

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Administration DIVISION OF PURCHASES One Capitol Hill Providence, RI 02908-5855 Tel: (401) 574-8100 Fax: (401) 574-8387 Website: www.purchasing.ri.gov

March 1, 2012

ADDENDUM NUMBER TWO

RFQ # 7449459

TITLE: RENOVATIONS TO THE CCRI LECTURE HALL, KNIGHT CAMPUS, WARWICK, RI

Closing Date and Time: 3/13/12 at 2:15 PM (Note Change)

Per the issuance of this <u>ADDENDUM #2 (40 pages, including the cover sheet)</u> the following change(s) are noted:

Please be advised the Bid Closing Date and Time has been extended:

From: 3/6/12 at 2:15 PM To: 3/13/12 at 2:15 PM

SEE ATTACHED



Specification Change /Addition / Clarification

The following changes, additions and deletions to the Drawings and Specifications shall be considered part of the Contract Documents called **COMMUNITY COLLEGE OF RHODE ISLAND, LECTURE HALL RENOVATION PROJECT**, dated 28 October, 2011. This Addendum consists of 39 pages.

ADDENDUM NO. 2 MODIFICATIONS:

- ITEM NO. 1: Project Manual: Section 00020 Invitation to Bid and the solicitation information, February 10, 2012 (issued as RFQ #7449459, Renovations to the CCRI Lecture Hall, Knight Campus, Warwick, RI) delete the following, "Closing date and time: 3/6/2012 at 2:15PM" and replace with the following "Closing date and time: 3/13/12 at 2:15PM."
- ITEM NO. 2: Project Manual: Section 00020 Invitation to Bid and the solicitation information, February 10, 2012 (issued as RFQ #7449459, Renovations to the CCRI Lecture Hall, Knight Campus, Warwick, RI), please delete the following "Project Completion: 120 calendar days from the issuance of a purchase order" and replace with the following, "Project Completion: All construction for the referenced project, including installation of the CCRI (Owner) provided and installed auditorium seating must be completed by October 31, 2012. The bidder shall acknowledge in writing as part of their bid (RE: Section 00310 – Bid Form, 3. Contract time...) that this date is not movable and that it is the sole responsibility of the contractor and their subcontractors to schedule the work to meet this date." The revised Bid Form 00310 is included in this Addendum.
- **ITEM NO. 3:** The project site, CCRI Knight Campus Theater/Auditorium, will be made available for sub-contractor walk-through and inspection only, contact Mr. Ken McCabe (401-825-2111) or Mr. Ray DeAngelis (401-825-2444) of CCRI to arrange access.
- **ITEM NO. 4:** Project Manual and Drawings: All deduct alternates listed in Section 00310 Bid Form and section 01030 Alternates and Allowances and as listed on Drawings shall be deleted as deduct alternates from the project. Item Number 9, listed as an add/alternate, shall remain as such.

Base Bid Shall Include the following:

- 1. HVAC Units 9, 10, 11, and 12 shall be Hunt Air model #CSU on drawings M0.1, M1.1, E1.1, E2.1, and in specifications.
- 2. 12 ellipsoidal light fixtures and 12 LED-RGB color changing light fixtures on drawing E1.3 DMX control cable throughout the catwalk and area indicated on drawings E0.4 and E1.2. The Ion control Board and accessories as indicated on drawing E1.3, theatrical lights dimming system notes.
- 3. All of the theater support systems listed on A/V drawings. The A/V system capacity will remain as indicated on A/V Drawings and specifications, four independently operable systems, including four video projectors, four projection screens, and all operator equipment listed and specified.
- 4. The new stage flooring including all components listed in the drawing A1.1 and A5.1 and specifications. Note: delete the maple top layer and replace with T & G FIR and

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delete the 5/8" P.T plywood and replace with 5/8" plywood. The finished FIR top layer shall be painted to match the existing stage floor. The stage curtain and track to remain as base bid.

- 5. Exterior glass canopy roof system as indicated on drawing A5.2 and in specifications.
- 6. Fire rated doors from corridor into auditorium indicated on drawings A1.1, A4.1 and A6.1 and fire dampers from corridor into auditorium.
- 7. Glass guard rails as indicated on drawings A1.1, A2.1, and A4.1.
- 8. Handicap toilet room 1546A indicated on drawings A1.1, A4.3, E0.1, E1.4, M0.1, and P1.1.
- **ITEM NO. 5:** Below is a list of Audio- Visual equipment to be supplied by the owner and where indicated, installed by the contractor. Purchase of these items shall be removed from the Base Bid. Following this list are the amended specifications (Project Manual).

Items provided by owner: (QTY=Quantity)

Section 1.01 Microphones and Stands

- 24 QTY: Microphone Extension Cable-Pro Co M25
- 8 QTY: Shure MX 418/S
- 8 QTY: Shure Mic Stand and Shock-Mount Adapter A53M
- 8 QTY: Shure SM58-LC
- 8 QTY: Shure Beta 57A
- 8 QTY: Atlas MS-12CE Stand
- 8 QTY: Atlas PB-21XE Boom
- 8 QTY: Replace with Atlas TE-E
- 4 QTY: Atlas DS-7E Table Stand

Section 1.02 Digital Mixing Console and Case

- 1 QTY: Soundcraft Si Compact 32 Channel Mixing Console
- 1 QTY: Avil Case/Calzone Case

Section 1.03 Production Intercom Equipment

• 10 QTY: Clear-Com RS-601

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- 10 QTY: Clear-Com CC-95
- 10 QTY: 25' Mic Cables

Section 1.04 Recording System

- 2 QTY: Shure SM81-LC
- 2 QTY: Ace Backstage Microphone Hanger Slug 42-MHS
- 1 QTY: Allen & Heath ZED-14 Recording Mixer
- 1 QTY: Sennheiser HD280PRO Headphone

ADD-ON Listen Technologies Devices

- 1 QTY: LS-02-072-01 Basic Listen FM System (72MHz) includes:
 - o 1 QTY: LT-800-072 Stationary FM Transmitter (72MHz)
 - 0 1 QTY: LA-106 Telescoping Top Mounted Antenna (72MHz)
 - o 4 QTY: LR-300-072 Portable Digital FM Receiver (72MHz)
 - o 4 QTY: LA-161 Single Ear Bud
 - o 1 QTY: LA-304 Assistive Listening Notification Signage Kit
- 20 QTY: LR-300-072 Portable Digital FM Receiver (72MHz)
- 20 QTY: LA-162 Stereo Ear Buds
- 20 QTY: LA-164 Ear Speaker
- 10 QTY: LA-166 Neck Loop
- 3 QTY: LA-311-01 16-Unit Portable FM Product Charging/Carrying Case
- 5.1 Project Manual: Section 11131 Integrated Audio -Video Systems and Equipment, 1.04 Scope of Work, after D., add the following E. Owner Furnished Equipment. 1. Install all sound, video and communication system equipment identified below as Owner Furnished as shown on drawings and as specified herein. All equipment identified as Owner Furnished has been purchased by the Owner prior to the project and will be furnished to the project by the Owner when needed for coordination and installation. All Owner Furnished equipment will be stored by the Owner until needed for the project. For products specified below that are components of systems requiring compatibility with Owner Furnished equipment, provide equipment compatible with and from same manufacturer as Owner Furnished components of those systems.

