

ADDENDUM NUMBER:	2
PROJECT NAME:	CCU Kimbel Library Renovation
PROJECT NUMBER:	H17-9616-MJ
PREPARED BY:	Liollio Architecture
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	Charleston, SC 29409
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DATE OF ISSUE:	May 2nd, 2024

TO ALL BIDDERS OF RECORD: This Addendum modifies the Contract Documents only in the manner and to the extent stated herein and shown on any accompanying drawings and will become a part of the Contract Documents. Except as specified or otherwise indicated by this Addendum, all work shall be in accordance with the basic requirements of the Contract Documents.

BIDDERS SHALL ACKNOWLEDGE RECEIPT OF ADDENDUM WHEN SUBMITTING BID. THIS ADDENDUM CONSIST OF <u>7</u> PAGE(S) AND THE FOLLOWING ENCLOSURES:

#### I. ENCLOSURES:

- 1. Specification Section 087100 Door Hardware Index and Sets (28 pages)
- 2. Specification Section 275119 Sound Masking Systems (22 pages)
- Sound Masking Drawings: SM-0.0, SM-0.1, SM-0.2, SM-0.3, SM-0.4, SM-0.5, SM-1.0, SM-1.1, SM-2.0, SM-2.1 (10 pages)
- 4. Drawing Sheets as listed under Section IV. Changes to Drawings.

#### **II. GENERAL INFORMATION / CLARIFICATIONS:**

- 1. All contractors and subcontractors working on the project must obtain a Business License with the City of Conway prior to commencement of work.
- 2. If you would like a copy of the non-mandatory pre-bid sign in sheet, please email <u>elissa@liollio.com</u> requesting a copy.
- 3. AV cabling and equipment will be provided by CCU; all pathways and conduit for the AV systems will be provided by the GC.

#### **III. CHANGES TO SPECIFICATIONS:**

1. Section 057313 Glazed Decorative Metal Railings: Change Section 2.3 A 6 from Morse Industries to Frameless Hardware Company (FHC).

- 2. Section 078100 Applied Fireproofing: Change 2.2 A 3: Bond Strength: Minimum 430 lbf/sq ft. cohesive and adhesive strength based on field testing in accordance with ASTM E736.
- 3. Section 087100 Door Hardware: Replace Door Hardware Sets and Index with the attached.
- 4. Section 095426 Suspended Wood Ceilings: Change Section 1.1 to "Section Includes: Wood Ceilings."
- 5. Section 102800 Toilet, Bath and Laundry Accessories: Delete Section 1.3 E.
- 6. Section 122413 Roller Window Shades: Delete Section 2.2 G 5 and 6. Delete Section 3.2 B.
- 7. Insert Specification Section 275119 Sound Masking Systems

# IV. CHANGES TO DRAWINGS - Replace the drawing sheets previously issued with the sheets of the same name attached to this addendum.

#### **Civil Drawings:**

None

#### Landscape Architecture Drawings

None

#### **Structural Drawings:**

None

#### Architectural Drawings:

- 1. A003B Finish Materials Legend Interiors
- 2. A121 First Floor Reflected Ceiling Plan
- 3. A122 Second Floor Reflected Ceiling Plan
- 4. A141 First Floor Finish Plan
- 5. A142 Second Floor Finish Plan
- 6. A202 Enlarged Plans Egress Stairwell A
- 7. A203 Enlarged Plans- Egress Stairwell B
- 8. A600 Door Schedule and Types
- 9. A812 Ceiling Transition Details

#### **Fire Protection Drawings:**

None

#### Plumbing Drawings:

None

#### **Mechanical Drawings:**

None

#### **Electrical Drawings:**

- 10. E001 Electrical Notes & Legends
- 11. E002 Electrical Schedules & Details
- 12. E010 Electrical One-Line Diagram
- 13. E050 Electrical Panel Schedules
- 14. E061 First Floor Electrical Demolition Plan
- 15. E062 Second Floor Electrical Demolition Plan
- 16. E101 First Floor Power & Telecom Plan
- 17. E102 Second Floor Power & Telecom Plan
- 18. E202 Second Floor Lighting Plan
- 19. E301 First Floor Systems Plan
- 20. E302 Second Floor Systems Plan

#### V. QUESTIONS / ANSWERS:

- Question: Does the existing fire alarm control panel have the capacity needed to add all the planned new fire alarm equipment?
   Response: The Existing Fire Lite 9200UDLS fire alarm panel in the connected Bryan Information
- Center will feed new NAC panels in Kimbel to handle all the Kimbel devices.
  Question: Are you interested in seeing a separate quote where we add an additional fire alarm control panel in the library instead of running cable back to the existing panel? We

would instead tie the two panels together.

#### Response: No

- Question: For all special systems, i.e. data, communications security, etc. Contractor installs box, conduit and pull string. All wiring and devices are by others?
   Response: Correct.
- 4. **Question:** Can we assume no electrical or data services are located in or pass through the new curtain wall areas?

**Response:** There are some areas that will be required for the infrastructure shown in the drawings, like card readers. Electric strikes at both vestibules.

5. Question: It appears that there may be some confusion regarding the rough-in responsibilities for the low voltage system. Could you please provide clarification on whether our team is responsible for installing the low voltage rough-in components, including boxes, conduit system, etc. Drawing E001 specifically the section titled "General Low Voltage Notes" Point #1 states that the low voltage backbone is to be installed by this contractor. Who is said contractor? Just want to ensure clear understanding of our scope of work. Response: General note revised to aide in clarity of contractor responsibility. Contractor will provide rough-in for systems, and the owner will be installing and providing cabling.

6. **Question:** Rooms 118, 132, 143, 144, 145 specifies LVT2 for the floor finish however the hatch pattern shown on the plans indicates LVT1 per the Floor Finish Schedule. Please confirm floor finish for these rooms.

**Response:** See attached revised finish plans.

- Question: We are inquiring as to if there is going to be an allowance for delegated design. Currently there is a requirement for delegated design for a lot of specifications that are not typical. For example, specification section 102800 1.3 E1 states the requirement for delegated design submittal for grab bars to include structural design calculations.
   **Response:** There will not be an allowance for delegated design requirements; all requirements to be included in the base bid. See modification to Section 102800 to remove delegated design requirement for grab bars.
- 8. **Question:** Please clarify if the 1-HR spray fireproofing shown on details 3/A202 and 5/A203 is only required on the portion of the steel structure inside the stairwell, or if the joist / beam require the 1 HR rating for the full length of each member, including support beams and columns.

**Response**: Refer to updated sheets attached.

- 9. Question: Spec Section 078100-2.2-A-2 states "Application: Designated for exterior use by a qualified testing agency acceptable to authorities having jurisdiction." and 078100-2.2-A-3. states "Bond Strength: Minimum 1000-lbf/sq.ft. cohesive and adhesive strength based on field testing in accordance with ASTM E736." To meet both of these standards would require a high-density material, which is typically used in areas subject to abuse i.e. mechanical rooms, and parking garages. Is a medium or standard density material acceptable? Response: See modified requirements above in the specification section above.
- Question: There is a discrepancy between the wood ceiling finish legend in the drawings and the wood ceiling specification. The finish legend notes a grille and the specifications summary notes a linear plank. Which is correct?
   Response: See clarification in specification section above.

Question: Page C-301 Keynote 3 and 4 says to relocate drop inlets to A1 and A2, does this line of pipe need to be concrete filled, abandoned in place, or removed? I am not seeing a detail on the Lift Station. Do you have one you can provide?
 Response: The storm drain line remains active. The existing structures are only being converted to junction boxes. There is no detail provided for the package Lift Station. All

information can be found online for the Zoeller Prepackaged Life Station Model 922-0076/E810.

- Question: For lay down yards 1 and 2 (sheet C-101) will temporary fence panels on stands be acceptable or does it need to be post driven down with wire?
   Response: All security fencing can be the standard temporary moveable 6' high chain link fencing.
- 13. **Question:** For the security fence on sheet C-103 will it need to be post driven down and will it need top rail and windscreen?

**Response**: All security fencing can be the standard temporary moveable 6' high chain link fencing. No windscreen is required.

14. **Question**: Does the fire alarm raceway need to be in conduit, or can we run it with FPLR wiring?

**Response**: Fire alarm cabling shall be in RED EMT raceway.

15. Question: The plans call for all speakers on the fire alarm system to be white with the word "Alert". The speaker strobes come this way, but the speaker only devices are white but do not say alert on them, Will this be an issue?

**Response**: When mass notification is tied to the fire alarm voice evacuation system, the devices shall note 'ALERT' and not 'FIRE'.

- 16. Question: I see that there is a question regarding if the current panel can handle all the new equipment but never seen a definite answer, the plans show a FACP panel so are we just installing a new panel and tying them together? Response: New NAC panels are installed, one per floor. These will be tied to the existing FACP in Bryan Information Commons.
- 17. Question: There are various types of "EVOLUTION "series floor boxes by LeGrand or equal. I'm hoping to get more specific types of floor boxes CCU will be wanting.
   Response: All floor boxes shall be recessed use with cover, study area boxes shall be provided with quad receptacles, and the conference rooms shall be provided with a receptacle and data
- 18. Question: What is the hardware finish noted as "PT-1" referring to handrail called out in Detail 2 / A206. Once note says paint to match, and the other is powder coated to match. The interior finish schedule refers to the paint choice P1 and not PT-1. Response: P1 and PT-1 are the same, we have updated finish legend to clarify. The monumental stair handrail is required to be powder coated to match P1 / PT-1 as indicated in

the bid documents.

rough in.

- Question: In the specifications, you mention the need for bottom sills and side channels to prevent light leakage. However, the only fabric specified is light filtering. We're wondering if blackout fabric is also required in certain areas (Part 2, 2.2, G, 5&6 and Part 2.3, A).
   Response: Side channel and bottom sills are not required, see modifications to specification section above.
- 20. Question: Section 3.2, B mentions electrical connections and motor-operated shades. Based on our understanding of the specs, all roller shades are manually operated. Could you please clarify this, and if motorized roller shades are indeed required, could you specify the areas? Response: All roller shades to be manual, see modifications to specification section above.
- 21. Question: Regarding the fascia and shade pocket, could you provide clarification on which areas each goes? We couldn't find this specification in the plans. (Part 2, 2.2, G)
   Response: Refer to sheet A812 Ceiling Transition Details for fascia location.
- 22. **Question**: Sheet E062 shows Panel L01 being removed, and the feeder also being removed to its source (Note #2). What is the size of this feeder and where does it go?

**Response**: The panel is 125A MLO load center per addendum to be issued, will now be relocated to neighboring electrical room. Panel is now named LD1 and is fed from existing panel LM on the first floor.

23. **Question**: Regarding the 400 amp Breaker that is MSB #8, is this a new breaker or existing from the previous elevator? (The panel schedule for MSB on Sheet E010, does not indicate if the breaker is new or existing to be re-used).

**Response**: Existing breaker is 150A and shall be re-used for the new elevator.

24. **Question**: Sheet E101 shows the New Elevator circuit going to MSB Circuit #8, can we get the size of this feeder?

**Response**: Elevator feeder shall be sized 4#1/0 & 1#6G in 2" conduit.

- 25. Question: Sheet E002 shows a disconnect for the new elevator, and a new disconnect for the Cab Lights. Can we please get the size and fusing requirements for each of these disconnects? Response: Cab lights shall be 30A disconnect fused at 15A, the Elevator disconnect shall be a 200A disconnect fused at 150A (pending the elevator electrical requirements once submitted).
- 26. **Question**: There doesn't appear to be any specifications for the 4 different types of floor boxes, could you please provide specifications for the following:
  - A. Floor Box with one 20-amp duplex receptacle.
  - B. Floor Box with two 20-amp duplex receptacle.
  - C. Floor Box with one 20-amp duplex receptacles, and one Data Device.
  - D. Floor Box with two 20-amp duplex receptacles, and one Data Device.

