



CITY OF CONCORD  
CONCORD, NORTH CAROLINA

FOR

**BID# 2220**  
**GYMNASIUM BLEACHERS**

FOR

PARKS & RECREATION DEPARTMENT

ANNOUNCED DATE: MONDAY, JULY 29, 2013

DUE DATE: THURSDAY, AUGUST 15, 2013

TIME: 2:00 PM  
IN CONFERENCE ROOM C  
ALFRED M. BROWN OPERATIONS CENTER  
850 WARREN C. COLEMAN BOULEVARD  
P.O. BOX 308  
CONCORD, NC 28025

## REQUEST FOR BID

The City of Concord will receive sealed bids, on Thursday, August 15, 2013 at 2:00 PM, in Conference Room C, Alfred M. Brown Operations Center, 850 Warren C. Coleman Boulevard, Concord, North Carolina 28025. Said proposals will be publicly opened and read for:

### **BID# 2220 GYMNASIUM BLEACHERS**

Copies of the specifications if not included in the bid can be obtained by contacting the Purchasing Department, Alfred M. Brown Operations Center, 850 Warren C. Coleman Blvd., P.O. Box 308, Concord, N.C. 28025. Telephone # 704-920-5441, Fax # 704-785-8856.

NC General Statutes, including G.S. §143-129, and the city of Concord, NC General Specifications and Instructions to bidders will govern the RFP and award of the contract.

The City of Concord reserves the right to reject any or all bids.

Sid Talbert  
Purchasing Manager  
City of Concord, N.C.

In accordance with state law (G.S. 143.129), the award shall be made to the lowest responsible, responsive bidder, taking into consideration quality, performance, the time specified in the bid. Prices should be quoted for each line as well as a price for the total award.

Each bid must be submitted in a sealed envelope, so marked as to indicate its contents when being opened. **All bids should be marked BID #2220 GYMNASIUM BLEACHERS**

An authorized official of the firm must sign the bid.

The vendor will be required to submit a written request for payment. Payment will depend on projected delivery date stated in the bid for items and certified acceptable by Mark Kincaid – Parks & Recreation Deputy Director, for City of Concord, P.O. Box 308, Concord, North Carolina 28025. Telephone# 704-920-5343. Questions concerning bid requirements or specifications should be directed to the Purchasing Manager, Alfred M. Brown Operations Center, 850 Warren C. Coleman Boulevard, P.O. Box 308, Concord, NC 28025. Any changes in specifications will be in writing in form of an addendum and furnished to all bidders. Verbal information obtained otherwise will not be considered in the awarding of bids. No changes to specifications will be permitted within (5) days to the bid opening.

Instructions for preparation and submission of a bid/proposal are contained in the attached packet. Please note that specific forms for submission may be required. Any changes to the conditions and specifications must be in the form of a written addendum to be valid; therefore, the Purchasing Department will issue a written addendum to document on all approved changes. Any bid submitted which does not acknowledge the receipt of an issued addendum will not be considered. Bidders should have no contact with elected officials or appointed officials except the Purchasing Manager during the bidding process. Any such contact will subject bidders to immediate disqualification. Questions regarding specifications should be directed to the Purchasing Manager. A bid proposal from your firm will be appreciated.

## Bid Proposal

City of Concord  
P.O. Box 308  
Concord, North Carolina

Gentlemen/Ladies:

The undersigned, as bidder, hereby declares the proposal is made without connection with any other person, company, or parties making a similar bid or proposal, and that it is in all respects fair and in good faith without collusion or fraud. The Bidder has carefully examined the annexed form of the specifications and instructions to the bidder and hereby declares that he will furnish the material called for in a manner prescribed in the specifications and instructions to bidders for the following prices listed.