- 5.2 Project Manual: Section 11131 Integrated Audio -Video Systems and Equipment, 2.01 Wiring and Connections, after letter M., 1) Quantity: As required by number of microphones provided. Add the following (Owner Furnished).
- **5.3** Project Manual: Section 11131 Integrated Audio -Video Systems and Equipment, 2.02 Audio input equipment, after A., D., F., G., H., I., J., 1) Quantity: 8 and 2.04 Audio Control and Amplification Equipment, after A., 1) Quantity: 8, add the following (**Owner Furnished**).
- **5.4** Project Manual: Section 11131 Integrated Audio -Video Systems and Equipment, 2.04 Audio Control and Amplification Equipment, change B., 1. "...compatible with submitted digital mixing..." to "...compatible with owner furnished digital mixing..."
- **5.5** Project Manual: Section 11131 Integrated Audio -Video Systems and Equipment, 2.04 Audio Control and Amplification Equipment, delete, B., 1., b. Yamaha equivalent.
- 5.6 Project Manual: Section 11131 Integrated Audio -Video Systems and Equipment, 2.04 Audio Control and Amplification Equipment, after C., 1) Quantity: 1, add the following (Owner Furnished).
- **5.7** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.08 Assistive Listening Equipment, after A. Provide wireless assistive listening system consisting of... system components from the same manufacturer., add the following, Provide equipment compatible with **owner furnished** wireless portable assistive listening equipment. Install all assistive listening equipment specified below including Owner Furnished equipment.
- 5.8 Project Manual: Section 11131 Integrated Audio -Video Systems and Equipment, 2.08 Assistive Listening Equipment, delete, B., 2. Williams PPA T35 with RPK 006 rack mounting kit.
- 5.9 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.08 Assistive Listening Equipment, after, B., a. Quantity: 4, add the following, (1 Owner Furnished, provide 3 additional under contract).
- **5.10** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.08 Assistive Listening Equipment, delete, C., 2. Williams equivalent.
- 5.11 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.08 Assistive Listening Equipment, change D., "1. Listen Technologies LR-300 w/ LA-162, batteries" to "1. Listen Technologies LR-300 w/ batteries."
- 5.12 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.08 Assistive Listening Equipment, delete. D., 2. Williams PPA R35 8N with EAR 014 Earphones.

- 5.13 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.08 Assistive Listening Equipment, after D., a. Quantity: 40, add the following, (24 Owner Furnished, provide 16 additional under contract).
- **5.14** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.08 Assistive Listening Equipment, delete, E., 2. Williams EAR 015 10. F., 2. Williams EAR 008 and G., 2. Williams NKL001.
- 5.15 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.08 Assistive Listening Equipment, after, F., a. Quantity: 40, add the following, (20 Owner Furnished, provide 20 additional under contract)
- 5.16 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.08 Assistive Listening Equipment, after, G., a. Quantity: 10, add the following, (Owner Furnished).
- **5.17** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.08 Assistive Listening Equipment, delete, H., b. Williams CHG 3512 PRO.
- 5.18 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.08 Assistive Listening Equipment, after, H., 1) Quantity: as required, add the following, (Owner Furnished). After the Letter H add the following, I. Stereo Ear Buds, 1. Listen Technologies LA-162, a. Quantity: 40 (20 Owner Furnished, provide 20 additional under contract).
- **5.19** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.09 Production Intercom System, delete (delete for alternate 3A.)
- **5.20** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.09 Production Intercom System, after, A. Provide a two-channel production intercom system... from the same manufacturer, add the following, Provide intercom equipment compatible with and from same manufacturer as **owner furnished** intercom belt-pack stations and headsets.
- **5.21** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.09 Production Intercom System, delete, B., 1., b. Telex MS 2002, and after B., 1) Quantity: 1, delete the following, (**Reduce quantity to 0 for Alternate 3A).**
- **5.22** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.09 Production Intercom System, delete, C., 2. Telex BP 1002.
- 5.23 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.09 Production Intercom System, after, C., a. Quantity: 10, add the following, (Owner Furnished), delete the following, (reduce quantity to 0 for Alternate 3A).
- **5.24** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.09 Production Intercom System, delete, D., 1., b. Telex WM 3001, after, D., 1) Quantity: 1, delete the following, (reduce quantity to 0 for Alternate 3A).

- 5.25 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.09 Production Intercom System, after, E., a. Quantity: 10, add the following, (Owner Furnished), and delete the following, (Reduce quantity to 0 for Alternate 3A) and delete, E., 2. Telex PH 1.
- 5.26 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.09 Production Intercom System, after, F., 1) Quantity: 10, add the following, (Owner Furnished), and delete the following, (Reduce quantity to 0 for Alternate 3A).
- **5.27** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.11 Recording System, delete (delete for Alternate 3A.)
- **5.28** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.11 Recording System, delete, A., 1., a. AKG C391B.
- **5.29** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.11 Recording System, after, A., 1) Quantity: 2, add the following, (**Owner Furnished**) and delete the following, (**Reduce quantity to 0 for Alternate 3A**).
- 5.30 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.11 Recording System, after, B., a. Quantity: 2 and C., 1) Quantity: 1, add the following, (Owner Furnished) and delete the following, (Reduce quantity to 0 for Alternate 3A).
- **5.31** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.11 Recording System, delete, C., b. Mackie Onyx 1220.
- 5.32 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.11 Recording System, after, D., 1) Quantity: 1, delete the following, (Reduce quantity to 0 for Alternate 3A).
- **5.33** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.11 Recording System, delete, E., a. Sony MDR7506 and c. AKG K240S.
- **5.34** Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.11 Recording System, after, E., 1) Quantity: 1, add the following, (**Owner Furnished**) and delete the following, (**Reduce quantity to 0 for Alternate 3A**).
- 5.35 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, 2.11 Recording System, after, E., add the following, F. Recording Microphone Extension Cable, 1. Provide 25-foot long rubber-covered flexible microphone extension cables. Fit each flexible extension cable with black three conductor XLR microphone receptacles. Provide one microphone cable per microphone., a. Wireworks C25, b. Pro Co M25, c. Approved equal assembly, 1) Quantity: 2.
- 5.36 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, Part 1-General, Delete section 1.05 Alternates, in its entirety.

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Part 2-Equipment, 2.04: M 1.b.1), N.b.1), 2.05: C.1.c.1), D.1.b.1), E.1.a.1), L.1.a.3), M.1.b.1)b), 2.06: C.1.c1), 2.07: Program Monitor/Announcement System, A.1.c.1), B.1.a.1), 2.10 Portable Loudspeaker System, A:.b.1), B.1.b.1), C.1.b.1), D.1.b.1)a), E.1.a.1)a), F.1.a.2)a), F.1.b.2)a), G.1.b.1), H.1.b.1), I.1.b.1), 2.12: D.1.b.1), G.1.a.1), H.1.a.1), I.1.a.1), J.1.b.1), 2.13: B.1.b.1), 2.14: A.1.d.1), B.1.b.1), C.1.d.1), D.1.a.1), 2.15: B.1.a.1), C.1.a, D.1.a.1), and G.1.a.1) delete reference to Alternates.

- 5.37 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, Part 2-Equipment, Section 2.01: E.1, after "...data and digital A/V wiring." Add, "Provide color for A/V wiring that is distinct from colors used for computer data and other category cabling."
- 5.38 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, Part 2-Equipment, 2.01: F.1, after "...conductors for digital A/V wiring." Add, "Provide color for A/V wiring that is distinct from colors used for computer data and other category cabling."
- 5.39 Project Manual: Section 11131 Integrated Audio-Video Systems and Equipment, Part 2-Equipment, 2.01: after Q. Terminal Blocks, add "R. Fiber Optic Wiring, 1. Provide single-mode, 125/900 micron, 1310nm compatible, two-fiber cable for connection of audiovisual signals over fiber extenders., a. Belden M9W002, b. Approved Equal
- **ITEM NO. 6:** Included in this addendum please find the Hazardous Materials Report prepared by Silva Environmental & Associates, Inc. The report lists items tested for asbestos. The report also addresses existing items that are assumed to contain PCB's. Section 02050 demolition, 3.04, A., states "all materials demolished and removed from the site must be done in a legal and environmental approved manner." The Silva report further stipulates how this shall be done.
- **ITEM NO. 7:** Project Manual: Delete specification Section 03300 Cast-In-Place Concrete and replace with Section 03300-Concrete, sub-set Section 03550 Concrete Toppings, Section 03920 Concrete Resurfacing and Section 03930 Concrete rehabilitation included in this addendum.
- **ITEM NO. 8:** Project Manual: Add specification Section 09656 Resilient Terrazo Tile into the project manual. This specification is included to address any work required to the existing floors in the corridors outside the auditorium/lecture hall.
- **ITEM NO. 9:** Drawing: Existing structural drawing S-20, dated October 7, 1968 Weisenfeild & Leon, New York, NY consulting Engineers. This drawing is included for informational purposes only. The drawing is part of a set of drawings obtained from CCRI facilities management and should not be assumed to present "as built" conditions.
- ITEM NO. 10: A sign-in sheet from the pre-bid is included in this addendum.
- **ITEM NO. 11:** Project Manual: Section 00310 Bid Form, insert the following, "language for Bid Alternate Priority, The Owner reserves the right to include or delete one or more alternates

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identified herein to/from the scope of the project; provided, however, that said alternates shall only be selected by the Owner in the order in which they are listed in this addendum. Bidders are required to submit a bid price for each and every alternate. Failure to submit a bid price for each and every alternate will result in the entire proposal being deemed to be non-responsive to the solicitation.

