

**WOODWARD HALL
DORMITORY RENOVATIONS
MIDDLETOWN, CONNECTICUT
PROJECT: BI-MH-497 Ph 1**

BID OPENING

1:00 P.M.

December 15, 2010

ADDENDUM NUMBER 2

December 8, 2010

The following clarifications are applicable to drawings and specifications for the project referenced above.

Item 1

Add specification Section 10260 - HANDRAILS (attached). Handrail manufacturer shall be as listed in the specification.

Item 2

Metal studs, insulation and gypsum board shall be as shown on details on Architectural drawings. Add specification Section 09250 – GYPSUM DRYWALL (attached).

Item 3

All walls, new and existing, shall be re-painted according to the notes on the second floor North requirements, including all accent walls. All four (4) units shall be re-painted. This shall include the new Comfort Room and Kitchenette on the second floor North. See drawings for painting requirements.

Item 4

Line size circuit setters shall be installed at chilled water return piping takeoffs from risers at first and second floor. Total of 4.

Item 5

On drawing A-2, detail 2NA/A-4: L-shaped desk shall be constructed similar to the nurse's station with regard to the knee space and the drawer units. Drawer unit's section mark at nurse's station should read 2N2/A-4. Knee space section mark at nurse's station should read 2N1/A-4. Also, provide 4" vinyl base as shown on details. Color selection by Architect/Engineer. Sink shall be re-used as noted with water supply, waste and vent piping connected below floor to existing as required. Also, delete curved portion of L-shaped desk as it lies against the outside wall.

Item 6

Bid bond shall be made out to owner, Department of Public Works, State of Connecticut.

Item 7

Bid form requirements on the gold sheet insert of specifications shall be definitive.

Item 8

As of this Addendum, there are no alternates, unit costs or supplemental prices for this project.

Item 9

Provide Engineer-approved handicap access thresholds at all (4) existing toilet rooms (106, 130, 206, 228).

Item 10

On the second floor North: Remove floor sink and hand sink along interior wall running East/West and all associated supply piping, waste and vent piping down to ceiling below. Cap as required.

Item 11

On drawing M-7: change air separator from 6" to 4".

Item 12

New chilled water piping in tunnel shall be racked along wall similar to existing piping already in tunnel. Provide proper supports as required.

Item 13

All duct sizes shown shall be inside clear after acoustic duct liner installation.

Item 14

For bidding purposes, provide 3 duplex power outlets at new nurses station walls on second floor North. Combine circuit with others as allowable back to existing power panel 2D.

Item 15

For bidding purposes, Kitchenette 249 shall be constructed similar to the existing in the three other units (1 North, 1 South and 2 South). New kitchenette shall include, but not be limited to: cabinets, sink, faucet, piping, countertop, etc. as required for complete installation. Provide ½" water supplies, 1 ½" waste, and 2" vent piping (or code-compliant Studor type vent device). Connect new piping to existing piping in ceiling below as required.

Item 16

On drawing M-8, delete thermostats and economizer section from fan coil schedule. New fan coil units to be tied into existing automated temperature control system as described in Item 17.

Item 17

Automatic Temperature Controls:

- Fan coil valves shall be modulating.
- Fan coil unit fan status is required.
- Supply air temperature sensor shall be required for each fan coil unit.
- Monitoring and alarm of overflow pan switches shall be provided.
- Existing baseboard radiation control shall remain as is.
- New chilled water pumps shall operate lead/lag with auto standby.
- Chilled water pressure sensing for VFD control shall occur 2/3 downstream. Location to be determined in field with Engineer approval.
- Provide bypass valve/piping to provide for chilled water path for when cooling coil valves not sufficiently open for minimum pump flow.
- Variable frequency drives to be furnished by mechanical contractor per specifications. Specification Section 15910, Part 2.02, F shall read: For pumps CHWP-1 & CHWP-2: ABB ACH-500 Series, Rated for 15 HP at 208 Volt/3 Phase/60 Hz.

Item 18

Add attached Sequences of Operation for further automatic temperature control requirements.

Item 19

Extent of demolition of existing flooring and new VCT flooring replacement is on the second floor North area of building (Phase 1). Carpet removal and asbestos containing material abatement is delineated on drawing AD-2. See drawing note 3.

Item 20

State owned buildings are exempt from all local building permit fees.

Item 21

All new ceiling tiles to be same as existing used throughout respective areas. Existing ceiling tiles are Armstrong 839 Fire Resistive (back of tile says to replace with Armstrong Fireguard MN). It shall be the responsibility of the contractor to verify in field. General Contractor shall remove and replace any ceiling tiles required for the installation of all Architectural, Fire Protection, HVAC, Electrical, Plumbing, etc. for project. General Contractor shall replace any damaged tiles with new as required.

Item 22

Approximate floor to deck height is 10'-6". Contractor to confirm in field.

Item 23

Comfort Room 248 wall types to be Type "B" with double sheetrock layer on Comfort Room side. Also provide new 2x2 ceiling in Comfort Room and new Kitchenette 249. Ceiling tiles as noted in Item 21.

Item 24

For bidding purposes: Comfort Room 248 shall be provided with new power and lighting. Provide (4) Type "B" fixtures in Comfort room and (1) Type "B" fixture in new Kitchenette 249. Provide (4) duplex power outlets in Comfort Room and (2) duplex (GFI) power outlets in Kitchenette wired to respective power and lighting panels in electrical room. Combine these circuits with others as allowable.

