

UNIVERSITY OF CALIFORNIA, SANTA BARBARA

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCED • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

OFFICE OF DESIGN & CONSTRUCTION SERVICES and PHYSICAL FACILITIES

CONTRACTING SERVICES

Building 439

Santa Barbara, California 93106-1030

Telephone (805) 893-3356

Fax (805) 893-8592

SENT VIA: ☐ FAX ON THIS DATE
☐ HAND DELIVERY ON THIS DATE
☒ FEDERAL EXPRESS ON THIS DATE
☐ UNITED PARCEL SERVICE ON THIS DATE

HOLDERS OF PLANS AND SPECIFICATIONS:

Stem Cell II Lab, Biological Sciences Bldg. II, Bldg 571

Project No. FM090125L/981630

Addendum No. THREE

March 10, 2010

Enclosed is **ADDENDUM NO. THREE** to the Construction Documents on the above-captioned project.

Bid date is **Thursday, March 18, 2010 at 2:30P.M.**, to be held at:

CONTRACTING SERVICES
Facilities Management, Bldg. 439,
Door #E, Reception Counter
University of California, Santa Barbara
Santa Barbara, CA 93106-1030.

Late arrivals shall be disqualified. Please allow time for unforeseen traffic delays, securing a parking permit and potential parking problems.

A handwritten signature in black ink, appearing to read 'Anna Galanis'.

Anna Galanis
Director, Contracting Services

ADDENDUM NUMBER THREE

to the

Construction Documents
March 10, 2010

GENERAL

The following changes, additions or deletions shall be made to the following document(s) as Indicated; all other conditions shall remain the same.

I SPECIFICATIONS

Item No.

1. Table of Contents, Division 2- Site Construction, Change to read as follows:

“Division 2 – Site Construction
02080 – Asbestos Related Demolition Work
02081 – Lead Related Demolition Work
02082 – Universal Waste”

Item No.

2. Table of Contents, **ADD** Section 10400, Signs, pages 1-4.

Item No.

2. Table of Contents, **ADD** Section 12491, Blinds, pages 1-2.

Item No.

3. Section 08110, Steel Doors and Frames, **REPLACE** in it's entirety, Section 08110, Steel Doors and Frames, with Attached “Revised Section 08100, Steel Doors and Frames, Revised per Addendum Three, 4 pages.

Item No.

4. Section 09652, Resilient Sheet Flooring, **REPLACE** in it's entirety, Section 09652, Resilient Sheet Flooring, with Attached "Revised Section 09652, Resilient Sheet Flooring, Revised per Addendum Three, 4 pages.

Item No.

5. Section 09681, Carpet Tile, **REPLACE** in it's entirety, Section 09681, Carpet Tile, with Attached "Revised Section 09681, Carpet Tile, Revised per Addendum Three, 5 pages

Item No.

6. Section 10260, Wall and Corner Guards, **REPLACE** in it's entirety, Section 10260, Wall and Corner Guards, with Attached "Revised Section 10260, Wall and Corner Guards, Revised per Addendum Three, 2 pages

Item No.

7. Section 10400, Signs, **ADD** Section 10400, Signs, Attached, 4 pages

Item No.

8. Section 12491, Blinds, **ADD** Section 12491, Blinds, Attached, 2 pages

II DRAWINGS

Item No.

1. A5.01, Partition Types & Details, **REPLACE** in it's entirety with Attached A5.01, Partition Types & Details, Revised per Addendum Three, dated 3-4-2010.

Item No.

2. A5.02, Door Schedule & Details, **REPLACE** in it's entirety with Attached A5.02, Door Schedule & Details, Revised per Addendum Three, dated 3-4-2010.

Item No.

3. A6.01, Typical Casework Elevations, **REPLACE** in it's entirety with Attached A6.01, Typical Casework Elevations, Revised per Addendum Three, dated 3-4-2010.

Item No.

4. A6.13, 3rd Floor Lab Furnishing & Equipment Plan, **REPLACE** in it's entirety with Attached A6.13, 3rd Floor Lab Furnishing & Equipment Plan, Revised per Addendum Three, dated 3-4-2010.

Item No.

5. A6.14, 4th Floor Lab Furnishing & Equipment Plan, **REPLACE** in it's entirety with Attached A6.14, 4th Floor Lab Furnishing & Equipment Plan, Revised per Addendum Three, dated 3-4-2010.

Item No.

6. E5.02, Electrical Details, **REPLACE** in it's entirety with Attached E5.02, Electrical Details, Revised per Addendum Three, dated 3-4-2010.