Alternates are listed in numerical sequence in order of Owner's priority. In determining the lowest responsive bid the awarding authority shall consider alternates in descending numerical sequence such that no individual alternate shall be considered until every alternate preceding it on the list has been added to or subtracted from the base bid price.

- **ITEM NO. 12:** Drawing A5.1, details 6, 6A, 6B and 6C delete reference to "Maple T & G Flooring", and replace with "FIR T & G Flooring." Also, delete reference to "1 layer of pressure treated 5/8" plywood" and replace with "1 layer of 5/8" plywood. Detail 6B, replace "Radious" with "Radius".
- **ITEM NO. 13:** Drawing E2.1, panel schedule. Provide 150 amp main circuit breakers for panels LC-91, 92, 93, 94, and panel AV in lieu of main lugs only. Frame size of panelboards is 200 amps as indicated.
- **ITEM NO. 14:** Drawing E2.1, revised power one line diagram. Fused disconnect switch on the high side of transformer THL1 is not required.
- **ITEM NO. 15:** Drawing E2.1, Data wiring diagram and Data Wiring Notes. All references to cat 5E shall be changed to Cat 6A. Provide Mohawk XGO UTP cable, 4 pair #23 awg cat. 6A plenum rated.
- **ITEM NO. 16:** Project Manual: Specification 16717. All horizontal wiring and associated equipment and work shall be cat 6A, in lieu of cat 5E. Comply with CCRI standards and provide Mohawk cable only, as noted above. Comply with CCRI standards and provide Panduit cable hardware, patch panels, etc. only, including the following equipment:

Patch panel: CPP48WBLY Patch panel and Panduit faceplate Termination: CJ6X88TGBU Floor boxes: CJKX88TGBU

- **ITEM NO. 17:** Project Manual: Specification 16717. Add section 3.10 Warranty. Provide a 20 year warranty on all horizontal cabling wiring, equipment, terminations, and other associated items.
- **ITEM NO. 18:** Provide one color for CCRI LAN data outlets, and a separate color for A/V system wiring as noted in Specification Section 11131 and in this addendum. Coordinate color requirements with the Architect.
- **ITEM NO. 19:** Drawing A5.1, Detail 3/A5.1, change note "All exposed carpet edges are to be steamed sealed" to, "All exposed carpet edges are to be seam sealed."

TORRADO ARCHITECTS CCRI – Lecture Hall

FEBRUARY 29, 2012 ADDENDUM NO. 2 CCRI – Lecture Hall

ITEM NO. 20: Project Manual: Delete specification Section-00350 – Letter of Intent and replace with Section 00350 – Letter of Intent included in this addendum.

END OF ADDENDUM NO. 2

TORRADO ARCHITECTS CCRI – Lecture Hall

00310-BID FORM

TO:	State of Rhode Island Department of Adminsitration Division of Purchases One Capitol Hill Providence, RI 02908-5859	
PROJECT:	Lecture Hall CCRI- Knight Campus 400 East Avenue Warwick, Rhode Island 02886	
DATE:		
SUBMITTED BY:		
(include address		
tel. no., and		
license no. as		
applicable)		
••		

1. **BID**

Having examined the Place of the Work and all matters referred to in the Instructions to Bidders and in the Contract Documents prepared by L.A. Torrado Architects for the abovementioned project including the allowance in Section 01030, we, the under signed, hereby propose to enter into a Contract to perform the Work for the sum of:

\$_

(written, and numerically)

We have included the required Bid Security in compliance with the Instructions to Bidders.

2. **ALTERNATES**

The Owner reserves the right to include or delete one or more alternates identified herein to/from the scope of the project; provided, however, that said alternates shall only be selected by the Owner in the order in which they are listed in this addendum. Bidders are required to submit a bid price for each and every alternate. Failure to submit a bid price for each and every alternate will result in the entire proposal being deemed to be non-responsive to the solicitation.

Alternates are listed in numerical sequence in order of Owner's priority. In determining the lowest responsive bid the awarding authority shall consider alternates in descending numerical sequence such that no individual alternate shall be considered until every alternate preceding it on the list has been added to or subtracted from the base bid price.

#0110

00310

00310-BID FORM

- 1. ALTERNATE #1: provide a 32'-6" x 29'-3" event deck portable wood floor from Signature Fencing and Flooring Systems, LLC. 50 East 42nd Street- 14th floor, New York, New York, 10017. system to include the following:
- 1. DanceDeck Pro- Cam-Lock version- Solid Wood Tile 39" x 39"- Maple (light) (Quantity 90)
- DanceDeck Pro- Cam-Lock version- Male Edge Piece- 39" x 3"- Maple (Quantity 17)
- 3. DanceDeck Pro- Cam-Lock version- Female Edge Piece- 39" x 3"- Maple (Quantity 17)
- 4. DanceDeck Pro- Cam-Lock version- Corner Edging Set- Maple (Quantity 4)
- 5. DanceDeck PRO- Cam-lock tool (Quantity 1)
- DanceDeck Pro- Cam-Lock version- Transport Cart (W 29" L 50.5" H 43.25") 25 Panels Each (Quantity 4)
- 7. Delivery Charge

Reference specification Section 09685 and Drawings 8/A1.1. ADD \$_____.

3. CONTRACT TIME

If this bid is accepted, we will commence work on , 2011. All construction for the referenced project, including installation of the CCRI (Owner) provided and installed auditorium seating will be completed by October 31, 2012. The bidder acknowledges that this date is not movable and that it is the sole responsibility of the contractor and their subcontractors to schedule the work to meet this date.

4. **ADDENDA**

The following Addenda have been received. The noted modifications to the Bid Documents have been considered and all costs are included in the Bid Sum.

Addendum No. 1, dated _____

Addendum No. 2, dated

Addendum No. 3, dated _____

5. **ACCEPTANCE**

This Bid shall be irrevocably open to acceptance for 90 days from the Bid closing date. If this Bid is accepted by the Owner within 90 days, we will:

Execute the Agreement subject to compliance with required State regulatory agency approvals as described in the Invitation to Bidders.

TORRADO ARCHITECTS	00310	
CCRI- KIGHT CAMPUS- LECTURE HALL		#0110

00310-BID FORM

Furnish the required bonds in compliance with amended provisions of the Instructions to Bidders.

Commence work within seven (7) days after receipt of a Purchase Order.

If this bid is accepted within 90 days, and we fail to commence the work, or we fail to provide the required bond (s), the security deposit shall be forfeited as damages to the Owner by reason of our failure, limited to the amount of lesser of the value of the security deposit, or of the difference between this Bid and the Bid upon which the Contract is signed.

In the event our Bid is not accepted within 90 days, the required security deposit shall be returned to the undersigned, in compliance with provisions of the "Instructions to Bidders"; unless a mutually satisfactory arrangement is made in writing for its retention and validity for an extended period of time.

