

**November 14, 2017**  
**BOARD OF COUNTY COMMISSIONERS**  
**ORANGE COUNTY, FLORIDA**  
**ADDENDUM NO. 1 / IFB NO. Y18-714-CC**  
**ORANGE COUNTY FIRE RESCUE HEADQUARTERS COMPUTER ROOM**  
**MODIFICATIONS**

**BID OPENING DATE: November 21, 2017**

This addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions and/or revisions to, and shall take precedence over, the original documents. Underlining indicates additions, deletions are indicated by ~~strikethrough~~.

- A. The bid opening date remains November 21, 2017 at 2:00 p.m.
- B. Revisions:

**Make the following changes to Part C – Instructions to Bidders, No. 28 References and also to Part D, Attachment E:**

Bidder should supply (with the bid form) a list of three (3) similar projects successfully completed **by the Bidder, as a Prime Contractor** within the last ten (10) years. The Contractor may also use their subcontractor to demonstrate experience for the chilled water system requirements. However, the subcontractor must be listed on Attachment C-2 of Part D, PRIME CONTRACTOR/SUBCONTRACTOR/SUPPLIER INFORMATION and the project shall be submitted on Attachment E of the IFB to include all required information. Failure to provide this information may be cause for rejection of the bid. For the purposes of the Invitation for Bids, a similar project is described as any commercial building project involving the new installation or replacement of existing chilled water system including all associated piping and electrical work.

Additionally, at least one of the projects submitted must meet the following requirements:

Any commercial building project involving the new installation or replacement of existing chilled water system including all associated piping and electrical work in an operating critical environment facility (a regional computing center, 911 center, sheriff's office, critical hospital, etc.) with a raised floor.

**EACH SIMILAR PROJECT LISTED SHALL BE LISTED WITH COMPLETE INFORMATION AS SPECIFICALLY PROVIDED ON THE REFERENCE FORM ( ATTACHMENT E). THE SPECIFIC INFORMATION ON REFERENCES MUST**

**BE PROVIDED ON THE REFERENCE FORM. DO NOT ATTACH LISTINGS OF REFERENCE INFORMATION.**

**FAILURE TO PROVIDE REFERENCE INFORMATION AS REQUESTED MAY RESULT IN THE REJECTION OF YOUR BID.**

The determination of whether a bidder is responsible or not shall be at the sole discretion of the County. Although the County may request submission of a minimum number of similar projects for evaluation, the County's determination of a bidder's responsibility shall not be solely based on the number of similar projects submitted.

The contact person listed as a reference shall be someone who has personal knowledge of the Bidder's performance during the referenced project. Contact persons must have been informed that they are being used as a reference and that the County will be calling or emailing them.

C. Additions, Deletions and Clarifications

1. **Clarification:** Rack plug assembly schedule on sheet E603 does not show a schedule for the bus assembly A3 and B3. Please furnish the schedule for Bus way A3 and B3.

**Answer:** Bus Assemblies A3 and B3 supply two racks, OCSO Rack #9 and OCSO Rack #10. The plug assemblies to be provided on busses A3 and B3 for these racks are shown on the schedule titled OCSO Racks NEMA Plug Assembly Schedule. Refer to the last two rows on the schedule.

2. **Clarification:** Please clarify the following: Drawing S-201, Detail 1 shows the deck height at 28 feet. This does not match the existing conditions. The existing conditions for the sloped deck range from approx. 10'-15' above the existing ceiling at low point to approx. 18'-20' above the existing ceiling. What provisions are being provided for reaching the deck to secure both the cable tray and the busway? What is the weight rating of the existing raised floor?

**Answer:** The existing deck will not be used to secure the cable tray, busway or new ceiling grid. The Unistrut framing system will support the new ceiling grid suspension system, not the structural deck. The cable tray and the power busways are to be hung from the new ceiling grid, as shown on the electrical details sheet E-501, not the structural deck. The ceiling grid suspension system specified in the specification section

095100 is selected and constructed to support the electrical items below the ceiling. See attached information regarding existing raised floor weight rating data.