**Response**: All floor boxes shall be recessed use with cover, study area boxes shall be provided with quad receptacles, and the conference rooms shall be provided with a receptacle and data rough in. Submit legrand evolution or equivalent, finishes as selected by architect from manufacturer's full range of finishes.

27. **Question**: On the building sections, it shows spray foam on the underside of the flat roof, but the enlarged details do not show any spray foam. For example, 7/A510 shows the bottom of the flat roof to be bare.

Response: This question was answered in Addendum 1.

28. **Question**: The Scranton Eclipse series is specified. The schedule on A003B instructs me to use ceiling mounted construction. Eclipse is not available ceiling mounted. Is floor mounted acceptable?

**Response**: Floor mounted 9" above finished floor is acceptable, see revised sheet attached.

- 29. Question: The schedule on A003B tells me the door hinges are to be the same color as the partition material. Scranton does not offer color matched hardware, however the hardware is concealed on the Eclipse series. Will the stainless hinges specified be acceptable? Response: All toilet partition hardware to be stainless steel, see revised sheet attached.
- Question: Will sound masking system also be used for announcements? (Similar to the new CCU Library) If so, How many paging stations will be required? (There are 1 per floor in new CCU library)

Response: Yes, the sound masking system will also include PA system. Two paging stations

will be required, one in each breakroom (breakroom 127 and 230). See additional requirements for this system attached in the Specification Section 275119 Sound Masking Systems.

31. Question: Section 051200 1.5B states that the fabricator must be AISC certifieid. If a fabricator is not AISC certified, can the contractor / subcontractor hire a 3rd party inspector to perform inspections before and during the structural steel fabrication?
Response: IBC Section 1705.2 allows Special Inspections of the steel fabrication plant and the steel fabrication process to be omitted if the fabricator is AISC certified. If the fabricator is not AISC certified, the inspection process and requirements for the fabricator and fabrication process shall meet the requirements IBC 1705.

### VI. SUBSTITUTION REQUESTS:

- 1. Specification Section 034900 Glass-Fiber Reinforced Concrete (GFRC): Georgia Precast Solutions LLC GFRC is not an approved manufacturer.
- Specification Section 034900 Glass-Fiber Reinforced Concrete (GFRC): Disregard / delete previously approved Manufacturers listed in Addendum 1, VI Substitution Request, Item #1. The approved manufacturer list for Specification Section 034900 Glass-Fiber Reinforced Concrete 2.1 A 1 is: Castings Designs, Inc. and FormGlas, Inc.
- 3. Specification Section 055000 Metal Fabrications: O'Keeffe's Inc. it not an approved manufacturer.
- 4. Specification Section 095426 Suspended Wood Ceilings: RPF Acoustical Systems, LLC and Geometrik Manufacturing are approved manufacturers provided that they meet the requirements identified in the specification and drawings.

# END OF ADDENDUM

Coastal Carolina University Kimbel Library Renovation

Building	Door Numbers	HwSet#
Dulluling	101A	EX-1
	101A	EX-1
	103	INT-27
	105	INT-01
	106	INT-02
	107	
		INT-01
	108	INT-04
	109	INT-04
	111	INT-05
	112	INT-05
	113A	EXT-04
	113B	INT-06
	113B	INT-06
	115A	EXT-01
	115B	INT-09
	116	EXT-03
	117A	INT-07
	117B	EXT-02
	118	<u>INT-15 (INT-07)</u>
	122	EXT-01
	123	INT-09
	126	INT-10
	127	<u>INT-14.1 (INT-07)</u>
	128A	<u>INT-21 (INT-15)</u>
	128B	<u>INT-12.1 (INT-12)</u>
	130A	INT-13 (INT-13.1)
	130B	INT-21
	131	INT-15
	131	INT-15
	132	INT-15
	133	INT-20
	134	INT-17
	135	EXT-04
	136A	INT-20.1-(INT-18)
	136B	<u>INT-14.1</u> (INT-14)
	137	INT-19
	138A	<u>INT-21 (INT-20)</u>
	138B	INT-21
	139	INT-19
	140	INT-19
	141	INT-19
	141	INT-10.2
	<u>143 (143A)</u>	INT-16.1 (INT-18)
	143B	INT-14
		<u>INT-10.1 (INT-24)</u>

DOOR HARDWARE INDEX

H17-9616-MJ

Coastal Carolina University Kimbel Library Renovation

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Building	Door Numbers	HwSet#
	144B	INT-24
	144B	INT-10.1
	145	INT-22
	146	INT-22.1
	201A	EX-1
	201A 201B	EX-1
	2010	INT-03
	202 205A	INT-15
	205A	INT-16.2
	205B	INT-11
	205C	INT-23
	207	INT-14
	208	INT-24
	209	INT-14
	210	INT-14
	211	INT-14
	212	INT-14
	213	INT-14
	215	INT-14
	216	INT-14
	217	INT-14
	218	INT-14
	219	INT-12
	220	INT-12
	221	INT-26
	<u>222A (222)</u>	INT-10
	222B	INT-10
	223	INT-19
	224	INT-16
	225	INT-19
	226	INT-01.1-(INT-01)
	227	INT-19
	228	INT-01.1-(INT-01)
	229	INT-19
	230	INT-14.1-(INT-14)
	231	INT-19
	232	INT-19
	233	INT-19
	233	INT-08-(INT-06)
	235	INT-19
	236	INT-19
	237	INT-19
	238	<u>INT-14.1 (INT-08)</u>
	239	INT-10
		<u>INT-24.1 (INT-24)</u>

DOOR HARDWARE INDEX

H17-9616-MJ

Coastal Carolina University Kimbel Library Renovation

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Building	Door Numbers	HwSet#
	242B	INT-25
	242C	INT-24.1 (INT-24)
	244	INT-06
	245	INT-05
	246	INT-05
	247	INT-19
	248	INT-19
	249	INT-19
	<u>250A (250)</u>	<u>INT-16.1 (INT-18)</u>
	250B	INT-18
	251	INT-01.1 (INT-22)
	252	INT-19
	302	EX-1
	303	<u>INT-20.1 (INT-12)</u>

			Kim	bel Lik	orar	<b>na Univ</b> y Renov outh Ca	/ation
Hardw	are Gro	up No. EX-1		,			
For us 101A	e on Do	or #(s): 101B 201A	201B 302				
Provid QTY	le each EA	PR door(s) with the following: DESCRIPTION EXISTING HARDWARE TO REMAIN	CATALOG NUMBER EXISTING			FINISH	MFR
Hardw	are Gro	up No. EXT-01					
For us 115A	e on Do	or #(s): 122					
Provid QTY	le each	PR door(s) with the following: DESCRIPTION	CATALOG NUMBER			FINISH	MFR
2	EA	POWER TRANSFER	EPT10		×	689	VON
1	EA	ELEC PANIC HARDWARE	RX-LC-QEL-HH-9847-EO-304L- SNB 24 VDC (PROVIDED BY STOREFRONT SUPPLIER)		×	606	VON
1	EA	ELEC PANIC HARDWARE	RX-LC-QEL-HH-9847-NL-OP- 110MD-304L-SNB 24 VDC (PROVIDED BY STOREFRONT SUPPLIER)		*	626	VON
1	EA	RIM CYLINDER	1E72			626	BES
2	EA	LONG DOOR PULL	9264F 36" STD			630	IVE
1	EA	SURFACE CLOSER	4111 SCUSH			689	LCN
1	EA	SURF. AUTO OPERATOR	9542 DD MS AS REQ (120/240 VAC)		×	ANCL R	LCN
1	EA	MOUNTING PLATE	4110-18 SRT			689	LCN
1	EA	CUSH SHOE SUPPORT	4110-30 SRT			689	LCN
2	EA	ACTUATOR, TOUCH	8310-818T		×	630	LCN
1	EA	RELAY	8310-845		×		LCN
1	EA	BOLLARD	B-6SQ-AT-32D-SM-SQ12		×		WIK
1	EA	CREDENTIAL READER	PROVIDED BY SECURITY		×		
2	EA	DOOR CONTACT	7764			628	SCE
1	EA	POWER SUPPLY	PS906 900-4RL 900-2RS 120/24 VAC	)	×	LGR	SCE
1	EA	WIRING DIAGRAM	AS REQUIRED		×		DLR
	EA	BALANCE OF HARDWARE	BY ALUMINUM DOOR SUPPLIER				

# **Coastal Carolina University**

Kimbel Library Renovation Conway, South Carolina

1. THE HANGING HARDWARE, ELECTRIFIED PANIC HARDWARE WEATHERSTRIP & THRESHOLD SHALL BE PROVIDED BY THE WIND IMPACT DOOR SUPPLIER. THE OWNER PREFERS CONTINUOUS HINGES IF ACCEPTABLE WITH THE IMPACT RATING. THE OWNER PREFERS VON DUPRIN EXIT DEVICES IF ACCEPTABLE WITH THE IMPACT RATING. DOOR SUPPLIER SHALL DETERMINE.

2. THE GENERAL CONTRACTOR & THE HARDWARE SUPPLIER SHALL COORDINATE HARDWARE APPLICATIONS WITH THE STOREFRONT DOOR SUPPLIER & FURNISH THE REQUIRED MOUNTING PLATES, BRACKETS AND FASTENERS AS REQUIRED TO CORRECTLY MOUNT THE DOOR HARDWARE.

3. THE GENERAL CONTRACTOR & THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES PRIOR TO ORDERING THE HARDWARE. 4. DOOR FUNCTION: AFTER HOURS: DOORS NORMALLY CLOSED AND LOCKED. ENTRY BY VALID CREDENTIAL OR KEY TO RETRACT LATCH ON ACTIVE DOOR. INTERIOR ACTUATOR SHALL BE AVAILABLE TO ALLOW AUTO-OPEN OF ACTIVE LEAF FOR ASSISTED EGRESS. DURING BUSINESS HOURS: THE OWNER'S NETWORK/SCHEDULE WILL RETRACT & HOLD THE EXIT DEVICE LATCHES ON BOTH DOORS AS REQUIRED. FREE ENTRY. FREE EGRESS. ACTUATORS SHALL BE AVAILABLE TO ALLOW AUTO-OPEN OF THE THE ACTIVE LEAF FOR ASSISTED ENTRY. 5. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY ACCESS CONTROL PROVIDER. ALL OTHER WORK, PROVIDED BY ELECTRICAL CONTRACTOR.

Hardware Group No. EXT-02

For use on Door #(s): 117B

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	I	FINISH	MFR
<u>1</u>	EA	CONT. HINGE	<u>112HD</u>	6	<u>628</u>	IVE
3	EA	HINGE	<del>5BB1 4.5 X 4.5</del>	(	<del>630</del>	₩E
1	EA	STOREROOM LOCK	45H-7-D-15J	(	626	BES
1	EA	SFIC CORE	AS REQUIRED	(	626	BES
1	EA	CONSTRUCTION CORE	AS REQUIRED	(	626	BES
1	EA	ELECTRIC STRIKE	6210 FSE 12/16/24/28 VAC/VDC	N (	630	VON
1	EA	SURFACE CLOSER	4011	(	689	LCN
4	EA	KICK PLATE	8400 8" X 2" LDW B-CS	(	<del>630</del>	₩E
1	EA	FLOOR STOP	FS439	(	630	IVE
4	EA	GASKETING	188SBK PSA	4	B <del>K</del>	ZER
<u>1</u>	<u>EA</u>	WEATHER STRIPPING	BY DOOR MANUFACTURER			
1	EA	DOOR SWEEP	39A	/	A	ZER
1	EA	THRESHOLD	655A-223	/	A	ZER
1	EA	CREDENTIAL READER	PROVIDED BY SECURITY	×		
1	EA	POWER SUPPLY	PS902 120/240 VAC	× 1	LGR	SCE
1	EA	WIRING DIAGRAM	AS REQUIRED	×		DLR

1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES.