6. **BID FORM SIGNATURES**

CORPORATE SEAL;

(Bidder's printed name)

By: __

(Signature)

Title: _____

END OF SECTION

00310

Pre-Bid Sign In Sheet Renovations to the CCRI Lecture Hall, Knight Campus, Warwick, RI February 22, 2012 @2:00 PM

CCRI Lecture Hall State RFP#7449459

Torrado Architects

			HERDERS ON Floor	FROM CONSTRUCTION ON	Arden Eng	THE BAILEY 6100 P	WRIGHT COUST	Bryan Berg	ARAMIC Designers	VENDOR
			NAMON HEHDERSO	m Donald Pedro	Tim Brownell	MACIL HASHWAY	LAYMON	Wounderwall Court	Bob Adams	CONTACT
		@ ADL. COW	HEWLERSON HOOR	SWD @ ICGri Com	(Browne Woarden engrom	MHASHWAY @ 13A, (izy Choup i21. con	Moons all markes . con	byan @ wonderball	peressists adjus 160 & Mhro i Com	, E-MAIL
			HOI) 785-2090	401 490 3144	401-727-3400	401-613	944-6500	124 1455	3987168	PHONE
			401/7851752	Ap1 460 3148	401-7273540	401-865	944-1650	722 8227	38-1019-	FAX

Pre-Bid Sign In Sheet Renovations to the CCRI Lecture Hall, Knight Campus, Warwick, RI February 22, 2012 @2:00 PM

CCRI Lecture Hall State RFP#7449459

Torrado Architects

 	 	 ··	 	 			_
					ARDEN ENG	MILL CITY CONSTRUCTION	VENDOR
					Steve Perri	ANDRE GIRARD	CONTACT
					SPETTI @ AR DEN EWG, CO	A SIRARO ONIL CITY, CON	E-MAIL
					+ 401-727-3500	401-766-3100	PHONE
					461-727-3542	401-769-2910	FAX

Pre-Bid Sign In Sheet

3

Renovations to the CCRI Lecture Hall, Knight Campus, Warwick, RI February 22, 2012 @2:00 PM

CCRI Lecture Hall State RFP#7449459

Torrado Architects

	Tower Construction Carp	MARON CONSTRUTION	Mc CLANA & HAN ASSOC	R.F RISTIN	EVAN ELECTRIC	MtJ Constr. W. Inc	PtAszek Construction	CCG inc	Bahry Building Company	VENDOR
	SALvouregiossi	CHRISTONIES VELLECA	Rober Ne Church	TO, N MINILOY	Charlie Waskielors	Resser VIALINTE	toc Phaseek	Don SABOURIN	Michael Bahry	CONTACT
	Saverouser Corsinues	cvelleca @ macri. com	RWH & FWMENSINERRIES, CON	RUNDELSUMA ROPAN ETT IN AMA	CHASEI RYMSCLECTRIC CANALCOM	MAND Y CONSTRUCTION CO. COM	TOEP 2004 @ Cox. net	Dove cc & Build. Com.	mb@bahrybuilding.cm	E-MAIL
	010-541 M	401. 272. 49	401-739-2224	2.416 346 1942	Ho1-644. 92	4-1-272-4741	401-228-3003	401-739-0485	401354-7014	PHONE
	999 20511	30	401-739-8884	401 944 ST 2		44-272-4761	401-654-4413	401-739-0010	487 1-25-802	FAX



35 Greenwich Streetla.torrado@verizon.netProvidence, RI 02907t 401.781.0633www.torrado-architects.comf 401.781.0661

CCRI Theater Renovation Pre-bid Questions and Answers

<u>Date of Meeting:</u> February 22, 2011 <u>Location:</u> CCRI Knight Campus <u>Prepared by:</u> Brian O'Connell (TA)

The following is a list of questions asked by contractors at the pre-bid meeting, February 22, 2012 and through Rhode Island State Purchasing, John O'Hara, up to February 24, 2012.

- 1. Q: Can we get a copy of the original structural drawings for the auditorium/theater seating area? Just a section would do, so we may see how it is constructed, concrete work. A: Yes, please drawing S20 in this addendum.
- 2. Q: Is it safe to assume the installation of seating starts at the end of 120 days Construction Period? A: The project schedule and completion date have been changed. Please reference the schedule section of this addendum.
- 3. Q: A question was asked by a Sub at today's walkthrough: who is supplying the staging for all the over head work in the interior, The Specs Call for the staging of the exterior work. A: The Means and methods of construction are the responsibility of the contractor.
- 4. **Q:** Will the sprinkler and fire alarm work be completed prior to commencing this work? At yesterdays walk through it was stated that someone is already performing the sprinkler work and it would be complete prior to the start of this project. The documents show there is sprinkler work for this project, please clarify. A: Hughes Associates has designed a Sprinkler and Fire Alarm System for this building (Knight Campus). Included in that design is the existing Auditorium/Lecture Hall. This work is scheduled to be complete by April 20, 2012. Our project: Renovations of the Knight Campus Lecture Hall/Auditorium (Issued for Construction October 28, 2011) include but are not limited to, new bathrooms and new ceiling finishes. These new conditions will require modification to these existing fire alarm and sprinkler systems. Please reference FA-1.0, FA-1.1, FD-1.0, FP-1.0 and FP-1.1 (Hughes Associates) drawings for this work.
- 5. **Q:** Will the areas under the seating areas be cleaned out prior to construction by CCRI? A: Yes, Ken McCabe confirmed at the Pre-Bid that these areas will be cleaned out prior to start of construction.
- 6. **Q:** Is it possible For CCRI to tell us prior to the bid which Items under the seating areas will remain so that we can figure proper protection of theses items, including heat and dust sensitive issues? A: Please see answer to question 5.
- 7. Q: Can we get copies of today's sign in sheets. A: The sign-in sheets will be issued as part of this addendum.

- 8. **Q:** Will we get copies of other contractors Questions and answers. A: Yes. Reference this document.
- 9. **Q:** If you could, can you ask what carpets go where?. They specify two Shaw carpets, but don't differentiate between the two or where they will go (stairs? vomitories? H/C areas?) A: The "Hit the Books" carpet will be used at the steps of the tiered auditorium seating, reference A1.1 and enlarged floor plans: The "No Rules" carpet will be at the Handicap seating areas and the Vomitories, reference A1.1 and enlarged floor plans.
- 10. **Q:** Is there a requirement for shotblasting the concrete surface beneath the auditorium seating prior to paint with Sika 62 product? A: Yes, specification section 09910 and Sika 62 product guidelines require blast cleaning or equivalent mechanical means.
- 11. **Q:** Plans show maple stage floor specs call for fir which is right? A: The stage floor as indicated on A5.1 shall have a finished top layer of T&G Fir painted to match the colleges existing stage floor. The layer of 5/8" Pressure Treated Plywood shall be substituted with a layer of 5/8" Plywood.
- 12. **Q:** Vapor barrier for stage floor in spec. has conflict with materials required and what is to be installed which is correct? A: The vapor barrier is as indicated on the plans and specifications.
- 13. **Q:** Should alternate #4 include deletion of the expansion joint system? A:Yes, however please reference this addendum regarding the Alternates.
- 14. **Q:** Section 03300 deals with cast-in-place concrete, plans call for Sika product concrete infill, is there any cast-in place concrete and if so where is it shown? A: Please find attached to this Addendum a revised specification Section 03300 that includes the Sika, Sikacrete 211.
- 15. Concrete section has concrete testing by contractor, allowance has testing by owner which is correct? A: Please reference revised Section 03300. Testing per allowance is correct.
- 16. Spec section 07620 talks of thru-wall flashing, and flashing pans, I'm unable to find any on the plans are any required? A: Flashing requirements are as indicated on drawing A5.2.
- 17. Spec. section 09220 portland cement plaster, I can't find any on the plans is there plastering required and if so where? A: Please reference drawings and wall type C8P A0.0 and drawing A4.2 and A4.3.
- 18. I am being told by Valchromat that the specified acoustic wall panels will not work on a concave surface. They recommend a PVC panel that required field finishing, can you provide a clarification on this please. The wood trim that encases these panels are to be what species of wood and what finish stained or painted? The manufacturer stated that the panels are typically butted together with no division strips, is this acceptable. A: Please reference specification section 09500 and details 7 and 7A on drawing A5.3 and all other drawings where these wall panels are indicated. The panels and trim are by Interlam (address and telephone number are listed in the above referenced specification section). Manufacturer has confirmed that their panels can be bowed to meet the radius. Mock-up of panels (Drawing A5.3) is called for to confirm scoring at back of panels (for radius), fit and finish of all components and matching of horizontal trim and flat vertical trim.

