SECTION 13 20 00

SPECIAL PURPOSE ROOMS

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\*\* NOTE TO SPECIFIER \*\* Wenger Corporation, JR Clancy and GearBoss product brands; Broadcast, theater and stage equipment, sound-control door assemblies, acoustic room components, lockers, storage assemblies, specialty casework, special purpose rooms, integrated lighting, integrated controls and audio video systems.   
  
This section is based on the products of Wenger Corporation, which is located at:   
Wenger Corporation, JR Clancy and GearBoss, which is located at:555 Park Dr.Owatonna, MN 55060Toll Free Tel: 800-4WENGER (493-6437)Tel: 507-455-4100Fax: 507-455-4258Email: [request info (info@wengercorp.com)](https://arcat.com/rfi?action=email&company=Wenger%252BCorporation%252C%252BJR%252BClancy%252Band%252BGearBoss&message=RE%253A%2520Spec%2520Question%2520(13030wen)%253A%2520&coid=36487&spec=13030wen&rep=&fax=507-455-4258)  
Web: <https://www.wengercorp.com> | <https://www.jrclancy.com>   
  
Wenger Corporation - Syracuse, which is located at:  
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Syracuse, NY 13209  
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[ [Click Here](https://arcat.com/company/wenger-corporation-jr-clancy-and-gearboss-36487) ] for additional information.  
  
Wenger Corporation and J.R. Clancy are Your Performance Partners. In 2011, Wenger and J.R. Clancy brought together almost 200 years of experience to provide complete solutions for Performing Arts Centers and Theatres. We design, manufacture and install leading theatrical equipment worldwide from Complete Rigging Solutions and Controls to Acoustical Shell Enclosures and Orchestra Pit Fillers as well as a full-line of quality furnishings.   
  
Wenger Corporation provides innovative, high-quality products and solutions for performing arts and music and theatre education. For more than 65 years Wenger has been listening to what our customers need and then designing and manufacturing innovative, durable and functional products to meet those needs.  
  
 Wenger pioneered sound isolation in practice rooms and now offers modular rooms with virtual acoustic technology (VAE) and built-in digital recording/playback. Products for music and theatre spaces include: pre-engineered acoustical doors, sound-isolating music practice rooms, acoustical shells, acoustical wall and ceiling treatment, instrument and equipment storage cabinets, portable audience seating, portable stage platforms and staging systems, music posture and portable audience chairs, orchestra pit fillers, makeup stations, tiered risers and music furniture.  
  
 Since 1885, J.R. Clancy has been a leading designer and supplier of theatrical rigging systems, accessories and services to the theatre and entertainment industries around the world. Our team of experienced mechanical and electrical engineers, project managers, and installers provides expert technical assistance and information to architects, general contractors, theatre consultants, end users, and dealers. With a combination of innovative designs, outstanding quality, and a century of experience, J.R. Clancy has become the leading manufacturer of theatrical stage equipment in the United States. We provide everything from the simplest hemp sets and rigging hardware to complete, highly sophisticated motorized rigging systems-for use just about anywhere.

1. GENERAL

\*\* NOTE TO SPECIFIER \*\* Select one of two paragraphs below based on project scope. Second paragraph identifies Wenger Sound Module practice rooms with VAE technology, which is limited to rooms of 169 sq. ft. (15.7 sq. m) or less and is not available for rooms that have ceiling height extensions.

* 1. SECTION INCLUDES
     1. Modular sound-isolation practice rooms.
     2. Modular sound-isolation practice rooms with virtual acoustical environment simulation.

\*\* NOTE TO SPECIFIER \*\* Edit paragraphs below to correspond to project. Retain references to sections specifying work that might be expected to appear under work of this section. Delete Article if not required. Delete the HVAC section reference below if all units utilize Wenger's standard built-in independent ventilation in lieu of ventilation specified by the project HVAC engineer.

* 1. RELATED SECTIONS
     1. Section 01 35 00 - Special Procedures.
     2. Section 08 34 73 - Sound Control Door Assemblies.
     3. Division 13 for fire suppression sections for connection to building sprinkler system.
     4. Division 15 ductwork sections for direct connection to building HVAC system.
     5. Division 16 electrical wiring sections for connection to building electrical system.