2. DOOR FUNCTION: DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL RELEASE ELECTRIC STRIKE AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS.

3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR.

Conway, South Carolina

Hardware Group No. EXT-03

For use on Door #(s): 116

# Provide each PR door(s) with the following:

1 10110	0 00011	r reader(e) mar and renorming.			
QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	112HD	628	IVE
1	EA	REMOVABLE MULLION	KR4954	689	VON
1	EA	PANIC HARDWARE	CD-98-NL	626	VON
1	EA	PANIC HARDWARE	LD-98-EO	626	VON
1	EA	RIM CYLINDER	1E72	626	BES
2	EA	MORTISE CYLINDER	1E74	626	BES
2	EA	SURFACE CLOSER	4111 SHCUSH	689	LCN
			(DROP PLATE AS REQ)		
2	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	RAIN DRIP	142AA	AA	ZER
			(OMIT IF UNDER CANOPY)		
1	EA	GASKETING	188SBK PSA	BK	ZER
1	EA	MULLION SEAL	8780NBK PSA	BK	ZER
2	EA	DOOR SWEEP	39A	А	ZER
1	EA	THRESHOLD	655A-223	А	ZER

Hardware Group No. EXT-04

For use on Door #(s): 113A 135

Provide each PR door(s) with the following:

1 10110	0 00011					
QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	POWER TRANSFER	EPT10	×	689	VON
1	EA	ELEC FIRE EXIT HARDWARE	RX-LC-HH-9847-EO-F-304L-SNB	×	606	VON
1	EA	ELEC FIRE EXIT HARDWARE	RX-LC-QEL-HH-9847-NL-OP-F- 110MD-304L-SNB 24 VDC	×	626	VON
1	EA	RIM CYLINDER	1E72		626	BES
2	EA	LONG DOOR PULL	9264F 36" STD		630	IVE
2	EA	SURFACE CLOSER	4111 SCUSH		689	LCN
2	EA	MOUNTING PLATE	4110-18 SRT		689	LCN
2	EA	CUSH SHOE SUPPORT	4110-30 SRT		689	LCN
2	EA	WALL STOP	WS406/407CCV		630	IVE
1	EA	CREDENTIAL READER	PROVIDED BY SECURITY	×		
2	EA	DOOR CONTACT	7764	×	628	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	×	LGR	SCE
1	EA	WIRING DIAGRAM	AS REQUIRED	×		DLR
	EA	BALANCE OF HARDWARE	BY ALUMINUM DOOR SUPPLIER			

1. THE HANGING HARDWARE, ELECTRIFIED PANIC HARDWARE WEATHERSTRIP & THRESHOLD SHALL BE PROVIDED BY THE WIND IMPACT DOOR SUPPLIER. THE OWNER PREFERS CONTINUOUS HINGES IF ACCEPTABLE WITH THE IMPACT RATING. THE OWNER PREFERS VON DUPRIN EXIT DEVICES IF ACCEPTABLE WITH THE IMPACT RATING. DOOR SUPPLIER SHALL DETERMINE.

2. THE GENERAL CONTRACTOR & THE HARDWARE SUPPLIER SHALL COORDINATE HARDWARE APPLICATIONS WITH THE STOREFRONT DOOR SUPPLIER & FURNISH THE REQUIRED MOUNTING PLATES, BRACKETS AND FASTENERS AS REQUIRED TO CORRECTLY MOUNT THE DOOR HARDWARE.

3. THE GENERAL CONTRACTOR & THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES PRIOR TO ORDERING THE HARDWARE. 4. DOOR FUNCTION: DOORS NORMALLY CLOSED AND LOCKED. ENTRY BY VALID CREDENTIAL OR KEY TO RETRACT LATCH ON ACTIVE DOOR. DOORS ALWAYS AVAILABLE FOR FREE EGRESS. 5. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY ACCESS CONTROL PROVIDER. ALL OTHER WORK, PROVIDED BY ELECTRICAL CONTRACTOR.

Hardware Group No. INT-01

For use on Door #	(s):				
105	107	<del>226</del>	<del>228</del>		
Provide each SGL door(s) with the following:					

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	STOREROOM LOCK	9K37D 15D	626	BES
1	EA	WALL STOP	WS406/407CCV	630	IVE
3	EA	SILENCER	SR64/65 AS REQ	GRY	IVE

Hardware Group No.<u>INT-01.1</u>

For use on Doc	or #(s):	
<u>226</u>	228	<u>251</u>

Provide each SGL door(s) with the following:

QTY	,	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
<u>3</u>	EA	HINGE	<u>5BB1 4.5 X 4.5</u>	<u>652</u>	IVE
1	EA	STOREROOM LOCK	<u>9K37D 15D</u>	<u>626</u>	BES
1	EA	WALL STOP	WS406/407CCV	<u>630</u>	IVE
<u>3</u>	<u>EA</u>	<u>SILENCER</u>	SR64/65 AS REQ	<u>GRY</u>	IVE

Hardware Group No. INT-02

For use on Door #(s): 106

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
8	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
2	EA	MANUAL FLUSH BOLT	FB458	626	IVE
1	EA	DUST PROOF STRIKE	DP2	626	IVE
1	EA	STOREROOM LOCK	9K37D 15D	626	BES
2	EA	WALL STOP	WS406/407CCV	630	IVE
2	EA	SILENCER	SR64/65 AS REQ	GRY	IVE

Hardwara Cr	oup No. INT-03		<b>ina University</b> Try Renovation South Carolina
For use on D			
Provide each QTY 6 EA 2 EA 1 EA 1 EA 2 EA 2 EA	PR door(s) with the followin DESCRIPTION HINGE MANUAL FLUSH BOLT DUST PROOF STRIKE STOREROOM LOCK FLOOR STOP SILENCER	g: CATALOG NUMBER 5BB1 4.5 X 4.5 FB458 DP2 9K37D 15D FS439 SR64/65 AS REQ	FINISH MFR 652 IVE 626 IVE 626 IVE 626 BES 630 IVE GRY IVE
Hardware Gr	oup No. INT-04		
For use on D 108	0oor #(s): 109		
Provide each QTY 4 EA 1 EA 1 EA 1 EA 1 EA 3 EA	n SGL door(s) with the followin DESCRIPTION HINGE PRIVACY LOCK SURFACE CLOSER KICK PLATE WALL STOP SILENCER	ng: CATALOG NUMBER 5BB1 4.5 X 4.5 45H-L-15J-VIN 4011 8400 8" X 2" LDW B-CS WS406/407CCV SR64/65 AS REQ	FINISH         MFR           652         IVE           626         BES           689         LCN           630         IVE           630         IVE           GRY         IVE
	oup No. INT-05		
For use on D 111	112 245	246	
Provide each QTY 4 EA 1 EA 1 EA 1 EA 1 EA 1 EA 3 EA	n SGL door(s) with the followin DESCRIPTION HINGE PUSH PLATE PULL PLATE SURFACE CLOSER KICK PLATE WALL STOP SILENCER	ng: CATALOG NUMBER 5BB1HW 4.5 X 4.5 8200 4" X 16" 8302 6" 4" X 16" 4011 8400 8" X 2" LDW B-CS WS406/407CCV SR64/65 AS REQ	FINISH       MFR         652       IVE         630       IVE         630       IVE         689       LCN         630       IVE         630       IVE         630       IVE         630       IVE         630       IVE         630       IVE         630       IVE

DOOR HARDWARE SETS

Conway, South Carolina

#### Hardware Group No.INT-06

For use on Door #(s):

<u>113B</u> <u>244</u>

### Provide each SGL door(s) with the following:

			-		
QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
<u>4</u>	<u>EA</u>	HINGE	<u>5BB1 4.5 X 4.5 NRP</u>	<u>652</u>	<u>IVE</u>
<u>1</u>	EA	POWER TRANSFER	<u>EPT10</u>	🖊 <u>689</u>	VON
<u>1</u>	<u>EA</u>	ELEC FIRE EXIT	RX-LC-98-L-F-M996-17-FS-CON	🖊 <u>626</u>	VON
		HARDWARE			
<u>1</u>	EA	RIM CYLINDER	<u>1E72</u>	<u>626</u>	BES
<u>1</u>	EA	SFIC CORE	AS REQUIRED	<u>626</u>	BES
<u>1</u>	EA	CONSTRUCTION CORE	AS REQUIRED	<u>626</u>	BES
<u>1</u>	EA	SURFACE CLOSER	<u>4011</u>	<u>689</u>	LCN
<u>1</u>	EA	KICK PLATE	8400 8" X 2" LDW B-CS	<u>630</u>	IVE
<u>1</u>	EA	WALL STOP	WS406/407CCV	<u>630</u>	IVE
<u>1</u>	EA	<u>GASKETING</u>	488SBK PSA	<u>BK</u>	<u>ZER</u>
<u>1</u>	EA	CREDENTIAL READER	PROVIDED BY SECURITY	×	
<u>1</u>	EA	DOOR CONTACT	<u>7764</u>	🖊 <u>628</u>	<u>SCE</u>
<u>1</u>	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	🖊 <u>LGR</u>	<u>SCE</u>
<u>1</u>	<u>EA</u>	WIRING DIAGRAM	AS REQUIRED	×	DLR

1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES.

2. DOOR FUNCTION: DOORS NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL UNLOCK THE LEVER TRIM AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS.

DURING FIRE ALARM ACTIVATION OR POWER OUTAGE THE LEVER HANDLE WILL AUTOMATICAALY UNLOCK ALLOWING FREE INGRESS AND EGRESS

3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR.

Hardware Group No.INT-06

For use on Door #(s): <u>113B</u> 234

<del>2</del>44

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
4	EA	HINGE	<del>5BB1 4.5 X 4.5</del>	<del>652</del>	₩E
4	EA	FIRE EXIT HARDWARE	<del>98-L-BE-F-17</del>	<del>626</del>	VON
4	EA	SURFACE CLOSER	4 <del>011</del>	<del>689</del>	LCN
4	EA	KICK PLATE	8400 8" X 2" LDW B-CS	<del>630</del>	₩E
4	EA	WALL STOP	WS406/407CCV	<del>630</del>	₩E
4	EA	GASKETING	488SBK PSA	<del>BK</del>	ZER

Hardware Group No. INT-07

For use on Door #(s): 117A

<del>118</del>

Provide each SGL door(s) with the following:

127

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	CLASSROOM LOCK	9K37R 15D	626	BES
1	EA	FLOOR STOP	FS439	630	IVE
3	EA	SILENCER	SR64/65 AS REQ	GRY	IVE

Hardware Group No.INT-08

For use on Door #(s):

234

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
<u>4</u>	EA	HINGE	<u>5BB1 4.5 X 4.5 NRP</u>	<u>652</u>	IVE
<u>1</u>	EA	POWER TRANSFER	<u>EPT10</u>	🖊 <u>689</u>	VON
<u>1</u>	<u>EA</u>	ELEC FIRE EXIT HARDWARE	RX-LC-98-L-F-M996-17-FS-CON	₩ <u>626</u>	<u>VON</u>
<u>1</u>	<u>EA</u>	RIM CYLINDER	<u>1E72</u>	<u>626</u>	BES
<u>1</u>	<u>EA</u>	SFIC CORE	AS REQUIRED	<u>626</u>	<u>BES</u>
<u>1</u>	EA	CONSTRUCTION CORE	AS REQUIRED	<u>626</u>	BES
<u>1</u>	<u>EA</u>	SURFACE CLOSER	<u>4011</u>	<u>689</u>	<u>LCN</u>
<u>1</u>	EA	WALL STOP	WS406/407CCV	<u>630</u>	IVE
<u>1</u>	<u>EA</u>	GASKETING	BY DOOR MANUFACTURER		
<u>1</u>	EA	CREDENTIAL READER	PROVIDED BY SECURITY	×	
<u>1</u>	<u>EA</u>	DOOR CONTACT	<u>7764</u>	🖊 <u>628</u>	<u>SCE</u>
<u>1</u>	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	🖊 <u>LGR</u>	<u>SCE</u>
<u>1</u>	<u>EA</u>	WIRING DIAGRAM	AS REQUIRED	×	<u>DLR</u>

1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL **RELATED TRADES.** 

2. DOOR FUNCTION: DOORS NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL UNLOCK THE LEVER TRIM AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS.