III CLARIFICATIONS (on questions received)

1. Laboratory Casework and other Furnishings Spec section 12350 Drawing number A6.13. Are the TA style tables to be steel or wood? Steel tables are most common when cabinets will be suspended below.
 - Plans and specifications clearly indicate steel infrastructure.
2. Please confirm that the CO2 reference shown at the stacked incubators on the floor requires that the HPG3 valve be furnished. The HPG3 per 2.02.h.1 of Section 11534. Please clarify where the CO2 point of use panel is to be located.
 - Refer to plumbing documents
3. The specification indicated casework for the Break Room on the 4th floor. If casework is to be furnished, can an elevation be furnished?
 - Refer to project limit line.
4. All Bio Safety cabinets shown in floor plan A6.13 and A6.14 are drawn in dashed lines. Specifications were not provided either. Please clarify if Bio Safety Cabinets are included in this project and if so please provide specification.
 - Refer to equipment drawings
5. On demo sheets, “Plan Demolition Note” #17 removes all (e) paint on concrete surfaces. On sheets A1.03 & A1.04 “Plan Specific Notes” #2 references rapid set “eisenwall” on (e) concrete. Is this rapid se product to be used as patching material only prior to (n) paint?
 - Rapid set on all concrete surfaces prior to paint
6. Will project side of concrete walls on line C be expected to have note #2 of “Plan Specific Notes” to apply?
 - Note 2 applies to all concrete walls within project site

END OF ADDENDUM NO. THREE

Revised SECTION 08110
STEEL DOORS AND FRAMES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Steel doors and frames.
- B. Interior light frames.

1.02 RELATED SECTIONS

- A. Section 08210 - Flush Wood Doors.
- B. Section 08710 - Door Hardware.
- C. Section 09900 - Paints and Coatings.

1.03 SUBMITTALS: Follow Section 01300.

- A. Schedule: Use same reference numbers for openings as those in Door and Frame Schedule shown on Drawings.
- B. Shop Drawings: Indicate gauges,, location of cutouts for hardware reinforcement and finish. Indicate door elevations, internal reinforcement, closure method, cut outs for glazing, and details of moldings and removable stops.
- C. Product Data: For each type of product indicated. Include construction details, material descriptions, core descriptions, fire-resistance rating, temperature-rise ratings, and finishes. Describe shop primer.

1.04 QUALITY ASSURANCE: Comply with:

- A. ANSI A250.8 unless shown or specified otherwise.

1.05 REGULATORY REQUIREMENTS

- A. Fire rated construction shall comply with ANSI/NFPA 252, UL 10B, or other standards as required by authorities having jurisdiction.
- B. Installed rated frame and door assembly shall comply with ANSI/NFPA 80 for fire rated class indicated.

1.06 DELIVERY, STORAGE AND PROTECTION: Follow Section 01600.

- A. Protect products following ANSI A250.8.
- B. Protect doors and frames with resilient packaging.
- C. Break seal on-site to permit ventilation.

PART 2 PRODUCTS

2.01 MANUFACTURERS: Substitutions are permitted subject to Section 01630.

- A. Steelcraft.
- B. Ceco Door Products
- C. Curries Company; an Assa Abloy Group company.
- D. Firedoor Corporation.
- E. Habersham Metal Products Co.
- F. Republic Doors and Frames.
- G. Security Metal Products.
- H. Or equal, Steel Door Institute (SDI) member manufactures.

2.02 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A1008/A1008M, Commercial Steel (CS), Type B; suitable for exposed applications.
- B. Hot-Rolled Steel Sheet: ASTM A1011/A1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.
- C. Frame Anchors: ASTM A591/A591M, Commercial Steel (CS), 40Z (12G) coating designation; mill phosphatized. All anchors and leg angles to be welded.
 - 1. For anchors built into exterior walls, steel sheet complying with ASTM A1008/A1008M or ASTM A1011/A1011M, hot-dip galvanized according to ASTM A153/A153M, Class B.
- D. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A153/A153M.
- E. Drilled Anchors in Concrete: Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with clips or other accessory devices for attaching hollow metal frames of type indicated. All anchors and leg angles to be welded.
- F. Grout: ASTM C476, except with a maximum slump of 4 inches (102 mm), as measured according to ASTM C143/C143M.

2.03 DOORS AND FRAMES

- A. Interior Non-Rated Doors: ANSI A250.8 Level 2 (heavy duty), 18 gauge Model 2 (seamless hollow steel); core of vertical steel stiffeners and manufacturer's standard sound deadener, except that loose-fill and urethane are not acceptable.
- B. Interior Fire Rated Doors: ANSI A250.8 Level 2 (heavy duty), 18 gauge, Model 2 (seamless hollow steel); mineral fiberboard core.
- C. Door Edge Seams: Requirement for "seamless hollow steel" shall mean that all edge seams are welded, ground, filled and finished prior to applying factory primer.
- D. Internal Reinforcing: All doors shall be fabricated with a steel-stiffened core, consisting of vertically formed 20 gauge (0.8mm) steel sections, extending full-door height. Vertical interior webs shall be no more than 6 inches (152mm) apart, spot welded to face sheets a maximum of

5 inches (127 mm) OC. Special supporting internal reinforcing shall be fabricated with all automatic doors.

- E. Interior Frames: Level 3, 16 gauge.

2.04 ACCESSORIES

- A. Glazing Stops: Minimum 21 gauge steel channel shape, butted or mitered corners; prepared for countersunk screws, minimum of two screws per side.
- B. Anchors: Minimum 3 wall anchors per jamb, appropriate for wall construction; floor anchors or additional wall anchors as required. All anchors to be welded.