\*\* NOTE TO SPECIFIER \*\* Retain references below remaining in section following editing. For projects of limited scope, delete Article.

* 1. REFERENCES
     1. American Society of Civil Engineers (ASCE):
        1. ASCE 7 - Minimum Design Loads for Buildings and Other Structures.
     2. ASTM International (ASTM):
        1. ASTM A 1008 - Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
        2. ASTM C 423- Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
        3. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
        4. ASTM E 90- Laboratory Measurement of Airborne Sound Transmission of Building Partitions.
        5. ASTM E 336 - Standard Test Method for Measurement of Airborne Sound Insulation in Buildings.
        6. ASTM E 413 - Classification for Determination of Sound Transmission Class.
     3. Builders Hardware Manufacturers Association (BHMA):
        1. ANSI/BHMA A156.2 - Bored and Preassembled Locks and Latches.
     4. Code of Federal Regulations (CFR):
        1. 16 CFR 1201 - Safety Standard for Architectural Glazing Materials.
     5. Underwriters Laboratories, Inc. (UL):
        1. UL 723 - Test For Surface Burning Characteristics of Building Materials.
        2. NEC 2008 - National Electric Code.
  2. DEFINITIONS
     1. Noise Isolation Class (NIC): Single number rating used to describe noise reduction between two enclosed spaces that are acoustically connected, based upon ASTM E 596 and ASTM E 336.
     2. Noise Criterion (NC): Single number rating used to describe background noise levels due to ventilation equipment, lighting, etc. per ASTM E336.
     3. Sound Transmission Class (STC): Single number quantifier used to rate partitions, doors and windows for their effectiveness in blocking sound per ASTM E90.
  3. SYSTEM DESCRIPTION

\*\* NOTE TO SPECIFIER \*\* Wenger sound-isolation practice rooms are true factory fabricated units. Site-fabricated rooms, and rooms with site-installed gaskets do not provide the same level of acoustical isolation performance over their service life.

* + 1. Sound-Isolation Practice Rooms: Factory-fabricated, modular, sound-isolation enclosures with sound transmission characteristics meeting requirements. Enclosures shall be internally wired for power, lighting, and ventilation controls. Site-fabricated enclosures and enclosures with site-installed gaskets and sealants shall not be allowed. Modifications to room on site affect acoustical performance and laboratory test data.
       1. Rooms shall be assembled from factory-gasketed modular components that allow reconfiguration and relocation without component modification or loss of acoustical performance.

\*\* NOTE TO SPECIFIER \*\* Delete interior room height not required.

* + - 1. Interior Room Height: 7 feet 6 inches (2260 mm).
      2. Interior Room Height: 8 feet 0 inches (2438 mm).
      3. Interior Room Height: 8 feet 6 inches (2591 mm).
      4. Interior Room Height: 9 feet 0 inches (2743 mm).
      5. Interior Room Height: 9 feet 6 inches (2896 mm).
      6. Interior Room Height: 10 feet 0 inches (3048 mm).

\*\* NOTE TO SPECIFIER \*\* Retain the paragraph below if work includes Sound-Isolation Practice Rooms with VAE Technology, or with components that allow rooms to be upgraded with the VAE technology in the future.

* + 1. Room Variation: Sound-isolation practice rooms (with VAE) shall be equipped with manufacturer's Virtual Acoustical Environment (VAE) simulation system with integrated wiring, speakers, and microphones capable of providing room sonic environment simulation of a range in preset and customized practice and performance environments.
    2. Room Variation: Sound-isolation practice rooms (upgradeable to VAE) shall be equipped with integrated and wiring, raceways, panel cutouts for speakers and microphones, all concealed within wall panels to allow room to be upgraded with the VAE technology system in the future. No external mounted wiring, raceways, speakers, or microphones allowed.
    3. Room Variation: Sound-isolation practice rooms (non-upgradeable to VAE) shall be standard room that does NOT have the ability to be upgraded to the VAE technology system.
  1. PERFORMANCE REQUIREMENTS
     1. Airborne Noise Reduction: Sound-isolation practice rooms with 410 cu. ft. (11.6 cu. m) interior volume, 34 percent perforated interior panels, 12 inch (304 mm) airspace between modules, mounted on concrete floor construction, tested as follows:
        1. NIC 41 from exterior to interior of module, per independent lab test.
        2. NIC 63 from interior of one module to interior of adjacent module, with 12 inches (304 mm) airspace between modules, per independent lab test.
     2. Ambient Noise at Center of sound-isolation room: Lighting and ventilating systems operating, per ANSI S 12.2: Not exceeding NC 25.
     3. Reverberation Time: Sound-Isolation Practice Rooms with 640 cu. ft. (18.12 cu. m) interior volume: in contiguous octave bands, center frequencies from 125 to 4000 Hz, per ASTM C 423: 0.45 plus or minus 0.10 seconds.