Item 25

For bidding purposes: In new Nursing/Documentation room 247, remove existing sheetrock/gypsum board ceiling and associated lighting and any other devices. Provide new 2x2 lay-in ceiling/grid with (1) Type "B" and re-install other removed devices as required. Also, remove existing gyp board wall (East only) and associated electrical. Provide new wall Type "B" as shown on detail sheet A-3. Provide double sheetrock on electrical room side of wall only. Provide (2) duplex power outlets. Power and lighting circuiting shall be wired back respective power and lighting panels in electrical room.

Item 26

In existing toilet rooms where new, wider doors will be installed, remove and relocate any wall devices such as, but not limited to: light switches, etc. to accommodate installation of new doors.

Item 27

All ceiling/wall devices including, but not limited to: Smoke detectors, speakers, fire alarm, etc. removed for any reason shall be re-installed as required. Owner may elect not to re-install certain devices. This shall be coordinated with Engineer during construction.

Item 28

In new Med Room 248 and new Treatment Room 230, provide new stainless steel hand sinks and faucets to match existing in other units in building. For bidding purposes, provide sink as manufactured by Elkay, Model PSLVR1917 with single handle 4" centerset faucet by Delta, Model 511 HDF-DST. Provide ½" water supplies, 1 ½" waste, and 2" vent piping (or code-compliant Studor type vent device). Connect new piping to existing piping in ceiling below as required.

Item 29

Electrical contractor shall wire new chilled water pumps, CHWP-1 & CHWP-2 and associated variable frequency drives, VFD-1 & VFD-2, in basement mechanical room to existing main distribution panel (MDP) in adjacent electrical room as required. Provide new breakers, properly sized, to accommodate new pumps and VFD's.

Item 30

Contractor shall patch any wall openings created during any demolition to match existing construction. Paint per drawings.

Item 31

Re-use any ceiling tiles removed from existing second floor North kitchen in new ceiling layout. Provide a spare 10 boxes of new ceiling tiles for future facility use.

Item 32

Interior window frames for TV rooms and Comfort Room/Lounge may be 12 gauge welded steel similar to door frame construction, Widths as indicated on drawings. Finish with prime and paint as required. Coordinate with Engineer.

Item 33

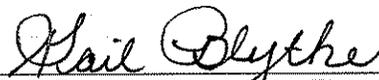
All new doors shall be solid wood doors with a 20 minute fire rating as manufactured by Marshfield Door Systems, Inc, Oshkosh or Five Lakes. Doors shall be furnished with a hard wood veneer, with finish to match existing throughout.

Item 34

On specification Section 06200, delete part 1.1B. Cabinet and counters shall be as shown on drawings.

All questions must be in writing (not phone or e-mail) and must be forwarded to the consulting Architect/Engineer (Will Santiago at 860-262-5307) with copies sent to the DPW Project Manager (Wayne Thorpe at 860-713-5618) and Construction Manager (if applicable, Name and Fax Number).

End of Addendum Number Two



Gail Blythe, Associate Fiscal Administrative Officer
Department of Public Works

SECTION 1 – GENERAL

1.1 SECTION INCLUDES

- A. Aluminum and vinyl handrail systems.
- B. Mounting hardware, accessories, and trim.

1.2 RELATED SECTIONS

NONE

1.3 REFERENCES

- A. ANSI/CABO A117.1 - American National Standard for Buildings and Facilities; Providing Accessible and Usable Buildings and Facilities; Council of American Building Officials.
- B. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.
- C. ASTM D 256 - Standard Test Method for Determining the Pendulum Impact Resistance of Notched Specimens of Plastic.
- D. ASTM D 543 - Standard Test Methods for Resistance of Plastics to Chemical Reagents.
- E. ASTM D 635 - Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position.
- F. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- G. CAN/ULC S102.2 - Standard Method of Test for Surface Burning Characteristics of Building Materials.
- H. SAE J-1545 - Recommended Practice; Society of Automotive Engineers.
- I. UL 94 - Tests for Flammability of Plastic Materials for Parts in Devices and Appliances.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide manufacturer's current product data for each product required, including detail drawings and installation and maintenance instructions.
- C. Shop Drawings: Show locations of each item and installation details. Provide elevations of non-standard conditions.
- D. Selection Samples: Color charts demonstrating full range of available colors for initial color selection.

SECTION 10260 HANDRAILS

E. Verification Samples: 12 inch (305 mm) long assemblies, including one wall return, in color specified.

1.5 QUALITY ASSURANCE

A. Manufacturer: Shall have no less than five years experience in the production and supply of specified products with a record of successful performance.

B. Installer: Shall have no less than three years experience in the installation of specified products or of products having a similar level of complexity.

C. Flammability: Provide wall protection products with established listing label indicating materials have been tested in accordance with ASTM E84 (CAN/ULC S102.2) and conform to NFPA 101 Life Safety guidelines for Class A materials.

1. Flame Spread: 25 or less
2. Smoke developed: 450 or less

D. Accessibility and Safety: Products shall conform to ADA and ANSI accessibility, and NFPA Life safety Guidelines.

E. Color Control: Manufacturer shall control color to calibrated color standards. Color of all components shall be verified to these standards by visual and colorimetric means. A Delta E difference of 1.0 or less shall be maintained except where visual evaluation allows a greater range of numerical acceptability. Visual and spectrophotometer evaluation shall be performed under cool white fluorescent lighting.