DURING FIRE ALARM ACTIVATION OR POWER OUTAGE THE LEVER HANDLE WILL AUTOMATICAALY UNLOCK ALLOWING FREE INGRESS AND EGRESS 3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR.

Hardware Group No.INT-08

For use on Door #(s): 238

#### Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
4	EA	HINGE	<del>5BB1 4.5 X 4.5 NRP</del>	<del>652</del>	₩E
4	EA	CLASSROOM LOCK	<del>9K37R 15D</del>	<del>626</del>	BES
4	EA	SURFACE CLOSER	4111 SCUSH	<del>689</del>	LCN
4	EA	KICK PLATE	8400 8" X 2" LDW B-CS	<del>630</del>	₩E
3	EA	SILENCER	SR64/65 AS REQ	GRY	₩E

Hardware Group No. INT-09

For use on Door #(s):

115B 123

Provide each PR door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	DUMMY PUSH BAR	350		626	VON
2	EA	LONG DOOR PULL	9264F 36" STD		630	IVE
1	EA	SURFACE CLOSER	4111 SCUSH MC		RAL	LCN
1	EA	SURF. AUTO OPERATOR	9542 DD MS AS REQ (120/240 VAC) (POWDER COAT: WHITE)	N	ANCL R	LCN
1	EA	MOUNTING PLATE	4110-18 SRT		689	LCN
1	EA	CUSH SHOE SUPPORT	4110-30 SRT		689	LCN
1	EA	RELAY	8310-845	×		LCN
1	EA	ACTUATOR, TOUCH	8310-855	N	630	LCN
1	EA	BOLLARD	B-6SQ-AT-32D-SM-SQ12	N		WIK
	EA	BALANCE OF HARDWARE	BY ALUMINUM DOOR SUPPLIER			

1. COORDINATE HARDWARE APPLICATIONS WITH THE STOREFRONT DOOR SUPPLIER & FURNISH THE REQUIRED MOUNTING PLATES, BRACKETS AND FASTENERS AS REQUIRED TO CORRECTLY MOUNT THE DOOR HARDWARE. HINGES TO MATCH ENTRY.

2. THE GENERAL CONTRACTOR & THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES PRIOR TO ORDERING THE HARDWARE. 3. DOOR FUNCTION: ACTUATORS SHALL BE AVAILABLE TO ALLOW AUTO-OPEN OF THE THE ACTIVE LEAF FOR ASSISTED ENTRY. OPERATORS WILL BE SEQUENECED WITH EXTERIOR OPENINGS.

4. ALL ELECTRICAL WIRING, CONNECTIONS AROUND THE DOOR AND TO THE POWER SUPPLY SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL CONNECT POWER TO THE AUTO OPERATOR AND CONNECT THE ACTUATORS TO THE OPERATOR AS REQUIRED. OPERATORS WILL BE SEQUENCED TOGETHER. THE ACCESS CONTROL PROVIDER SHALL MAKE ALL CONNECTIONS FROM THE POWER SUPPLY TO THE NETWORK FOR SECURITY SCHEDULING.

Hardware Group No. INT-10

For use on	Door #(s):				
126	222	<u>222A</u>	<u>222B</u>	239	
<b>D</b>					

Provide each SGL door(s) with the following:

			-			
QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5 NRP		652	IVE
1	EA	POWER TRANSFER	EPT10	×	689	VON
1	EA	ELEC PANIC HARDWARE	RX-LC-QEL-98-NL 24 VDC	×	626	VON
1	EA	RIM CYLINDER	1E72		626	BES
1	EA	SFIC CORE	AS REQUIRED		626	BES
1	EA	CONSTRUCTION CORE	AS REQUIRED		626	BES
1	EA	SURFACE CLOSER	4111 EDA		689	LCN
1	EA	WALL STOP	WS406/407CCV		630	IVE
1	EA	DOOR CONTACT	7764	×	628	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	×	LGR	SCE
1	EA	WIRING DIAGRAM	AS REQUIRED	×		DLR

1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES.

2. DOOR FUNCTION: DOORS NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL RETRACT LATCHBOLT AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS.

3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR.

#### Hardware Group No.<u>INT-10.1</u>

For use on Door #(s):

<u>144A</u> <u>144B</u>

#### Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
<u>4</u>	<u>EA</u>	<u>HINGE</u>	<u>5BB1 4.5 X 4.5 NRP</u>	<u>652</u>	IVE
<u>1</u>	EA	POWER TRANSFER	<u>EPT10</u>	🗡 <u>689</u>	VON
<u>1</u>	<u>EA</u>	ELEC PANIC HARDWARE	RX-LC-QEL-98-L-17 24 VDC	🖌 <u>626</u>	VON
<u>1</u>	EA	RIM CYLINDER	<u>1E72</u>	<u>626</u>	BES
<u>1</u>	<u>EA</u>	CONSTRUCTION CORE	AS REQUIRED	<u>626</u>	BES
<u>1</u>	<u>EA</u>	SFIC CORE	AS REQUIRED	<u>626</u>	<u>BES</u>
<u>1</u>	<u>EA</u>	SURFACE CLOSER	<u>4111 SCUSH</u>	<u>689</u>	LCN
<u>1</u>	EA	DOOR CONTACT	7764	🖌 <u>628</u>	<u>SCE</u>
<u>1</u>	<u>EA</u>	POWER SUPPLY	PS902 900-2RS 120/240 VAC	🖊 <u>LGR</u>	<u>SCE</u>
<u>1</u>	EA	WIRING DIAGRAM	AS REQUIRED	×	<u>DLR</u>

1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES.

2. DOOR FUNCTION: DOORS NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL RETRACT LATCHBOLT AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS.

<u>3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY</u> ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR. Hardware Group No. <u>INT-10.2</u> (1NT-10.1)

For use on Door #(s):

## <u>142</u>

Provide each SGL door(s) with the following:

		e e = u e e : (e) : : : : : : : : : : : : : : : : : : :	•			
QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5 NRP		652	IVE
1	EA	POWER TRANSFER	EPT10	×	689	VON
1	EA	ELEC PANIC HARDWARE	RX-LC-98-L-M996-17-FS-CON FAIL SAFE	N	626	VON
1	EA	RIM CYLINDER	1E72		626	BES
1	EA	CONSTRUCTION CORE	AS REQUIRED		626	BES
1	EA	SFIC CORE	AS REQUIRED		626	BES
1	EA	SURFACE CLOSER	4111 EDA		689	LCN
1	EA	WALL STOP	WS406/407CCV		630	IVE
1	EA	CREDENTIAL READER	PROVIDED BY SECURITY	×		
1	EA	DOOR CONTACT	7764	×	628	SCE
1	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC	×	LGR	SCE
1	EA	WIRING DIAGRAM	AS REQUIRED	×		DLR

1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES.

2. DOOR FUNCTION: DOORS NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL UNLOCK THE LEVER TRIM AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS.

DURING FIRE ALARM ACTIVATION OR POWER OUTAGE THE LEVER HANDLE WILL AUTOMATICAALY UNLOCK ALLOWING FREE INGRESS AND EGRESS

3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR.

Hardware Group No. INT-11

For use on Door #(s): 205B

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	STOREROOM LOCK	9K37D 15D	626	BES
1	EA	ELECTRIC STRIKE	6400 FSE 12/24 VAC/VDC	🗡 630	VON
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
1	EA	CREDENTIAL READER	PROVIDED BY SECURITY	×	
1	EA	POWER SUPPLY	PS902 120/240 VAC	🗡 LGR	SCE
1	EA	WIRING DIAGRAM	AS REQUIRED	×	DLR

1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES.

2. DOOR FUNCTION: DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL RELEASE ELECTRIC STRIKE AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS.

3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR.

Hardware Group No. INT-12

For use on Door #(s):

<del>128</del>	₿	219	220	<del>303</del>		
Prov	ide each	SGL door(s) with the fo	ollowing	g:		
QTY	ſ	DESCRIPTION		CATALOG NUMBER	FINISH	MFR
4	EA	HINGE		5BB1 4.5 X 4.5	652	IVE
1	EA	STOREROOM LOCK		9K37D 15D	626	BES
1	EA	SURFACE CLOSER		4011	689	LCN
1	EA	KICK PLATE		8400 8" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP		WS406/407CCV	630	IVE
3	EA	SILENCER		SR64/65 AS REQ	GRY	IVE

Conway, South Carolina

#### Hardware Group No.<u>INT-12.1</u>

For use on Door #(s): 128B

#### Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
<u>3</u>	<u>EA</u>	<u>HINGE</u>	<u>5BB1 4.5 X 4.5</u>	<u>652</u>	IVE
<u>1</u>	EA	STOREROOM LOCK	<u>9K37D 15D</u>	<u>626</u>	BES
<u>1</u>	<u>EA</u>	SURFACE CLOSER	<u>4011</u>	<u>689</u>	<u>LCN</u>
<u>1</u>	<u>EA</u>	KICK PLATE	8400 8" X 2" LDW B-CS	<u>630</u>	IVE
<u>1</u>	<u>EA</u>	WALL STOP	WS406/407CCV	<u>630</u>	IVE
<u>3</u>	EA	SILENCER	SR64/65 AS REQ	<u>GRY</u>	IVE

#### Hardware Group No. INT-13 (INT-13.1)

For use on Door #(s): 130A

#### Provide each PR door(s) with the following:

1 10110	0 00011				
QTY		DESCRIPTION	CATALOG NUMBER	FINIS	SH MFR
8	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		./6 IVE
				31	
1	EA	MAGNETIC LOCK	M492P 12/24 VDC	🖊 628	SCE
2	EA	LONG DOOR PULL	PR 9264F 72" P	BLK	IVE
2	EA	OH STOP	90S	<u>BLK</u>	GLY
				<del>(630)</del>	
2	EA	CONCEALED CLOSER	2031 BUMP ST-2211 WMS	693	LCN
2	EA	SILENCER	SR64/65 AS REQ	GRY	IVE
1	EA	CREDENTIAL READER	PROVIDED BY SECURITY	×	
1	EA	PUSH BUTTON	621ALEX NS 12/24 VDC	🖌 630	SCE
1	EA	MOTION SENSOR	SCANII 12/24 VDC	🖊 BLK	SCE
1	EA	POWER SUPPLY	PS902 120/240 VAC	🖌 LGR	SCE
1	EA	WIRING DIAGRAM	AS REQUIRED	×	DLR

1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES.

2. DOOR FUNCTION: DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL RELEASE MAGNETIC LOCK AND ALLOW FOR ENTRY. FROM EGRESS SIDE, MOTION SENSOR TO DETECT PRESENCE OR PUSHING PUSH BUTTON WILL RELEASE MAGNETIC LOCK. LOSS OF POWER WILL RELEASE MAGNETIC LOCK. DOOR MAY BE SCHEDULED FOR UNLOCKED.

3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR.