\*\* NOTE TO SPECIFIER \*\* Retain below when specifying manufacturer's integrated fan system as part of manufactured room; delete when HVAC system design is by project HVAC Engineer. Ensure that project HVAC engineer provides adequate air to room based upon manufacturer's recommendations. ACR below is based on Wenger 6 feet - 8 inches by 9 feet - 5 inches (2032 mm by 2870 mm) Practice Room. Consult manufacturer's literature for other spaces and occupancies.

* + 1. Ventilation Air Change Rate: Sound-isolation practice rooms with 406 cu. ft. (11.5 cu. m) interior volume shall have 35 air changes per hour. Other rooms will vary according to size and occupancy.
    2. Sound-Isolating Door Sound Transmission Class: With full window, per internal testing only: STC 46.

\*\* NOTE TO SPECIFIER \*\* Below relates to Wenger's integrated fan system. Delete below when HVAC ceiling panel is not used on project.

* + 1. HVAC Ceiling Panel Sound Transmission Class: Per internal testing only: STC 45.
    2. Safety Glazing Products: 16 CFR 1201.

\*\* NOTE TO SPECIFIER \*\* Below relates to contractor requirement for securing architectural components to building structure. Verify seismic performance requirements of authorities having jurisdiction. Consult project structural engineer. When required, retain below plus retain related Submittals requirement and Part 3 seismic bracing requirements. Delete if not required.

* + 1. Seismic Performance: Comply with ASCE 7, "Minimum Design Loads for Buildings and Other Structures": Section 9, "Earthquake Loads" based upon seismic design criteria indicated.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: Manufacturer's data sheets, installation instructions, and maintenance recommendations.
     3. Product Test Reports: Indicating compliance of products with requirements, from a qualified independent testing agency. Include certification of Listing and Labeling requirements and Fire Test Response Characteristics.
     4. Shop Drawings: Prepared by manufacturer. Include elevations showing sound-isolation practice room components and details of each condition of installation. Show fabrication and installation details. Include plans, elevations, sections, details, and connections and attachments to other work.

\*\* NOTE TO SPECIFIER \*\* Retain below when required by Project.

* + - 1. Indicate seismic bracing and fastening requirements.
    1. Samples: For each color and finish for each exposed practice room component.
    2. Operation and Maintenance Data.
    3. Warranty: Submit manufacturer's standard warranty statement.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Approved manufacturer listed in this section, with minimum 10 years experience in manufacture of sound-isolation practice rooms. Obtain sound-isolation practice rooms through one source from a single approved manufacturer.
     2. Fire-Test-Response Characteristics per ASTM E 84 or UL Standard 723: Flame spread index: 25 or less; Smoke developed index: 450 or less.
     3. Safety Glass: Products complying with testing requirements in 16 CFR 1201 for Category II materials.

\*\* NOTE TO SPECIFIER \*\* Indicate accessibility requirements on drawings. Delete if not required.

* + - 1. Regulatory Requirements: Where components are indicated to comply with accessibility requirements, comply with the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA) and Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities".

\*\* NOTE TO SPECIFIER \*\* All Wenger electrical components are supplied as listed and labeled by UL and/or ETL to meet typical local electrical inspection requirements.