2.05 FABRICATION

- A. Do not begin fabrication until hardware templates have been received from hardware supplier.
- B. Doors: Fabricate to ANSI grade specified.
 - 1. Make tops and bottoms of doors flush with 18 gage roll-formed steel channels; with seams welded and filled; seamless, watertight; no recesses.
 - 2. Where recessed weatherstripping is scheduled, configure doors with special profile.
- C. Frames:
 - 1. Fabricate frames as fully welded units, including welding cracks and crevices, with joints ground smooth.
 - 2. At non-rated frames in masonry, reinforce frames 36 to 60 inches wide (inside dimension) with 12 gauge roll formed steel channels fitted tightly into and tack welded to frame head; channel legs up.
- D. Prepare doors and frames for specified hardware and electrical devices in accordance with ANSI A250.8 and ANSI A115 (where applicable). Coordinate locations of conduit and wiring boxes for electrical connections with Division 16 Sections. Weld hardware reinforcement plates and devices in place.
- E. Provide mortar guard boxes at grouted frames as shown on drawings.
- F. Attach label to fire frame and door units.

2.06 FINISH

- A. Exterior Doors and Frames: Galvanize to ASTM A653 G60. Wipe coat galvanizing is not permitted.
- B. Interior and Exterior Doors and Frames (in addition to galvanizing): Manufacturer's standard shop primer paint, compatible with field applied (epoxy) latex or alkyd finishes.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install frames in accordance with SDI-105. Set all door frames with hinge side of jamb not less than 2 inches from wall surface forming an angle of 90 degrees or less with the plane of door on the room side into which the door swings.
- B. Install doors in accordance with ANSI/DHI A115-IG.

3.02 FIELD QUALITY CONTROL: Follow Section 01400.

- A. Architectural Hardware Supplier's qualified representative, in conjunction with University Representative will perform random inspections of installation to verify that door and frame preparation and installation, and hardware installation have been performed in accordance with manufacturer's instructions and this specification. Including verification that manufacturer's or specified fasteners have been used for the installation of all hardware items.

3.03 FIELD INSTALLATION TOLERANCES

- A. Maximum Diagonal Distortion: 1/16 inch measured with straight edge, corner to corner.

END OF SECTION

Revised - SECTION 09681

CARPET TILE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preparation of surfaces to receive carpet.
- B. Carpet tile and accessories.

1.02 RELATED SECTIONS

- A. Section 07160 - Cementitious and Reactive Waterproofing.
- B. Section 09605 - Vapor transmission testing of concrete floors.
- C. Section 09650 - Resilient flooring, resilient base.

1.03 SUBMITTALS: Follow Section 01330.

- A. Product Data: For each type of product indicated. Include manufacturer's written data on physical characteristics, durability, and fade resistance. Include installation methods.
- B. Shop Drawings: Show the following:
 - 1. Columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in carpet tiles.
 - 2. Existing flooring materials to be removed.
 - 3. Existing flooring materials to remain.
 - 4. Carpet tile type, color, and dye lot.
 - 5. Type of subfloor.
 - 6. Type of installation.
 - 7. Pattern of installation.
 - 8. Pattern type, location, and direction.
 - 9. Pile direction.
 - 10. Type, color, and location of insets and borders.
 - 11. Type, color, and location of edge, transition, and other accessory strips.
 - 12. Transition details to other flooring materials.
- C. Samples: For each of the following products and for each color and texture required. Label each Sample with manufacturer's name, material description, color, pattern, and designation indicated on Drawings and in schedules.
 - 1. Carpet Tile: Full-size Sample.
 - 2. Exposed Edge Stripping and Accessory: 12-inch- (300-mm-) long Samples.
- D. Product Schedule: Use same room and product designations indicated on Drawings and in schedules.
- E. Maintenance Data: For carpet tile to include in maintenance manuals specified in Division 1. Include the following:
 - 1. Methods for maintaining carpet tile, including cleaning and stain-removal products and procedures and manufacturer's recommended maintenance schedule.
 - 2. Precautions for cleaning materials and methods that could be detrimental to carpet tile.

1.04 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who is certified by the Floor Covering Installation Board or who can demonstrate compliance with its certification program requirements.
- B. Single-Source Responsibility: Obtain each type of carpet tile from one source and by a single manufacturer.
- C. Fire-Test-Response Characteristics: Provide products with the critical radiant flux classification indicated in Part 2, as determined by testing identical products per ASTM E648 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.

1.05 MOCK-UPS

- A. Mockups: Before installing carpet tile, build mockups to verify selections made and to demonstrate aesthetic effects and set quality standards for materials and execution.
- B. Approved mockups may become part of the completed Work if undamaged at time of Substantial Completion.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. General: Comply with CRI 104, Section 5, "Storage and Handling."
- B. Deliver materials to Project site in original factory wrappings and containers, labeled with identification of manufacturer, brand name, and lot number.
- C. Store materials on-site in original undamaged packages, inside well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity. Lay flat, with continuous blocking off ground.