19. Is there a vendor who has knowledge of the sudio visual system and if so could you provide a name please. A: We assume the question is related to "audio visual systems". The following are provided for informational purposes only and does not represent all possible supplier/vendors; it is the responsibility of the contractor to select a supplier/vendor that meets all of the requirements of the drawings and specifications. Possible vendor/suppliers:

ATR Treehouse

http://www.blsi.com 812 Charles St Providence, RI 02904 Phone: 401/751-3121 Fax: 401/751-3145 Attn: Chris O'Neil, Hector Morel coneil@atrtreehouse.com HMorel@atrtreehouse.com

Boston Light and Sound

http://www.blsi.com 290 North Beacon St Boston, MA 02135-1990 Phone: 617/787-3131 Fax: 617/787-4257 Attn: Zeke Zola x108 zeke@blsi.com

High Output Inc.

http://www.highoutput.com Boston Office 495 Turnpike St Canton, MA 02021 Phone 781/364-1800 Fax 781/364-1900 Attn: Mark Shore MShore@highoutput.com

HB Communications Inc.

http://www.hbcommunications.com Boston Office 1432 Main St Waltham, MA 02451 Phone 781/890-6046 Fax 781/890-6048 Attn: Scott Hilton SHilton@hbcommunications.com



October 11, 2011

Mr. Brian O'Connell, AIA, Senior Architects Torrado Architects 35 Greenwich Street Providence, RI 02907

Re: CCRI, Theater and adjacent areas survey for asbestos and Hazards assessment.

Dear Mr. O' Connell:

Please find enclosed the bulk samples results collected on September 28, 2011, for asbestos identification. The results were verbally reported to you on September 30, 2011.

Asbestos Results:

- CCRI-001 1X1 Ceiling tile, room 0526 Negative
- CCRI-002 Glue Daub, drill room 0526 Negative
- CCRI-003 Pipe fitting outside 2510 Negative
- CCRI-004 Pipe fitting electrical room 1506 Negative
- CCRI-005 Pipe fitting electric room chill H2O Negative
- CCRI-006 Room 2508 Glue daub, drill brown Negative
- CCRI-007 Room 2508 1X1 ceiling tile Negative
- CCRI-008 Expansion joint, corridor outside Theater Negative
- CCRI-009 Joint compound, corridor outside 2510 Negative
- CCRI-010 Wall plaster, corridor outside 2510 Negative
- CCRI-011 Roof drain fitting Negative

Note: All samples were Negative for asbestos content.

HAZARDOUS/SPECIAL WASTE

THEATER

ITEM

UNITS

12" Fluorescent fixtures (Rounded) 184 Compact Fluorescent bulbs 184

4 Unit Fluorescent fixtures 76 Compact Fluorescent bulbs 304

Thermostat 4

Exit signs 16

ADJACENT AREAS TO THE THEATER

Exit signs 20

Fire Boxes 11

We believe there might be smoke and heat detectors throughout however we could not find them and according to the person that escorted us it's possible that this building is exempted of these units due to the concrete structure situation.

A) Florescent Fixture – PCB's content? The ballasts for these units are assumed to contain PCBs. Usually the ballasts that are free of PCB's have labels that indicates "Free of PCB's". All the units without this particular label may contain PCB's.

Note: Hazardous Waste:

The removal and disposal of any hazardous/Special waste materials identified during the building inspection should be followed in accordance with state and federal regulations.

Disposal of PCB ballasts should be to a licensed facility. The removal of the materials found above shall be done as part of the pre-cleaning phase prior to the renovations.

The disposal of these wastes will be to a (RCRA) licensed facility. You or your demolition contractor must call the facility prior of any shipment of materials.

Limitations:

Silva Environmental & Associates, Inc. attempts to provide the client with a report that reflects professionalism and accuracy. It is equally important for the client to recognize the following limitations of liability. SEA cannot be held responsible for all hidden and concealed suspect (ACBM).

During the renovations if any suspect material that are disturbed that is not identified in this report should be assumed to contain asbestos until sampling and laboratory analysis proves otherwise.

Silva Environmental & Associates, Inc. also states that the findings and recommendations contained in this report are limited to conditions that were present at the time of the survey. Should any changes from existing conditions occur in the future they should be brought to SEA attention for further investigation.

Thank you for the opportunity to serve your needs. If you have any questions regarding this proposal, please contact us at our Warwick office 732-3976 or my cell 413-1142.

Sincerely SILVA ENVIRONMENTAL & ASSOCIATES INC.

M. Frank Silva, President Industrial Hygienist



Attn: Silva Environmental Associates 45 Transit Street Warwick, RI 02889

Fax:	(401) 732-1491	Phone:	(401) 732-3976
Project:	55536/CCRI - THEATER &	ASS. AR	EAS

Customer ID: SILV51 Customer PO: Received: 09/29/11 9:20 AM EMSL Order: 041126067 EMSL Proj: Analysis Date: 9/30/2011

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

				Non-Asb	<u>estos</u>	Asbestos	
Sample	Description	Appearance	%	Fibrous	% Non-Fibrous	% Туре	
CCRI-001 041126067-0001	ROOM 0526 - 1x1 CEILING TILE	Brown/White Fibrous Heterogeneous	85%	Cellulose	15% Non-fibrous (other)	None Detected	
CCRI-002 041126067-0002	ROOM 0526 - GLUE DAUB	Brown Non-Fibrous Heterogeneous	suggest ter	n	100% Non-fibrous (other)	None Detected	
CCRI-003 041126067-0003	2510 - PIPE FITTING OUTSIDE	Gray Non-Fibrous Heterogeneous	30%	Min. Wool	70% Non-fibrous (other)	None Detected	
CCRI-004 041126067-0004	1506 - PIPE FITTING ELECTRICK ROOM	Non-Fibrous Heterogeneous	30%	Min. Wool	70% Non-fibrous (other)	None Detected	
CCRI-005 041126067-0005	1506 - PIPE FITTING ELECTRICK ROOM CHILLED H2O	Gray Fibrous Heterogeneous	20%	Min. Wool	80% Non-fibrous (other)	None Detected	
CCRI-006 041126067-0006	ROOM 2508 - GLUE DAUB DRILL BROWN	Brown Non-Fibrous Heterogeneous	suggest for	n	100% Non-fibrous (other)	None Detected	

Initial report from 09/30/2011 11:10:17

Analyst(s)

Alexis Turner (1) Erica Valent (10)

Xettele- Sieger

Stephen Siegel, CIH, Laboratory Manager or other approved signatory

EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. The test results contained within this report meet the requirements of NELAC unless otherwise specified. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036



Attn: Silva Environmental Associates 45 Transit Street Warwick, RI 02889

Fax:	(401) 732-1491	Phone:	(401) 732-3976
Project:	55536/CCRI - THEATER &	ASS. AR	EAS

Customer ID: SILV51 Customer PO: Received: 09/29/11 9:20 AM EMSL Order: 041126067 EMSL Proj: Analysis Date: 9/30/2011

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

				Non-Asb	Asbestos	
Sample	Description	Appearance	%	Fibrous	% Non-Fibrous	% Туре
CCRI-007 041126067-0007	ROOM 2508 - 1x1 CEILING	Brown/Black Fibrous Heterogeneous	85%	Cellulose	15% Non-fibrous (other)	None Detected
CCRI-008 041126067-0008	CORRIDOR OUTSIDE - EXPANSION JOINT BOBBY HACV.CIT THEATER	Gray Non-Fibrous Heterogeneous			100% Non-fibrous (other)	None Detected
CCRI-009 041126067-0009	2510 - JOINT COMPOUND	White Non-Fibrous Heterogeneous			100% Non-fibrous (other)	None Detected
			sample see	ems to be a skim coat a	nd not a joint compound	
CCRI-010 041126067-0010	2510 - WALL PLASTER	Gray/White Non-Fibrous Heterogeneous			100% Non-fibrous (other)	None Detected
CCRI-011 041126067-0011	- FITTING-ROOF DRAIN	Gray Non-Fibrous Heterogeneous	35%	Min. Wool	65% Non-fibrous (other)	None Detected

Initial report from 09/30/2011 11:10:17

Analyst(s)

Alexis Turner (1) Erica Valent (10)

Siegel

Stephen Siegel, CIH, Laboratory Manager or other approved signatory

EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the federal government. The test results contained within this report meet the requirements of NELAC unless otherwise specified. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036

SECTION 03300 - CONCRETE

Section 03550 - Concrete Toppings Section 03920 - Concrete Resurfacing Section 03930 - Concrete Rehabilitation

Part 1 – General

1.01 Summary

A. This specification describes the patching or overlay of interior and/or exterior horizontal surfaces and formed vertical and overhead surfaces with portland cement concrete.