Coastal Carolina University Kimbel Library Renovation Conway, South Carolina

Hardware Group No. <u>INT-14</u>									
For use on D	oor #(s):								
<u>207</u>	<u>209</u>	<u>210</u>	<u>211</u>	<u>212</u>		<u>213</u>			
<u>215</u>	<u>216</u>	<u>217</u>	<u>218</u>						
	SGL door(s) with the	followin	-						
QTY	DESCRIPTION		CATALOG NUMBER			FINISH			
<u>4 EA</u> <u>1 EA</u>	HINGE CLASSROOM LOC	ĸ	<u>5BB1 4.5 X 4.5</u> <u>9K37R 15D</u>			<u>652</u> 626	<u>IVE</u> BES		
<u>1 EA</u>	WALL STOP		<u>WS406/407CCV</u>			<u>630</u>	IVE		
<u> </u>						<u></u>			
Hardware Group No. <del>INT-14</del>									
For use on D		007	000	040		044			
<del>136B</del> <del>212</del>	<del>143B</del> <del>213</del>	<del>207</del> <del>215</del>	<del>209</del> <del>216</del>	<del>210</del> <del>217</del>		<del>211</del> <del>218</del>			
<del>230</del>	210	210	210	211		210			
	SGL door(s) with the	followin							
QTY	DESCRIPTION		CATALOG NUMBER			FINISH			
4 <del>EA</del> 1 EA	HINGE CLASSROOM LOC	۲	<del>5BB1 4.5 X 4.5</del> <del>9K37R 15D</del>			<del>652</del> <del>626</del>	<del>IVE</del> BES		
+ <del>EA</del>	WALL STOP		WS406/407CCV			<del>630</del>	<del>IVE</del>		
3 <del>EA</del>	SILENCER		SR64/65 AS REQ			GRY	IVE		
Hardware Gr	oup No. <u>INT-14.1</u>								
For use on D	( )								
<u>127</u>	<u>136B</u>	<u>230</u>	<u>238</u>						
	SGL door(s) with the	followin	-						
QTY	DESCRIPTION		CATALOG NUMBER			FINISH			
<u>3 EA</u>	HINGE		<u>5BB1 4.5 X 4.5</u>			<u>652</u>	<u>IVE</u>		
<u>1 EA</u> <u>1 EA</u> 3 EA	CLASSROOM LOC	<u>'n</u>	<u>9K37R 15D</u>			<u>626</u>	BES		
	WALL STOP		WS406/407CCV			630	IV/E		
3 EA	WALL STOP SILENCER		<u>WS406/407CCV</u> SR64/65 AS REQ			<u>630</u> GRY	<u>IVE</u> IVE		

DOOR HARDWARE SETS

Hardware Group No. INT-15

For use <u>118</u>	e on Do	oor #(s): <del>128A</del> 131	<del>131</del>	132			<del>205A</del>		
Provide	Provide each SGL door(s) with the following:								
QTY		DESCRIPTION	CATALOG NUMBER				FINISH	MFR	
4	EA	HINGE	5BB1 4.5 X 4.5				652	IVE	
1	EA	STOREROOM LOCK	9K37D 15D				626	BES	
<u>1</u>	<u>EA</u>	ELECTRIC STRIKE	6400 FSE 12/24 VAC/VDC			×	<u>630</u>	VON	
1	EA	SURFACE CLOSER	4011				689	LCN	
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS				630	IVE	
1	EA	FLOOR STOP	FS439				630	IVE	
3	EA	SILENCER	SR64/65 AS REQ				GRY	IVE	
1	EA	CREDENTIAL READER	PROVIDED BY SECURITY	•		×			
1	EA	POWER SUPPLY	PS902 120/240 VAC			×	LGR	SCE	
1	EA	WIRING DIAGRAM	AS REQUIRED			×		DLR	

1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES.

2. DOOR FUNCTION: DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL RELEASE ELECTRIC STRIKE AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS.

3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR.

Hardware Group No. INT-16

For use on Door #(s): 224

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	9K37D 15D		626	BES
1	EA	SFIC CORE	AS REQUIRED		626	BES
1	EA	CONSTRUCTION CORE	AS REQUIRED		626	BES
1	EA	ELECTRIC STRIKE	6400 FSE 12/24 VAC/VDC	×	630	VON
1	EA	SURFACE CLOSER	4011		689	LCN
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		630	IVE
3	EA	SILENCER	SR64/65 AS REQ		GRY	IVE
1	EA	CREDENTIAL READER	PROVIDED BY SECURITY	×		
1	EA	POWER SUPPLY	PS902 120/240 VAC	×	LGR	SCE
1	EA	WIRING DIAGRAM	AS REQUIRED	×		DLR

1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES.

2. DOOR FUNCTION: DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL RELEASE ELECTRIC STRIKE AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS.

3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR.

#### Hardware Group No.<u>INT-16.1</u>

For use on Door #(s):

<u>143</u> <u>250A</u>

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
<u>4</u>	<u>EA</u>	HINGE	<u>5BB1 4.5 X 4.5</u>	<u>652</u>	<u>IVE</u>
<u>1</u>	EA	STOREROOM LOCK	<u>9K37D 15D</u>	<u>626</u>	BES
<u>1</u>	<u>EA</u>	CONSTRUCTION CORE	AS REQUIRED	<u>626</u>	<u>BES</u>
<u>1</u>	EA	SFIC CORE	AS REQUIRED	<u>626</u>	BES
<u>1</u>	<u>EA</u>	ELECTRIC STRIKE	6400 FSE 12/24 VAC/VDC	≠ <u>630</u>	VON
<u>1</u>	EA	SURFACE CLOSER	<u>4011</u>	<u>689</u>	LCN
<u>1</u>	<u>EA</u>	WALL STOP	WS406/407CCV	<u>630</u>	IVE
1	EA	CREDENTIAL READER	PROVIDED BY SECURITY	×	
<u>1</u>	<u>EA</u>	POWER SUPPLY	PS902 120/240 VAC	✓ <u>LGR</u>	<u>SCE</u>
<u>1</u>	<u>EA</u>	WIRING DIAGRAM	AS REQUIRED	×	<u>DLR</u>

1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES.

2. DOOR FUNCTION: DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL RELEASE ELECTRIC STRIKE AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS. 3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY

ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR.

Hardware Group No. INT-16.2

For use on Door #(s):

<u>205A</u>

Provide each SGL door(s) with the following:

QTY	DESCRIPTION	CATALOG NU	JMBER	FINISH	H MFR
<u>4</u> <u>E</u>	<u>A</u> <u>HINGE</u>	<u>5BB1 4.5 X 4</u>	.5	<u>652</u>	IVE
<u>1</u> <u>E</u>	A STOREROOM LC	OCK <u>9K37D 15D</u>		<u>626</u>	BES
<u>1</u> <u>E</u>	<u>A</u> <u>CONSTRUCTION</u>	I CORE AS REQUIRE	<u>:D</u>	<u>626</u>	BES
<u>1</u> <u>E</u>	A SFIC CORE	AS REQUIRE	<u>:D</u>	<u>626</u>	BES
<u>1</u> <u>E</u>	A ELECTRIC STRIK	<u>(E 6400 FSE 12</u>	/24 VAC/VDC	🗡 <u>630</u>	VON
<u>1</u> <u>E</u>	A SURFACE CLOSI	<u>ER 4011</u>		<u>689</u>	LCN
<u>1</u> <u>E</u>	A WALL STOP	<u>WS406/407C</u>	CV	<u>630</u>	IVE
<u>1 E</u>	A <u>CREDENTIAL RE</u>	ADER PROVIDED E	BY SECURITY	×	
<u>1 E</u>	A POWER SUPPLY	PS902 120/2	40 VAC	✓ LGR	<u>SCE</u>
<u>1 E</u>	A WIRING DIAGRA	M <u>AS REQUIRE</u>	<u>:D</u>	×	DLR

1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES.

2. DOOR FUNCTION: DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL RELEASE ELECTRIC STRIKE AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS.

<u>3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY</u> ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR. Hardware Group No. INT-17

For use on Door #(s): 134

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
4	EA	HINGE	<u>5BB1 4.5 X 4.5 NRP <del>(5B</del>B1 4.5 X</u> 4 <del>.5)</del>		652	IVE
1	EA	<u>POWER TRANSFER</u> (FIRE EXIT HARDWARE)	<u>EPT10-<del>(98</del>-L-BE-F-17)</u>	<u></u>	✓ <u>689</u> (626)	VON
<u>1</u>	<u>EA</u>	ELEC FIRE EXIT HARDWARE	RX-LC-98-L-F-M996-17-FS-CON		₩ <u>626</u>	<u>VON</u>
<u>1</u>	EA	RIM CYLINDER	<u>1E72</u>		<u>626</u>	BES
<u>1</u>	EA	CONSTRUCTION CORE	AS REQUIRED		<u>626</u>	BES
<u>1</u>	EA	SFIC CORE	AS REQUIRED		<u>626</u>	BES
1	EA	SURFACE CLOSER	4111 SCUSH		689	LCN
4	EA	<b>GASKETING</b>	488SBK PSA		BK	ZER
<u>1</u>	EA	GASKETING	BY DOOR MANUFACTURER			
<u>1</u>	EA	CREDENTIAL READER	PROVIDED BY SECURITY		N	
<u>1</u>	EA	DOOR CONTACT	<u>7764</u>		✓ <u>628</u>	<u>SCE</u>
<u>1</u>	EA	POWER SUPPLY	PS902 900-2RS 120/240 VAC		∕ <u>LGR</u>	<u>SCE</u>
<u>1</u>	<u>EA</u>	WIRING DIAGRAM	<u>AS REQUIRED</u>		N	<u>DLR</u>

<u>1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL</u> RELATED TRADES.

2. DOOR FUNCTION: DOORS NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL UNLOCK THE LEVER TRIM AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS.

DURING FIRE ALARM ACTIVATION OR POWER OUTAGE THE LEVER HANDLE WILL AUTOMATICAALY UNLOCK ALLOWING FREE INGRESS AND EGRESS

<u>3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY</u> ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR.

#### Hardware Group No.<u>INT-18</u>

For use on Door #(s): 250B

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
<u>4</u> <u>E</u>	<u>EA</u>	HINGE	<u>5BB1 4.5 X 4.5</u>	<u>652</u>	<u>IVE</u>
<u>1</u> <u>E</u>	ΞA	STOREROOM LOCK	<u>9K37D 15D</u>	<u>626</u>	BES
<u>1</u> <u>E</u>	ΞA	SFIC CORE	AS REQUIRED	<u>626</u>	<u>BES</u>
<u>1</u> <u>E</u>	ΞA	CONSTRUCTION CORE	AS REQUIRED	<u>626</u>	<u>BES</u>
<u>1</u> <u>E</u>	ΞA	ELECTRIC STRIKE	6400 FSE 12/24 VAC/VDC	🖊 <u>630</u>	VON
<u>1</u> <u>E</u>	ΞA	SURFACE CLOSER	<u>4011</u>	<u>689</u>	LCN
<u>1</u> <u>E</u>	<u>EA</u>	WALL STOP	WS406/407CCV	<u>630</u>	<u>IVE</u>
<u>1</u> <u>E</u>	ΞA	CREDENTIAL READER	PROVIDED BY SECURITY	×	
<u>1</u> <u>E</u>	<u>EA</u>	POWER SUPPLY	PS902 120/240 VAC	🖊 <u>LGR</u>	<u>SCE</u>
<u>1</u> <u>E</u>	<u>EA</u>	WIRING DIAGRAM	AS REQUIRED	×	<u>DLR</u>

1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES.

2. DOOR FUNCTION: DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL RELEASE ELECTRIC STRIKE AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS. 3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR.