EQUIPMENT PRICE \_\_\_\_\_

INSTALLATION PRICE \_\_\_\_\_

TOTAL PRICE \_\_\_\_\_

DELIVERY DATE \_\_\_\_\_

COMPANY NAME \_\_\_\_\_

AUTHORIZED SIGNATURE \_\_\_\_\_

TYPE NAME AND TITLE \_\_\_\_\_

FEDERAL ID # \_\_\_\_\_

NC CONTRACTORS LICENSE # \_\_\_\_\_

TELEPHONE # \_\_\_\_\_

**Note:**

**This signature page must be signed for your bid to be valid.**

## **GENERAL SPECIFICATIONS & INSTRUCTIONS TO BIDDERS**

### **Scope**

It is the intent of this bid invitation to obtain proposals for supplying the materials, supplies and/or equipment listed on the Proposal Sheet. You are requested to submit your bid on the enclosed Proposal Sheet and return the entire sealed package to Sid Talbert, Purchasing Manager, City of Concord (hereinafter "City"), PO Box 308, Concord, NC 28026-0308 no later than the time specified in the bid advertisement. Bidders will be required to comply with all applicable statutes, regulations, and local ordinances, ect. And those attached to and made a part of the proposal.

### **Marking of Bid Envelopes**

Bids must be contained in a sealed envelope, plainly marked, showing the bid name, bid number, date, time for opening bids and the bidder's name.

### **Late Bids Not Considered**

Bids received after the stipulated bid opening date and time will not be considered.

### **Compliance With Specifications**

Your bid must be in strict compliance with the specifications and offer the same or equal equipment. Exceptions are to be listed separately in a letter that will become a part of your proposal; otherwise, it is fully understood that the equipment offered is exactly as specified. The City reserves the right to allow or disallow minor deviations from the specifications in order to purchase what is best for the City from a standpoint of quality, price and service to be rendered.

### **Standard Equipment**

To protect the interest of the City, the bidder guarantees that the equipment bid is standard equipment with parts regularly used for equipment offered. There must be no parts or attachments substituted or applied contrary to the manufacturer's recommendations and standards unless expressly called for in the specifications.

### **Warranty**

In submitting a bid, the bidder warrants that all goods furnished shall be free from all defects and shall conform in all respects to the Technical Specifications established herein. Unless otherwise specified, all items shall be guaranteed for a minimum of one (1) year against defects in material and workmanship. At any time during that period, if a defect should occur in any item, that item shall be repaired or replaced by the seller at no cost to the buyer except where it can be shown that the defect was caused by misuse. The bidder expressly warrants that all items bid are fit and sufficient for their intended purpose. If the specifications contain a statement of the particular

*City of Concord North Carolina General Specifications and Instructions to Bidders.*

purpose for which the goods will be used, the goods offered by bidder shall be fit for this purpose.

**Shipping**

All prices are to be quoted f.o.b. Concord N.C. delivered unless otherwise specified. Risk of loss and/or damage shall be upon the seller until such time as the goods have been physically delivered and accepted by the buyer.

**Unit Prices to Prevail**

Prices shall be submitted on per unit basis by line item. In the event of a disparity between the unit price and the extended price, the unit price shall prevail.

**Bid Price Corrections**

All prices and notations shall be written in ink or typed. Changes or corrections made on the bid form must be initialed by the individual signing the bid. No corrections will be permitted once bids have been opened.

**Withdrawal of Bids**

Bids may be withdrawn at any time prior to the time specified for the bid opening upon written or personal request of the bidder. No bid may be withdrawn for a period of sixty (60) days after the scheduled bid opening time and date. Negligence on the part of the bidder shall not constitute a right to withdraw the bid subsequent to such bid opening.

**Use of Brand Names and References**

Unless otherwise stated, the use of manufacturer's names and product numbers are for descriptive purposes and establishing general quality levels only. They are not intended to be restrictive. Bidders are required to state exactly what they intend to furnish; otherwise it is fully understood that they shall furnish all items as stated.

**Alternate Bids**

Bid submitted as alternate which do not meet or exceed the minimum specifications shall be rejected except that minor deviations may be acceptable. The City shall be the sole judge of what is considered a minor deviation.

**Time For Delivery**

The time for delivery must be stated in calendar days on the Proposal Sheet and may be a factor in making awards, price notwithstanding.

**Rejection of Bids**

The City reserves the right to reject any and all bids.

**Bonds**

A 5% bid bond is waived for the purchases of apparatus, supplies, materials or equipment as stated in the cover section. A 100% performance bond is also waived.

**Award**

Award shall be made to the lowest responsible, responsive bidder, taking into consideration quality, performance, time specified in the bids for the performance of the contract.

**Brochures and Literature**

The proposal must be accompanied by descriptive literature marked, indicating the exact item(s) bid upon. The term "as specified" will not be acceptable.