F. Single Source: To ensure compatibility of fit and function and to maintain color and finish texture consistency, all handrail system components shall be supplied by a single source.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Provide Pro-Tek® Handrails as manufactured by **Pawling Corporation**, Architectural Products Division;
32 Nelson Hill Road, P.O. Box 200, Wassaic NY 12592; ASD. Tel. (800) 431-3456 (U.S. and Canada) or (845) 373-9300; Fax. (800) 377-4403 (U.S. and Canada) or (845) 373-7827; E-mail: sales@pawling.com. www.pawling.com.

B. Engineer approved equal: To be approved by Department of Mental Health and Addiction Services engineering.

2.2 MATERIALS

A. Vinyl: Provide handrail covers extruded or molded of fire retardant, high impact polyvinyl chloride (PVC) with an embossed matte finish.

1. Minimum thickness: 0.080 inch.
2. Vinyl Properties
 - a. Vinyl cell classification in accordance with ASTM D 1784: 16354.
 - b. Specific gravity, tested in accordance with ASTM D 792: 1.33, minimum.
 - c. Tensile strength at yield, tested in accordance with ASTM D 638: 6500 psi, minimum.
 - d. Modulus of elasticity, tested in accordance with ASTM D 638: 400,000 psi.
 - e. Tensile impact energy, tested in accordance with ASTM D 1822: 75 ft lb/sq inch.
 - f. Flexural strength, tested in accordance with ASTM D 790: 12,500 psi.
 - g. Modulus of rupture, tested in accordance with ASTM D 790: 400,000 psi.
 - h. Izod impact strength, tested in accordance with ASTM D 256: 23.0 ft lb/inch of notch, minimum, 1/8-inch notch.
 - i. Hardness, Shore D, tested in accordance with ASTM D 2240: 79, minimum.
 - j. Hardness, Rockwell, tested in accordance with ASTM D 785: 108, minimum.
 - k. Deflection temperature at 264 psi, tested in accordance with ASTM D 648: 162 degrees F (72 degrees C).
 - l. Flammability, tested in accordance with ASTM D 635: Self-extinguishing.
 - m. Flammability, tested in accordance with UL 94: V-O.

3. Extruded Vinyl Component Properties:

- a. Surface burning characteristics, tested in accordance with ASTM E 84: Flame spread 5, smoke developed 180; maximum.
- b. Surface burning characteristics, tested in accordance with CAN/ULC S102.2: Flame spread 10, smoke developed 250-330; maximum.
- c. Izod impact strength, tested in accordance with ASTM D 256: 25.3 ft lb/inch of notch, average.
- d. Charpy impact strength, tested in accordance with ASTM D 256: 26 ft lb/inch of notch, average.
- e. Chemical and stain resistance, tested in accordance with ASTM D 543, 7 day immersion in standard reagents.
- f. Color match when tested in accordance with SAE J-1545: Accurate to within 1.0 or less Delta E by CIE LAB 10 degree standard observer color difference and equation.
- g. Combustion toxicity: Registered in accordance with Connecticut State Uniform Fire Prevention and Building Code.

B. Aluminum for Handrail Retainers and Continuous Security Brackets: Alloy 6063-T5, in accordance with ASTM B 221 or FS QQ-A-200; anodized finish complying with AAMA 611, Class II minimum.

**SECTION 10260
HANDRAILS**

2.3 HANDRAILS

I. BR-530S; Provide 5-1/2-inch (140 mm) aluminum and vinyl handrail system with 1-1/2-inch (38 mm) gripping area, contoured back, locking vinyl cover, impact cushion, aluminum reinforced wall return and corner accessories, continuous security bracket, and return plates. Select vinyl handrail color from Manufacturer's standards. Color to be specified by agency.

2.4 ACCESSORIES

A. Provide appropriate returns, return plates, end plates, and continuous security mounting brackets as required to properly finish handrail system and to support it in conformance with Uniform Federal Accessibility Standards.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that wall surfaces are properly prepared to receive installation of handrails. Verify that required blocking and bracing is in place for stud walls before beginning installation.

3.2 INSTALLATION

- A. Install handrail systems in full compliance with manufacturer's installation instructions.
- B. Mount handrails at height specified by the Construction Administrator.
- C. Allow materials to acclimate to building temperature (65°F to 75°F) for at least 24 hours prior to installation. Do not store materials in direct sunlight, exposed to the elements, or in extreme heat.

3.3 PROTECTION

A. Protect handrail material during storage and upon completion of installation from damage by other trades.

3.4 CLEANING

- A. Upon completion of installation, clean handrail covers and accessories in accordance with manufacturer's cleaning and maintenance instructions.
- B. Clean areas of installation and packaging debris caused by installation.

END OF SECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Specifications throughout all Divisions of the Project Specifications are directly applicable to this Section, and this Section is directly applicable to them.

1.02 REFERENCE STANDARDS

- A. The latest published edition of a reference shall be applicable to this Project unless identified by a specific edition date.
- B. All reference amendments adopted prior to the effective date of this Contract shall be applicable to this Project.
- C. All materials, installation and workmanship shall comply with all applicable requirements and standards.

1.03 DEFINITIONS

- A. Gypsum Board Construction Terminology: Refer to ASTM C 11 and GA 505 for definitions of terms for gypsum board construction not otherwise defined in this section or other referenced standards.