Hardware Group No.INT-18

For use on Door #(s):

136A 143A 250

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
4	<del>Ε</del> Α	HINGE	<del>5BB1 4.5 X 4.5</del>	<del>652</del>	₩E
4	<del>Ε</del> Α	CLASSROOM LOCK	<del>9K37R 15D</del>	<del>626</del>	BES
4	<del>Ε</del> Α	<del>OH STOP</del>	<del>100S</del>	<del>630</del>	GLY
4	EA	SURFACE CLOSER	4 <del>011</del>	<del>689</del>	LCN

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Kimbel Library Renovation Conway, South Carolina

					Conway, S	South Ca	irolina
Hardware Group No. INT-19							
For use on D 137 227 236	oor #(s): 139 229 237	140 231 247	141 232 248	223 233 <u>249</u>		225 235 <u>252</u>	
Provide each QTY 3 EA 1 EA 1 EA 3 EA	SGL door(s) with the DESCRIPTION HINGE OFFICE LOCK WALL STOP SILENCER	following	g: CATALOG NUMBER 5BB1 4.5 X 4.5 9K37B 15AB WS406/407CCV SR64/65 AS REQ			FINISH 652 626 630 GRY	MFR IVE BES IVE IVE
Hardware Gr	oup No. INT-20						
For use on D 133	oor #(s): <del>138A</del>						
Provide each QTY <u>4-(3)</u> EA 1 EA 1 EA 1 EA 1 EA 3 EA	SGL door(s) with the DESCRIPTION HINGE STOREROOM LOC OH STOP SURFACE CLOSEF KICK PLATE SILENCER	K	g: CATALOG NUMBER 5BB1 4.5 X 4.5 9K37D 15D 90S 4011 8400 8" X 2" LDW B-CS SR64/65 AS REQ			FINISH 652 626 630 689 630 GRY	MFR IVE BES GLY LCN IVE IVE
Hardware Gr	oup No. <u>INT-20.1</u>						
For use on D <u>136A</u>	oor #(s): <u>303</u>						
Provide each QTY <u>3</u> EA <u>1</u> EA <u>1</u> EA <u>1</u> EA <u>1</u> EA <u>3</u> EA	SGL door(s) with the DESCRIPTION <u>HINGE</u> STOREROOM LOC OH STOP SURFACE CLOSEF KICK PLATE SILENCER	<u>K</u>	g: CATALOG NUMBER <u>5BB1 4.5 X 4.5</u> <u>9K37D 15D</u> <u>90S</u> <u>4011</u> <u>8400 8" X 2" LDW B-CS</u> <u>SR64/65 AS REQ</u>			FINISH 652 626 630 689 630 630 GRY	MFR IVE BES GLY LCN IVE IVE

Hardware Group No.<u>INT-21</u>

For use on Door #(s):

<u>128A</u> <u>130B</u> <u>138A</u> <u>138B</u>

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
<u>3</u>	<u>EA</u>	HINGE	<u>5BB1 4.5 X 4.5</u>		<u>652</u>	<u>IVE</u>
<u>1</u>	EA	STOREROOM LOCK	<u>9K37D 15D</u>		<u>626</u>	BES
<u>1</u>	<u>EA</u>	ELECTRIC STRIKE	6400 FSE 12/24 VAC/VDC		✓ <u>630</u>	VON
<u>1</u>	EA	OH STOP	<u>90S</u>		<u>630</u>	<u>GLY</u>
<u>1</u>	<u>EA</u>	SURFACE CLOSER	<u>4011</u>		<u>689</u>	LCN
<u>1</u>	EA	KICK PLATE	8400 8" X 2" LDW B-CS		<u>630</u>	IVE
<u>3</u>	<u>EA</u>	<u>SILENCER</u>	<u>SR64/65 AS REQ</u>		<u>GRY</u>	IVE
<u>1</u>	EA	CREDENTIAL READER	PROVIDED BY SECURITY	/	₩	
<u>1</u>	<u>EA</u>	POWER SUPPLY	PS902 120/240 VAC		✓ <u>LGR</u>	<u>SCE</u>
<u>1</u>	<u>EA</u>	WIRING DIAGRAM	AS REQUIRED	/	~	<u>DLR</u>

<u>1. THE HARDWARE SUPPLIER SHALL COORDINATE THE ELECTRIFIED HARDWARE WITH ALL RELATED TRADES.</u>

2. DOOR FUNCTION: DOOR NORMALLY CLOSED AND LOCKED. PRESENTING VALID CREDENTIAL AT READER WILL RELEASE ELECTRIC STRIKE AND ALLOW FOR ENTRY. DOOR ALWAYS AVAILABLE FOR FREE EGRESS. 3. CREDENTIALS, READER, AND CONNECTIONS TO THE OWNER'S NETWORK PROVIDED BY

ACCESS CONTROL PROVIDER. ALL OTHER WORK PROVIDED BY ELECTRICAL CONTRACTOR.

Hardware Group No. INT-21

For use on Door #(s):

130B 138B

Provide each SGL door(s) with the following:

QTY	,	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	<del>ΕΑ</del>	HINGE	<del>5BB1 4.5 X 4.5</del>	<del>652</del>	₩E
4	<del>ΕΑ</del>	CLASSROOM LOCK	<del>9K37R 15D</del>	<del>626</del>	BES
4	<del>ΕΑ</del>	OH STOP	<del>90S</del>	<del>630</del>	GLY
4	<del>ΕΑ</del>	SURFACE CLOSER	4 <del>011</del>	<del>689</del>	LCN
4	<del>ΕΑ</del>	KICK PLATE	8400 8" X 2" LDW B-CS	<del>630</del>	₩E
3	EA	SILENCER	SR64/65 AS REQ	GRY	₩E

Hordy		pup No. INT-22	Coastal Caroli Kimbel Librai Conway, S	ry Renov	vation	
For us 145	se on Do	oor #(s): <del>251</del>				
QTY 4	EA	SGL door(s) with the following DESCRIPTION HINGE	CATALOG NUMBER 5BB1 4.5 X 4.5 NRP		FINISH 652	MFR IVE
1	EA	STOREROOM LOCK WALL STOP	9K37D 15D		626 620	BES
1 3	EA EA	SILENCER	WS406/407CCV SR64/65 AS REQ		630 GRY	IVE IVE
Hardw	vare Gro	oup No. INT-22.1				
		oor #(s):				
146		JUI #(S).				
	le each	SGL door(s) with the following	•			
QTY	- •	DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5 NRP		652	IVE
1 1	EA EA	STOREROOM LOCK SURFACE CLOSER	9K37D 15D 4111 EDA		626 689	BES LCN
1	EA	WALL STOP	WS406/407CCV		630	IVE
1	EA	PERIMETER GASKET	8144SBK PSA		BK	ZER
Hardw	vare Gro	pup No. INT-23				
	se on Do	por #(s):				
			N.			
QTY	ie each	SGL door(s) with the following DESCRIPTION	J: CATALOG NUMBER		FINISH	MFR
<u>4 (3)</u>	EA	HINGE	5BB1 4.5 X 4.5 NRP		652	IVE
1	EA	STOREROOM LOCK	9K37D 15D		626	BES
1	EA	SURFACE CLOSER	4111 SCUSH		689	LCN
3	EA	SILENCER	SR64/65 AS REQ		GRY	IVE

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Hardware Group No. INT-24

Hardware Group No. IN 1-24							
For use on De 144A	oor #(s): <del>144B</del>	208	<u>242A</u>	<del>242C</del>			
Provide each QTY 4 EA 1 EA 1 EA 1 EA 3 EA	SGL door(s) with the f DESCRIPTION HINGE PANIC HARDWARE RIM CYLINDER SURFACE CLOSER SILENCER		: CATALOG NUMBER 5BB1 4.5 X 4.5 NRP 98-L-17 1E72 4111 SCUSH SR64/65 AS REQ			FINISH 652 626 626 689 GRY	MFR IVE VON BES LCN IVE
Hardware Gro	oup No. <u>INT-24.1</u>						
For use on De <u>242A</u>	oor #(s): <u>242C</u>						
Provide each QTY <u>4 EA</u> <u>1 EA</u> <u>1 EA</u> <u>1 EA</u>	SGL door(s) with the f DESCRIPTION <u>HINGE</u> <u>PANIC HARDWARE</u> <u>RIM CYLINDER</u> <u>SURFACE CLOSER</u>	- -	: CATALOG NUMBER <u>5BB1 4.5 X 4.5 NRP</u> <u>98-L-17</u> <u>1E72</u> <u>4111 SCUSH</u>			FINISH 652 626 626 689	MFR IVE VON BES LCN
Hardware Gr	oup No. INT-25						
For use on D 242B	oor #(s):						
Provide each QTY	PR door(s) with the fo DESCRIPTION	llowing:	CATALOG NUMBER			FINISH	MFR
<u>8 EA</u>	HINGE		5BB1HW 4.5 X 4.5 NRP			<u>FBLK/6</u> 31	<u>IVE</u>
4 EA	LONG DOOR PULL		9264F 36" STD			<u>BLK</u> (630)	IVE
2 EA EA	SURFACE CLOSER BALANCE OF HARDWARE	<u>.</u>	4111 SCUSH GLASS DOOR SUPPLIER			<u>622</u>	<u>LCN</u>

DOOR HARDWARE SETS

# Coastal Carolina University

# Kimbel Library Renovation Conway, South Carolina

Hardware Group No. INT-26

For use on Door #(s): 221

#### Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
<u>3 (4)</u>	EA	HINGE	5BB1 4.5 X 4.5 NRP	652	IVE
1	EA	STOREROOM LOCK	9K37D 15D	626	BES
1	EA	SURFACE CLOSER	4111 SCUSH	689	LCN
3	EA	SILENCER	SR64/65 AS REQ	GRY	IVE

Hardware Group No. INT-27

For use on Door #(s): 103

#### Provide each SGL door(s) with the following:

			•		
QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	STOREROOM LOCK	9K37D 15D	626	BES
1	EA	SURFACE CLOSER	4011	689	LCN
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS	630	IVE
1	EA	WALL STOP	WS406/407CCV	630	IVE
1	EA	GASKETING	488SBK PSA	BK	ZER

# SECTION 275119 SOUND MASKING SYSTEMS

# PART 1 - GENERAL

### 1.01 SUMMARY

A. This specification includes all components required for a fully functional sound masking system for the purpose of increased speech privacy, freedom from distraction, and/or sleep disturbance-reduction in the treated areas.

# 1.02 DEFINITIONS:

- 1. Sound Masking System: The electronic equipment and emitters or speakers used to generate, distribute, and control masking sound throughout a treated area.
- 2. Loudspeaker, Speaker or Emitter: These terms are used interchangeably in this document to indicate a device in the sound masking system which emits masking sound and voice paging or music.
- 3. Masking Controller: A networkable electronic device that provides audio feeds to masking emitters or speakers. Audio may include masking noise, background music or paging or a combination thereof.
- 4. Amplifier: An electronic device required to amplify audio levels from certain masking controllers to drive masking emitters or speakers to a usable sound pressure level.
- 5. Network: An Ethernet based IP transport to facilitate communications from a PC to the sound masking system or between controllers within a sound masking system. The network must support system configuration, system control and audio transport between devices.
- 6. Network Switch: A network device when connected to masking controllers allows controllers to share control and audio communications and, when connected to a computer, facilitates setup and control of an entire system from a single connection point.
- 7. Paging Microphone/Paging Station: When connected to a masking system controller or through a network switch, sends paging messages to one or more masking zones.
- 8. Zone: One or more emitters or speakers assigned to a masking controller and operating as a group.
- 9. Spatial Uniformity: A condition where the sound pressure levels throughout a defined space do not vary significantly from a specified sound pressure level.
- 10. Spectral Uniformity: A condition where the sound pressure in each one-third octave band does not vary significantly from the specified one-third octave sound pressure level.
- 11. Temporal Uniformity: At a given position, a condition where the average sound pressure level measured over a short time interval does not differ significantly from the average sound pressure level measured over a long time interval.
- 12. SPL: Sound pressure level in dB re 0.00002 Pa (0.0002 microbar).

- 13. Target Level Variation: The variation, in decibels, of the equalized overall level or 1/3 octave level used as a target in the masking system.
- 14. Max Level Variation: The maximum variation, in decibels, of the equalized overall level or one-third octave level allowed in the masking system.
- 15. Project Manager: The architect, owner's representative, general contractor, or other project manager in charge of the construction and site.
- 16. Sound Masking System Designer: The person or team responsible for design of the sound masking system.
- 17. Manufacturer: The company that manufacturers the sound masking system products.
- 18. Contractor: The company chosen to install the sound masking system. The contractor must meet the qualifications described in Section 1.08.
- 19. Authorized Dealer: The company chosen to provide all sound masking system products described in Part 2. This dealer must be authorized by the manufacturer to provide, install, maintain, and warrant the products specified herein.