**Addendums**

The City shall not be responsible for any oral instructions made by its employees or officers of the City with regard to bidding instructions, drawings, specifications or contract documents. Any changes to the specifications will be in the form of an Addendum, which will be mailed to all bidders who are listed with the Purchasing Department as having received the invitation or any other bidder who requests an Addendum.

**Responsibility of Compliance With Legal Requirements**

The bidder's products, service and facilities shall be in full compliance with any and all applicable state, federal, local, environmental and safety laws, regulations, ordinances and standards, or any standard adopted by nationally recognized testing facilities regardless of whether or not they are referred to in the invitation.

**Taxes**

The City of Concord is subject to 7% N.C. Sales & Use tax. Tax will not be shown on the proposal; however, invoices will indicate all applicable sales tax. The city is exempt from Federal Excise Tax and will provide a Federal Exemption number.

**Terms and Conditions**

Payment will be made by the City in full for all equipment delivered as soon after complete delivery and receipt of a correct invoice as can be processed in accordance with these specifications.

Any company submitting a "No Bid" response to a bid invitation should clearly mark the outside of the envelope.

Terms and Conditions attached to the bid by the bidder and made a condition of purchase may render the bid non-responsive and may be rejected by the City.

Terms and Conditions included herein are an integral part of the bid document and shall prevail, unless changes or attachments are agreed to and initialed by the City prior to the bid opening.

### **Introduction in Use of Goods: Demonstration**

A demonstration may be required of the goods bid upon. The demonstration shall be at no cost to the City. If the bidder cannot make a demonstration within twenty days of the request, his or her bid may be rejected. Performance of the equipment at the demonstration must be made with the exact equipment offered in the bid and may be completed at the same time as competitive demonstrations.

### **Trade-ins**

Goods listed for trade-in, if any, may be examined after contacting the Purchasing Department. Goods listed for trade-in are represented "as is" and "where is". Such goods will be released to the successful bidder after receipt of the new equipment and in the same condition as when examined, excepting normal wear and tear.

The City reserves the right to retain goods listed as trade-in if it is deemed to be in the best interest to do so.

### **Training/Safety**

When requested or required, a factory-trained representative shall be present at the time of delivery to train City personnel in the use of and/or safety aspect of the equipment or chemical. The factory representative shall effectively train the City personnel in all aspects, including assembly, disassembly, operating procedures, safety and any other training necessary for its safe and effective use. Items received without sufficient training when requested will be set aside and payment withheld until sufficient training can be completed.

Training shall include OSHA related training in the handling of hazardous materials.

MSDS sheets must be sent with each order. Failure to provide MSDS sheets prior to or at the time of delivery will result in withholding payment until such sheets are received.

### **Service**

*City of Concord North Carolina General Specifications and Instructions to Bidders.*

All vehicles furnished under a bid shall receive without additional cost whatsoever the usual check-up, guarantees and adjustment identical to that which is normally furnished on vehicles sold to the general public.

**Manuals**

One parts, one service, and one operators manual shall be furnished with each type vehicle delivered if applicable to this bid.

**Bankruptcy**

Successful bidders shall execute a contract that contains the following language:

If any bankruptcy or insolvency proceedings are commenced against the contractor And are not dismissed within thirty (30) days after service of such proceeding on the Contractor, or if the contractor shall file petition in bankruptcy or for reorganization or To effect a plan or other arrangement with creditors, or be adjudicated bankrupt or make an assignment for the benefit of creditors, or be dissolved or liquidated, or shall Admit in writing its inability to pay its debts generally as they become due, or a receiver, trustee or liquidator of the contractor or of all or substantially all of the property of the contractor is appointed in any proceeding brought by the contractor, or if any such receiver, trustee, or liquidator is appointed in any proceeding against the contractor, and any such receiver, trustee or liquidator is not discharged within (30) days after service of such appointment on the contractor, this agreement shall be null and void.

**W-9 Form**

Prior to the first payment by the City under any contract awarded to the successful bidder, the successful bidder shall submit a complete and accurate W-9 form to the Purchasing Manager.

**Dissolution of Corporate Status**

Successful bidders shall execute a contract that contains the following language:

Failure to register the agent of the corporation or other business entity, if any, with the N.C. Secretary of State or voluntary, judicial or administrative dissolution of the corporation or other business entity shall automatically terminate this contract or agreement unless the bidder or contractor notifies the City of Concord in writing within 72 hours of the dissolution or failure to register the agent and makes satisfactory arrangements and/or guarantees with the City Purchasing Officer and City Attorney to fulfill the contractors obligations under the contract or agreement.