* + 1. Electrical Components: Listed and labeled per NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.
  1. DELIVERY, STORAGE, AND HANDLING
     1. Deliver, store, and handle components of sound-isolation practice rooms in accordance with manufacturer's recommendations. Ship to jobsite only after roughing-in, painting work, and other related finish work has been completed and installation areas are ready to accept units at recommended temperature and humidity levels maintained during the remainder of construction.
  2. COORDINATION
     1. Coordinate installation of concrete slab supporting sound-isolation practice rooms meeting the following flatness tolerance requirements:
        1. The gap at any point between concrete surface and a 10-foot- (3.05-m-) long straightedge resting on 2 high spots and placed anywhere on the surface does not exceed 1/4 inch (6 mm).
        2. The elevation of the concrete slab around the perimeter of the room does not vary at any point by more than plus or minus 3/8 inch (8 mm) from level.

\*\* NOTE TO SPECIFIER \*\* Retain option below if utilizing manufacturer's stand-alone ventilation system. Delete if not required.

* + 1. Coordinate installation and electrical rough-in components for connection to sound-isolation practice rooms.

\*\* NOTE TO SPECIFIER \*\* Retain option below if utilizing building HVAC and fire suppression for sound-isolation rooms in lieu of manufacturer's stand-alone ventilation system. Delete if not required.

* + 1. Coordinate installation of HVAC and Fire Suppression and electrical rough-in components for connection to sound-isolation practice rooms.
  1. PROJECT CONDITIONS
     1. Environmental Limitations: Do not deliver or install practice rooms until spaces are enclosed and weather tight, wet work in spaces is complete and dry, HVAC system is operating and maintaining ambient temperature at occupancy levels during the remainder of the construction period.
     2. Field Measurements: Verify field measurements, if required, as indicated on Shop Drawings. Where measurements are not possible, provide control dimensions and templates.
        1. Coordinate installation and location of blocking and supports as requested.
        2. Verify openings, clearances, storage requirements and other dimensions relevant to the installation and final application.
     3. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
  2. WARRANTY

\*\* NOTE TO SPECIFIER \*\* The warranty is provided by the manufacturer to the building Owner. The warranty terms below are available from Wenger Corp. Verify that other manufacturers listed or seeking approval will furnish warranty meeting requirements. Durability is a key aspect of Wenger's product value for Owners. The available warranty reflects Wenger's high confidence in the performance of their products.

* + 1. Warranty: Manufacturer's written warranty indicating manufacturer's intent to repair or replace components of sound-isolation practice rooms that fail in materials or workmanship within 5 years from date of Substantial Completion. Failures are defined to include, but are not limited to, the following:
       1. Fracturing or breaking of room components, including doors, panels, or hardware, that results from normal wear and tear and normal use other than vandalism.
       2. Delamination or other failures of glue bond of components.
       3. Warping of components not resulting from leaks, flooding, or other uncontrolled moisture or humidity.
       4. Failure of operating hardware.
       5. Failure of acoustical gaskets and seals.
       6. Failure of room to perform acoustically in accordance with manufacturer's published data.

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer: Wenger Corporation, including all Wenger, J.R. Clancy and GearBoss product brands. Wenger Corporation, which is located at: 555 Park Dr.; Owatonna, MN 55060; Toll Free Tel: 800-4WENGER (493-6437); Tel: (507) 455-4100; Fax: (507) 455-4258; Email: request info (info@wengercorp.com); Wenger Corporation - Syracuse, which is located at 7041 Interstate Island Road, Syracuse, NY 13209; Toll Free Tel: 800-836-1885; Tel: (315) 451-3440; Email: request info (JRCinfo@wengercorp.com); Web: https://www.wengercorp.com

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
       1. Approval of Comparable Products: Submit the following in accordance with project substitution requirements, within time period allowed for substitution review:
          1. Product data, including certified independent test data indicating compliance with requirements.
          2. Full-size samples of each component of product specified.
          3. Project references: Minimum of 5 installations not less than 5 years old, with owner contact information.
          4. List of successful installations of similar products available for evaluation by Architect.
          5. Sample warranty.
       2. Approved manufacturers shall meet separate requirements of Submittals.
       3. Alternate manufacturers shall be approved by addenda only.
  1. MATERIALS
     1. Steel Sheet: Cold-rolled, ASTM A 1008/A 1008M, commercial steel, Type B.
     2. Sound Attenuation Material: ASTM C 665, Type I, 1.5-lb/cu. ft (24 kg/cu. m).
  2. SOUND-ISOLATION PRACTICE ROOMS

