
MANSFIELD MIDDLE SCHOOL GYM FLOOR REPLACEMENT PROJECT

**205 SPRING HILL ROAD
STORRS, CT 06268**

S/P+A Project No. 16.208

DATE: April 21, 2017

The following changes to the Drawings and Project Specifications shall become a part of the Drawings and Project Specifications; superseding previously issued Drawings and Project Specifications to the extent modified by Addendum No. 3.

General Information/Clarifications:

- Second Pre-Bid Sign-In Sheet, dated April 20, 2017, attached as part of this Addendum. (1 page)
- RFI's, attached as part of this Addendum (1 page), and as indicated below:
 - Question: Are there any CHRO requirements?
Answer: No.
- **Bid Due Date is unchanged** and remains **APRIL 27, 2017, 2:00 PM.**

New Specifications Added (attached as part of this Addendum): Not Applicable

Changes to the Specifications:

- DELETE the following Specification Sections in their entirety:
 - Section 116623 "Gymnasium Equipment".
- ADD the following **Revised** Specification Sections (revisions in *Italics*), attached as part of this Addendum:
 - Section 116623 "Gymnasium Equipment". (10 pages)

Changes to the Drawings: Not Applicable

The bid due dates are unchanged by this Addendum.

The Addendum consists of thirteen (13) pages of 8½" x 11" text, and zero (0) sheets of 30 x 42 inch Drawings.

End of Addendum #3

Town of Mansfield
 Middle School Gym Floor Replacement Project
 Pre-Bid Walkthrough
 April 20, 2017 – 4:00 pm

Name	Company Name & Address	Phone Number	Email
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Dave Wenchell

To: Matthew Myers
Subject: Mansfield Middle School

The owner is responsible for hiring the consultant to do the project monitoring services and these services include air sampling throughout the project and re-occupancy air sampling once abatement is complete.

The asbestos/PCB contractor is responsible for their own OSHA compliance personal air sampling to be performed on their staff.

Matthew Myers
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[File Sharing Link](#)

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Langan's goal is to be SAFE (Stay Accident Free Everyday)

From: "Sheri E. Baczanski" <BaczanskiSE@mansfieldct.org>
Date: April 21, 2017 at 8:26:20 AM EDT
To: Dave Wenchell <dwenchell@silverpetrucelli.com>, Richard Abrahams <rabrahams@silverpetrucelli.com>
Cc: "Allen N. Corson" <CorsonAN@MANSFIELDCT.ORG>
Subject: Gym Project

- Who is responsible for the Air Testing?

Thanks,
Sheri

Sheri Baczanski
Public Works Department
Town of Mansfield
4 South Eagleville Road
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Office: (860) 429-3331

SECTION 116623 - GYMNASIUM EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following gymnasium equipment:
 - 1. Volleyball equipment.
 - 2. Safety pads.
 - 3. Hardwood pegboards.
 - 4. *Electronic scoreboard.*
- B. Related Sections include the following:
 - 1. Section 096466 "Wood Athletic Flooring" for game lines and markers.
 - 2. *Division 26 Sections for electrical service for controls, and other powered devices for electrically powered gymnasium equipment.*

1.3 DEFINITIONS

- A. BWF: Badminton World Federation.
- B. FIVB: Federation Internationale de Volleyball (The International Volleyball Federation).
- C. NCAA: The National Collegiate Athletic Association.
- D. NFHS: National Federation of State High School Associations.
- E. USAV: USA Volleyball.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
 - 1. If applicable, include assembly, disassembly, and storage instructions for removable equipment.
- B. Shop Drawings: For gymnasium equipment.
 - 1. Include plans, elevations, sections, details, and attachments to other work.
 - 2. Include details of field assembly for removable equipment, connections, installation details, mountings, floor inserts, attachments to other work, and operational clearances.
 - 3. Include transport and storage accessories for removable equipment.