**Concord NC Licenses and Taxes**

ALL BIDDERS SHOULD BE IN COMPLIANCE WITH THE CITY OF CONCORD PRIVILEGE LICENSE TAX ORDINANCE AND AWARD OF BID WILL BE CONTINGENT UPON RECEIPT OF COPY OF LICENSE.

It is the intent of the City of Concord to issue purchase orders for the bid items to cover the Fiscal Year July 1, 2013 to June 30, 2014. Quantities are estimates only and the City reserves the right to purchase more or less for the entire fiscal year and extend pricing if mutually agreed upon with the vendor and the City of Concord.

## RFP NOTES

### Request for Proposals for Gymnasium Bleachers

Manufacture, deliver and install bleachers in accordance to attached specifications, or an acceptable equivalent, at Academy Recreation Center (147 Academy Avenue, NW), Hartsell Recreation Center (60 Hartsell School Road) and Logan Multi-Purpose Center (184 Booker Drive).

Installer must have parts and service within 150 miles of Concord.

At Academy Recreation Center only, remove and dispose of existing bleachers.

In all cases, the dimensions of the overall unit will not exceed the dimensions of the unit it replaces, without prior approval from the City.

All units must have individual section telescoping capacity.

At Academy Recreation Center: 63'10" plus end rails, eleven (11) rows, ten inch rise, 24 inch row spacing, Panelam decking 5/8 inch thick, wall-attached, Irwin Model 4500 Bleacher system or equivalent. Two (2) aisles each 60" wide, modular deck units for wheelchair spaces, electric operation is 120VAC, single phase IDS power, 392@ 10"x18" Infinity plastic seat modules, Smart Rail aisle rails, engineering certificate, one (1) set of self-storing end rails starting at row 3, end panels, notch around columns.

At Hartsell Recreation Center: 83'0" plus end rails, Irwin model 4500 Bleacher system or equivalent. Four (4) rows, ten inch rise, 24 inch row spacing, Panelam decking 5/8 inch thick, wall-attached, three (3) aisles each 48 inches wide, modular deck units for wheelchair spaces, electric operation 120 VAC single phase IDS power, 196@ 10"x18" Infinity plastic seat modules, galvanized nose and rear beam, Smart Rail aisle rails, engineering certificate, two (2) sets of self-storing end rails starting at row three, end panels.

At Logan Multi-Purpose Center: Two complete sets of the following: 60'10" Irwin model 4500 Bleacher system or equivalent. Five (5) rows, ten inch rise, 24 inch row spacing, Panelam decking 5/8 inch thick, wall-attached, two (2) aisles each 48 inches wide, modular deck units for wheelchair spaces, electric operation 120 VAC single phase IDS power, 180@ 10"x18" Infinity plastic seat modules, galvanized nose and rear beam, Smart Rail aisle rails, engineering certificate, two (2) sets of self-storing end rails starting at row three, notched around columns, end panels.

Prices include a three (3) year warranty.

Exclusion: Prices assume all final electrical connections are by licensed electricians and not a part of this quote.

## **Gymnasium Seating Specification**

### **1.1 WORK INCLUDED**

- A. Manufacture, deliver and install telescopic seating systems in accordance with applicable codes, the following specifications, and approved drawings.
- B. Installer will provide all conduit, electrical components, boxes, receptacles and wire needed to power the propulsion system and connect to the building wiring.

### **1.2 RELATED WORK BY CITY**

- A. Adequate floor levelness and strength for operation of telescopic seating.
- B. Adequate wall strength for attachment and operation of wall attached telescopic seating.
- C. Electrical wiring within the building as required for power operated telescopic seating.
- D. City will provide licensed electrician to connect propulsion system to building wiring at the designated box.

### **1.3 SYSTEM DESCRIPTION**

- A. Telescopic seating system shall be multiple tiered seating rows comprised of seat and deck components, risers, and supportive understructure.
- B. Telescopic seating shall be operable on the telescopic principle, stacking vertically in minimum floor area when not in use.
- C. The first moving row, on manual sections, shall be secured with release lever. All other rows shall be mechanically locked, operable only upon unlocking and cycling of first row. Power sections shall be secured with mechanical locks as well as the power system, operable upon activating the pendant control.