1.07 PROJECT CONDITIONS

- A. General: Comply with CRI 104, Section 6.1, "Site Conditions; Temperature and Humidity."
- B. Space Enclosure and Environmental Limitations: Do not install carpet tile until space is enclosed and weatherproof, wet-work in space is completed and nominally dry, work above ceilings is completed and tested, and ambient temperature and humidity conditions are and will be continuously maintained at values near those indicated for final occupancy, beginning at least 24 hours before work begins.
- C. Alkalinity Conditions: Do not install carpet tile over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have pH range recommended by carpet tile manufacturer, or a pH range of 5 to 9 when subfloor is wetted with potable water and pHdriion paper is applied, whichever is more stringent.
- D. Moisture emission rate of not more than 3 lb/1000 sq. ft./24 hours (14.6 kg/1000 sq. m/24 hours) when tested by calcium chloride moisture test in compliance with CRI 104, 6.2.1, with subfloor temperatures not less than 55 degrees F (12.7 degrees C).
- E. Where demountable partitions or other items are indicated for installation on top of carpet tile, install carpet tile before installing these items.

1.08 WARRANTY

- A. General Warranty: Special warranty specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in

addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

- B. Special Carpet Tile Warranty: Written warranty, signed by carpet tile manufacturer agreeing to replace carpet tile that does not comply with requirements or that fails within specified warranty period. Warranty does not include deterioration or failure of carpet tile due to unusual traffic, failure of substrate, vandalism, or abuse. Failures include, but are not limited to, more than 10 percent loss of face fiber, edge raveling, snags, runs, and delamination.

1. Warranty Period: 5 years from date of Substantial Completion.

1.09 EXTRA MATERIALS

- A. Furnish extra materials described below, before installation begins, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. Materials shall be from the same mill run as material used in the Project.

1. Carpet Tile: Before installation begins, furnish quantity of full-size units equal to 5 percent of amount installed for each type indicated, but not less than two unopened boxes from same run, whichever is greater.

PART 2 PRODUCTS

2.01 CARPET TILE

- A. Design Standard Manufacturers:

1. Shaw.
 - a. Style Name: Synthesis IV.
 - b. Color: Submit manufacturers standard line of color options for selection by Owner's Representative; 2"x2" swatches.
2. Interface.
3. Substitutions are permitted subject to Section 01630.

2.02 ACCESSORIES

- A. Concrete-Slab Primer: Nonstaining type as recommended by carpet tile manufacturer.
- B. Trowelable Leveling and Patching Compounds: Latex-modified, hydraulic-cement-based formulation provided by or recommended by carpet tile manufacturer.
- C. Adhesives: Water-resistant, mildew-resistant, nonstaining type to suit products and subfloor conditions indicated, that complies with flammability requirements for installed carpet tile and that is recommended by carpet tile manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrates, areas, and conditions for compliance with requirements for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting carpet tile performance. Verify that substrates and conditions are satisfactory for carpet tile installation and comply with requirements specified.
- B. Concrete Subfloors: Verify that concrete slabs comply with ASTM F 710, requirements of carpet tile manufacturer, and the following. In cases of conflicting requirements, the more stringent shall apply:

1. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests specified herein and as recommended by carpet tile manufacturer.
 - a. Moisture test method shall be in accordance with in situ probes, per ASTM F2170, in lieu of method employing anhydrous calcium chloride (ASTM F 1869) referred to in ASTM F 710.
2. Subfloor finishes comply with requirements specified in Section 03300 "Cast-in-Place Concrete" for slabs receiving carpet tile.
3. Subfloors are free of cracks, ridges, depressions, scale, and foreign deposits.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. General: Comply with CRI 104, Section 6.2, "Site Conditions; Floor Preparation," and carpet tile manufacturer's written installation instructions for preparing substrates indicated to receive carpet tile installation.
- B. Level subfloor within 1/4 inch in 10 feet (6 mm in 3 m), noncumulative, in all directions. Sand or grind protrusions, bumps, and ridges. Patch and repair cracks and rough areas. Fill depressions.
 1. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, and depressions in substrates.
- C. Remove coatings, including curing compounds, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by carpet tile manufacturer.
- D. Broom and vacuum clean substrates to be covered immediately before installing carpet tile. After cleaning, examine substrates for moisture, alkaline salts, carbonation, or dust. Proceed with installation only after unsatisfactory conditions have been corrected.
- E. Concrete-Subfloor Preparation: Apply concrete-slab primer, according to manufacturer's directions, where recommended by carpet tile manufacturer.

3.03 INSTALLATION

- A. General: Comply with CRI 104, Section 13, "Carpet Modules (Tiles)."
- B. Installation Method: Glue-down; install every tile with releasable adhesive.
- C. Cut and fit carpet tile to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet tile manufacturer.
- D. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.
- E. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on finish flooring as marked on subfloor. Use nonpermanent, nonstaining marking device.
- F. Install pattern parallel to walls and borders.

3.04 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing carpet tile:

1. Remove excess adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet tile manufacturer.
 2. Remove yarns that protrude from carpet tile surface.
 3. Vacuum carpet tile using commercial machine with face-beater element.
- B. Protect installed carpet tile to comply with CRI 104, Section 15, "Protection of Indoor Installations."
- C. Protect carpet tile against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet tile manufacturer and Installer that ensure carpet tile is without damage or deterioration at the time of Substantial Completion.

