Rotomold shall have molded in footgrips to reduce slips. Body shall be pre-assembled with upper and lower ball bearings mounted into laminated sheet, HDPE 3/4" thick, with bottom cover constructed of 11 ga. sheet, A-60. Post assembly shall comprise a top friction plate, half bottom friction plate, post weldment, spring, half bottom cover plate and connector stub. Top friction plate, half bottom friction plate and half bottom cover plate shall be constructed of laminated sheet, HDPE, 3/4" thick. Post weldment shall comprise a post bottom, post shaft, bottom post plate and post friction plate. Post bottom shall be constructed of 5" tube, 11 ga., post shaft will be constructed of round, 2-3/4" OD CRR 1018, and bottom post plate and post friction plate shall be constructed of 3/8" black sheet, ASTM A-36. Spring shall measure 3/4" OD x 2" long. Connector stub shall comprise a 1.31 5" OD, 14 ga. smooth tube, pipe plug and 3/8-16 aluminum insert. Entire post assembly shall measure 116-7/8" in height. Tube shall be constructed of 5" tube, 11 ga. and 1/2" black sheet, ASTM A-36. Wheel-Spin shall be constructed of low density, 1/4" wall polyethylene and shall measure 35-1/2" in diameter by 4" high. Handgrips shall be constructed of an 11 ga. sheet, A-60 plate with solid welded grips constructed of **Gator Grip**. Entire assembly shall measure 7" in height and 3-3/8" in width. All fastening hardware shall be **Fastener Style A**. Ten Spin shall be finished in **Rockite** and Post in **Mira-Cote**.

- **8' DOUBLE SUPPORT SWING FRAMES AND EXTENSION** shall consist of legs, a top rail, and yokes which shall assemble to form an 8' high swing frame. Model # 2901X, 2903X, 2901HX, 2903HX, 2901HHX and 2903HHX shall comprise end legs, a top rail, and yokes. The swing frames shall be available in 2, 4, 6, or 8 swing, and 1 or 2 Therapeutic Swing Seat configurations. Swing seats and Therapeutic Swing Seats must be ordered separately. Top rails shall be constructed of 2-3/8" tube measuring 10'-6" long. There shall be either two or four bushing housings solid welded to the top rail to which the swing clevises shall be attached. These bushing housings shall be made of 1-1/4" O.D. x 9/16" I.D. hot rolled, TRW, ASTM A-519 tubing. Each housing shall have an oil-impregnated bushing installed at the factory. Legs shall be constructed of 2" pipe measuring 10'-6" long each. Yokes shall be constructed of 2-1/2" Sch 40 pipe, solid welded. All fastener hardware shall be **Fastener Style A**. The legs, top rails, and yokes on Model # 2901, # 2901X, # 2917, # 2925, # 2933, 2901H, 2901HX, 2901HH and 2901HHX shall have a **Mira-Cote** finish. The top rails and yokes on Model # 2902, # 2918, # 2926, and # 2934 shall have a **Mira-Cote** finish. The legs for Model # 2902, # 2918, # 2926,

- **Fastener Style B** is an all aluminum blind rivet or aluminum drive rivet with stainless steel pin. Both are corrosion resistant and vandal resistant fasteners.

• **Flo-Coat (R)** is a patented triple coat corrosion protection process of Allied Tube and Conduit's Mechanical Tube Division, wherein steel pipe or tube first receives a hot-dipped uniform zinc galvanized coating followed by a conversion coating followed by a clear, high performance organic polymer coating. The interior of the tube has an 81% minimum zinc rich primer applied, capable of providing excellent rust protection and fabrication characteristics. All coatings are applied inside and out after welding. Flo-Coat processed tube exceeds the test results of galvanized Sch 40 pipe in salt spray tests conducted in accordance with ASTM B-117. The term "Flo-Coat" is a registered trademark of Allied Tube and Conduit, used with permission.

- **GATOR GRIP (TM)** is a three dimensional textured pattern exclusive to Miracle, embossed in steel to a depth of .014" to .017".

- **G-90 galvanized** indicates that a coating of .90 ounces of zinc per square foot has been applied on each surface side.

- **A-60 Galvannealed** indicates that a coating of .60 ounces of zinc per square foot alloyed with substrate steel has been applied on each surface side.

• **Mira-Cote (TM)** is a Super Durable formulation of a polyester powder coating finish that is applied to a thickness of 3-5 mil. This finish gives metal parts long term protection from chipping, fading and peeling. Miracle's finishing system washes the metal parts with detergent and etches the metal for optimum adhesion. The part is then rinsed clean with water. Next the part is coated with a non-chromic sealer and dried. The Mira-Cote powder is then applied electrostatically to the metal part. The metal parts are then baked at a high temperature to fuse a hard, smooth durable finish to the metal. Mira-Cote has an impact value of 160 in. lbs., flexibility value of 180 degree-1/4" mandrel, shore hardness value H and a crosshatch adhesion of 100%. Mira-Cote is tested in accordance with ASTM D-792, D-523, D-2794, D-1737, D-3363, D-3359 (b), B117 and D-2247. Mira-Cote will withstand over a 1,500 hours of salt spray exposure and 1,500 hours of weatherometer testing with minimal loss of gloss and color.