### **1.4 QUALITY ASSURANCE**

- A. DESIGN LOAD CRITERIA (STRUCTURAL):
  - 1. International Building Code Standard: Comply with requirements of the latest edition of the IBC / ICC 300, "Standard for Bleachers, Folding and Telescopic Seating and Grandstands Assembly Seating".
  - 2. Seating layout design shall be in compliance with IBC / ICC 300 Code, Chapter 4.
- B. Manufacturer: Company specializing in telescopic seating with a minimum of 20 years' experience in manufacturing telescopic seating, and must be able to provide a list of seating installation references in the Southeast United States.
- C. Quality Standards: Manufacturer to be I.S.O. 9001 certified.
- D. Engineer Qualifications: Manufacturer to employ a North Carolina registered, licensed Professional Engineer to certify that the equipment to be supplied meets or exceeds the design criteria of this specification.
- E. Installation: Shall be handled directly by the manufacturer or by a factory certified installation subcontractor.
- F. Liability: Certification of insurance coverage as specified in City's Standard Form Contract.
- G. Welding Processes: To be performed by certified professional welding operators in accordance with American Welding Society, (AWS), D1,1 "Structural Welding Code-Steel."

## 1.5 SUBMITTALS

### A. BID SUBMITTALS

1. Manufacturer's descriptive literature and specifications.
2. List of deviations from these specifications, if any.
3. Certification of Insurance.
4. I.S.O. 9000 Certification.

### B. JOB SUBMITTALS

1. Shop Drawings showing all equipment to be furnished with details of accessories including color selection to be supplied including electrical load requirements. All electrical submittals must include U.L. listing number.
2. Samples of material and color finish as requested by City.
3. Shop drawings of end seat names: Academy, Hartsell, Logan.
4. Warranty, operation and maintenance instructions to the owner upon completion.

## 1.6 DESIGN CRITERIA

- A. Telescopic seating shall be designed to support, in addition to its own weight, and the weight of added accessories, a uniformly distributed live load of not less than 100 lbs. per sq. ft. (4.8 kN per sq. m.) of gross horizontal projection.
  1. Seat boards and footrest shall be designed for a live load of not less than 120 lbs. per linear foot (1.751 kN per linear m).
  2. A sway force applied to seats shall be 24 lbs. per linear ft. (350 N per linear m.) parallel to the seats and 10 lbs. per linear ft. (146 N per linear m.) perpendicular to the seats. Sway forces shall not be considered simultaneously applied.
- B. Railings, posts and sockets designed to withstand the following forces applied separately:
  1. Handrails shall be designed and constructed for:
    - a. A concentrated load of 200 lbs. (890 N) applied at any point and in any direction.
    - b. A uniform load of 50 lbs. per ft. (730 N/m) applied in any direction.The concentrated and uniform loading conditions shall not be required to be applied simultaneously.
  2. Guards shall be designed and constructed for:
    - a. A concentrated load of 200 lbs. (890 N/m) applied at any point and in any direction along the top railing member and; a uniform load of 50 lbs. per ft. (730 N/m) applied horizontally at the required guardrail height and simultaneous uniform load of 100 lbs. per ft. (1460 N/m) applied vertically downward at the top of the guardrail. The concentrated and uniform loading conditions shall not be required to be applied simultaneously.
    - b. American Institute of Steel Construction (AISC), American Iron and Steel Institute (AISI) and Aluminum Association (AA) design criteria shall be the basis for calculation of member sizes and connections.

## 1.7 WARRANTY

- A. The manufacturer shall warrant all work performed under these specifications to be free of defects for a period of three years.
- B. Any materials found to be defective within this period, or any materials replaced as a result of a manufacturer's recall, will be replaced at no cost to the owner. This warranty shall not include replacements required by Acts of God, war, vandalism, flood, fire, calamity or deliberate abuse or misuse of the equipment.