### 1.03 REFERENCES:

- 1. ASTM E1130-16 Standard Test Method for Objective Measurement of Speech Privacy in Open Offices Using Articulation Index (Updated).
- 2. ASTM E1374-18e1 Standard Guide for Open Office Acoustics and Applicable ASTM Standards (Updated).
- 3. ASTM E2638-10 Standard test method for objective measurement of the speech privacy provided by a closed room.
- 4. ASTM E1573-22 Standard Test Method for Evaluating Masking Sound in Open Offices Using "A"-Weighted and One-third Octave Band Sound Pressure Levels (Updated).
- 5. ANSI S1.6 Preferred Frequencies, Frequency Levels, and Band Numbers for Acoustical Measurements.
- 6. ANSI S1.4 Specification for Sound Level Meters. Calibrated Type 1 or Type 2.
- 7. ANSI S1.11 Specification for Octave Band and Fractional Octave Band Analog and Digital Filters.
- 8. UL 2043 Standard for Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air Handling Spaces.
- 9. ISO International Standards Organization
- 10. NEC National Electrical Code
- 11. CSA-Canadian Standards Association
- 12. CE Code Canadian Electrical Code as Published by the Canadian Standards Association referencing 24<sup>th</sup> Edition / 2018.

### 1.04 DESCRIPTION OF WORK

A. The work of this Section consists of the provision of all plans, materials, labor and equipment and the like necessary and/or required for the complete execution of the sound masking system and related work for this project, as required by the schedules, and keynotes and drawings.

#### 1.05 FUNCTIONAL REQUIREMENTS OF SYSTEMS:

- A. Distribute sound masking to all areas as indicated on the project drawings.
- B. Provide controls for zone controls to align with attached sound masking zone diagram.
- C. Locate all active electronic components to be conveniently accessible for service.
- D. Supply all sound masking system components from a single manufacturer.

#### 1.06 SYSTEM DESIGN, COMMISSIONING AND EQUIPMENT SUPPLY

- A. The Sound Masking System Designer shall be reviewed and verified in writing by the sound masking system manufacturer's design team.
- B. Sound masking system commissioning shall be performed by the sound masking system manufacturer's factory personnel or an authorized dealer's engineer trained and certified by the manufacturer.
- C. Equipment and accessories not supplied by the masking system manufacturer that are required for a functional masking system, including cabling and hardware where applicable, shall be supplied by a dealer authorized by the equipment manufacturer.
- D. Sound Masking Controller Zones: refer to drawings "Sound Masking Zones" Diagrams.

#### 1.07 QUALIFICATIONS

- A. The sound masking system shall be installed by a qualified contractor.
- B. To be considered qualified for this work, the contractor shall be experienced in the provision of low-voltage electronic systems similar in complexity to those required for this project, and shall meet the following criteria:
  - 1. The contractor is an authorized dealer for the major product components and is certified by the manufacturer to perform installation, setup, maintenance and warranty.
  - 2. The contractor has a verifiable history of successful installations of at least three projects of similar scope and size.
  - 3. The contractor has all applicable business and regulatory licenses and certifications.
  - 4. The contractor has verifiable financial capability to satisfy any bonding requirements for the project.
  - 5. When directed by the sound masking system designer, the contractor must provide the necessary personnel experienced in operating the required test measurement equipment outlined herein to configure, test, and calibrate the sound masking system.

#### 1.08 ACTION SUBMITTALS

A. Product Data: for each type of product and each type of equipment.

- B. Submittal Documents
  - 1. Unless otherwise directed by contract, the contractor shall not order equipment until the submittals have been reviewed and approved
  - 2. The contractor shall provide manufacturer's detailed technical data sheets for all major components in portable document format (PDF).
  - 3. The contractor shall provide complete floor plan and/or reflected ceiling plan drawing(s) denoting, at minimum, device locations which have been prepared by the sound masking system designer based on the sound masking system manufacturer guidelines.

#### 1.09 QUALITY ASSURANCE

- A. Required Permits: The installing contractor or project manager shall obtain all necessary permits for installation work.
- B. Project Management: The contractor shall assign a qualified person to manage the installation and maintain the same person in charge of work throughout installation.
- C. Contract Documents: The contractor shall maintain a complete set of system drawings and specifications on the job site.
- D. All equipment, cabling, accessories and associated hardware to be installed in accordance with the manufacturer's written instructions and according to standards of good engineering practice and other conditions as specified by the project manager.
- E. Workmanship shall be of professional quality utilizing best commercial practices, and shall be accomplished by qualified personnel.

### 1.10 JOB CONDITIONS

- A. Refer to and adhere to Division 02 of this Article.
- B. Sequencing and Scheduling:
  - 1. Coordinate work with the project manager and other trades to facilitate construction and prevent conflicts.
  - 2. Afford other trades reasonable opportunity for installation of work and for the storage of materials.
  - 3. Staff the job to keep pace with the other trades. The project manager, at their discretion, may require an increase in the sound masking contractor's staff or require overtime work from the sound masking contractor without additional expenses to the Owner.
  - 4. Abide by the decision of the project manager in case of conflict or interference by other trades.
  - 5. Remove all refuse from the job site daily or per project requirements to the satisfaction of the project manager and owner.
- C. Provide insurance on the work of this specialty trade if specified in Section 00 81 00.

#### 1.11 INSPECTION:

A. Notify the Project Manager of any defects in work by other trades affecting system installation, operation, or performance.

#### 1.12 WARRANTY:

- A. Warrant all equipment to be free of faulty workmanship and defects for a minimum period of five years from date of final acceptance.
- B. Warrant the installation of all equipment, cabling, and labor for an initial period of one year from the date of final acceptance unless a longer term is specified elsewhere.
- C. Provide owner requested services, including telephone support, at no charge during the duration of the initial one-year warranty period.
- D. Provide two semi-annual visits to the site for routine adjustment and maintenance of all specified and installed systems during the initial warranty period and include a preliminary schedule for the semi-annual visits.

#### 1.13 SERVICE CONTRACT:

- A. Provide an optional annual service and maintenance contract to commence after the oneyear warranty period has expired.
- B. Include two semi-annual visits to the site for routine adjustment and maintenance of all specified and installed systems.

#### 1.14 TRAINING:

- A. Provide sufficient training to personnel selected by the Owner on operation and basic maintenance of all systems, software, and equipment. Explain operation of control systems, set-up and operation of individual pieces of equipment, and functions of overall systems.
- B. Provide manufacturer's operation manuals for all products used in the system.
- C. Provide an overall system operation manual for use by the owner's maintenance personnel.

#### PART 2 - PRODUCTS

#### 2.01 MANUFACTURER

- A. The basis of design is Cambridge Sound Management QtPro Active Emitter Direct Field Sound Masking System by Biamp.
- B. Alternate manufacturers shall be considered as the basis of design only when they meet the same form, function and performance requirements and are accompanied by the

appropriate supporting documentation. It is required that this system tie in / connect into the existing Cambridge Sound Management system on an adjacent building, Thompson Library; an alternate manufacturer must be compatible with this system and be able to connect for seamless controls and operation.

#### 2.02 GENERAL

- A. Product requirements shall include all masking, signal generation, signal processing, amplification, and emitters or speakers with associated wiring, software, and controls for a turn key system.
- B. All sound masking system head-end equipment to be located on rack in IT room. No wall mounted-components are allowed.
- C. Only complete, integrated sound masking systems procured from a single manufacturer shall be acceptable.
- D. The sound masking system shall be comprised of logical zones capable of configuration and naming by the sound masking contractor. More than one physical output, including those from multiple control processors may be configured and assigned as a single zone. Each output within the zone may be controlled independently as to masking spectrum and level.
- E. The sound masking system shall be capable of multiple zones as depicted in the "SM-1.1 First and SM-2.1 Second Floor Sound Masking Zones" Diagrams in order to adjust for unique architectural spaces and facility uses.
- F. The sound masking system shall be capable of automatically scheduling system parameter adjustments, including initial acclimatization, on a per zone basis.
- G. Means of control for the sound masking system shall be facilitated through any combination of front panel hardware interface, manufacturer configuration software, and/or a web browser-based software interface.
- H. The sound masking system shall generate, amplify, and distribute a minimum of four noncorrelated sound masking signals on adjacent emitters or speakers when their spacing is 12' (3.65m) or less. In this situation, adjacent emitter or speaker devices shall not reproduce coherent sound masking signals.
- I. The sound masking system shall be capable of accepting at minimum two external analog microphone or line level audio sources from ancillary audio equipment with control on a per zone basis. There are two microphone locations in the project (one in each breakroom, one in copy / breakroom 230 and one in breakroom 127); system must be able to work with both locations.
- J. The sound masking system zones shall be determined by the functional requirements of each area(s) with separate independent level control for each zone as indicated by the project documents.

K. A new zone with separate level control shall be required in instances where a change in emitter or speaker mounting or ceiling height causes a greater than 0.5dB increase or drop in level or where emitter or speaker density changes from one area to another. This usually translates to a varying device level height of about 6-12" (152mm) in a typical ceiling environment. Refer to reflected ceiling plans for ceiling heights.

#### 2.03 CONNECTIONS TO EXISTING SYSTEM

A. CCU has an existing system by Biamp in the adjacent building, Thompson Library; integration between these two buildings is required.

#### 2.04 PA SYSTEM / LOUDSPEAKERS

- A. Direct Field loudspeakers to be mounted for equal sound distribution throughout all zones on the referenced sound masking system zones diagram.
- B. Space equally as recommended in writing by the manufacturer based on project conditions and ceiling heights.
- C. Power for active loudspeakers must be combined with masking and audio input signal in a single, multi-conductor, low-voltage cable meeting current code requirements.
- D. Active Emitters are required for the project, basis of design Biamp QT Active Emitter and required accessories for turn key function. Coordinate finish requirements with architect at each ceiling location. White finish required in white ceilings. Custom silver or black finish required in wood ceilings.

#### 2.05 CONTROL PROCESSOR

#### A. General Specifications:

- 1. The masking sound controller shall be DSP based.
- 2. The masking sound controller shall provide multi-zone processing that shall facilitate adjustment of the masking level on a per zone basis in 0.5 dB increments.
- 3. The masking sound controller shall provide per zone scheduling function via internal clock source and/or network NTP server, which is capable of adjusting the masking signal levels. Scheduling shall, at a minimum, adjust for separate weekday and weekend level settings.
- 4. The masking sound controller shall provide an automatic, incremental level adjustment feature, allowing a gradual, one-time change of masking levels to commence upon completion of system commissioning, acclimating occupants to a newly sound masked environment (initial acclimatization).
- 5. The masking sound controller shall be separately capable of one-third octave equalization adjustment of the sound masking spectrum for each output as defined in Table 1 PART 3 of this document.
- 6. The masking sound controller shall have two configurable network ports. A single port configuration shall simultaneously support communications, control and audio, either AVB or Dante<sup>©</sup> (if applicable) with the second port being unused. A dual port configuration shall support audio on one network port and communications

and control on the second network port. Separate MAC addresses shall be available for control, AVB and Dante<sup>©</sup> in either port configuration.