\*\* NOTE TO SPECIFIER \*\* The key to Wenger's practice room long term acoustical performance and the owner's ability to reconfigure and relocate the practice rooms and practice room components are Wenger's high-quality, factory-installed acoustical gaskets that allow Wenger practice rooms to meet demanding acoustical performance requirements without the use of field-installed temporary sealants.  
All Wenger electrical components and wiring meet NFPA and NEC code requirements for listed and labeled assemblies and components.

* + 1. General: Provide sound-isolation practice rooms meeting Contract Documents requirements.
    2. Wall Frame: 14-gauge/0.075 inch (1.91 mm) thick steel channel with 1-1/4 inch (31.75 mm) thick factory-applied acoustical gasketing at floor slab, with 3/4 inch (19 mm) leveling adjustment.
    3. Wall Panels: 30 inches by 4 inches (762 by 102 mm) thick composite panels, consisting of an exterior face of 16-gauge/0.0598 inch (1.52 mm) sheet steel, an interior face of 22-gauge/0.0299 inch (0.76 mm) perforated or solid sheet steel, with sound-attenuation material at panels indicated as perforated.
       1. Acoustical Seal: Two continuous acoustical gaskets factory-mounted at panel perimeter.
       2. Panel Attachment: Two or more mechanical locks on each vertical edge to align and engage adjoining panel and create compression seal between panels.
       3. Corner Assembly: Same construction as wall panels.
       4. Power Panel (one per unit): Same construction as wall panels, with factory pre-wiring meeting ETL and NEC requirements, consisting of conduit, wiring, junction and electrical boxes, and airtight cover plates, and including the following:
          1. Two duplex receptacles.
          2. Dimmable switches, occupancy sensors and connectors for lighting control (and fans, and VAE, as required).
          3. Three empty raceways for future Owner-installed circuitry.

\*\* NOTE TO SPECIFIER \*\* Acoustic Vision Lite Wall Panel is optional addition to standard practice room. Retain paragraph below and indicate location on drawings if required. Delete if not required.

* + - 1. Acoustic Vision Lite Wall Panel: Same construction as wall panels, 30 inches (762 mm) wide, with nominal 26.5 by 65.5 inches (673 by 1664 mm) vision lite, respectively, consisting of 1/4 and 3/8 inch (6.0 and 9.5 mm) thick laminated safety glass with 3 inches (76 mm) interspace, mounted in metal frame. Refer to Drawings for location.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - * 1. Provide one-way vision safety glass. Refer to Drawings for location.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - 1. Horizontal Window, 90" wide (2286mm), with nominal 32" x 81 3/4" (813mm x 2076mm) vision lite.
      2. Horizontal Window, 60" (1524mm) wide, with nominal 32" x 51 3/4" (813mm x 1314mm) vision lite.

\*\* NOTE TO SPECIFIER \*\* Communication Wall Panels are optional addition to standard practice room allowing for installation of Owner's current or future telephone, data, fire alarm, and additional power outlets. Retain paragraph below and indicate location on drawings if required.