1.04 QUALITY ASSURANCE

- A. Fire Resistance Ratings: Where indicated, provide materials and construction which are identical to those of assemblies whose fire resistance rating has been determined per ASTM E 119 by a testing and inspecting organization acceptable to authorities having jurisdiction.
 - 1. Provide fire resistance rated assemblies identical to those indicated by reference to GA File No's. in GA 600 "Fire Resistance Design Manual" or to design designations in U.L. "Fire Resistance Directory" or in listing of other testing and agencies acceptable to authorities having jurisdiction.
- B. Perform gypsum board Work in accordance with recommendations of ASTM C 754 and GA 216 unless otherwise indicated or required by project conditions.
- C. Single Source Responsibility: Obtain each type of gypsum board and related joint treatment materials from a single manufacturer.

1.05 SUBMITTALS

- A. Product Data:
 - 1. Submit product data indicating compliance with all specified requirements.

**SECTION 09250
GYPSUM DRYWALL**

B. Record Documents:

1. Submit the following in accordance with Conditions of Contract and Division 01 Specification Sections.
2. Design Data: Submit copies of each UL design selected for each required fire resistance rating for gypsum drywall assemblies including installer certification that each UL design selected will provide the scheduled fire resistance rating in accordance with local Codes.
3. Submit certification and test results that clearly state and indicate that each individual element and component of fire rated gypsum drywall assemblies are approved and appropriately rated for specific rated assembly for which it is to be used, and that the use of such individual element will in no way jeopardize the required rating of the assembly.
4. Submit Shop Drawings including complete details indicating location of all control and expansion joints in walls and ceilings.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in original packages, containers or bundles bearing brand name and identification of manufacturer or supplier.
- B. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic and other causes. Neatly stack gypsum boards flat to prevent sagging.
- C. Handle gypsum boards to prevent damage to edges, ends, and surfaces. Do not bend or otherwise damage metal corner beads and trim.

1.07 SEQUENCING AND SCHEDULING

- A. Sequence installation of gypsum sheathing board with installation of exterior cladding to comply with requirements indicated below:
 1. Do not leave gypsum sheathing board exposed to the weather after application for longer than one month.
 2. Do not leave gypsum sheathing board exposed to weather after its application for more than one month or, if protected as indicated below, for more than 6 months:
 - a. Protect cutouts, corners and joints in the sheathing by filling them with a flexible sealant at the time sheathing is applied.
 - b. As an alternate to sealant application, cover exposed exterior surface of sheathing with building paper or air infiltration barrier. Anchor covering with metal lath securely fastened through sheathing to framing. Apply covering immediately after sheathing is installed.

1.08 PROJECT CONDITIONS

- A. Environmental Conditions, General: Establish and maintain environmental conditions for application and finishing gypsum board to comply with ASTM C 840 and with gypsum board manufacturer's recommendations.

**SECTION 09250
GYPSUM DRYWALL**

- B. Minimum Room Temperatures: For non-adhesive attachment of gypsum board to framing, maintain not less than 40 degrees F (4 degrees C). For adhesive attachment and finishing of gypsum board maintain not less than 50 degrees F (10 degrees C) for 48 hours prior to application and continuously thereafter until drying is complete.
- C. Ventilate building spaces to remove water not required for drying joint treatment materials. Avoid drafts during dry, hot weather to prevent materials from drying too rapidly.

1.09 ASSEMBLY PERFORMANCE REQUIREMENTS

- A. Sound Transmission Characteristics: For gypsum board assemblies indicated to have STC ratings, provide materials and construction identical to those of assemblies whose STC ratings were determined per ASTM E 90 and classified per ASTM E 413 by a qualified independent testing agency.

PART 2 - PRODUCTS

2.01 GENERAL

- A. All materials shall meet or exceed all applicable referenced standards, federal, state and local requirements, and conform to codes and ordinances of authorities having jurisdiction.

2.02 MANUFACTURERS

- A. Subject to compliance with requirements, manufacturers offering products which may be incorporated in the Work include the following:
 - 1. Grid Suspension Systems:
 - a. Armstrong World Industries
 - b. Chicago Metallic Corp.
 - c. Worthington Steel Co.
 - d. USG Interiors
 - 2. Gypsum Boards and Related Products:
 - a. Domtar Gypsum Co.
 - b. Georgia Pacific Corp.
 - c. Gold Bond Building Products Div., National Gypsum Co.
 - d. United States Gypsum Co.

2.03 GYPSUM BOARD

- A. Gypsum Wallboard:
 - 1. Type: Equivalent to USG "Fiberock Aquatough" interior panels or as noted on drawings.

**SECTION 09250
GYPSUM DRYWALL**

2. Edges: Tapered.
 3. Thickness: 5/8 inch, unless otherwise indicated.
- B. Provide gypsum board of type indicated in maximum lengths available to minimize end to end joints.
1. Provide gypsum board in thicknesses indicated, or if not otherwise indicated, in 5/8 inch thicknesses to comply with ASTM C 840 for application system and support spacing indicated.

2.04 TRIM ACCESSORIES

- A. Cornerbead and Edge Trim for Interior Installation: Provide corner beads, edge trim and control joints which comply with ASTM C 1047 and requirements indicated below:
1. Material: Formed metal, plastic or metal combined with paper, with metal complying with the following requirement:
 - a. Sheet steel zinc coated by hot dip process.
 - b. Sheet steel coated with zinc by hot dip or electrolytic processes, or with aluminum.
- B. Metal Cornerbead and Edge Trim for Exterior Ceilings: Comply with ASTM C 1047, formed from rolled zinc.

2.05 GYPSUM BOARD JOINT TREATMENT MATERIALS

- A. Provide materials complying with ASTM C 475, ASTM C 840, and recommendations of manufacturer of both gypsum board and joint treatment materials for the application indicated.