END OF SECTION

SECTION 10400

SIGNS

PART 1 - GENERAL

1.00 DESCRIPTION: Division 1 applies to this Section. Provide interior room and equipment signage and specified in this section.

1.01 GENERAL REQUIREMENTS

- A. The Contractor shall be responsible for the quality of materials and workmanship required for the execution of this contract including the materials and workmanship. Contractor shall be responsible for providing complete and up to date Drawings and Specifications.
- B. Written dimensions on the drawings shall have precedence over scaled dimensions. Contractor shall verify, and be responsible for dimensions and conditions. Shop details must be submitted to the University Representative for approval before proceeding with fabrication.
- C. Location of signs: The locations of room signs shall be positioned at all new and remodeled office and lab doors, shaft doors, intervening rooms, exit doors. Contractor is to arrange a meeting at the site for final location of all elements.
- D. Location of signs: On all equipment installed under this contract. Not limited to, autoclaves, exhaust fans, fume hoods, supply fans etc.
- E. Work shall conform to the Building and Electrical Codes of the City of Santa Barbara, CA and shall be approved and labeled by Underwriters' Laboratories, Inc. where required.

1.02 WORK INCLUDED

- A. Interior room signing

1.03 SUBMITTALS

- A. Submit the following in accordance with Section 01340 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
- B. Complete shop drawings to University Representative for written approval prior to fabrication. Full-size details of exposed edges, joint between materials, and details which affect appearance must be included. Show locations of required joints and seams.
- C. Samples: Sign material showing finishes, colors and surface texture - full-size units, acceptable units may be installed as part of the work.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Package separately or in like groups of names, labeled as to names enclosed; include installation template, hardware or adhesive specified and installation instructions.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Karman Ltd. – (818) 888-3818
- B. CASigns – (818) 355-5554
- C. Or Equal.

2.02 MATERIALS

A. Adhesives and Tapes

1. Adhesives: Plastic cements used to fabricate plastic parts shall be as recommended by plastic manufacturer.
2. Silicone adhesive used for installing sign items shall be as manufactured by General Electric, Dow Corning or equal. Polyurethane foam tape, black, manufactured by 3M shall be used in conjunction with silicone adhesives for installation of wall signs, in thickness as required.

B. Plastics

1. Front Panel 1/8" thick SAR non-glare acrylic with second surface paint mounted flush to back panel machine polished edges.
2. Back Panel: 1/8" thick acrylic panel painted all sides 9% P4, mounted to wall with VHB tape.
3. Room number: 1/32" thick applied tactile text T4, P4
4. Room name: 1/32" thick applied tactile text T4, P4
5. Office name inserts .063 gap for paper insert and 1/8" non glare acrylic (Acrylic GP P95) with painted 2nd surface 9% P9 cover plate and thumb hole
6. Braille California grade 2 braille

PART 3 - EXECUTION

3.01 FABRICATION

A. General

1. Construct work to eliminate burrs, cutting edges and sharp corners.
2. Except as indicated otherwise, finish surfaces smooth.

3. Surfaces which are intended to be flat shall be without bulges, oil canning or other physical deformities.
 4. Surfaces which are intended to be curved shall be smoothly free flowing to required shapes.
 5. Carefully follow manufacturers recommended fabricating procedures regarding expansion/contraction, fastening, and restraining of acrylic plastic.
- B. Braille: Contracted Grade 2 Braille shall be used whenever Braille symbols are specifically required. Dots shall be spaced 1/10 in. on center within each cell with 2/10 in. space between cells. Dots shall be raised 1/40 in. above background. Refer to CDC Section 1117B.5.2. All signage shall conform to CBC Section 1117B.5 and 1103.2.4.
- C. Fasteners
1. Fasteners shall be fully concealed wherever possible. Provide counter sunk screws for access panels or where exposed fasteners are required. Methods of fastening shall be detailed and exact specifications for fasteners shall be noted on shop drawings. Any portion of mounting brackets which are visible shall match wall, frame or hardware of sign color as indicated.

3.02 INSTALLATION

- A. Finish surfaces shall be free of brush marks, streaks, laps or pile up of paints, with all surfaces uniformly covered.
- B. Installation Conditions
1. Sign installation shall be carried out in a neat and proper manner equal to the finest quality standards of the industry.
 2. Sign installation shall follow drawings or position standards provided herein or the specification of the designer.
 3. Installed signs shall be clean, properly aligned, level and true to line and dimension, flush to surface unless otherwise specified, and free of imperfections and excess visible adhesive if used, with no damage to sign or surrounding surfaces.
 4. Where stud fastening or other mechanical fasteners are used, adequate mounting shall be provided to prevent unauthorized removal of sign.
 5. Protect units from damage until acceptance. Any damage to signs or surrounding surface shall be repaired to the satisfaction of the University representative or shall be replaced.
- C. Inspect adjacent construction and make sure that conditions detrimental to the proper and timely execution of this work have been corrected before proceeding. Proceeding with this work shall indicate acceptance of existing conditions. The Contractor shall be

responsible for repairing and repainting of building surfaces, which are damaged as a result of installation of sign items.