## 2.1 ACCEPTABLE MANUFACTURERS

- A. Basis of design is Irwin Model 4500 as manufactured by Irwin Telescopic Seating Company, Altamont, IL 62411 or equal, subject to prior approval.
- B. Basis of Design Product Specifications: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make and model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

## 2.2 MATERIALS

- A. Dimensions:
  1. Row Spacing: 24 Inches
  2. Rise per row: 10 Inches
- B. Accessories: (*Select*)
  1. Aisles at the footrest level shall have non-slip treads on the top front edge.
  2. Intermediate aisle steps shall be provided. Steps are permanently attached closed design. Steps shall be designed to eliminate any possible toe catch between the top of the intermediate step and the bottom of the nose beam per ADA or other applicable codes. Front step shall be hinged for storage on first row deck without the need for removal.
  3. Aisle handrails.

Aisle handrails shall be provided for row spacing between 22" and 26". Aisle railings shall quickly and easily rotate 90 degrees to the locked position and store parallel to the front of the aisle. Railings that require removal from the pocket or the use of tools for storage will not be acceptable. Aisle railings shall also be capable of remaining in the use position during operation, eliminating any rail setup or takedown time. Aisle railings shall be an individual rail design, located on every other row starting at row two (2). Railing to be constructed of 1 1/2" 11 ga. round steel tubing, finished in a textured powder coated epoxy. For safety, railings designed without a full return of the handrail will not be acceptable.
  4. Wheel Chair Seating Areas.

Modular Deck Units (MDU's) shall be provided throughout the first seating row. Each MDU shall be manually opened and closed with the power system starting at row two. An integral support on row two shall be provided on any rise above 10" to eliminate structural damage to the understructure during the operation and use of the system. MDU's do not require front railings.
  5. End rails.

End rails of the self-storing type, finished with textured epoxy powder-coated black enamel, shall be provided at the open ends of the group. End rails shall start

at row three and meet all national building codes. Railings with flexible uprights that can be expanded beyond the 4" sphere are not acceptable.

6. End panels of plywood and supports shall be provided to enclose the open ends of the group in the closed position. End panels shall enclose the space between the wall and the back of the self-storing end rails. Finish to match deck panels.
7. Seat level rear filler panels used to close openings between top row seat and wall. Closure panel to match deck surface.

## 2.3 FABRICATION

### A. Understructure System:

1. Steel supports and rolling frames shall be constructed of formed steel shapes of the size and shape necessary to support the design loads. All support bracing shall begin at Row 2 and be of diagonal or "knee" type for rigidity. Diagonal bracing to be a "U" shaped formed steel channel. Angle iron or "X" type bracing is unacceptable.
2. Wheels shall not be less than 4" diameter x 1" non-marring soft rubber face to protect wood or synthetic floor surfaces. Each operating row shall have a minimum of 8 wheels.
3. Each fully skirted wheel channel shall be continuously in contact with adjacent channels by nylon guides, to eliminate metal-to-metal contact, and non-binding guide rods to provide alignment when opening and closing. Wheel channels do not require lubrication either at time of installation or periodically.
4. Each cantilever arm shall be triple-formed 10-gauge steel, securely welded to the post assembly and contain non-binding interlocks with each row post assembly. Each post assembly shall include a 1 3/16" wide x 3/4" nylon roller to enhance the overall operation and provide proper load support. Roller to be connected using a 3/8" diameter pin. Cantilevers not properly supported with a roller design will not be acceptable. Cantilevers do not require lubrication at time of installation or periodically.
5. Vertical columns shall be high tensile steel structural tube to meet design criteria. Minimum column size to be 1 1/2" by 3" 11-gauge structural tube.
6. Deck supports shall be bolted to the rear beam, nose and decking with locking hardware.

### B. Seat Systems:

1. Supply plastic modular 18" individual seats in either 10" or 12" deep models. Seating to be scuff resistant injection molded high density polyethylene plastic. 10" Seat to be supplied
  - a. Seat modules supplied shall be of a high aesthetic design using multiple textures, style lines and a water fall front. The rear of the seat shall be slightly curved to eliminate the straight line appearance and include a moderate seat contour and texture to enhance spectator comfort.
  - b. Seating design shall be molded to achieve a finished end appearance without the use of end caps. The rear of the seat shall include a smooth wall allowing for the deck to be easily swept clean without obstruction.
  - c. Seat heights shall be maintained at a minimum of 16 3/4". Lower seat heights which detour from spectator comfort will not be accepted.