2.06 MISCELLANEOUS MATERIALS

- A. Provide auxiliary materials for gypsum drywall construction which comply with referenced standards and the recommendations of the manufacturer of the gypsum board.
- B. Laminating Adhesive: Special adhesive or joint compound recommended for laminating gypsum boards.
- C. Spot Grout: ASTM C 475, setting type joint compound of type recommended for spot grouting hollow metal door frames.
- D. Fastening Adhesive for Wood: ASTM C 557
- E. Fastening Adhesive for Metal: Special adhesive recommended for laminating gypsum boards to steel framing.
- F. Gypsum Board Screws: ASTM C 1002
- G. Gypsum Board Nails: ASTM C 514
- H. Sound Attenuation Blankets: Unfaced mineral fiber blanket insulation produced by combining mineral fibers of type described below with thermosetting resins to comply with ASTM C 665 for Type I (blankets without membrane facing); and as follows:

1. Mineral Fiber Type: Fibers manufactured from glass or slag.
 - a. Owens Corning Fiberglas "Firecore 60 Sound Attenuation Batts"
 - b. U. S. Gypsum Co. "Thermafiber Sound Attenuation Fire Blankets".
2. Provide blankets in thicknesses shown or, if not shown, in manufacturer's standard nominal thickness corresponding to the wall stud width.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Examine substrates to which drywall construction attaches or abuts, preset hollow metal frames, cast in anchors, and structural framing, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of drywall construction. Do not proceed with installation until unsatisfactory conditions have been corrected.
- B. Ceiling Anchorages: Coordinate installation of ceiling suspension system with installation of overhead structural systems to ensure that inserts and other structural anchorage provisions have been installed to receive ceiling anchors in a manner that will develop their full strength and at spacing required to support ceiling.
 1. Furnish concrete inserts and other devices indicated, to other trades for installation well in advance of time needed for coordination with other construction.

3.02 INSTALLATION

- A. Installation shall meet or exceed all applicable federal, state and local requirements, referenced standards and conform to codes and ordinances of authorities having jurisdiction.
- B. All installation shall be in accordance with manufacturer's published recommendations.
 1. Do not connect or suspend steel framing from ducts, pipes or conduit.

3.03 APPLICATION AND FINISHING OF GYPSUM BOARD, GENERAL

- A. Gypsum Board Application and Finishing Standard: Install and finish gypsum board to comply with ASTM C 840 and GA 216.
- B. Install sound attenuation blankets where indicated, prior to gypsum board unless readily installed after board has been installed.
 1. Install sound pad sheets on the back of any device or accessory that is mounted in a drywall partition shown on Drawings to have an STC rating. Devices and accessories include: electrical receptacles, electrical outlet boxes, toilet accessories, and medical gas outlets.
- C. Locate exposed end butt joints as far from center of walls and ceilings as possible, and stagger not less than 24 inches in alternate courses of board.

**SECTION 09250
GYPSUM DRYWALL**

- D. Install wall/partition boards in manner which minimizes the number of end butt joints or avoids them entirely where possible. At stairwells and similar high walls, install boards horizontally with end joints staggered over studs.
- E. Install exposed gypsum board with face side out. Do not install imperfect, damaged or damp boards. Butt boards together for a light contact at edges and ends with not more than 1/16 inch open space between boards. Do not force into place.
- F. Locate either edge or end joints over supports, except in horizontal applications where intermediate supports or gypsum board back blocking is provided behind end joints. Position boards so that like edges abut, tapered edges against tapered edges and mill cut or field cut ends against mill cut or field cut ends. Do not place tapered edges against cut edges or ends. Stagger vertical joints over different studs on opposite sides of partitions.
- G. Attach gypsum board to steel studs so that leading edge or end of each board is attached to open (unsupported) edge of stud flange first.
- H. Attach gypsum board to supplementary framing and blocking provided for additional support at openings and cutouts.
- I. Spot grout hollow metal door frames for solid core wood doors, hollow metal doors and doors over 32 inches wide. Apply spot grout at each jamb anchor clip just before inserting board into frame.
- J. Form control joints and expansion joints at locations indicated, with space between edges of boards, prepared to receive trim accessories.
- K. Cover both faces of steel stud partition framing with gypsum board in concealed spaces (above ceilings, etc.), except in chase walls which are braced internally.
 - 1. Except where concealed application is indicated or required for sound, fire, air or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. area, and may be limited to not less than 75 percent of full coverage.
 - 2. Fit gypsum board around ducts, pipes, and conduits.
 - 3. Where partitions intersect open concrete coffers, cut gypsum board to fit profile of coffers and allow 1/4 to 1/2 inch wide joint for sealant.
- L. Isolate perimeter of non load bearing drywall partitions at structural abutments. Provide 1/4 inch to 1/2 inch space and trim edge with "U" bead edge trim. Seal joints with acoustical sealant.
- M. Where sound rated drywall construction is indicated, seal construction at perimeters, control and expansion joints, openings and penetrations with a continuous bead of acoustical sealant including a bead at both faces of partitions. Comply with ASTM C 919 and manufacturer's recommendations for location of edge trim, and close off sound flanking paths around or through construction, including sealing of partitions above acoustical ceilings.
 - 1. For double layer partition systems, construction above acoustical ceilings may be installed with base layer only.
- N. Space fasteners in gypsum boards in accordance with referenced gypsum board application and finishing standard and manufacturer's recommendations.