- 3. Clarification:** What is the existing manufacturer for the panel MDP and UPS-DP? Can pictures be provided for MDP and UPS-DP?

**Answer:** See attached photos of MDP and UPS-DP.

- 4. Clarification:** Single line diagram on sheet E602 requires a 500a main breaker in panel PDM-A, panel schedule for PDM-A requires 600a main breaker. Please advise which one to follow.

**Answer:** The single line diagram on Sheet E602 indicates a 500A Main Circuit Breaker in panel PDM-A. This is correct. Revise the 600A Main Circuit Breaker on the schedule for PDM-A to 500A.

- 5. Question:** Single line diagram for PDM-B sheet E602 shows a 250a CB to be added to MDP. Hex note 1 on the same sheet requires a 450a CB to be added to MDP. Please advise which one to follow.

**Answer:** The single line diagram indicating the connections to PDM-B on Sheet E602 shows a new 250A circuit breaker to be added to the MDP to feed PDM-B. This is correct. Note 1 (within hexagon) on Sheet E602, states that a 450A breaker is to be added to MDP to feed PDM-B; this is incorrect. On Sheet E602, revise Note 1 to indicate the 250A breaker rating, matching the single line diagram.

- 6. Question:** Are the smoke detectors that are indicated on sheets E-102 and E-104 connected to the building fire alarm system or are they part of a pre-action system?

**Answer:** These smoke detectors are connected to the existing pre-action system in the Computer Room.

- 7. Question:** For the bid submittal may the prime contractor use subcontractor experience to achieve the 3 chilling tower references?

**Answer:** See Part B of this addendum.

- 8. Question:** Who is the vendor for the Fire Alarm inside the Computer Room?

**Answer:** Signature Systems is the Fire Alarm System vendor.

**9. Question:** Who is the vendor for the CCTV inside the Computer Room?

**Answer:** Signature Systems is the CCTV vendor.

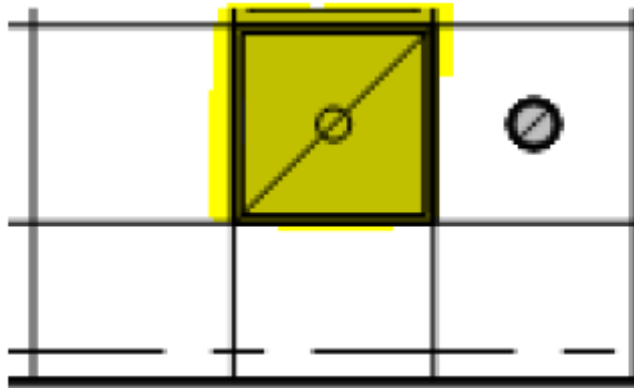
**10. Question:** Please clarify the following: Busway A2, B2 rack 4 voltage for the receptacle shown is 208v NEMA rating for the plug is L5-30 please advise what to follow. BW A2, B2 rack 6 voltage 120 NEMA rating for the device is L6-30 please advise what to follow.

**Answer:** Supply voltage to the receptacles indicated shall match NEMA receptacle designation.

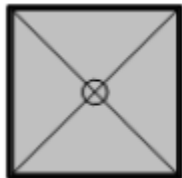
**11. Question:** Please clarify the following. Bus way A2 B2 rack 7 voltage shown is 208v device shown is L5-30 please advise what to follow. Please furnish the detail for dual, triple drop cords.

**Answer:** Supply voltage to the receptacles indicated shall match NEMA receptacle designation. Details for dual and triple drop cords shown on E-502.

**12. Question:** The Ceiling Legend appears to be incomplete. Please provide a description for the symbol shown below highlighted in yellow:



**Answer:** This is the symbol for a 2x2 recessed light fixture, existing to be removed and reinstalled in new ceiling grid after chilled water piping is installed. Same as symbol below:



**2 x 2 RECESSED LIGHT FIXTURE  
- EXISTING SET IN NEW GRID**

**13. Question:** Please advise if the leak detection system is existing. If not furnish the brand and model # of the system.

**Answer:** There is no existing leak detection system in the building. See Spec Section 230923, Leak Detection Instruments, for new leak detection system.