- C. Samples: For the following products:
 1. Volleyball Net: Minimum **12-inch (305-mm)** length by full height, including one edge and net accessories.
 2. Volleyball Floor Insert: Full-size unit.
 3. Volleyball Post Standard: Full-size unit with net tensioner.
 4. Pad Fabric: Wall padding not less than **3 inches (76 mm)** square, and corner and column Samples not less than **3 inches (76 mm)** long, with specified treatments applied. Mark face of material.
 5. *Scoreboard: Finish colors.*

1.5 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Court layout plans, drawn to scale, game lines, and markers applied to finished flooring.
- B. Qualification Data: For Installer and professional engineer.
- C. Structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation including loads, point reactions, and locations for attachment of gymnasium equipment to structure.
- D. Product Certificates: For each type of gymnasium equipment, signed by product manufacturer.
- E. Warranty: Special warranty specified in this Section.
- F. Manufacturer's installation instructions.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For gymnasium equipment to include in emergency, operation, and maintenance manuals.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.
- B. Manufacturer Qualifications: Company specializing in manufacturing electronic scoreboards with ten (10) years minimum successful world-wide experience.
- C. *Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.*

1.8 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install gymnasium equipment until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Field Measurements: Verify position, elevation and layout for gymnasium equipment.

1.9 COORDINATION

- A. Coordinate installation of floor inserts with floor finishing and with court layout and game lines and markers on finish flooring.
- B. Coordinate layout and installation of overhead-supported gymnasium equipment and suspension system components with other construction including light fixtures, HVAC equipment, fire-suppression-system components, and partition assemblies.

1.10 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of gymnasium equipment that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Five (5) years from date of Substantial Completion.
 - 2. Scoreboard failures including controls, receivers and accessories.

PART 2 - PRODUCTS

2.1 MANUFACTURERS, GENERAL

- A. Source Limitations: Obtain each type of gymnasium equipment from single source from single manufacturer.

2.2 MATERIALS

- A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
 - 1. Extruded Bars, Profiles, and Tubes: **ASTM B 221**.
 - 2. Cast Aluminum: ASTM B 179.
 - 3. Flat Sheet: **ASTM B 209**.
- B. Steel: Comply with the following:
 - 1. Steel Plates, Shapes, and Bars: ASTM A 36.
 - 2. Steel Tubing: ASTM A 500 or ASTM A 513, cold formed.
 - 3. Steel Sheet: ASTM A 1011.
- C. Hardwood: Maple, hickory.
- D. Castings and Hangers: Malleable iron, ASTM A 47, grade required for structural loading.
- E. Anchors, Fasteners, Fittings and Hardware: Manufacturer's standard corrosion-resistant or noncorrodible units; concealed; tamperproof, vandal- and theft-resistant design.

2.3 VOLLEYBALL EQUIPMENT

- A. Basis-of-Design Product: Gopher Sport, Bison Match Point Adjustable Net System.
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. ADP Lemco Inc.
 2. Draper, Inc.
 3. Jaypro Sports, LLC.
 4. Performance Sports Systems.
 5. Substitutions: Under provisions of Section 012500“Substitution Procedures”.
- C. General: Provide equipment complying with requirements in FIVB's "Official Volleyball Rules."
- D. Floor Insert: Solid-brass floor plate; and 3-1/2 inches diameter steel pipe sleeve, concealed by floor plate, with capped bottom end, sized with ID to fit post standards, not less than length required to securely anchor pipe sleeve below finished floor in concrete footing; with anchors designed for securing floor insert to floor substrate indicated; one per post standard.
1. Floor Plate: Manufacturer's standard hinged access cover, recessed to accept finish flooring matching and designed to be level with adjacent flooring. Provide two tool(s) for unlocking access covers.
- E. Post Standards: Removable, paired volleyball post standards as indicated. Adjustable, telescoping height. Designed for easy removal from permanently placed floor insert supports. Fabricated from manufacturer's standard metal pipe or tubing, with nonmarking plastic or rubber end cap or floor bumper to protect permanent flooring. Finished with manufacturer's standard factory-applied, polyester powder-coat finish complying with finish manufacturer's written instructions for surface preparation, including pretreatment, application, baking, and minimum dry film thickness or plated metal finish.
1. Nominal Pipe or Tubing Diameter: **3-inch (76-mm)** OD at base.
 2. Net Height Adjuster: Manufacturer's standard mechanism for height adjustment, complete with fittings; designed for positioning net at heights indicated.
 - a. Net Heights: Between tennis net height and boys'/men's volleyball net height, **42 and 95-5/8 inches (1067 and 2430 mm)** or more.
 3. Height Markers: Clearly marked at regulation play heights for middle school, girls/women, boys/men, volleyball and tennis.
- F. Net: **32 feet (9.75 m)** long; one per pair of paired post standards; and as follows:
1. Width and Mesh: Competition volleyball net, **36 inches (910 mm)** with **4-inch- (102-mm-)** square knotless mesh made of black nylon string.
 - a. Hem Band Edges: White, not less than **2-inch- (50-mm-)** wide top, bottom, and side bindings; not less than **1-inch- (25-mm-)** wide tension straps at top, bottom, and midpoint of each side end of net; end sleeves for dowels; and lines with

linkage fittings threaded through top and bottom hems of binding. Provide lengths of lines and linkage fittings as required to properly connect to and set up net for post standard spacing indicated on Drawings.