* + - 1. Communication Wall Panels: Where indicated: Same construction as wall panels, size and configuration indicated, with factory installed rough-in for addition wiring by owner, consisting of conduit, junction boxes, and airtight cover plates, and includes one pre-wired quad outlet.
    1. Ceiling Frame: Sheet steel, 16-gauge/0.053 inch (1.34 mm) thick, with clamping mechanism for compressing ceiling panel acoustical gaskets, with external support beam where required by room size.
    2. Ceiling Panels: Same construction as wall panels, 15 inches wide by 6 inches thick (381 mm wide by 152 mm thick), with the following characteristics:
       1. Acoustical Seal: Two continuous acoustical gaskets factory mounted at panel perimeter.
       2. Panel Attachment: Two mechanical locks on each vertical edge to align and engage adjoining panel and create compression seal between panels.
       3. Sprinkler Ceiling Panels: Where indicated, panels fabricated with predrilled holes to enable fire sprinkler system installation specified elsewhere. Furnish covers for installations not requiring sprinkler piping penetration.
       4. Light Panels: Where indicated, highly efficient, 50/60Hz, 100-277 Volt AC, 40 Watt, 1� x 4� dimmable edge-lit LED flat panels. Technical information; power factor: 0.9, lifetime (L70): 50,000 hours, LED chip type: 2835, number of LEDs (per panel): 216, physical dimensions: 11.83 inches (W) x 47.63 inches (L) x 0.39 inches (H), color temperature: 5000k (standard), lumens: 4200, beam angle: 120 degrees, RA value: 80, compatible with 0-10V dimmers. Compliance & approvals: ETL, FCC, DLC QPL, IP rating: damp locations.
    3. Doors: 2 inches (51 mm) thick composite panel, consisting of an exterior face of 16-gauge/0.053 inch (1.34 mm) sheet steel, an interior face of 14-gauge/0.068 inch- (1.72 mm-) sheet steel, and a core of sound-attenuation material, sound transmission class (STC) 46 (based on internal testing), size and swing as indicated on Drawings, and as follows:
       1. Acoustical Seals: Magnetic seal plus compression seal at head and jambs, and adjustable sweep seal at door bottom.
       2. Hinge: Cam-type wrap around continuous barrel hinge, CR 1010 steel.

\*\* NOTE TO SPECIFIER \*\* Delete door size not required..

* + - 1. Door size: 3 feet (914 mm) wide standard.
      2. Door size: 4 feet (1219 mm) wide.
      3. Door size: 6 feet (1829 mm) wide double door with removable mullion.
      4. Door Vision Lite: Nominal 22 by 66 inches (559 by 1676 mm), glazed with safety glass.

\*\* NOTE TO SPECIFIER \*\* Delete if not required.

* + - * 1. Provide one-way vision safety glass. Refer to drawings for location.
      1. Metal threshold: Stainless steel, 1/2 inch (12.7 mm) high.
      2. Lockset: ANSI/BHMA A156.2, Series 4000, Grade 1, cylindrical lock with lever handle, 6 pin cylinder, classroom function locking, satin nickel finish.

\*\* NOTE TO SPECIFIER \*\* Delete key cylinder not required.

* + - 1. Keying: Each keyed differently.
      2. Keying: Interchangeable core, with cylinder specified in Section 08 71 53 - Security Door Hardware.

\*\* NOTE TO SPECIFIER \*\* Retain optional paragraph below when sound-isolating room includes acoustic simulation system. Description below conforms to Wenger's VAE system; consult with manufacturer for specific recommendations and availability.

* + 1. Virtual Acoustical Environment (VAE) System: Manufacturer's standard electronic sound system providing integrated record and playback capabilities, with nine virtual acoustical simulations within sound-isolating room, including:
       1. Eight speakers mounted in pre-wired corner panel speaker enclosures.
       2. Push-button operated control panel with associated electronic components.
       3. Microphone Wall Panel: Same construction as solid wall panels, with two integrated microphone mounts and two microphones.
       4. Systems using non-integrated components or external reverberation/special effects components are not acceptable.

\*\* NOTE TO SPECIFIER \*\* Select one of following two paragraphs and subparagraphs. First paragraph and subparagraphs below are for rooms utilizing manufacturer's built-in fan system. Second paragraph and subparagraphs below are for optional direct connection to building HVAC system.

* + 1. Ceiling Ventilation System: Provide manufacturer's, built-in fan standard free-standing room ventilation system:
       1. Vent Panels: 15 inches (381 mm) wide by 6 inches (152 mm) thick panel with integral acoustical air plenum, with 1-1/2 inches (38 mm) sound-absorbing duct liner and four 90-degree bends.
       2. Fan Exhaust Panels: 120 cfm (0.057 cu. m/s) exhaust fan mounted in panel with same construction panel as vent intake panel. Number of fan panels equal to number of vent panels. Fan exhausts to surrounding space.
    2. Ceiling Ventilation System, Connection to Building HVAC System:
       1. Vent Panels: 15 inch (381 mm) wide by 6-inch (152 mm) thick panel with integral acoustical air plenum, with 1-1/2 inch (38 mm) sound-absorbing duct liner and four 90-degree bends, with 8 inch (203 mm) diameter duct connector. Capacity: 120 cfm (.057 cu. m/s) maximum per vent panel. Configured in pairs of intake and exhaust panels as indicated. Flexible ductwork specified in mechanical section and provided by others.