D. ACKNOWLEDGEMENT OF ADDENDA

- a. The Bidder/Proposer shall acknowledge receipt of this addendum by completing the applicable section in the solicitation or by completion of the acknowledgement information on the addendum. Either form of acknowledgement must be completed and returned not later than the date and time for receipt of the bid or proposal.
- b. All other terms and conditions of the IFB remain the same.
- c. Receipt acknowledged by:

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date Signed

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name of Firm

FROM UPS-DP AND  
EMDP FOR  
EOC CENTER ULF 1 & 2

Equipment Inspected By:  
 NEM, Inc.  
 Tampa - Orlando - Atlanta  
 813.854.2174  
 Date: 1/16  
 www.allstateem.com

**AUTO TRANSFER**      **MANUAL TRANSFER**      **PUSH AND HOLD FOR 15 SECONDS TO TEST**

**MANUAL TRANSFER TO EMERGENCY**      **BYPASS EMERGENCY TO NORMAL TIME DELAY**

**MANUAL TRANSFER TO NORMAL**      **BYPASS NORMAL TO EMERGENCY TIME DELAY**

**Contactor Position**

● **UPS**      ● **PNL EMDP**  
 ● **UPS**      ● **PNL EMDP**

**System Status**

● **Not In Automatic**      ● **System Alert**  
 ● **Programming Mode Not In Off**  
 ● **Flashing, Local**      ● **Steady, Remote**

**Accessory Active**

● **Plant Exerciser**      ● **Load Shed**      ● **In-phase Monitor**      ● **Area Protection**

**Time Delay**

**On End**  
 ● **Engine Start**  
 ● **Normal To Emergency**  
 ● **Emergency To Normal**  
 ● **Engine Cooldown**

CHECK KEY-SWITCH

7 YES	8 NO	9 MON	RESET MENU
4 TUE	5 WED	6 THU	MENU →
1 FRI	2 SAT	3 SUN	MENU ↓
0	LAMP TEST AMP/M	EXER STOP	ENTER ←

**Operating Guide**

Index No.	Description
1	Normal Volts & Hz
2	Emergency Volts & Hz
3	Records
4	Time & Date
5	Time Delays
6	Normal System
7	Emergency System
8	Plant Exerciser
9	Load Shed
10	Source History
11	Installed Options
12	Calibration
13	Remote Control

**To Enter & Exit an Index:**  
 ● Press RESET MENU key.  
 ● Press MENU → key to scan indexes, or enter index number.  
 ● Press MENU ↓ key.  
 ● MENU ↓ key vertically scans index.  
 ● MENU → key horizontally scans index.  
 ● Press RESET MENU key to exit index.


**Plant Exerciser Stop:**  
 ● Press EXER STOP key.  
**Lamp Test:**  
 ● Press RESET MENU key.  
 ● Press LAMP TEST key.  
**System Alert Lamp Flashing:**  
 ● See LCD display for message.  
 ● Clear fault, if necessary.  
 ● Press RESET MENU key.  
**Not In Automatic Lamp Flashing:**  
 ● To clear, set the AUTO/TEST or INHIBIT switch to the AUTO position.  
**Programming Mode:**  
 ● OFF permits monitoring only.  
 ● LOCAL permits adjustment using keypad.  
 ● REMOTE permits adjustment using remote computer.

**To Set Time & Date:**  
 ● Select LOCAL programming mode.  
 ● Press RESET MENU key.  
 ● Press 4, for Time & Date.  
 ● Press MENU ↓ key.  
 ● Enter Hours:Minutes and AM/PM.  
 ● Press ENTER ← key.  
 ● Press MENU ↓ key.  
 ● Enter Month-Day-Year.  
 ● Press ENTER ← key.

**To Read Voltage & Frequency:**  
 ● Press RESET MENU key.  
 ● Press 1 for Normal, or 2 for Emergency.  
 ● Press, and continue to press MENU ↓ key to read voltage and frequency.  
**To Manually Store Set Points:**  
 ● Select LOCAL programming mode.  
 ● Press RESET MENU key.  
 ● Press ENTER ← key.