- 1) Top Line: Not less than **1/4-inch- (6-mm-)** diameter rope.
 - 2) Bottom Line: Not less than **1/4-inch- (6-mm-)** diameter rope.
2. Dowels: Not less than **1/2-inch- (13-mm-)** diameter fiberglass or **1-inch- (25-mm-)** diameter wood. Provide two dowels per net threaded through each side hem sleeve for straightening net side edges.
 3. Net Antennas: **3/8-inch- (9.5-mm-)** diameter, high-tensile-strength, extruded-fiberglass or plastic rods, **72 inches (1800 mm)** long, extending above top hem band of net, with alternating white and red bands according to competition rules. Provide two antennas per net.
 - a. Clamps: Designed to secure antenna to top and bottom of net.
 4. Boundary Tape Markers: **2-inch- (50-mm-)** wide white strip with sleeve for securing net antenna, secured to net top and bottom with hook-and-loop attachment. Provide two tape markers per net for marking court boundaries.
- G. Net-Tensioning System: Designed to adjust and hold tension of net. Fully enclosed, nonslip manufacturer's standard-type winch with cable length and fittings for connecting to net lines, positive-release mechanism, and manufacturer's standard handle. Mount net tensioner on post standard at side away from court. Provide end post with post top pulley. Provide opposing post with welded-steel loops, hooks, pins, or other devices for net attachment and post top grooved line guide.
- H. Bottom Net Lock Tightener: Provide manufacturer's standard quick-release-type tension strap; a spring-loaded, self-locking tensioner; a turnbuckle; a pulley; or other device and linkage fittings designed to quickly and easily tighten bottom line or net.
- I. Safety Pads: Comply with NCAA and NFHS requirements. Provide pads consisting of not less than **1-inch- (25-mm-)** thick, multiple-impact-resistant manufacturer's standard foam filler covered by puncture- and tear-resistant fabric cover, manufacturer's standard; with fire-test-response characteristics indicated. Provide pads with hook-and-loop closure or attachments for the following components:
1. Post Standards: Wraparound style, designed to totally enclose each standard to a height of not less than **66 inches (1680 mm)**; one per post.
 2. Net Lines: Four per net.
 3. Fabric Cover Flame-Resistance Ratings: Complies with NFPA 701.
 4. Fabric Color: As selected by Architect and Owner from full range of industry standard colors and color densities.
 5. Graphics: Custom graphics as indicated.
- J. Post Standard Transporter: Manufacturer's standard wheeled unit designed for transporting a single post.

- K. Wall Storage Rack: Manufacturer's standard unit designed for mounting on walls and for storing post standards in vertical position with retaining arms, fittings for padlock, and mounting hardware; number of units as required to provide storage for specified equipment.
- L. Storage Cart: Manufacturer's standard wheeled unit designed for transporting and storing volleyball equipment and passing through **36-inch- (910-mm-)** wide door openings. Fabricate welded-steel tubing units with heavy-duty casters, including no fewer than two swivel casters. Fabricate wheels from materials that do not damage or mark floors; number of units as required to provide transport and storage for specified equipment.