3.04 METHODS OF GYPSUM BOARD APPLICATION

- A. Single Layer Application: Install gypsum wallboard as follows:
 - 1. On partitions/walls apply gypsum board vertically (parallel to framing), unless otherwise indicated, and provide sheet lengths which will minimize end joints.
 - 2. On Z furring members apply gypsum board vertically (parallel to framing) with no end joints. Locate edge joints over furring members.
- B. Wall Tile Base: Where drywall is base for thin set ceramic tile and similar rigid applied wall finishes, install gypsum backing board.
 - 1. In "dry" areas install gypsum backing board or wallboard with tapered edges taped and finished to produce a flat surface.
- C. At showers, tubs and similar "wet areas" install glass mesh mortar units and treat joints to comply with ANSI A108.11 and manufacturer's recommendations for type of application indicated..
- D. Double Layer Fastening Methods: Apply base layer of gypsum board and face layer to base layer as follows:
 - 1. Fasten both base layers and face layers separately to supports with screws.
 - 2. Fasten base layers with screws and face layer with adhesive and supplementary fasteners.
 - 3. Fasten base layers to wood supports with nails and face layer with adhesive and supplementary fasteners.
- E. Direct Bonding to Substrate: Where gypsum board is indicated to be directly adhered to a substrate (other than studs, joists, furring members or base layer of gypsum board), comply with gypsum board manufacturer's recommendations, and temporarily brace or fasten gypsum board until fastening adhesive has set.

3.05 INSTALLATION OF DRYWALL TRIM ACCESSORIES

- A. General: Where feasible, use the same fasteners to anchor trim accessory flanges as required to fasten gypsum board to the supports. Otherwise, fasten flanges to comply with manufacturer's recommendations.
- B. Install corner beads at external corners.
- C. Install metal edge trim whenever edge of gypsum board would otherwise be exposed or semi exposed, and except where plastic trim is indicated. Provide type with face flange to receive joint compound except where "U" bead (semi finishing type) is indicated.
- D. Install U bead where indicated, and where exterior gypsum board edges are not covered by applied moldings or indicated to receive edge trim with face flanges covered with joint compound.
- E. Install plastic edge trim where indicated on wall panels at juncture with ceilings.

**SECTION 09250
GYPSUM DRYWALL**

- F. Install control joints at locations indicated, or if not indicated, at spacings and locations required by referenced gypsum board application and finish standard, and approved by the Architect for visual effect.
 - 1. Extend control joints for full height and width of gypsum board installation. Do not stop joints short of termination of gypsum board.
- G. Install H molding in exterior gypsum drywall construction where control joints are indicated.

3.06 FINISHING OF DRYWALL

- A. General: Apply joint treatment at gypsum board joints (both directions); flanges of corner bead, edge trim, and control joints; penetrations; fastener heads, surface defects and elsewhere as required to prepare Work for decoration.
- B. Prefill open joints and rounded or beveled edges, if any, using setting type joint compound.
- C. Apply joint tape at joints between gypsum boards, except where trim accessories are indicated.
- D. Levels of Gypsum Board Finish: Provide the following levels of gypsum board finish per GA 214.
 - 1. Level 1 for ceiling plenum areas, concealed areas, and where indicated, unless a higher level of finish is required for fire resistive rated assemblies and sound rated assemblies.
 - 2. Level 2 where water resistant gypsum backing board panels form substrates for tile, and where indicated.
 - 3. Level 3 for gypsum board surfaces indicated to receive medium or heavy textured finishes before painting.
 - 4. Level 4 for gypsum board surfaces indicated to receive light textured finishes, wallcoverings, and flat paints over light textures.
 - 5. Level 5 for gypsum board surfaces indicated to receive gloss and semigloss enamels, nontextured flat paints, and where indicated.
- E. Finish exterior gypsum soffit board by using setting type joint compounds to prefill joints, embed tape, and to apply first, fill (second) and finish (third) coats; smooth each coat before joint compound hardens to minimize need for sanding; sand between coats and after finish coat.
- F. Base for Acoustical Tile: Where gypsum board is indicated as a base for adhesively applied acoustical tile, install tape and 2 coat compound treatment, without sanding.
- G. Water Resistant Gypsum Backing Board Base for Ceramic Tile: Comply with ASTM C 840 and manufacturer's recommendations for treatment of joints behind tile.
- H. Water Resistant Backing Board Base for Ceramic Tile: Finish joints between water resistant backing board with tape and setting type joint compound to comply with gypsum board manufacturer's recommendations and installation standards referenced in Division 9 Section "Tile."
- I. Partial Finishing: Omit third coat and sanding on concealed drywall construction which is indicated for drywall finishing or which requires finishing to achieve fire resistance rating, sound rating or to act as air or smoke barrier.

END OF SECTION 09 29 00

SEQUENCES OF OPERATION:

MAIN CHILLED WATER PUMPS (CHWP-1 & CHWP-2):

WHEN THE CHILLED WATER SYSTEM IN BATTELL HALL IS ACTIVATED, IT SHALL IN TURN SEND A SIGNAL TO THE CHILLED WATER PUMPS IN WOODWARD HALL TO ACTIVATE PUMPS BASED ON OUTSIDE AIR CONDITIONS AND WOODWARD HALL COOLING REQUEST FROM THE EXISTING COOLING ZONES. THE CHILLED WATER PUMPS SHALL BE CONTROLLED BY VARIABLE FREQUENCY DRIVES (VFD). ONCE ACTIVATED, PUMPS SHALL RUN IN A LEAD/LAG ALTERNATING FASHION. IF ONE PUMP FAILS, THE OTHER PUMP SHALL START AND AN ALARM SHALL BE GENERATED AT THE HEAD END. THE PUMPS SHALL HAVE THE FOLLOWING POINTS: START/STOP, CONTROL SIGNAL, FEEDBACK AND ALARM. THE PUMPS SHALL BE CONTROLLED BY A DIFFERENTIAL CONTROLLER SETPOINT TO BE PROVIDED BY THE BALANCER. THE DIFFERENTIAL PRESSURE (DP) CONTROLLER SHALL BE LOCATED 2/3 DOWN STREAM IN THE SYSTEM.