**Programming Mode**

Off  
 Remote      Local

**⚠ DANGER**  
  
 High voltage.  
 Will shock, burn,  
 or cause death.  
 Do not open  
 until ALL power  
 is disconnected.

**CAUTION**  
 OSHA REGULATIONS  
 AREA IN FRONT  
 OF ELECTRICAL PANEL  
 MUST BE KEPT CLEAR  
 FOR 36 INCHES  
**CUIDADO**  
 REGLAMENTOS DE LA OSHA  
 MANTENGA LIBRE  
 UNA DISTANCIA DE 36"  
 DELANTE DE  
 TABLERO ELECTRICO

**KOHLER**  
 POWER SYSTEM

TRANSFER SWITCH

Irrigation Feed			
Mechanical	10-28-94	RLB	86
Plumbing Feed			
Refrigeration Feed			
Septic Tank Feed			
Solar Feed			
Ventilation Feed			
22-15 (491)			

1

A circuit breaker assembly with a white handle, mounted on a metal panel. It includes a terminal block and a small label.

2

A circuit breaker assembly with a white handle, mounted on a metal panel. It includes a terminal block and a small label.

3

A circuit breaker assembly with a white handle, mounted on a metal panel. It includes a terminal block and a small label.

4

A circuit breaker assembly with a white handle, mounted on a metal panel. It includes a terminal block and a small label.

5

A circuit breaker assembly with a white handle, mounted on a metal panel. It includes a terminal block and a small label.

6


A circuit breaker assembly with a white handle, mounted on a metal panel. It includes a terminal block and a small label.

7

A circuit breaker assembly with a white handle, mounted on a metal panel. It includes a terminal block and a small label.

8

A circuit breaker assembly with a white handle, mounted on a metal panel. It includes a terminal block and a small label.

 **Spectra Series™ Power Panelboards**

**CAUTION**  
 OSHA REGULATIONS  
 AREA IN FRONT  
 OF ELECTRICAL PANEL  
 MUST BE KEPT CLEAR  
 FOR 36 INCHES  
**CUIDADO**  
 REGLAMENTOS DE LA OSHA  
 MANTENGA LIBRE  
 UNA DISTANCIA DE 36"  
 DELANTE DE  
 TABLERO ELECTRICO