1.02 Quality Assurance

- A. Manufacturing qualifications: The manufacturer of the specified product shall be ISO 9001/9002 certified and have in existence a recognized ongoing qaulity assurance program independently audited on a regular basis.
- B. Contractor qualifications: Contractor shall be qaulified in the field of concrete repair and protection with a successful track record of 5 years or more. Contractor shall maintain qaulified personnel who have receiveed product training by a manufacturer's representative
- C. Install materials in accordance with all safety and weather conditions required by manufacturer or as modified by applicable rules and regulations of local, state and federal authorities having jurisdiction. Consult Material Safety Data Sheets for complete handling recommendations.

1.03 Delivery, Storage, and Handling

- A. All materials must be delivered in original, unopened containers with the manufacturer's name, labels, product identification, and batch numbers. Damaged material must be removed from the site immediately.
- B. Store all materials off the ground and protect from rain, freezing or excessive heat until ready for use.
- C. Condition the specified product as recommended by the manufacturer.

1.04 Job Conditions

- A. Environmental Conditions: Do not apply material if it is raining or snowing or if such conditions appear to be imminent. Minimum application temperature 45°F (7°C) and rising.
- B. Protection: Precautions should be taken to avoid damage to any surface near the work zone due to mixing and handling of the specified material.

1.05 Submittals

A. Submit two copies of manufacturer's literature, to include: Product Data Sheets, and appropriate Material Safety Data Sheets (MSDS).

1.06 Warranty

A. Provide a written warranty from the manufacturer against defects of materials for a period of one (1) years, beginning with date of substantial completion of the project.

SECTION 03300 - CONCRETE

Part 2 - Products

2.01 Manufacturer

A. **Sikacrete 211**, as manufactured by Sika Corporation, is considered to conform to the requirements of this specification.

2.02 Materials

- A. Portland cement concrete:
 - 1. The repair concrete shall be a blend of selected portland cements, specially graded aggregates, admixtures for controlling setting time, and water reducers for workability.
 - 2. The materials shall be non-combustible, both before and after cure.
 - 3. The materials shall be supplied as a factory-blended unit.
 - 4. The portland cement concrete must be placeable from 1 in. to 8 in. in depth and appropriate for full-slab depth repair and replacement.
- B. The portland cement concrete aggregate shall conform to ASTM C-33. (similar to No.8 distribution per ASTM C-33, Table II) and be clean, well-graded, having low absorption and high density.

2.03 Performance Criteria

1.

- A. Typical Properties of the mixed portland cement concrete:
 - 1. Initial slump $5^{"}-7^{"}$
 - 2. Slump at 30 minutes > 4"
 - 3. Working Time: Approximately 30 minutes
 - 4. Finishing Time: 30 minutes
 - 5. Color: concrete gray
- B. Typical Properties of the cured portland cement concrete:

Compressive Strength (ASTM	1 C-39 Modified)
a. 1 day: 2,000 psi min.	(13.8 MPa)
b. 7 day: 4,500 psi min.	(31.0 MPa)
c. 28 day: 5000 psi min.	(34.5 MPa)

- 2. Flexural Strength (ASTM C-78) @ 28 days: 700 psi (4.8 MPa)
- 3. Splitting Tensile Strength (ASTM C-496) @ 28 days 750 psi (5.2 MPa)
- 4. Bond Strength (ASTM C-882 Modified) @ 28 days: 1,500 psi (10.3 MPa)
- 5. Shrinkage (ASTM C-157) less than 0.05%
- 6. Chloride ion permeability (ASTM C-1202) less than 1,500 coulombs
- 7. The portland cement concrete shall not produce a vapor barrier.

Note: Tests above were performed with the material and curing conditions @ $71^{\circ}F - 75^{\circ}F$ and 45-55% relative humidity.

Part 3 – Execution

- A. Areas to be repaired must be clean, sound, and free of contaminants. All loose and deteriorated concrete shall be removed by mechanical means. Mechanically prepare the concrete substrate to obtain a surface profile of +/- 1/8" (CSP 7 or greater as per ICRI Guidelines) with a new exposed aggregate surface. Area to be patched shall not be less than 1" in depth.
- B. Where reinforcing steel with active corrosion is encountered, sandblast the steel to a white metal finish to remove all contaminants and rust. Where corrosion has occurred due to the presence of chlorides, the steel shall be high pressure washed after mechanical cleaning. Prime steel with 2 coats of Sika Armatec 110 EpoCem as directed by manufacturer. (See Spec Component SC-201-0699)

3.02 Mixing and Application

- A. Mechanically mix in appropriate sized mortar mixer or with a Sika jiffy paddle and low speed (400-600 rpm) drill. Pour approximately 4/5 gallon of water into the mixing container. Add 1 bag of Sikacrete 211 while continuing to mix. Mix to a uniform consistency for approximately three minutes.
- B. An additional 1/5 gallon of water may be added for greater flow. Mixing time should be approximately 3 minutes in order to achieve a homegeneous mix. Note: Water may be varied to achieve the desired consistency. Do not overwater.
- C. Placement Procedure: At the time of application, the substrate should be saturated surface dry with no standing water. Concrete must be scrubbed into substrate filling all pores and voids. While the scrub coat is still plastic, force material against edge of repair, working toward center. If repair area is too large to fill while scrub coat is still wet use Sika Armatec 110 EpoCem in lieu of scrub coat (See Spec Component SC-200). After filling, consolidate, then screed. Allow concrete to set to desired stiffness, then finish with trowel, manual or power, for smooth surface. Broom or burlap drag for rough surface.
- D. Alternatively the material may be poured or pumped into formed areas. To ensure proper filling and adhesion vibrate the material during placement or pump the repair material under pressure. Vibrate form while pouring or pumping. Pump with a variable pressure pump. Continue pumping untial a 3 to 5 psi increase in normal line pressure is evident then STOP pumping. Form should not deflect. Vent to be capped when steady flow is evident, and forms stripped when appropriate.
- E. As per ACI recommendations for portland cement concrete, curing is required. Moist cure with wet burlap and polyethylene, a fine mist of water or a water-based* compatible curing compound. Moist curing should commence immediately after finishing. Protect newly applied material from rain, sun, and wind until compressive strength is 70% of the 28-day compressive strength. To prevent from freezing cover with insulating material. Setting time is dependent on temperature and humidity.

*Pretesting of curing compound is recommended.

F. Adhere to all procedures, limitations and cautions for the portland cement mortar in the manufacturers current printed technical data sheet and literature.

3.03 Cleaning

- A. The uncured portland cement mortar can be cleaned from tools with water. The cured portland cement mortar can only be removed mechanically.
- B. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.