2.4 SAFETY PADS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. ADP Lemco.
 - 2. Bison, Inc.
 - 3. Porter Athletic Equipment Company.
- B. Safety Pad Surface-Burning Characteristics: ASTM E 84 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
 - 1. Flame-Spread Index: 25 or less.
 - 2. Smoke-Developed Index: 450 or less.
- C. Pad Coverings: Provide safety pad fabric covering that is fabricated from puncture- and tear-resistant, PVC-coated polyester or nylon-reinforced PVC fabric, not less than **14-oz./sq. yd (475-g/sq. m)** and treated with fungicide for mildew resistance; with surface-burning characteristics indicated.
- D. Wall Safety Pads: Padded wall wainscot panels designed to be attached in a continuous row; each panel section consisting of fill laminated to backer board with visible surfaces fully covered by seamless fabric covering, free of sag and wrinkles and firmly attached to back of backer board.
 - 1. Backer Board: Not less than **3/8-inch- (9.5-mm-)** thick fire-retardant-treated plywood according to AWWA U1, UCFA Fire Retardant Interior.
 - 2. Fire-Resistive Fill: Multiple-impact-resistant foam not less than **1-1/2-inch- (38-mm-)** thick, fire-resistive neoprene; **6.0-lb/cu. ft. (96-kg/cu. m)** density.
 - 3. Size: Each panel section, **24 inches (610 mm)** +/- wide by 84 inches +/- long.
 - 4. Number of Modular Panel Sections: As indicated.
 - 5. Installation Method: Manufacturer's standard.
 - 6. Fabric Covering Color(s): As selected by Architect and Owner from manufacturer's full range for one color.
 - 7. Graphics: Custom graphics as indicated.
- E. Round Column Safety Pads: Wraparound pads fully covering exposed round column to height indicated, consisting of not less than **2-inch- (50-mm-)** thick, multiple-impact-resistant, bonded

polyurethane-foam filler, 6.0-lb/cu. ft (96-kg/cu. m) density, covered on both sides and all edges by fabric covering with hook-and-loop attachment to column.

1. Length: Each pad not less than 72 inches (1800 mm).
2. Fabric Covering Color(s): Match color of wall safety pads.

F. Cut-out Trim: Provide manufacturer's standard flanged cut-out trim kits for fitting pads around switches, receptacles, and other obstructions.

1. Color: Gray.

2.5 HARDWOOD PEGBOARDS

A. Hardwood Pegboards: Solid Maple pegboards, including solid Hickory dowels.

B. Basis-of-Design Product: Rogue Supply Co. PB-2P.

C. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Kriesdesign.
2. Substitutions: As permitted under Section 012500 "Substitution Procedures".

D. Material: Solid Maple.

1. Finish: Satin polyurethane.

E. Pegboard Size: 95.625 (243cm) by 11.75 inches (29.8cm), radiused corners.

F. Thickness: 1.5 inches (3.8cm).

G. Holes: 35 staggered holes.

H. Pegs/Dowels: 1.19 inches (3cm) diameter by 6.5 inches (16.5cm) long, unfinished Hickory.

I. Mounting Holes: Six (6) counter-bored mounting holes.

J. Mounting Hardware: Provide separately.

2.6 ELECTRONIC SCOREBOARDS

A. *Basis-of-Design Product:*

1. Nevco; **Model 2770**

B. *Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:*

1. Daktronics Sports.
2. Electro-Mech Scoreboard Company
3. Fair-Play Scoreboards
4. Jaypro Sports, LLC.
5. Substitutions: Under provisions of Section 012500 "Substitution Procedures".

- C. *Face and Perimeter Frame: Fabricated from 0.050-inch minimum thickness ASTM B 221 aluminum sheet.*
 - 1. *Finish: Acrylic polyurethane paint in color as selected by Architect and Owner from manufacturer's full range.*
- D. *Electronics: Low-voltage, solid state, two-wire cable, multiplex system, quartz crystal controlled.*
- E. *LED Units: Seven-bar, segmented digits in protected aluminum cover, rated typical life of one hundred thousand (100,000) hours and designed to provide excellent visibility from all angle and sides.*
- F. *Control cable where required shall be UL listed, two-wire, type RG-58/U, coaxial cable, 1/4 inch diameter.*
- G. *Junction boxes where required shall be sheet metal box and cover, 4 1/2 x 2-1/8 x 2-1/8 inches, minimum, complying with NEMA standards.*
- H. *Size: 8 feet long x 6 feet high x 8 inches deep.*
- I. *Power Requirements: 169 Watts max, 100-240 Volts AC.*
- J. *Control Center: Wireless microprocessor based, operator's control center with receiver unit mounted at scoreboard and designed to operate different models of scoreboard by interchange of keyboard overlay; **Model MPCW** as manufactured by Nevco, Inc.*
 - 1. *Console: High impact, break-resistant gray plastic 11 by 9 1/2 by 4-1/8 inches.*
 - 2. *Features:*
 - a. *Control can be used to operate both wireless and wired scoreboards.*
 - b. *Power on-off switch.*
 - c. *Split and raised forty (40) key keyboards, internal beeper acknowledging each entry, and bookmark capabilities.*
 - d. *Keyboard overlays for scoreboard or accessory.*
 - e. *Remote hand-held main time switch with integral horn button.*
 - f. *Provide with LED displays, lithium cell battery backup to maintain scoreboard memory and time of day, self-test mode, power on-off switch, alternate time control, and multiple scoreboard operation.*
 - g. *Timer Features: Time of day display, multiple time out timers with warning, interval horn, upcount auto stop with horn, and 1/10th second display during last minute.*
 - h. *Dimmer control for scoreboard.*
 - 3. *Receiver: Aluminum construction, 6 by 4 by 1 1/2 inches with 4-inch antenna and mounted at scoreboard.*
 - 4. *Maximum Range: 1,000 feet from control center to receiver.*
 - 5. *Receiver shall require no additional source of power or separate control cable*
 - 6. *Power Adapters: Provide for each control center and receiver.*