EXISTING AIR HANDLERS (ATTIC):

THE EXISTING ATTIC AIR HANDLERS SHALL HAVE THEIR NEW CHILLED WATER COIL CONTROL VALVES MODULATED BY THE EXISTING AHU CONTROLLERS TO MAINTAIN EITHER A FIXED DISCHARGE SETPOINT OR AN AVERAGE SPACE SETPOINT BASED ON THE EXISTING ZONE SENSORS. THIS SHALL BE OPERATOR SELECTABLE.

FAN COIL UNITS (COOLING ONLY):

THE FAN COIL UNITS (FCU) SHALL BE OPERATOR SELECTABLE TO RUN YEAR ROUND CONTINUOUS OR SEASONALLY, ONCE THE UNIT MODE IS SELECTED, THE UNITS, WHEN COOLING IS AVAILABLE, SHALL BE ENABLED TO RUN ON A TIME SCHEDULE OR 24 HOUR CONTINUOUS, OPERABLE SELECTABLE. WHEN COOLING IS AVAILABLE, THE CHILLED WATER VALVES SHALL BE MODULATED TO MAINTAIN THEIR SPACE SETPOINT WITH EITHER THE FAN RUNNING CONTINUOUSLY OR INTERMITTENTLY, OPERATOR SELECTABLE. IF UNITS ARE SELECTED TO RUN IN THE NON-COOLING SEASON, IT WILL BE FOR AIR CIRCULATION ONLY. THE FOLLOWING POINTS SHALL BE MONITORED AND/OR CONTROLLED: FAN START/STOP, FAN STATUS, FAN STATUS, SPACE OR RETURN AIR, DISCHARGE AIR AND CHILLED WATER CONTROL VALVE CONTROL.

GENERAL NOTES:

1. CONTROLS FOR THIS PROJECT ARE AN EXTENSION OF THE EXISTING CAMPUS AUTOMATIC TEMPERATURE CONTROL NETWORK SYSTEM. EXISTING AUTOMATIC TEMPERAURE CONTROL VENDOR IS AUTOMATED LOGIC CONNECTICUT, WALLINGFORD, CT (203) 284-0100.
2. CONTRACTOR SHALL MAKE ANY AND ALL MODIFICATIONS TO EXISTING/NEW CONTROL NETEWORK SYSTEM TO ACCOMPLISH THE INTENT OF THESE CONTRACT DOCUMENTS INCLUDING, BUT NOT LIMITED TO: WIRING, CONDUIT, NETWORKING, PROGRAMMING, ETC. AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.

INVITATION TO BID

FOR PROJECTS ESTIMATED TO COST MORE THAN \$500,000.00

ADV. NO.: 11-11

ADV. DATE: November 12, 2010

SEALED BIDS FROM CONTRACTORS WHO HAVE BEEN PREQUALIFIED IN THE DAS CLASSIFICATION NOTED BELOW SHALL BE ADDRESSED TO THE DEPARTMENT OF PUBLIC WORKS - STATE OF CONNECTICUT FOR:

Project Title:	Woodward Hall Dormitory Renovations Connecticut Valley Hospital Middletown, Connecticut
Project Number:	BI-MH-497 Ph 1
DAS Classification:	General Building Construction Group B
Special Requirement:	General contractor must be licensed to abate asbestos or hire a licensed asbestos abatement contractor.
Cost Estimate Range:	\$1,600,000.00 – \$1,800,000.00
Plans & Specs Ready Date:	November 17, 2010
A NON-REFUNDABLE FEE OF PER SET IS REQUIRED	\$ 55.00 Checks should be made payable to “ Treasurer, State Of Connecticut ” and should include the prospective bidder’s correct mailing address, telephone and fax numbers of where addendum (a) should be submitted. USE A SEPARATE CHECK FOR EACH PROJECT.
Examination or Purchase of Plans & Specs	At the State Of Connecticut, Department Of Public Works, Plans And Specifications Section, Room No. G-36, 165 Capitol Avenue, Hartford, CT 06106 , during the hours of 7:30 A.M. to 3:00 P.M. (Monday-Friday) or by addressing a request to the above address.
Pre-Bid Conference:	All prospective bidders are required to attend a MANDATORY Pre-Bid Conference
Pre-Bid Conference Time	to be held AT 10:00 AM
Pre-Bid Conference Date	ON Monday November 22, 2010
Pre-Bid Conference Location	AT Shew Hall Engineering Conference Room Second Floor, Holmes Drive, Middletown, CT
Pre-Bid Conference Registration	All prospective bidders are required to <i>properly</i> register. <i>Proper</i> registration means that the attendee has <i>signed</i> his or her name to the official roster and <i>listed</i> the name and address of the company he or she represents on the official roster no later than the designated start time of the pre-bid conference. No attendee will be allowed to register <i>after</i> the advertised start time of the pre-bid conference. Bids submitted by contractors who have <i>not properly</i> registered and attended the pre-bid conference shall be <i>rejected</i> as non-responsive.
Pre-Bid Conference Contact	Will Santiago, Phone # 860-262-5308
BID OPENING DATE:	December 8, 2010
Receipt of Bid Package	Bids will be received at the State Office Building, 165 Capitol