- d. Foot space shall be maximized for spectator comfort and provide a minimum of 22" when measured with a 10" module and 21" with a 12" module.
- e. The end seat on each row will have Academy, Hartsell or Logan on the side of the seat.
- f. Securely fasten each seat to the nose beam using a 10-gauge formed steel bracket and locking hardware. Adjacent seating shall be interlocked together along the full perimeter eliminating any fore or aft movement or the potential of any pinching hazard.
- g. Seat modules shall be designed to support a uniform load of 600 lbs per seat and a concentrated load of 150 lbs over 4 square inches.

C. Deck System:

- 1. Decking: Decking shall have a 0.030 (30 thousandths) high density polyethylene overlay, permanently bonded over 5-ply structural western fir plywood in strict compliance with U.S. Product Standard PS 195. Finish thickness to be 5/8". Polyethylene finish to be textured grey or beige. Plywood shall be supported along the front and back edge for maximum rigidity and designed in a manner that allows 3 plies to run front to back for increased deck strength. Each plywood panel shall be connected using a tongue and groove splice leaving the deck clean and free of any tipping or cleaning obstructions. Plywood with clear or painted finish is unacceptable. Decking shall be through-bolted to steel supports with locking hardware. Decking attached by the use of self-tapping fasteners or retained by friction only is unacceptable.
- 2. Nosing: Nosing with decks shall be one piece, formed, 14-gauge steel with a minimum G-60 pre-galvanized finish.
- 3. Rear Risers: Rear riser shall be a minimum 14-gauge formed steel with a minimum G-60 pre-galvanized finish.
- 4. Formed Steel Deck Support Members: Support members shall be double formed 10-gauge steel and connect the front nosing and rear riser members. Each deck support shall include a 1 1/2" wide x 3/4" nylon roller to enhance the overall operation and provide proper load support. Roller to be connected using a 3/8" diameter pin. Cantilevered rollers supported on 1 side only which can bend under occupant load will not be acceptable. Deck supports shall provide support for the decking, throughout its length, and at intermediate locations to limit deflection. Deck supports to have a maximum spacing of 60" up to 26" row spacing, and 40" up to 33" row spacing.

D. Finish

- 1. For rust resistance in standard or high humidity conditions all painted surfaces shall be finished in textured Epoxy Powder Coated Semi-Gloss Black.

## 2.4 PROPULSION SYSTEM

- A. FRICTION POWER: Furnish each seating group with an integral friction drive system to open and close the telescopic units. Each individual section shall include 2 friction drive systems integrated into the first moving row of understructure to achieve smooth and efficient operation. Operation of the seating shall be accomplished with the use of a walk along pendant control.

1. Each power system shall include two large 6 1/2" diameter by 4" long friction rollers, for a total of 4 rollers per section. Each roller to include non-marring 1/2" thick rubber covering.
  2. Electrical motors for each section shall be heavy duty and high efficiency gear reduction motors. The shaft diameter for the gear motor and rollers shall be a minimum of 1" and be connected by a 1" schedule 40 drive shaft.
  3. All roller chain and sprockets used throughout the drive system shall be a minimum of #50 in size. Each drive unit shall be designed to include a safety shroud around the chain and sprocket for overall safety, and to protect the floor surface should a chain failure occur.
  4. The power units shall develop tractive forces adequate to operate the seating units under normal conditions but inadequate to operate should significant obstacles be encountered.
- B. Manufacturer shall provide all wiring from power source within bleacher seating including pendant control. Removable pendant control shall be hand held with forward and reverse button, plugging into a single receptacle. City shall provide a 60 HZ power source (as specified below) behind each group of seating. Amperage to be as specified by seating manufacturer depending on the number of power units required. For wall-attached installations, power source to terminate in a surface mounted junction box above floor. Electrical contractor shall perform the connections to the seating equipment at the junction box. All electrical parts and wiring shall be installed in complete accord with the National Electric Code. All systems shall be designed to comply with U.L. (U.L. Listing #E168517). Supply power system with 120V single phase system.

### **3.1 REVIEWS AND APPROVALS**

- A. Shop drawings shall be approved and job site field measurements taken prior to installation and telescopic gym seating shall be installed in conformance therewith.

### **3.2 INSTALLATION**

- A. The installation of the telescopic gym seating will be handled directly by the manufacturer or by a factory authorized installation subcontractor qualified to perform the installation function.