PANEL MDP  
1200A M.C.B. 480V 3ø 4W

WARNING

UL LISTED

SAFETY

SAFETY

SAFETY

Power  
025-3-98 38 40  
447006 STAFF 24  
025-3-98 38 40

025-3-98 38 40  
447006 STAFF 24  
025-3-98 38 40

WARNING

1  
2  
3  
4  
5  
6

Chiller 3  
Neutral Power

THIS CIRCUIT IS PROVIDED  
WITH GROUND FAULT PROTECTION

GE Spectra Series™ Power Panelboards

**CAUTION**  
BEHIND THE  
FRONT OF  
ELECTRICAL PANEL  
MUST BE KEPT CLEAR  
FOR 36 INCHES

**CUIDADO**  
DESPUES DE LA SERA  
MANTENGA LIBRE  
UNA DISTANCIA DE 36"  
DELANTE DE  
TABLERO ELECTRICO

WARNING

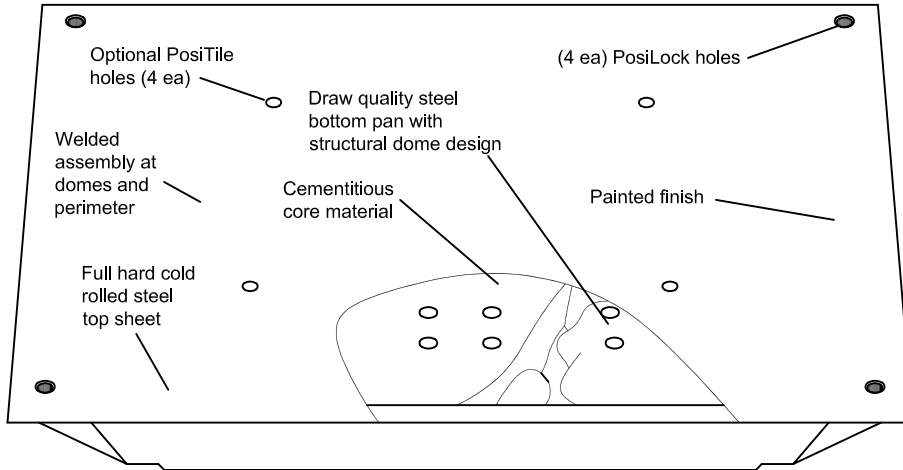
SAFETY

SAFETY

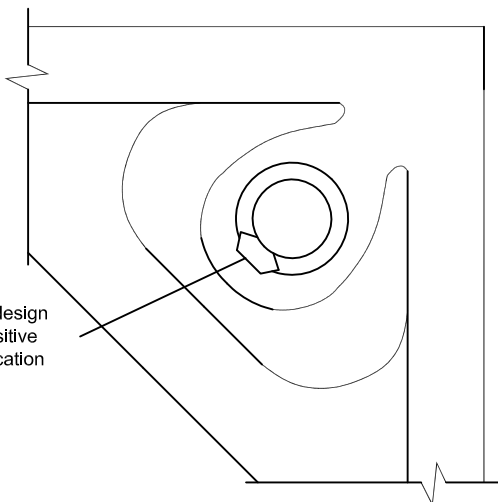
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WARNING

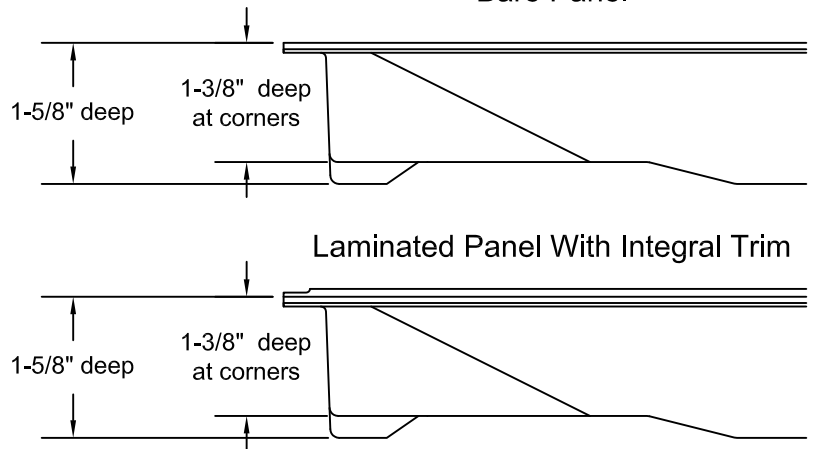




TOP VIEW



CORNER DETAIL



## SPECIFICATIONS

### General information

- Panel weight : 8.0 lbs./ft<sup>2</sup> bare.
- All steel welded construction filled internally with a cementitious core material.
- Protected from corrosion by an epoxy paint finish.
- Class A flame spread rating.
- Non-combustible material.

## UNDERSTRUCTURE OPTIONS

- Freestanding                       Posilock
- 2' Bolted Stringer                 4' Bolted Stringer

## COVERING OPTIONS

Tile factory laminated with integral trim edge

- 1/8" HPL \_\_\_\_\_ (Color) \_\_\_\_\_
- 1/16" HPL Formica \_\_\_\_\_ (Color) Cheyenne Gray
- 1/8" Conductive HPL \_\_\_\_\_ (Color) \_\_\_\_\_
- 1/16" Conductive HPL \_\_\_\_\_ (Color) \_\_\_\_\_

