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FEBRUARY 14, 2019
USC CLASSROOM ENHANCEMENTS 2019
FOR COKER 510
PROJECT# 50003348-2,H27-Z341

ADDENDUM #4

TO: ALL HOLDERS OF RECORD OF CONTRACT DOCUMENTS

Acknowledge receipt of this addendum by inserting its number and date in the bid form. Failure to do so may subject bidders to disqualification. This addendum forms a part of the Contract Documents.

The attached noted items are corrections, additions, or deletions to the Contract Documents, as noted:

ATTACHMENTS

096900 - ACCESS FLOORING

Tate –Boltedstringercornerlockcombo.pdf

GENERAL NOTES

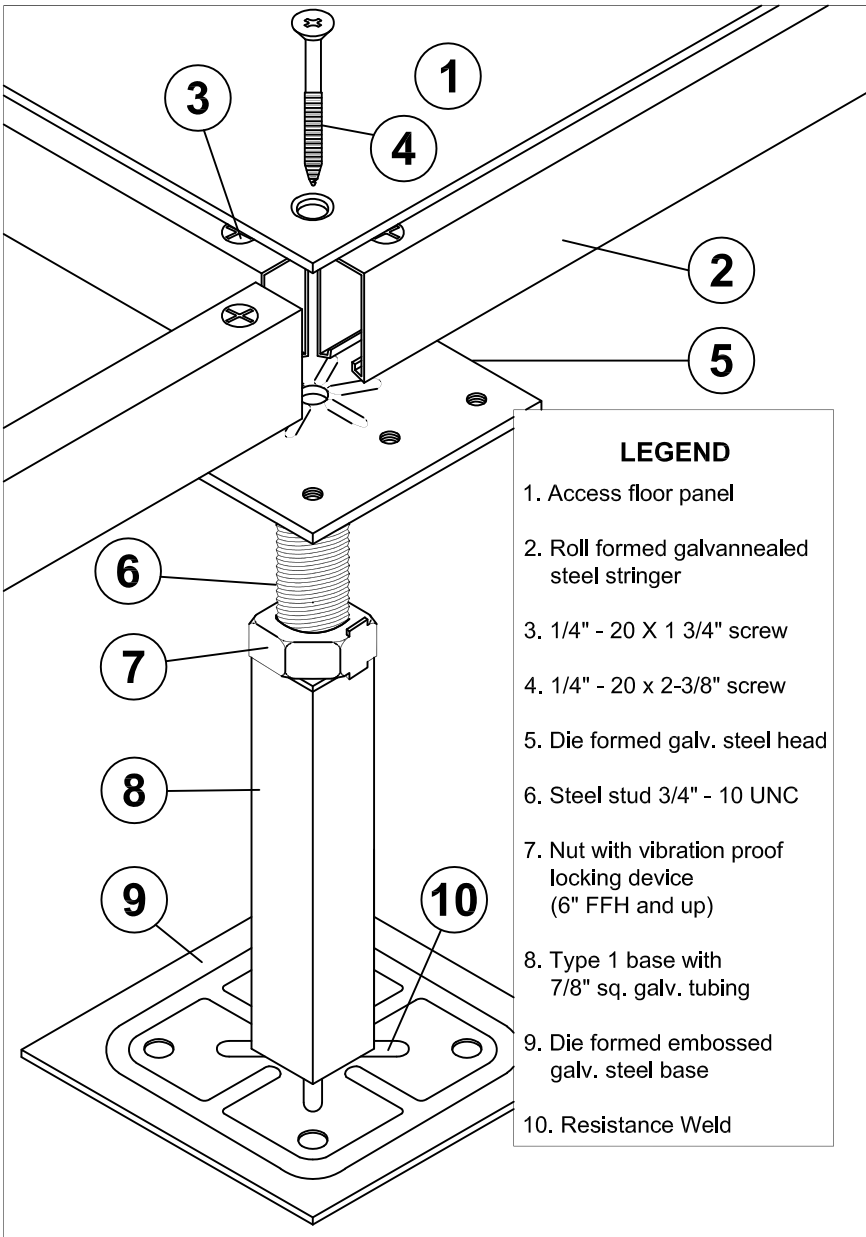
1. Clarification: The raised concrete flooring is a flooring system that is being installed. THIS IS NOT POUR IN PLACE CONCRETE.
2. The Certified installers for the Access Flooring are:
 - a. Irvine Access Floors PH: (919)-790-0991 Contact : Scott Miller
 - b. Sears Contracting PH: (919)-754-0750 Contact: Melissa Wilson