- **Mira-Lene (TM)** is compression-molded, 3/4" thick, high density polyethylene that has been specifically formulated for optimum U.V. stability and color retention. Compression-molded products have a density of .952 g/cm³ per ASTM D1505 and tensile strength of 3900 PSI per ASTM D638.

• **Mira-Therm2 PE** is a non-toxic copolymer polyethylene coating applied to a thickness of 1/16". Mira-Therm2 PE contains U.V. light stabilizers, anti-microbial additives and color pigments. Mira-Therm2 PE contains no orthophthalates or other banned substances. Mira-Therm2 PE is a proprietary brand of PE coating. Materials are tested in accordance with ASTM D-638, ASTM D-412, ASTM D-2240 and ASTM D-1004. Mira-Therm2 PE meets the FMVS 302 flammability rating, the requirements of California State Law and the 2008 CPSI Act.

- **pipe sized tube** is 1010 hot rolled, Flo-Coat, galvanized pipe manufactured from steel, cold formed and high frequency induction welded continuously. It conforms to ASTM A-135 and ASTM A-500 and is tested in accordance with ASTM E-8.

• 3/4" x 1" oval tube is 15 ga. wall. It is fabricated of 1008 hot rolled, Flo-Coat, galvanized tube manufactured from steel, cold formed and high frequency induction welded continuously. It conforms to ASTM A-135 and ASTM A-500 and is tested in accordance with ASTM E-8. The minimum mechanical properties of the tube are yield strength of 50,000 p.s.i. and tensile strength of 55,000 p.s.i.

• 1" tube is 1" OD, 15 ga. fluted round tube. It conforms to ASTM A-500.

• 1-1/2" tube is 1-1/2" OD, 16 ga. round tube. It conforms to ASTM A-500.

• 2-3/8" tube is 2-3/8" OD, 9 ga. round tube. It conforms to ASTM A-500.

• 3-1/2" tube is 3-1/2" OD, 13 ga. round tube. It conforms to ASTM A-500.

• 4-1/2" tube is 4-1/2" OD, 7 ga. round tube. It conforms to ASTM A-500.

• 5" tube, 11 ga. is 5" OD, 11 ga. round tube. It conforms to ASTM A-500.

• welded refers to welds that are made by certified welders, tested in accordance with AWS D1.1-94, structural welding code specifications for steel. Welds conform to AWS A5.17 ASME SFA-5.17 EML3K and AWS A-5.18ER70S-3 ASME SFA-5.18 ER70s-3 LE332-C and LE-559-L.

• **PLAYCOVER SHADES** shall attach to Kids' Choice, Tots' Choice and Tots' Choice Expansion decks to provide shade to play structures. All structures are designed to meet the requirements of ASCE 7-05 (IBC 2006, IBC 2009, CBC2010) and ASCE 7-10 (IBC 2012). Shades will have alive load of 5 PSF, snow load of 10 PSF, design wind speed of 90 MPH (3-sec gust), exposure C (from ASCE 7-05), and a design wind speed of 115 MPH, risk category II (from ASCE 7-10). All tube shall conform to ASTM A500. Steel plate shall conform to ASTM A572, Fy = 50 KSI. All fabrication and erection of structural steel shall conform with the current edition of AISC "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings". All fabrication and erection of the light gauge pipes shall conform to AISI cold-formed steel specifications. Steel welds shall conform to AWS D.1: Electrodes, Class E70XX, Low Hydrogen. Frames have primer and 3 mils of powder coat electrostatically applied. Structural Steel Columns are made of 88.9 mm (3.5") O.D. pre-galvanized tubing for PB and are made of 127 mm (5") O.D. pre-galvanized tubing for KB. Structural Steel Rafters are made of 88.9 mm (3.5") O.D. pre-galvanized tubing. Fabric shade cloth has been specifically developed to produce a very strong and stable outdoor fabric for use in tension structures and shade awnings. This range offers the ultimate combination of maximum sun protection plus the strength and durability to ensure maintenance-free, long life performance. Mildew and Rot resistant. Heat and hail resistant. Maintains color in all weather conditions. High Density Polyethylene (HDPE), UV stabilized with a monofilament and lockstitch sewing construction producing a fabric that will not tear or fray if cut. Available in Standard and Fire Retardant Fabric. 6 Colors in Standard Fabric and 7 Colors in Fire Retardant Fabric. Provides shade factors up to 94% and blocks up to 95% of dangerous UV solar radiation for Standard Fabric. Provides shade factors up to 86% and blocks up to 84% of dangerous UV solar radiation for Fire Retardant Fabric. Temperature reduction of up to 30 degrees. It is recommended to remove Shade fabric prior to snowfall. Structural framing may remain in place during winter months.

• **Specification Policy:** Specifications were current at the time of publication. Miracle Recreation Equipment Company has a policy of ongoing product improvement and therefore reserves the right to modify specifications or discontinue products without notice.