For additional laminate options contact Inside Sales

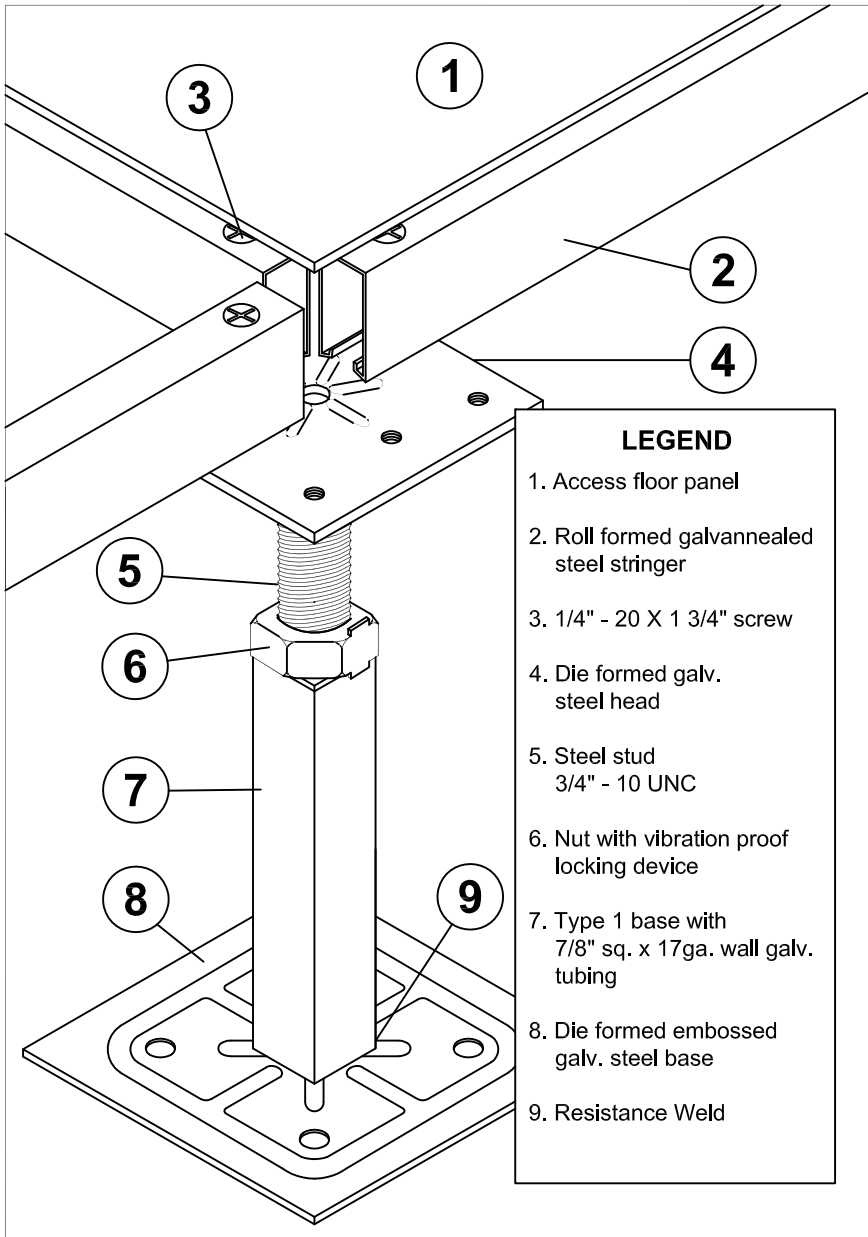
Bare Painted Panel Options

- Bare Painted Finish to accept carpet tile application
- Bare Painted Finish to accept PosiTile application

System Performance Criteria (Tested on Actual Understructure)*								
System Type	Understructure	SYSTEM WEIGHT	STATIC LOADS			ROLLING LOADS		IMPACT LOADS
			Design Loads	Ultimate Loads	Safety Factor	10 Passes	10,000 Passes	
ConCore CC1250-24"	Posilock	8.5 lbs / ft <sup>2</sup> 41 kg / m <sup>2</sup>	1250 lbs 567 kg	Min. 2500lbs Min. 1134kg	Min. 2	1125 lbs 510 kg	875 lbs 397 kg	150 lbs 68 kg
	Bolted Stringer	10.0 lbs / ft <sup>2</sup> 49 kg / m <sup>2</sup>	1250 lbs 567 kg	Min. 2500lbs Min. 1134kg	Min. 2	1000 lbs 454 kg	800 lbs 363 kg	150 lbs 68 kg