SPECIFICATIONS

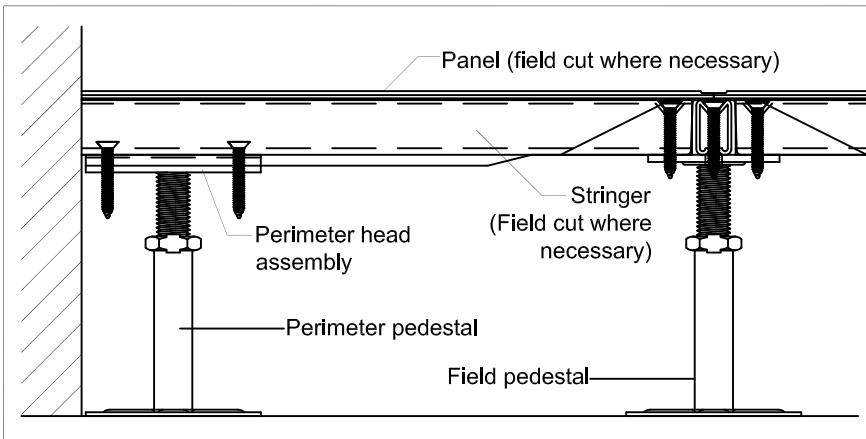
| <u>Item No.</u> | <u>Description</u> |
|------------------------|---|
| 1. | Section 09 6900 - ACCESS FLOORING Remove this section in its entirety and replace it with the one attached to this document.. |

DRAWINGS

1. None



- LEGEND**
1. Access floor panel
 2. Roll formed galvanized steel stringer
 3. 1/4" - 20 X 1 3/4" screw
 4. 1/4" - 20 x 2-3/8" screw
 5. Die formed galv. steel head
 6. Steel stud 3/4" - 10 UNC
 7. Nut with vibration proof locking device (6" FFH and up)
 8. Type 1 base with 7/8" sq. galv. tubing
 9. Die formed embossed galv. steel base
 10. Resistance Weld



PEDESTAL SPECIFICATIONS

Pedestal Assembly

- Assembly up to 36" FFH shall provide a 6,000 lb. axial load without permanent deformation.
- Assembly shall provide a 2" total adjustment with a floor height of 7" or greater.
- Standard finished floor heights from 6" to 36". For other finished floor heights please contact the Tate Technical Hotline @ 800-231-7788. For seismic conditions, refer to seismic submittal details.
- Overturning moment of 1,000 in./lbs. when Tate recommended pedestal adhesive is utilized.
- All pedestal components and fasteners are completely electro-zinc free.
- Zinc electroplating shall be prohibited on all pedestal components and fasteners.

Pedestal Head

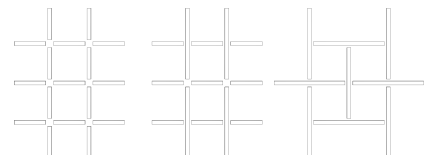
- Standard head is 11 ga. die formed galvanized steel pedestal head and resistance welded stud with adjustment nut. Heavy duty head for CC2000 and CC2500 panels is 8 ga. fillet welded for field and tack welded perimeter head. Head and installed stringers shall provide perimeter support for panel.
- Stringers shall be attached with 1/4" - 20 flat-head screws.
- Pedestal head shall be tapped for engagement of stringer screws.
- Steel stud shall be 3/4" - 10 UNC roll formed.
- Nut shall be 3/4" - 10 UNC with corrosion resistant coating.
- Cornerlock fastener shall be 1/4" - 20 flat-head machine screw.
- Stud shall provide an anti rotation feature when engaged with the pedestal base assembly (7" FFH or higher).

Pedestal Base

- Base to be at least 16" square and galvanized steel.
- Pedestal tube shall be 7/8" square galvanized tubing.