3.03 GUARANTEE

- A. Refer to Section 01740 – GUARANTEES, BONDS AND MAINTENANCE CONTRACTS, for submittal forms.
- B. Designer hereby grants the contractor the limited right to fabricate designs herein for the sole purpose of completing this contract. He may not manufacture, reproduce or exhibit these designs or modify them for any other purpose without written approval of Owner.
- C. The Contractor is responsible for engineering, structural rigidity and stability of all signs. Contractor shall visit the site and verify all existing conditions. This shall include local building code criteria.

END OF SECTION

SECTION 12491

BLINDS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Horizontal slat louver blinds; including operating hardware, mounting brackets, and accessories.

1.02 DESIGN AND PERFORMANCE REQUIREMENTS - HORIZONTAL BLINDS

- A. Blinds shall meet applicable requirements of American Window Covering Manufacturers Association (AWMA) Document 1029.
- B. Operating mechanisms shall be of non-corroding, self-lubricating materials. Enclose mechanisms in head rail.
- C. Head rail shall be removable without lateral movement.
- D. Lifting:
 - 1. Blinds shall lift smoothly and evenly.
 - 2. Actuate with a non-stretch cord, with crash proof cord lock.
- E. Tilting: Actuate with a tilter.
- F. Slats:
 - 1. Slats shall hang level without twist, warp, bow, or sagging. Edges shall be straight with no rippling.
 - 2. It shall be possible to replace slats on site.

1.03 SUBMITTALS: Follow Section 01300.

- A. Shop Drawings: Indicate opening sizes, tolerances required, installation of blind at window opening, method of attachment, clearances and operation.
- B. Samples: 6 inch long samples illustrating slat materials and finish, standard colors, cord and ladder.

1.04 MOCK-UP: Follow Section 01400.

- A. Mock-up shall consist of installed and operating blinds for a typical office.
- B. Approved mock-up may remain part of the work.

1.05 DELIVERY, STORAGE AND HANDLING: Follow Section 01600.

- A. Deliver blinds wrapped and crated in a manner to prevent damage to components or marring of surfaces.
- B. Store in a clean, dry area. Lay flat.

1.06 MAINTENANCE MATERIALS

- A. Provide ten slats of each size and color used.

- B. Provide two complete blind assemblies of each size and color used. Include mounting brackets and hardware.

PART 2 PRODUCTS

2.01 DESIGN STANDARD MANUFACTURER - Horizontal Blinds: Levelor. Substitutions subject to Section 01630 are:

- A. Bali.
- B. Hunter Douglas.

2.02 MANUFACTURED ASSEMBLIES

- A. Levelor "Riviera" mini blinds.
- B. Head Rail: Corrosion resistant steel, U-shaped 1 inch high x 1 1/2 inches deep channel with rolled edges. Provide end locks with an adjustable tab for centering blinds.
- C. Slats: One inch unperforated aluminum, 8 gauge metal. Standard valence.
- D. Ladders (Slat Supports): Woven or braided, synthetic fiber, in color compatible with slats.
- E. Tilter: Clear acrylic; non-removable.
- F. Bottom Rail: Corrosion-resistant steel, with end caps.
- G. Blind assemblies shall be complete with hardware, accessories, mounting brackets, and fasteners.
- H. Unit Sizes: As indicated on drawings.
 - 1. Blinds Installed Inside Jambs: Width and length equal to 1/2 inch less than opening dimensions formed by head, jamb, and sill.
 - 2. Blinds Installed Outside Jambs: Width and length as indicated. Terminations between blinds of end-to-end installations shall occur at centerlines of mullions or other defined separations between openings.
 - 3. Do not fabricate until field dimensions are verified.

2.03 FINISH

- A. Louver Slats: Factory finish in color as selected from manufacturer's standards.
- B. Head Channel and Bottom Rail: Factory finish to match louver slats.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Secure blinds with fasteners appropriate to mounting surface. Locate blinds so that slat edges in any position will be at least one inch from exterior glass.
- B. Set tilter and lift cord to specified height.
- C. Adjust blinds for smooth operation.

END OF SECTION

Revised - SECTION 10260
WALL AND CORNER GUARDS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Wall rails, aluminum.
- B. Corner guards, stainless steel.

1.02 SUBMITTALS: Follow Section 01300.

- A. Shop Drawings: Show installation details, blocking required, mounting dimensions and location schedules.
- B. Samples: 12 inch (300 mm) long samples of each product specified, in specified color and finish, showing design and configuration. Include end caps and mounting hardware.
 - 1. Three samples of each type of corner guard.
 - 2. One sample of each type of rail. Include exterior radiused corner and support brackets.

1.03 REGULATORY REQUIREMENTS

- A. Assemblies used on fire rated walls shall not compromise fire rating. Where indicated, provide flush-mounted, UL labeled corner guards to be used with a fire barrier for rated wall construction.