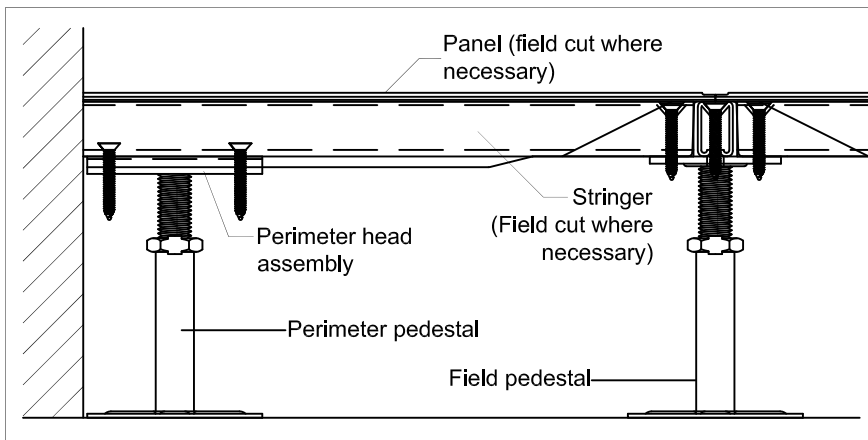
1. System Design Load is based on permanent set ≤ 0.010" and is verified by loading panels in accordance with the CISCA concentrated load method but with panels installed on actual understructure instead of steel blocks. (Testing on blocks does not represent performance of an actual installation.) Ultimate, Rolling, and Impact Load tests are performed using CISCA test procedures.

2. Safety Factor is Ultimate Load divided by Design Load.



**LEGEND**

1. Access floor panel
2. Roll formed galvanized steel stringer
3. 1/4" - 20 X 1 3/4" screw
4. Die formed galv. steel head
5. Steel stud 3/4" - 10 UNC
6. Nut with vibration proof locking device
7. Type 1 base with 7/8" sq. x 17ga. wall galv. tubing
8. Die formed embossed galv. steel base
9. Resistance Weld



## PEDESTAL SPECIFICATIONS

### Pedestal Assembly

- Assembly up to 36" FFH shall provide an 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

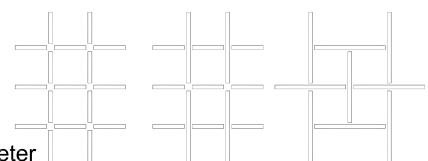
- Standard head is 11 ga. die formed galvanized steel pedestal head and resistance welded stud with adjustment nut. Heavy duty head for CC2000 and CC2500 panels is 8 ga. fillet welded for field and tack welded perimeter head. Head and installed stringers shall provide perimeter support for panel.
- Stringers shall be attached with 1/4" - 20 flat-head screws.
- Pedestal head shall be tapped for engagement of stringer screws with (4) 1/4" diameter holes for mechanical fastening applications.
- Steel stud shall be 3/4" - 10 UNC.
- Nut shall be 3/4" - 10 UNC with corrosion resistant coating.
- 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 with (4) 1/4" diameter holes for mechanical fastening applications.
- Pedestal tube shall be 7/8" x 17 ga. wall square galvanized tubing.