- a. *Input: 120 volts, 0.4 amps, 50/60 Hz.*
 - b. *Output: 9 volts, 1.67 amps, 15 watts.*
7. *Provide option of battery supply for control operation if utility power not available.*
8. *Provide carrying case for control center and hand-held switch; **Model CC-3** as manufactured by Nevco, Inc.*
- a. *Size: 18½ by 14½ by 6 inches.*
 - b. *Construction: Double wall, high density black polyethylene with padded interior, mechanical latches, and hinges.*

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for play court layout, alignment of mounting substrates, installation tolerances, operational clearances, and other conditions affecting performance.
- 1. Verify critical dimensions.
 - 2. Examine supporting structure and subfloors and footings below finished floor.
 - 3. Examine wall assemblies, where reinforced to receive anchors and fasteners, to verify that locations of concealed reinforcements have been clearly marked. Locate reinforcements and mark locations.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. General: Comply with manufacturer's written installation instructions and competition rules indicated for each type of gymnasium equipment. Complete equipment field assembly, where required.
- B. Unless otherwise indicated, install gymnasium equipment after other finishing operations, including painting, have been completed.
- C. Permanently Placed Gymnasium Equipment and Components: Install rigid, level, plumb, square, and true; anchored securely to supporting structure; positioned at locations and elevations indicated; in proper relation to adjacent construction; and aligned with court layout.
- 1. Floor Insert Location: Coordinate location with application of game lines and markers, and core drill floor for inserts after game lines are applied.
 - 2. Floor Insert Elevation: Coordinate installed heights of floor insert with field finishing of finish flooring and floor-plate type.
 - 3. Operating Gymnasium Equipment: Verify clearances for movable components of gymnasium equipment throughout entire range of operation and for access to operating components.
- D. Floor Insert Setting: Position sleeve in oversized, recessed voids in concrete slabs and footings. Clean voids of debris. Fill void around sleeves with grout, mixed and placed to comply with

grout manufacturer's written instructions. Protect portion of sleeve above subfloor and footing from splatter. Verify that sleeves are set plumb, aligned, and at correct height and spacing; hold in position during placement and finishing operations until grout is sufficiently cured. Set insert so top surface of completed unit is flush with finished flooring surface.

- E. Column Safety Pads: Mount with bottom edge at **4 inches (102 mm)** above finished floor.
- F. *Electronic Scoreboard:*
 - 1. *Before installation, field test scoreboards and accessories for operating functions. Ensure that scoreboards accurately perform all operations. Correct deficiencies.*
 - 2. *Rigidly mount level and plumb with brackets and fasteners.*
- G. Anchoring to In-Place Construction: Use anchors and fasteners where necessary for securing built-in and permanently placed gymnasium equipment to structural support and for properly transferring load to in-place construction.
- H. Removable Gymnasium Equipment and Components: Assemble in place to verify that equipment and components are complete and in proper working order. Instruct Owner's designated personnel in properly handling, assembling, adjusting, disassembling, transporting, storing, and maintaining units. Disassemble removable gymnasium equipment after assembled configuration has been approved by Architect and Owner, and store units in location indicated on Drawings.

3.3 ADJUSTING

- A. Adjust movable components of gymnasium equipment to operate safely, smoothly, easily, and quietly, free from binding, warp, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Lubricate hardware and moving parts.

3.4 CLEANING

- A. After completing gymnasium equipment installation, inspect components. Remove spots, dirt, and debris and touch up damaged shop-applied finishes according to manufacturer's written instructions.
- B. Replace gymnasium equipment and finishes that cannot be cleaned and repaired, in a manner approved by Architect, before time of Substantial Completion.

3.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain gymnasium equipment.

END OF SECTION 116623