PART 2 PRODUCTS

2.01 CORRIDOR GUARD RAILS, ALUMINUM

- A. Manufacturers:
 - 1. Construction Specialties, Inc.; "Acrovyn ERC – 32A".
 - 2. Life Science Products, Inc.; "Sani-Rail Wall Protection System".
 - 3. Substitutions are permitted subject to Section 01630 not permitted.
- B. Rail: Aluminum; minimum 1/4 inch (6 mm) thick x 4 inch (100 mm) wide extruded aluminum bar with radius edges. Clear anodized finish.
- C. Rail Support Brackets: Aluminum beam section with radius edges; designed to hold back of rail 1-1/2 inches (38 mm) from wall surface. Clear anodized finish. Space not over 4'-0" (1200 mm) OC.
- D. Fabricate guard rails with radiused internal and external corners, following general plane of wall surface, with rail offsets as required. Terminate ends with a smooth 3 inch (76 mm) radius, ending 1/2 inch (13 mm) from wall surface.

2.02 CORNER GUARDS, STAINLESS STEEL

- A. Manufacturers: Substitutions are permitted subject to Section 01630.
 - 1. IPC Door and Wall Protection Systems.

-
- 2. Life Sciences Products, Inc.
 - 3. Pawling Corporation.
 - B. Description: Surface mounted, flush design with 1/8 inch (3 mm) corner radius, for adhesive installation; 2 x 2 inches x 4'-0" high; 16 gauge; Type 304 stainless steel with NAAMM No. 4 satin finish.

2.03 HARDWARE AND ACCESSORIES

- A. Provide closures, end caps, corner pieces, mounting brackets, and all other accessories shown or required for a complete installation.
- B. Adhesive: As recommended by manufacturer for application.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify substrates and wall areas are ready to receive work of this Section.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Install corner protection assemblies level, plumb, and true to line without distortions. Do not use materials with chips, voids, stains, or other defects that might be visible in the finished Work.
- B. Provide splices, mounting hardware, anchors, and other accessories required for a complete installation.
- C. Install corner guards at height just above base material indicated on Drawings.
- D. Install stainless steel corner guards using full adhesive application. Remove excess adhesive.

3.03 SPECIAL PROTECTION

- A. Where protective paper is provided, leave it on until final cleaning.

END OF SECTION

Revised - SECTION 09652
RESILIENT SHEET FLOORING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Preparation of surfaces to receive resilient material.
- B. Resilient sheet and integral base.
- C. Edge strips where new sheet vinyl flooring abuts existing and new resilient flooring.
- D. Adhesives, primers, and underlayments.
- E. Cleaning and protection.

1.02 RELATED SECTIONS

- A. Sections 02080, 02081, and 02082 for abatement of hazardous materials.
- B. Section 07160 - Cementitious and Reactive Waterproofing.
- C. Section 09605 - Vapor transmission testing of concrete floors.
- D. Section 09610 - Concrete Floor Treatment.
- E. Section 09681 - Carpet Tiles.
- F. Section 09675 - Resinous Flooring.

1.03 SUBMITTALS: Follow Section 01330.

- A. Shop Drawings: Show seaming plan of each space.
- B. Product Data: Describe flooring characteristics, sizes, patterns and colors available.
- C. Samples: Full color range samples for selection.
- D. Informational Submittals:
 - 1. Statement of installer's qualifications issued by the materials manufacturer.
 - 2. Maintenance Data: Include maintenance procedures, recommended maintenance materials and suggested schedule for cleaning, stripping, and re-waxing

1.04 QUALITY ASSURANCE.

- A. Materials and work shall conform to the latest edition of reference specifications specified herein and to all applicable codes and requirements of local authorities having jurisdiction, whichever is more stringent.
- B. Manufacturer: Provide each type of resilient sheet flooring and wall covering, and accessories, as produced by a single manufacturer, including recommended primers, adhesives, sealants, and leveling compounds.
- C. Installer: Company specializing in work of this Section, with at least 5 years experience and trained and approved by flooring material manufacturer.

- D. Fire Test Performance: Provide resilient flooring and wall covering which complies with the following fire test performance criteria as determined by an independent testing laboratory acceptable to authorities having jurisdiction.
 - 1. Flame Spread: Not more than 75 per ASTM E 84.
 - 2. Smoke Developed: Not more than 450 per ASTM E 84.
 - 3. Smoke Density: Not more than 450 per ASTM E 662.
 - 4. Static Coefficient of Friction: Flooring materials shall have values of not less than 0.6 for level surfaces and 0.8 for ramped surfaces.
 - 5. Critical radiant flux (CRF): Minimum 0.45 watt per square centimeter, per ASTM E 648 Class 1.
- E. Tolerances: The allowable variations from the level of the resilient flooring areas shall be held within the following tolerances:
 - 1. In any ten feet: 1/8 inch.
 - 2. In any six feet: 1/16 inch.
 - 3. In any three feet: 0 inch.
 - 4. Apply approved underlayment material to conform with these tolerances.

1.05 ENVIRONMENTAL REQUIREMENTS

- A. Store roll materials in upright position.
- B. Store materials for three days prior to installation in area of installation to achieve temperature and humidity stability.
- C. Maintain 65 degrees ambient temperature and operating range of humidity for three days prior to, during, and 24 hours after installation of materials.
- D. Do not install materials until other finishing operations are completed, including painting.
- E. Deliver material to the job site in the manufacturer's original unopened cartons, and/or packages with labels clearly defining color, type, and size of materials. Delivered materials shall be identical to the approved samples.