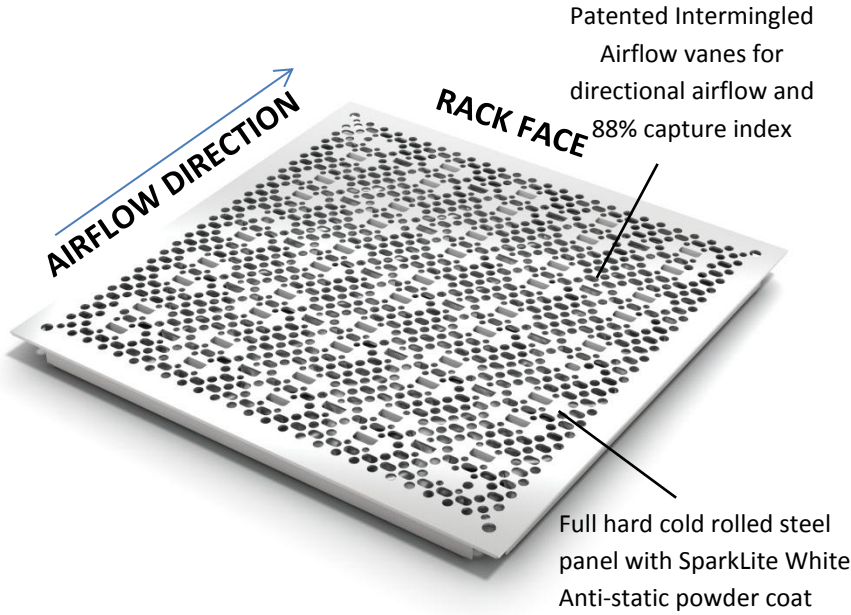
### Stringers

- 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.
- Stringer shall be 1-1/4" deep x 3/4" wide.
- Stringer grid pattern shall be 2'1/2', 2'4', or 4'1/4' basketweave.



### Perimeter

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



## SPECIFICATIONS

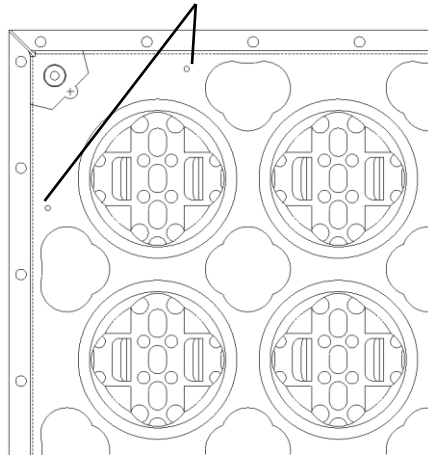
### General Information

- 32% open area
- 24 Inches square all steel construction
- Concentrated load rating up to 1250 lbs
- Protected from corrosion by anti-static powder coat finish- 25,000 to 20,000,000,000 ohms when tested at 500 volts per NFPA 99
- Patented Intermingled airflow vanes for directional airflow
- Class A flame spread rating
- Non-combustible material
- Pre-drilled for field mounted opposed blade dampers.
- Directional Airflow for 88% Capture Index
- SparkLite White anti-static powder coat

DirectPerf® 32% 24"		
Static Pressure (in. wc)	CFM (w/o Damper)	kW
0.02	531	3.7
0.04	744	5.2
0.05	833	5.8
0.06	890	6.2
0.08	1010	7.0
0.1	1121	7.8
0.12	1236	8.6
0.14	1344	9.4
0.16	1428	10.0
0.18	1507	10.5
0.2	1597	11.1

\*Refer to Airflow Control Device Datasheets for airflow values

Predrilled hole for field mounted opposed blade damper



Bottom Corner View

## UNDERSTRUCTURE OPTIONS

- 24" Bolted Stringer
- 48" Bolted Stringer

## AIRFLOW CONTROL OPTIONS

- Single-zone Opposed Blade Damper (Field-Mounted)
- Multi-zone Opposed Blade Damper (Field-Mounted)

DirectPerf® 32% 24" System Performance Criteria*			Static Loads			Rolling Loads (lbs)		Impact	Airflow	
Panel Type	Under-Structure	System Weight (lbs/ft <sup>2</sup> )	Design Loads (lbs)	Safety Factor	Ultimate Load (lbs)	10 Passes	10,000 Passes	Load (lbs)	@ 0.1"H <sub>2</sub> O (CFM)	Capture Index
DirectPerf 32% 1250	Bolted Stringer	6.25	1250	Min > 2	2500	-	-	150	1121	88%

1. System Design Load is based on permanent set ≤ 0.010" and is verified by loading panels in accordance with the CISCA concentrated load method but with panels installed on actual understructure instead of steel blocks. (Testing on blocks does not represent performance of an actual installation.) Ultimate, Rolling, and Impact Load tests are performed using CISCA Test Procedures.

2. Safety Factor is Ultimate Load divided by Design Load.