Stringers

- Heavy duty roll formed steel stringer will withstand 450 lb. mid-span load.
- ConCore 2500 panels require the 4' x .054" stringer. All other panels except the ConCore 3000 use the .048" stringer
- Galvanized stringer construction to prevent corrosion. Zinc electroplating is prohibited.
- Stringer shall be 1-1/4" deep x 3/4" wide.
- Stringer grid pattern shall be 2'2", 2'4", or 4'1/4".



Perimeter

- Perimeter pedestal shall provide support for panels around columns, at walls, curbs and fascia.

SECTION 09 6900 - ACCESS FLOORING

PART 1 - GENERAL

1.01 Section Includes

- A. Work of this section includes, but is not limited to: access floor panels, floor coverings, understructure and various electrical, data and communication accessories.

1.02 Related Sections

- A. Concrete sealer shall be compatible with pedestal adhesive, see Division 3.

1.03 Environmental Conditions for Storage and Installation

- A. Area to receive and store access floor materials shall be enclosed and maintained at ambient temperatures between 35° to 95° F and relative humidity levels between 20% to 80%. All floor panels shall be stored at ambient temperature between 50° to 90° F for at least 24 hours before installation begins. All areas of installation shall be enclosed and maintained at ambient temperature between 50° to 90° F and at relative humidity levels between 20% to 80%, and shall remain within these environmental limits throughout occupancy.

1.04 References

- A. CISCA (Ceilings & Interior Systems Construction Association) - "Recommended Test Procedures for Access Floors" shall be used as a guideline when presenting load performance product information.

1.05 Performance Certification

- A. Product tests shall be witnessed and certified by independent engineering and testing laboratory based in the U.S. with a minimum of five years experience testing access floor components in accordance CISCA "Recommended Test Procedures for Access Floors".

1.06 Country-of-Origin and Product Marking

- A. Access floor materials shall comply with the provisions outlined in FAR Subpart 25.2 - Buy American Act - Construction Materials.
- B. Floor panels shall be permanently marked with manufacturer's name, product identification, manufacturing date and country-of-origin. Removable Product ID stickers are not acceptable.

1.07 Performance Requirements

- A. Design Load: Panel supported on actual understructure system shall be capable of supporting a point load of 1250 lbs. applied on a one square inch area at any location on the panel without experiencing permanent set in excess of 0.010 inches as defined by CISCA. The loading

method used to determine design (allowable) load shall be in conformance with CISCA Concentrated Load test method but with panel tested on actual understructure instead of steel blocks.

- B. Safety Factor: Panel supported on actual understructure system shall withstand a point load of no less than (2) two times its design load rating on a one square inch area anywhere on the panel without failure when tested in accordance with CISCA A/F, Section 2, "Ultimate Loading". Failure is defined as the point at which the system will no longer accept the load.
- C. Ultimate Load: Panel supported on actual understructure system shall be capable of supporting a point load of at least 2500 lbs applied through a load indenter on a one square inch area at any location on the panel without failure (i.e. minimum safety factor of 2) when tested in accordance with CISCA A/F, Section 2, "Ultimate Loading".
- D. Rolling Load: Panel supported on actual understructure system shall be able to withstand the following rolling loads at any location on the panel without developing a local and overall surface deformation greater than 0.040 inches when tested in accordance with CISCA A/F, Section 3, "Rolling Loads". Note: wheel 1 and wheel 2 tests shall be performed on two separate panels.
 - 1. CISCA Wheel 1: Size: 3" dia x 1 13/16" wide Load: 1000 lbs. Passes: 10
 - 2. CISCA Wheel 2*: Size: (A) 6" dia x 2" wide Load: 800 lbs. Passes: 10,000
 - a. (B) 10" dia. X 4" wide
 - 3. *Note: For loads up to 1500 lbs., specify Wheel 2 (A). For loads greater than 1500 lbs.,
 - a. Specify Wheel 2 (B).
- E. Impact Load: Panel and supporting understructure (the system) shall be capable of supporting an impact load of 150 lbs. dropped from a height of 36 inches onto a one square inch area (using a round or square indenter) at any location on the panel when tested in accordance with CISCA A/F, Section 8, "Drop Impact Load Test".
- F. Panel Drop Test: Panel shall be capable of being dropped face up onto to a concrete slab from a height of 36", after which it shall continue to meet all load performance requirements as previously defined.
- G. Panel Cutout: Panel with an 8" diameter interior cutout supported on actual understructure shall be capable of maintaining its design load strength with a minimum safety factor of 2 anywhere on the panel without the use of additional supports.
- H. Flammability: System shall meet Class A Flame spread requirements for flame spread and smoke development. Tests shall be performed in accordance with ASTM-E84-1998, Standard Test Method for Surface Burning Characteristics for Building Materials.
- I. Combustibility: All components of the access floor system shall qualify as non-combustible by demonstrating compliance with requirements of ASTM E 136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 deg C.
- J. Recycled Content: Panel and understructure system shall be required to have a minimum post-consumer recycled content of 18% and a minimum total recycled content of 49%.