PART 2 PRODUCTS

2.01 SHEET VINYL FLOORING

- A. Manufacturers: Subject to compliance with requirements, the following manufacturers and products named are acceptable; substitutions of other unnamed manufacturers are permitted subject to Section 01630.
 - 1. Armstrong World Industries, Inc.
 - a. Product Line: Medintech.
 - 2. Congoleum Corp.
 - 3. Tarkett.
- B. Vinyl Sheet: Homogeneous Vinyl Sheet: Meet performance requirements sheet vinyl flooring with backing, ASTM F 1303, Grade 1, Class B, color and pattern through total thickness:
 - 1. Total Thickness: 0.080 inch.
 - 2. Sheet Width: 6 foot wide.
 - 3. Static load limit: 750 psi minimum, per ASTM F 970.
 - 4. Heat-welded seams.
 - 5. Electrical Insulation Value: Greater than 10⁶ ohms.

6. Electrical Resistance Value: Approximately 10^9 ohms.

2.02 ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic cement based formulation provided or approved by floor covering manufacturer for applications indicated.
- B. Primers and Adhesives: Water-resistant type recommended by floor covering manufacturer for products and substrate conditions indicated.
- C. Heat-Welding Bead: Solid-strand product of floor covering manufacturer; fully welded.
- D. Moldings and Edge Strips: As manufactured by Sheet Vinyl manufacturer for use with the specified type of material.
- E. Feature Strips: Of same material as sheet vinyl.
- F. Integral Cove Strip: 1 inch (25.4 mm) radius support for integral flash cove at floor/wall juncture, type "725 Merstick" by Mercer Products Company, Inc., or approved equal, subject to approval of the sheet vinyl materials manufacturer. Weld all corners.
- G. Floor Polish: Finish protection of type recommended by flooring manufacturer.

2.03 COLORS AND PATTERNS

- A. Armstrong Medintech 'Freesia Pearl'.
- B. Provide the following with regards to heat welding bead:
 - 1. Color Light to Light – use heat welding rod to match Light color.
 - 2. Color Dark to Dark – use heat welding rod to match Dark color.
 - 3. Color Light to Dark – use heat welding rod to match Light color.

PART 3 EXECUTION

3.01 PREPARATION

- A. Remove existing floor finishes and clean substrate of adhesive and other residue which may prevent positive bond of new flooring.
- B. Remove sub-floor ridges and bumps. Fill low spots, cracks, joints, holes, and other defects with subfloor filler.
- C. Apply, trowel, and float filler to leave a smooth, flat surface.
- D. After curing, vacuum clean substrate.
- E. Perform bond and moisture tests on concrete subfloors to determine if surfaces are sufficiently clean and dry as well as to ascertain presence of compounds which will affect the installation.
- F. Apply primer to surfaces if recommended by flooring manufacturer.

3.02 INSTALLATION - SHEET

- A. Install in accordance with manufacturer's instructions and in accordance with ASTM F-1516- "Standard Practice for Sealing Seams of Resilient Flooring Products by the Heat Weld Method

(when recommended)". Produce completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

- B. Spread only enough adhesive to permit installation of materials before initial set.
- C. Set flooring in place. Press with heavy roller to attain full adhesion.
- D. Lay flooring with joints in accordance with seaming plan.
- E. Install sheet flooring with joints and seams in accordance with seaming plan; minimum 1/3 full roll width. Double cut sheet and provide heat-welded seams, butt joints.
- F. At openings with doors, terminate flooring under centerline of closed door where adjacent floor finish is dissimilar.
- G. At openings without doors, terminate flooring at centerline of opening.
- H. Install edge strips at unprotected or exposed edges.
- I. Scribe flooring to walls, columns, built-in furniture, laboratory casework and cabinets, floor outlets, pipes, edgings, door frames, thresholds, nosings and other appurtenances to produce tight joints. Install under movable partitions, suspended laboratory casework, furniture and equipment, and extend into toe spaces, door reveals, alcoves and closets of each space.
- J. Integral Coved Base: Install as detailed on drawings, using coved base filler as backing at floor to wall junction. Turn up flooring to form base, complete with manufacturer's standard metal termination strip. Eliminate termination strip where sheet vinyl material is continuous on wall surfaces.
- K. Install feature strips, edge strips and floor markings where indicated. Fit joints tightly.

3.03 CLEANING AND PROTECTION

- A. Immediately after completing installation, clean floor by sweeping and vacuuming, and damp mopping, removing marks and soil. Do not wash surfaces until after time period recommended by manufacturer. Use cleaner recommended by flooring manufacturer to remove adhesive residue.
- B. Protect resilient products from marks, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period. Use protection methods recommended in writing by manufacturer.
 - 1. Apply protection floor polish to horizontal surfaces that are free from soil, visible adhesive, and surface blemishes if recommended in writing by manufacturer.
 - 2. Use commercially available product acceptable to manufacturer and in coordination with Owner's maintenance service.
- C. Where homogeneous vinyl sheet flooring is installed in clean rooms, do not apply floor polish without Owner's approval. Burnish floor with buffer where required by Owner, prior to disinfectant application.

END OF SECTION