\*\* NOTE TO SPECIFIER \*\* Standard Wenger practice room is furnished for direct mounting to concrete slab floor. Floor Component System in paragraph below is an available option. Delete if not required.

* 1. FLOOR SYSTEM
     1. Component System: Where indicated: Sheet vinyl flooring bonded to high density 1-1/8 inches (22 mm) thick particleboard, supported by steel under structure, with 1-1/2 inches (38 mm) sound-absorbing vibration isolators, supported on 6-1/4 Hz natural frequency vibration isolators with 1/4 inches (6 mm) maximum deflection under typical loading, joined by mechanical fasteners and aligned by interlocking steel support clips. Floor fabricated for installation inside finished practice room without disassembly of modules.

\*\* NOTE TO SPECIFIER \*\* Delete accessories not required.

* 1. ACCESSORIES
     1. Mirror: Mounts directly to interior solid wall panel. Metal mounting brackets in black painted finish are provided. Dimensions: 58 inches (1473 mm) high x 22 inches (559 mm) wide with 1/4 inch (6 mm) thick mirror glass, constructed with vinyl backing to prevent shattering of glass.
     2. Metronome/Tuner: Mounts directly to interior solid wall panel and houses battery-operated metronome/tuner, Korg Model TM40. Mounting bracket included. Overall dimensions: 4-3/4 inches (121 mm) wide x 4- 3/4 inches (121 mm) high x 1 inch (25 mm) thick.
  2. FINISHES
     1. Electrical Cover Plates:
        1. Light, Fan and VAE Switch (as required): Satin chrome finish.
        2. All other: Painted to match wall panel colors.
     2. Other Exposed Components: Iron phosphate pre-coat and thermo-set epoxy resin powder coat (baked) finish.
        1. Colors:

\*\* NOTE TO SPECIFIER \*\* Delete wall and ceiling panel color not required.

* + - * 1. Wall and ceiling panels: Oyster.
        2. Wall and ceiling panels: Vanilla.
        3. Wall and ceiling panels: Warm Sand.

\*\* NOTE TO SPECIFIER \*\* Delete floor rail and door color not required.

* + - * 1. Floor rail and door: Charcoal Grey.
        2. Floor rail and door: Warm Beige.

1. EXECUTION
   1. EXAMINATION
      1. Examine sound-isolation room installation areas for compliance with requirements for installation tolerances, including required overhead clearances and floor levelness, and other existing conditions affecting installation and performance of sound-isolating rooms. Proceed with room installation upon correction of unsatisfactory conditions.
   2. SOUND-ISOLATING ROOM INSTALLATION
      1. Install rooms under direct supervision of manufacturer.
      2. Install rooms plumb, level, and true, using integral levelers. Install in accordance with manufacturer's instructions and approved submittals.
      3. Install room components utilizing integral panel clamping mechanisms. Do not use sealants, fillers, loose insulation, or exposed fasteners.

\*\* NOTE TO SPECIFIER \*\* Retain paragraph below for projects requiring seismic bracing.

* + - 1. Install seismic bracing and fastening in accordance with approved shop drawings.
    1. Do not modify panels or accessories in the field.
    2. Do not fasten room frame to floor unless indicated on approved shop drawings in compliance with seismic design requirements.
    3. Adjust rooms and hardware for doors to operate smoothly without warp or bind and close with uniform compression against flanges. Adjust sweep seals.
  1. CLEANING
     1. Repair or replace defective work as directed by Architect upon inspection.
     2. Clean room surfaces. Touch up, refinish, or replace damaged components in a manner acceptable to Architect.
  2. DEMONSTRATION
     1. Train Owner's personnel to adjust, operate, and maintain sound-isolation rooms.
     2. Turn over keys and operation and maintenance instructions to Owner.

END OF SECTION