- K. Axial Load: Pedestal support assembly shall provide a 6000 lb. axial load without permanent deformation when tested in accordance with CISCA A/F, Section 5, "Pedestal Axial Load Test".
- L. Overturning Moment: Pedestal support assembly shall provide an average overturning moment of 1000 in-lbs. when glued to a clean, sound, uncoated concrete surface when tested in accordance with CISCA A/F, Section 6, "Pedestal Overturning Moment Test".
- M. Stringer Concentrated Load: Stringer shall be capable of withstanding a concentrated load of 450 lbs. placed in its midspan on a one square inch area using a round or square indenter without exceeding a permanent set of 0.010" after the load is removed when tested in accordance with CISCA A/F, Section 4, "Stringer Load Testing".

1.08 Design Requirements:

- A. Access floor system, where indicated on the design documents, shall consist of modular and removable fully encased cementitious filled welded steel panels supported on all four edges by structural steel members which are designed to bolt onto adjustable height pedestal assemblies forming a modular grid pattern.
- B. Panel shall be easily removed by one person with a suction cup lifting device and shall be interchangeable except where cut for special conditions.
- C. Quantities, finished floor heights (FFH) and location of accessories shall be as specified on the contract drawings.

1.09 Submittals for Review

- A. Detail sheets, for each proposed product type, which provide the necessary information to describe the product and its performance.
- B. Test reports, certified by an independent testing laboratory with a minimum of five years experience testing access floor components in accordance with CISCA Recommended Test Procedures, certifying that component parts perform as specified.

1.10 Submittals for Information

- A. Manufacturer's installation instructions and guidelines.
- B. Manufacturer's Owner Manual outlining recommended care and maintenance procedures.

PART 2 - PRODUCTS

2.01 Manufacturers

- A. Access floor system shall be as manufactured by Tate Access Floors, Inc. and shall consist of ConCoreÒ CCN 1250 Bolted Stringer Combo System access floor panel supported by a bolted stringer understructure system.

2.02 Support Components

- A. Pedestals:
- B. Pedestal assemblies shall be corrosive resistant, all steel welded construction, and shall provide an adjustment range of +/- 1" for finished floor heights 6" or greater. Zinc electroplating shall be prohibited on all pedestal components, including head plate, threaded rod, adjustment nut, pedestal tube, base plate, and all fasteners.
- C. Pedestal assemblies shall provide a means of leveling and locking the assembly at a selected height, which requires deliberate action to change height setting and prevents vibration displacement.
- D. Hot dip galvanized steel pedestal head shall be welded to a threaded rod which includes a specially designed adjusting nut. The nut shall provide location lugs to engage the pedestal base assembly, such that deliberate action is required to change the height setting.
- E. Threaded rod shall provide a specially designed anti-rotation device, such that when the head assembly is engaged in the base assembly, the head cannot freely rotate (for FFH of 7" or greater and Types 1A, 2B and 3B square tube bases only). Note: This prevents the assembly from inadvertently losing its leveling adjustment when panels are removed from the installation during use.
- F. Hot dip galvanized pedestal base assembly shall consist of a formed steel plate with no less than 16 inches of bearing area, welded to a 7/8" square steel tube and shall be designed to engage the head assembly.