- 1. Repair area should not be less than 1" in depth.
- 2. Substrate should be saturated surface dry (SSD) with no standing water.
- 3. Apply scrub coat to substrate, filling all pores and voids.
- 4. While scrub coat is still wet pour Sikacrete 211.
- Note: If repair area is too large to fill while scrub coat is still wet, use Sika Armatec 110 EpoCem in lieu of the scrub coat. (See Spec Component SC-200)

Concrete Restoration Systems by Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071



Sikacrete 211

Overlay



- 1. Repair area should not be less than 1" in depth.
- 2. Substrate should be saturated surface dry (SSD) with no standing water.
- 3. Apply scrub coat to substrate, filling all pores and voids.
- 4. While scrub coat is still wet apply Sikacrete 211.
- 5. Adhere to industry guidelines with respect to control and expansion joints.
- Note: If repair area is too large to fill while scrub coat is still wet, use Sika Armatec 110 EpoCem in Lieu of the scrub coat. (See Spec Component SC-200)

Concrete Restoration Systems by Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071

SECTION 03300 - CONCRETE SC-118

Sikacrete 211 Form and Pour



- 1. Pre-wet surface to SSD.
- 2. Set form and chip spot for pour box. Apply release agent to form, or use plastic lined plywood.
- 3. Run bread of Sikaflex 1a around form edge, let cure, then anchor form. Fill with water to check for water tightness. Let drain to no free standing water.
- 4. Vibrate form while pouring Sikacrete 211.
- 5. Vent to be capped when steady flow is evident.
- 6. Strip form when appropriate.
- 7. Dry pack anchor holes with Sika mortar.



TORRADO ARCHITECTS CCRI- KNIGHT CAMPUS- LECTURE HALL#0110

	Client Name:
	Job Name:
	Date:
033	00

SECTION 03300 - CONCRETE

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Technical Data Sheet, product label and Material Safety Data Sheet which are available at www.sikaconstruction.com or by calling (201) 933-7452. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instructions for each Sika product as set forth in the current Technical Data Sheet, product label and Material Safety Data Sheet, product label and Material Safety Data Sheet, product label and Material Safety Data Sheet prior to product use.

03300

PART 1 GENERAL

- 1.1 SECTION INCLUDES
 - A. Marble Terrazzo Tile.
 - B. Accessories.
- 1.2 RELATED SECTIONS

Drawings and general provisions of Division-1 Specification sections apply to work of this section.

- A. Section 03300 Cast-in-Place Concrete.
- B. Section 06100 Rough Carpentry: Wood subfloor.
- C. Section 07900 Joint Sealers.
- D. Section 09650 Resilient Flooring.

1.3 REFERENCES

- A. ASTM C 109/C 109M Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or 50-mm Cube Specimens); 1999.
- B. ASTM D 695 Standard Test Method for Compressive Properties of Rigid Plastics; 1996.
- C. ASTM D 2047 Standard Test Method for Static Coefficient of Polish-Coated Floor Surfaces as Measured by the James Machine; 1999.
- D. ASTM D 2240 Standard Test Method for Rubber Property--Durometer Hardness; 2000.
- E. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials; 2000a.
- F. ASTM E 648 Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source; 2000.
- G. ASTM E 662 Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials; 1997.
- H. ASTM F 510 Standard Test Method for Resistance to Abrasion of Resilient Floor Coverings Using an Abrader with a Grit Feed Method; 1993.
- I. ASTM F 540 Standard Test Method for Squareness of Resilient Floor Tile by Dial Gage Method; 1998.
- J. ASTM F 925 Standard Test Method for Resistance to Chemicals of Resilient Sheet Flooring; 1997.

- K. ASTM F 970 Standard Test Method for Static Load Limit; 2000.
- L. ASTM F 1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride; 1998.
- M. MIL D-3134 Deck Covering Materials; Revision J, Addendum 1, 1989.

1.4 SYSTEM DESCRIPTION

- A. Performance Requirements of Terrazzo Tiles:
 - 1. Abrasion Resistance: Maximum 0.0196 cubic centimeters volume loss, when tested in accordance with ASTM F 510, Taber abrader, S-39 wheels, at 500 cycles with 1000 gram load.
 - 2. Compressive Strength: Between 2900 and 5000 psi (20 and 34.5 MPa), when tested in accordance with ASTM C 109/C 109M or ASTM D 695.
 - 3. Static Load Limit: 0.0007 inch (0.012 mm) maximum indentation, when tested in accordance with ASTM F 970 at 125 pounds (57 kg).
 - 4. Hardness: When tested in accordance with ASTM D 2240:
 - a. Matrix: Shore D 78, minimum.
 - b. Aggregate: Between Barcol 55 and 100.
 - 5. Coefficient of Friction: Greater than 0.7, average 0.74, when tested in accordance with ASTM D 2047.
 - 6. Flame Spread Index: 15, maximum, when tested in accordance with ASTM E 84.
 - 7. Smoke Density: Specific optical density, when tested in accordance with ASTM E 662, of 231.76 (smoldering) and 292.05 (flaming).
 - 8. Critical Radiant Flux: Minimum of 0.93 watt/cubic centimeter (Class 1) when tested in accordance with ASTM E 648.
 - 9. Chemical Resistance: No change or surface attack, color change, or swelling, when tested in accordance with ASTM F 925.
 - 10. Oil Resistance: Complying with MIL D-3134.
 - 11. Corrosion Resistance: Complying with MIL D-3134.
 - 12. Electrical Conductance: Nonconductive.
 - 13. Squareness: 0.003 inch (0.076 mm) out of square, maximum, when measured in accordance with ASTM F 540.

1.5 SUBMITTALS

- A. Submit in accordance with Section 01300.
- B. Product Data: Submit manufacturer's specifications and technical data for precast terrazzo tile and accessories; including manufacturer's printed installation instructions and maintenance manuals for each material specified.
- C. Samples for Selection: Submit manufacturer's samples of actual sections of tile and accessories; include manufacturer's full range of color and patterns available.
- D. Samples for Verification Prior to Installation: Submit full size samples of all types, colors, and patterns selected, indicating full range of patterning and color variations.
- E. Test Reports: Submit test reports for bond and moisture tests of substrates.

F. Certificates: Submit certificates from manufacturer stating compliance with applicable requirements for materials specified.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: A firm who has at least three years of experience with the installation of precast terrazzo tile and has successfully completed installations of a similar size and scope.
- B. Regulatory Requirements: Comply with requirements of local building code and applicable regulations of other government authorities.
- C. Mock-ups: Approved samples constitute standard for installer to achieve.
- D. Pre-Installation Meeting: Meet with tile manufacturer's representative and Owner prior to preparation of substrate and installation of tile, to review manufacturer's instructions and requirements to ensure the tile is installed properly.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original, unopened packages, containers or bundles bearing brand name and identification of manufacturer.
- B. Store materials inside, under cover in a manner to keep them dry, protected from the weather, direct sunlight, surface contamination, corrosion, and damage from construction traffic and other causes.

1.8 PROJECT CONDITIONS

- A. Maintain minimum temperature of 70 degrees F (21 degrees C) in spaces to receive precast terrazzo tile, for at least 48 hours before, during and after installation. Store materials in space where they will be installed for at least 48 hours or as required ensuring that the materials have reached 70 degrees F (21 degrees C) before staring installation.
- B. Install terrazzo tile and accessories after other finishing operations, including painting, have been completed.
- C. Do not install terrazzo tile on concrete slabs until they have been cured and are sufficiently dry to achieve bond with adhesives, as determined by the tile manufacturer's recommended bond and moisture test. Allow sufficient time for the slab to dry out before installation is started.
- D. Provide adequate lighting to allow for proper installation.
- E. Do not use portable or temporary heat.

1.9 WARRANTY

- A. Submit 20-year wear warranty written material warranty from tile manufacturer warranting that tile is free from defects in workmanship and material.
 - 1. Products must be installed so as not to void the manufacturer's warranty for wear.
 - 2. Warranty shall be in form acceptable to Owner.

1.10 MAINTENANCE

- A. Extra Materials: Furnish one box of tile for each fifty boxes or fraction thereof, for each type, color, pattern and size of the tile installed, from same manufactured lot as materials installed.
 - 1. Deliver extra tile to Owner after completion of work.
 - 2. Furnish tiles in protective packaging with identifying labels.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Fritz Industries, Inc; 500 Sam Houston Road, Mesquite, TX 75149. Tel: (972) 285-5471 or (800) 633-6451 ext.291 (Technical). Fax: (972) 270-0179. www.fritztile.com.
- B. Obtain all materials including terrazzo tile and recommended adhesives and leveling compounds from a single manufacturer.