	Avenue, Hartford, CT, 06106 in Room No. G-36 UNTIL 1:00 P.M. on the date shown above and thereafter publicly opened and read aloud in Room No. G-32.
Bid Results:	Bid results are posted on the DPW Website in approximately two (2) days after the bid opening date.
Set-Aside Participation	25%
Including MBE/WBE	6.25%
Gift And Campaign Contribution Certification	If awarded the subject contract and the contract has a value of \$50,000 or more the contractor will be required to sign and submit, at the time of contract execution, a Gift And Campaign Contribution Certification . See the DPW home page, http://www.ct.gov/dpw , click on Affidavits . For the purposes of signing the Certification, the “date DPW began planning” the subject project or services is such date noted below.
Date DPW Began Planning the Subject Project:	August 27, 1997
Summary and Affidavit Regarding State Ethics	Any one seeking a contract with a value of more than \$500,000 shall provide with their bid an Ethics Affidavit <i>located</i> at CT DPW Website (www.ct.gov/dpw). Failure to provide this affidavit with the bid proposal shall result in rejection of the bid.
Bid Security	As security , <i>each</i> bid must be accompanied by a CERTIFIED CHECK made payable to “ Treasurer, State of Connecticut, ” or the bid must be accompanied by a BID BOND, in the form required by the awarding authority and having surety thereto such Surety Company or Companies as are authorized to do business in this State and/or accepted by the Commissioner of the Department of Public Works for an amount not less than 10% of the bid.
Bidders are advised that <i>both</i> the DEPARTMENT OF ADMINISTRATIVE SERVICES PREQUALIFICATION CERTIFICATE and UPDATE STATEMENT <i>must</i> accompany the <i>bid</i> proposal for projects <i>estimated to exceed</i> Five Hundred Thousand Dollars (\$500,000.00) (C.G.S. 4b-91 as amended). <i>Failure to supply them with the bid will result in rejection of the bid</i>	
Department of Administrative Services (DAS) Contractor Prequalification Program: http://www.das.state.ct.us/busopp.asp	
To access Executive Orders http://www.ct.gov/governorrell/cwp/browse.asp?a=1719&bc=0&c=18433	
To access the Department of Public Works Web Site: http://www.ct.gov/dpw	

Performance and Labor and Material Bonds to be furnished by the bidder awarded the contract shall be an amount not less than 100% of the contract price.

The awarding authority reserves the right to waive technical defects or to reject any and all bids.

Nonresident contractors: *At the time of contract signing a certificate from the Commissioner of Revenue Services must be provided which evidences that C.G.S. 12-430 for non-resident contractors has been met. For details call the Department of Revenue Services at (860) 541-3280, ext. 7.*

EXECUTIVE ORDERS:

The Contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of the Contract as if they had been fully set forth in it. At the Contractor's request, the Client Agency shall provide a copy of these orders to the Contractor. The Contract may also be subject to Executive Order No. 7C of Governor M. Jodi Rell, promulgated July 13, 2006, concerning contracting reforms and Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services, in accordance with their respective terms and conditions.

This contract is subject to the provisions of the Department of Public Works **Sexual Harassment Policy** ("Policy") and, as such, the contract may be canceled, terminated, or suspended by DPW for violation of or noncompliance with said Policy. Said document is hereby incorporated herein by reference and made a part hereof as though fully set forth herein. This policy may be found at the Department of Public Works Website at <http://www.ct.gov/dpw>, click **Publications** and scroll to **Sexual Harassment Policy**.

All **technical** questions must be in writing (not phoned or emailed) and faxed to the **Architect/Engineer** with a **copy** to the **DPW Project Manager** listed below.

Architect/Engineer/ Consultant:	OOO – Engineering Services	Fax No:	860-262-5307
Construction Administrator	Wayne Thorpe	Fax No:	860-713-7261
DPW Project Manager:	Wayne Thorpe	Fax No:	860-713-7261

All **bid questions** should be addressed to the Purchasing Officer listed below.

Associates Fiscal Administrative Officer:	Gail Blythe	Fax No:	(860) 713-7395
Contract Time Allowed:	360	Calendar Days	
Liquidated Damages:	\$ 540.00	Per Calendar Day	

Prevailing Wage Rates: Prevailing wages are required on this project, in accordance with the schedule provided in the bid documents, pursuant to Connecticut General Statutes Section 31-53 (a) through (h), as amended.

Each contractor who is awarded a contract on or after October 1, 2002 shall be subject to provisions of the Connecticut General Statutes, Section 31-55a concerning **annual adjustments** to prevailing wages.

Wage Rates will be posted each July 1st on the Department of Labor website: www.ctdol.state.ct.us . Such prevailing wage adjustment shall not be considered a matter for any contract amendment.

The wages paid on an hourly basis to any mechanic, laborer or workman employed upon the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such employee to any employee welfare fund, as defined in subsection (h) of section 31-53 of the Connecticut General Statutes, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such employees to any such employee welfare fund shall pay to each employee as part of his wages the amount of payment or contribution for his classification on each pay day.

Procurement
Department of Public Works