2.03 Stringers:

- A. Stringers shall support each edge of panel.
- B. Steel stringer shall have conductive galvanized coating. Zinc electroplating shall be prohibited on stringers and stringer fasteners.
- C. Stringers shall be individually and rigidly fastened to the pedestal with one machine screw for each foot of stringer length. Bolts shall provide positive electrical contact between the stringers and pedestals. Connections depending on gravity or spring action are unacceptable.
- D. Stringer grid shall be 4' stringers in a basketweave configuration ensuring maximum lateral stability in all directions. (Also available in 2' x 4' and 2' x 2' grid patterns)

2.04 Panel Components

- A. Floor Panels:
- B. Panels shall consist of a top steel sheet welded to a formed steel bottom pan filled internally with a lightweight cementitious material. Mechanical or adhesive methods for attachment of the steel top and bottom sheets are unacceptable.

- C. Floor panels shall be protected from corrosion by electro-deposited epoxy paint. The use of zinc electroplating shall be prohibited.
- D. Cementitious fill material shall be totally encased within the steel welded shell except where cut for special conditions. Note: This greatly reduces the potential for dust in the environment from exposed cement materials.

2.05 Accessories

- A. Provide manufacturer's standard steps, ramps, fascia plate, perimeter support, and grommets where indicated on the contract drawings.
- B. Provide 25 spare floor panels and 10 square feet of understructure systems for each type used in the project for maintenance stock. Deliver to project in manufacturer's standard packaging clearly marked with the contents.
- C. Provide 2 panel lifting devices.

2.06 Finishes

- A. Finish the surface of floor panels with floor covering material as indicated on the contract drawings. Where floor coverings are by the access floor manufacturer, the type, color and pattern shall be selected from manufacturer's standard. All areas to be furnished with laminated floor panels must be maintained at ambient temperature between 50° to 90° F and at humidity level between 20% to 80% relative and shall remain within these ranges through installation and occupancy.

2.07 Fabrication Tolerances

- A. Floor panel flatness measured on a diagonal: +/- 0.035"
- B. Floor panel flatness measured along edges: +/- 0.025"
- C. Floor panel width or length of required size: +/- 0.010"
- D. Floor panel squareness tolerance: +/- 0.015"

PART 3 - EXECUTION

3.01 PREPARATION

- A. Examine structural subfloor for unevenness, irregularities and dampness that would affect the quality and execution of the work. Do not proceed with installation until structural floor surfaces are level, clean, and dry as completed by others.
- B. Concrete sealers, if used, shall be identified and proven to be compatible with pedestal adhesive. Verify that adhesive achieves bond to slab before commencing work.

- C. Verify dimensions on contract drawings, including level of interfaces including abutting floor, ledges and doorsills.
- D. The General Contractor shall provide clear access, dry subfloor area free of construction debris and other trades throughout installation of access floor system.
- E. Area to receive and store access floor materials shall be enclosed and maintained at ambient temperatures between 35° to 95° F and relative humidity levels between 20 to 80%. At least 24 hrs. before installation begins, all floor panels shall be stored at ambient temperatures between 50° to 90° F and relative humidity levels between 20% to 80% and shall remain within these environmental limits throughout occupancy.

3.02 INTALLATION

- A. Pedestal locations shall be established from approved shop drawings so that mechanical and electrical work can be installed without interfering with pedestal installation.
- B. Installation of access floor shall be coordinated with other trades to maintain the integrity of the installed system. All traffic on access floor shall be controlled by access floor installer. No traffic but that of access floor installers shall be permitted on any floor area for 24 hours to allow the pedestal adhesive to set. Access floor panels shall not be removed by other trades for 72 hours after their installation.
- C. Floor system and accessories shall be installed under the supervision of the manufacturer's authorized representative and according to manufacturer's recommendations.
- D. No dust or debris producing operations by other trades shall be allowed in areas where access floor is being installed to ensure proper bonding of pedestals to subfloor.
- E. Access floor installer shall keep the subfloor broom clean as installation progresses.
- F. Partially complete floors shall be braced against shifting to maintain the integrity of the installed system where required.
- G. Additional pedestals as needed shall support panels where floor is disrupted by columns, walls, and cutouts.
- H. Understructure shall be aligned such that all uncut panels are interchangeable and fit snugly but do not bind when placed in alternate positions.
- I. Finished floor shall be level, not varying more than 0.062" in 10 feet or 0.125" overall.
- J. Acceptance: General contractor shall accept floor in whole or in part prior to allowing use by other trades.

END OF SECTION 09 6900