2.2 MATERIALS

- A. Terrazzo Tile: Marble or granite chips embedded in flexible thermoset polyester resin matrix, with random distribution of chips and smooth factory applied urethane coating cured by ultra violet exposure process.
 - 1. Color/Pattern/Thickness: As indicated on drawings.
 - 2. Color/Pattern/Thickness: As selected by Architect from manufacturer's full range.
 - 3. Color/Pattern/Thickness: Marble CLN-1000/1, 1/8 inch (3 mm) thick.
 - 4. Color/Pattern/Thickness: Marble R-8000/1, 1/8 inch (3 mm) thick.
 - 5. Color/Pattern/Thickness: Marble CL-200/1, 1/8 inch (3 mm) thick.
 - 6. Color/Pattern/Thickness: Marble VP-5500/1, 1/8 inch (3 mm) thick.
 - 7. Color/Pattern/Thickness: Marble CL-600/3, 3/16 inch (5 mm) thick.
 - 8. Color/Pattern/Thickness: Marble MM-2100/1, 1/8 inch (3 mm) thick.
 - 9. Color/Pattern/Thickness: Marble RB-2200/1, 1/8 inch (3 mm) thick.
 - 10. Color/Pattern/Thickness: Granite GT-3000/1, 1/8 inch (3 mm) thick.
 - 11. Color/Pattern/Thickness: Granite GS-7700/3, 3/16 inch (5 mm) thick.
 - 12. Color/Pattern/Thickness: Granite GD-5000/3, 3/16 inch (5 mm) thick.
 - 13. Size: 12 by 12 inches (305 by 305 mm), nominal.
 - 14. Obtain all tile materials intended to match from same production run.
- B. Wall Base: Fritztile straight bullnosed wall base.
- C. Leveling Compound for Large Areas: Self-leveling polymer modified pozzolanic cementitious formula; Fritz F10 Fast Track, for use over concrete from a featheredge to 1-1/2 inches (38 mm).
- D. Patching Compound for Small Areas:
 - 1. Fritz Poz 1, Fast Setting Underlayment, for use over concrete from a featheredge to 1-1/2 inches.
 - 2. Fritz Poz 2, Rapid Setting Underlayment, for use over wood and concrete from a featheredge to 1-1/2 inches (38 mm), requiring flexural properties.
 - 3. Fritz Poz Patch 3, Skim Coating Patch, for use over wood and concrete from a featheredge to 1/8 inch (3 mm) as a skim coat for minor depressions.

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- E. Floor Adhesive: Fritz FA88 Powdered Cementitious Multipurpose Adhesive, mixed with water, for installation using 1/8 by 1/8 inch (3 by 3 by 3 mm) U-notched trowel.
- F. Wall Base Adhesive: Fritz Type I Acrylic Cove/Wall Adhesive, for installation using 3/16 by 3/16 inch (5 by 5 mm) V-notched trowel.
- G. Sealer and Finish: Two coats of Fritz FCP-102 protective sealer and two coats of Fritz Duro-Gloss Finish FCP-300, applied as recommended by manufacturer.
- H. Sealant: Silicone, as specified in Section 07900, and of type approved by tile manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Concrete Subfloor:
 - 1. Inspect subfloor to verify that it is clean, flat, smooth, level and free from cracks, holes, ridges, coatings preventing adhesion, and other defects impairing performance or appearance.
 - 2. Notify Architect of conditions that would adversely affect flooring installation; do not proceed until defective conditions have been corrected.
 - 3. Perform bond and moisture tests on concrete subfloors to determine if surfaces are sufficiently cured and dry as well as to ascertain presence of curing, sealing, hardening or any other compounds.
 - a. Perform bond test in accordance with tile manufacturer's warranty requirements.
 - b. Perform moisture test in accordance with ASTM F 1869.
 - c. Do not install tile if moisture vapor transmission exceeds 7 pounds (3 kg) per 1000 square feet (93 sq m) in 24 hours using FA88 Adhesive.
 - d. Submit test results and obtain Architect's acceptance prior to beginning installation.
 - 4. Do not proceed until substrate preparation is complete and satisfactory, bond and moisture tests are completed and test reports submitted which indicate that bond and moisture values meet specified requirements.
- B. Wood Subfloor:
 - 1. Verify that wood subflooring complies with requirements specified in Section 06100.
 - 2. Verify that underlayment surface is free of irregularities and substances that may interfere with adhesive bond or show through surface or stain flooring.
- C. Coordinate work with that of other installers prior to installation so that tile work fits properly with doors, frames, saddles, floor drains, and other adjacent work.
- D. Start of work constitutes acceptance that conditions are satisfactory.
- E. Close the space and areas where flooring is being installed to traffic and other installers until flooring has set and sealing and finish of tiles are complete.

3.2 PREPARATION

- A. Fill small cracks, holes and depressions in subfloors using leveling and patching compounds recommended by tile manufacturer.
- B. Remove deleterious coatings from subfloor surfaces that would prevent a positive adhesive bond; such as curing compounds incompatible with adhesives, paints, oils, adhesives, waxes and sealers.
- C. Completely remove existing solvent-based adhesives to prevent bleed through and staining.
- D. Remove existing floor covering and condition subfloor to provide smooth, clean continuous surface; level subfloor with self-leveling compound in compliance with tile manufacturer's specifications and installation instructions.

3.3 INSTALLATION

- A. Comply with manufacturer's instructions for terrazzo tile installation.
- B. Scribe, cut and fit tile to permanent fixtures, built-in furniture, cabinets, pipes, outlets and permanent columns, wall, and partitions using tile cutting procedures recommended by tile manufacturer.
- C. Maintain reference markers indicated on subfloor for future cutting, by repeating on finished terrazzo tile floor.
- D. Lay tile from center marks established with principal walls discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid use of cut widths less than one half tile at perimeters. Lay tile square to room axis, unless otherwise indicated.
- E. Adhere tile flooring to substrate using full spread of adhesive.
- F. Lay tile using conventional procedures for laying resilient tile, placing tile carefully and firmly in position and as level as possible. Butt tile cleanly, evenly and snugly against adjacent tile.
- G. Match tiles for color and pattern by using tile from cartons in same sequence as manufactured and packaged, if cartons are so numbered. Do not install broken, cracked or chipped tiles.
- H. Roll and cross roll floor with 150 pound sectional roller continuously while tile is being laid. Use hand roller in areas that cannot be reached with large roller. Cease rolling when rolling has no more effect.
- I. Do not subject floors to traffic until adhesive is dry and hard and sealers and finishes are applied.
- J. Remove and replace tiles that are not flat, including lipped, cupped, curved, or poorly adhered tile. Remove rejected tile from site.

3.4 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Provide on-site services of tile manufacturer or authorized distributor for technical assistance during preparation and installation.

3.5 CLEANING AND PROTECTION

- A. Upon completion of installation and curing of adhesive, apply sealant to entire perimeter and around columns, door frames, and other joints and penetrations to prevent water penetration into the adhesive layer due to accidental or maintenance (mopping) water accumulation.
- B. Remove excess adhesives, dirt, stain and other foreign material. Clean floors in accordance with tile manufacturer's instructions.
- C. Protect finished installation at all times. Repair or replace flooring damaged prior to final acceptance of installation by Owner.

END OF SECTION



SECTION 00350 - LETTER OF INTENT

RE:

Dear Sir or Madam:

This is to advise that ______, who is approved by you (Legal Name of Surety)

and authorized to do business in the State of Rhode Island and Providence Plantations, is prepared to execute a Performance and Labor of Materials Payment Bond, each in the amount of one hundred percent (100%) of the Contract Price for the Community College of Rhode Island, Knight Campus, Lecture Hall Project-Spring/Summer 2012 should they be awarded the contract for the project.

FOR: ______(Name of Legal Contractor)

(Name of Surety)

By: _____

Date: _____