- 7. The masking sound controller shall have at least two mic/line level analog audio source inputs usable for paging or background music with phantom power available for microphones. The audio source inputs shall be routable to other controllers over the audio network. A separate one-octave band equalizer, independent from the sound masking equalizer, shall be provided for adjustment of each audio source separate from the masking equalization.
- 8. The masking sound controller shall accept six external audio channels via an eight channel audio network transport usable for background music or paging. The audio transport shall be based on industry standard 802.1X protocols. Dante<sup>©</sup> may be used as an acceptable alternate protocol for controllers that support Dante<sup>©</sup>. Routing of one or more audio channels to specific masking zones shall be configured via the controller software.
- 9. The masking sound controller shall have the capability to mute or otherwise disable the sound masking signal and any other audio signals using a dry contact closure from a third-party source such as a fire alarm control panel (FACP). In a multiple processor system, a single contact closure at one processor will mute audio at all other processors when network communication exists.
- 10. Means of control for the masking controller shall be facilitated through any combination of front panel hardware interface, manufacturer configuration software, and/or a web browser-based software interface.
- 11. Third party supervision and control of the masking system shall be facilitated via the industry standard RESTful API syntax. This feature shall be protected from unauthorized access via multi-role security credentials.
- 12. The masking controller shall be networkable over standard Ethernet with dual network ports and shall support a minimum of (90) controllers on a single network.
- 13. The masking sound controller shall be capable of TCP/IP network connectivity via DHCP or Static IP address.
- 14. The masking sound controller shall support 802.1X port authentication for network security.
- 15. The masking sound controller shall support certificates. Users may select a Root or Client certificate based on the security requirements of the organization.
- 16. The masking sound controller shall support multirole user authentication passwords.
- 17. The masking sound controller shall support fault reporting of trouble conditions.
- 18. The masking sound controller shall feature a nonvolatile memory, capable of storing all system settings in the case of power disconnect.
- 19. The masking controller shall be CE marked, UL listed, and RoHS compliant.
- 20. The masking controller shall be TAA compliant and GSA eligible
- 21. The masking controller shall be covered by a manufacturer five-year warranty.
- B. Additional Specifications High Impedance Non-70V Direct Field Solutions
  - 1. The masking sound controller shall provide a minimum of four (4) non-correlated masking signal outputs per zone.
  - 2. For passive direct field emitter solutions, the masking controller shall support a maximum of (60) emitters on each of (2) cable runs for each masking zone with a

maximum cumulative cable distance of 1000' (305m). Where this distance is exceeded, some emitters must be broken off into a separate cable run on that zone.

- 3. For active direct field emitter solutions, the masking controller shall support a maximum of (50) emitters on each of (2) cable runs. Each cable run shall be further divided by a power insertion device that injects DC power in each emitter line and has two outputs to power up to ½ the number of emitters allowed in a cable run (25). The maximum cumulative cable distance from the power inserter to the last emitter in each of the two legs of the cable run shall be 400' (122m). Where this distance is exceeded, some emitters must be broken off into a separate cable run on that zone.
- 4. The masking sound controller shall provide a factory default sound masking spectrum as defined in Table 1 Part 3 of this specification.
- 5. The masking sound controller shall include factory set equalization for each speaker output, with no in-field speaker equalization normally necessary.
- 6. The masking sound controller shall include a UL/CUL/CE -listed 120-240VAC 50/60Hz power supply.
- 7. A wall mount bracket shall be included with the masking controller.
- C. Additional Specifications Low Impedance Direct Field Solution
  - 1. The masking sound controller shall provide a minimum of (8) non-correlated masking signal outputs per controller. Each output shall be rated at  $4\Omega$  and shall be designed to power (1) direct field masking speaker.
  - 2. The masking controller shall be rated for UL2043 and be designed for installation within a plenum ceiling space.
  - 3. The masking controller shall be powered via standard PoE+ power injector or network switch.
  - 4. The masking controller shall support a maximum of (8) speakers per controller.
  - 5. The masking sound controller shall provide a factory default sound masking spectrum as defined in Table 1 Part 3 of this specification.
  - 6. The masking sound controller shall include factory-set equalization for each speaker zone, with no in-field speaker equalization normally necessary.
  - 7. A ceiling grid mounting bracket shall be included with the masking controller.
- D. Additional Specifications 70 Volt Direct Field Solution
  - 1. The masking sound controller shall provide a minimum of (8) non-correlated masking signal outputs per controller.
  - 2. The masking controller shall support a maximum of (8) masking zones per controller.
  - 3. Each masking zone output shall be analog line level designed to drive a 70-volt amplifier. The number of speakers supported by a single controller shall be determined by the capabilities of the 70-volt amplifier(s) that are chosen.
  - 4. The masking sound controller shall include a UL/CUL/CE -listed 120-240VAC 50/60Hz power supply.
  - 5. A rack-mount bracket shall be included with the masking controller.

#### 2.06 EMITTER AND SPEAKER TYPES

- A. 1.25" (32mm) active emitter, direct field, daisy chainable, in-ceiling or surface mount supporting masking, paging and background music.
  - 1. The emitter shall be designed for direct field operation, radiating directly into the occupied space.
  - 2. The emitter driver shall be a nominal 1.25" (32mm) diameter with an overall housing diameter of 3.25" (83mm).
  - 3. The emitter shall be purpose built to interface with its associated controller and shall not be used with any other controlling device.
  - 4. The nominal frequency response of the emitter shall be 105Hz to 12kHz.
  - 5. The nominal dispersion of the emitter shall be at least 170° below 4.2kHz.
  - 6. The emitter housing shall be capable of mounting directly into acoustic ceiling tile materials, surface mounted, pendant mounted, structural beam mounted, or hard surface ceiling mounted utilizing optional manufacturer supplied accessories. Provide seismic rated mounting where required by jurisdiction.
  - 7. The emitters shall be spaced evenly between 8' (2.45m) to 12' (3.65m) as recommended by the product manufacturer based on site conditions and ceiling heights and below finished ceiling obstructions to meet the performance requirements stated in Part 3 of this specification for direct field 1.25" (32mm) emitter installations.
  - 8. The emitter shall be capable of producing minimum sound pressure levels and frequency spectrum as required in Part 3 of this specification for 1.25" (32mm) emitters and as measured at an above finished floor height of 4' (1.2 meters) regardless of ceiling type, ceiling height, or presence of obstructions.
  - 9. The emitter shall include DIP switches to provide 1.5dB decrements of level for up to 4.5dB of level reduction for easy micro-zoning.
  - 10. The emitter shall include internal circuiting to support the routing of (4) noncorrelated masking channels so that adjacent emitters do not emit the same noise source, minimizing phase effects between emitters.
  - 11. The emitter and all mounting accessories shall be UL 2043 compliant.
  - 12. The emitter shall require a single, multi-conductor, low-voltage cable meeting NEC Class 2 requirements for low-voltage distribution. The cabling shall be rated for use in plenum spaces.
  - 13. The emitter shall be available in white or black finish. The emitter is not paintable.
  - 14. The emitter shall include a manufacturer supported five-year warranty.

#### 2.07 NETWORK SWITCH

- 1. The network switch shall utilize a managed architecture.
- 2. The network switch shall support Layer 2 and Layer 3 switching.
- 3. The network switch shall include an active AVB license.
- 4. The network switch shall handle control, AVB and Dante<sup>©</sup> protocols within the same switch.
- The network switch shall have a minimum of (8) 10/100/1000 PoE+ enabled ports,
   (2) non-PoE 10/100/1000 ports and (2) SFP+ 1G/10G ports. All ports shall be auto sensing.

- 6. The network switch shall have a PoE power budget to support a minimum of (8) PoE+ devices simultaneously on a single switch.
- 7. The network switch shall have a switching fabric of 60Gbps or greater.
- 8. The network switch shall support Link Aggregation Groups to allow multiple switches to act as a single link.
- 9. The network switch shall have a dedicated web-based GUI interface to support sound masking installations.
- 10. The network switch shall have a selectable fan mode to minimize fan noise based on ambient temperature and power requirements.
- 11. The network switch shall be rack mountable.
- 12. The network switch shall be TAA compliant.
- 13. The network switch shall have a manufacturer lifetime warranty.

#### 2.08 70 VOLT AMPLIFIERS

- 1. 70-Volt power amplifiers shall be chosen to support the masking system.
- 2. Individual amplifier channels shall be required for each zone where masking equalization needs adjustment due to ceiling material variations or structural variations above or below the ceiling.
- 3. Unless specifically stated in the amplifier manufacturer specifications for masking systems, each amplifier channel shall not be loaded to more than 42% of their rated RMS power.
- 4. Level controls shall be located on the back of the amplifier. No level controls shall be allowed on the front of the amplifier.
- 5. The input impedance shall be  $8k\Omega$  or greater per channel.
- 6. The input sensitivity shall be nominal +4dBu (1.23 Vrms).
- 7. The maximum input level per channel shall be +24dBu.
- 8. The THD+N (1kHz, 1dB below clip) shall be <0.008 percent.
- 9. Channel separation at 1kHz shall be >75dB.
- 10. The input gain for 70-volt operation shall be 35.2dB.
- 11. Power output per channel shall be at least 75-watts, all channels driven.
- 12. The amplifier shall include a built-in limiter for each output.
- 13. The amplifier shall include a switchable high pass filter rated at 70Hz, 12dB/octave for each channel.
- 14. The amplifier shall include front panel LEDs to indicate:
  - a. Temperature status
  - b. Limiter status
  - c. Signal status
  - d. Power status
- 15. The contractor shall provide the necessary quantity of amplifiers/amplifier-channels to correspond with the project zoning/sound-masking-generator requirements.
- 16. The power amplifier shall be ETL listed to conform to UL62368-1 and CSA C22.2 No. 62368-1.
- 17. The amplifier shall include a manufacturer-supported five-year warranty.

#### 2.09 SOFTWARE AND CONTROL

- A. The sound masking system shall be capable of software control via a TCP/IP local area network connection to the Owner's local area network (LAN Infrastructure). Communication shall be via industry standard Ethernet protocols. No communication via serial or proprietary bus architectures shall be acceptable in this standard.
- B. The integrator shall coordinate connection to local area network with Owner's network administrator to include IP Addressing, MAC address(s), switch port assignments, 802.1X and certificate configuration and multirole user authentication passwords.
- C. The software interface shall consist of one or more of the following types:
  - 1. Client Based Configuration/Control software utilizing Windows 10 or higher.
  - 2. Internal web server using browser client.
  - 3. Mobile
- D. Software control of the sound masking system shall include password-protected adjustment and configuration of the following minimum features:
  - 1. Ability to import multiple floor plans to facilitate control of masking zones.
  - 2. Choice of masking controller(s) in the system. The system may include multiple controller types.
  - 3. Choice of emitters or speakers connected to each controller.
  - 4. Pre-optimization of emitter or speaker equalization when applicable for direct field systems.
  - 5. Muting/unmuting per zone.
  - 6. Sound masking level control on a per zone basis.
  - 7. Choice of audio distribution to controller(s) via 802.1X or Dante<sup>®</sup>.
  - 8. Routing of up to (8) audio sources via a network connection to one or more zones.
  - 9. Equalization adjustment on a per output basis.
  - 10. Emergency mute and push to talk for paging.
  - 11. Zone naming on a per output basis.
  - 12. Time of day scheduling on a per zone basis.
  - 13. Network / clock management.
  - 14. Audio routing of external network audio sources.
  - 15. Error notification / monitoring.
- E. The hardware interface shall be capable of basic level adjustment on a per output basis using the front panel menu screen that allows, at minimum, operation of both sound masking and audio input levels.
  - 1. Touch screen panel control located in each breakroom, one per floor with control presets and basic zone settings
  - 2. Interface that allows operation of both sound masking and audio input levels per zone.
- F. A third-party API shall be published by the sound masking product manufacturer using the RESTful API syntax to allow monitoring of the masking system by building wide / room control system providers.

#### 2.10 PERIPEHRALS

- A. Paging microphone to be used only with masking systems designed to support convenience paging.
  - 1. A balanced, low impedance paging microphone shall be connected to an audio input in the masking controller. 48V phantom power shall be provided by the controller to power the microphone if necessary.
  - 2. A contact closure shall be accepted by the masking controller to permit the audio from the paging microphone to pass to the page zone(s) as configured from the controller setup software.
  - 3. The controller shall communicate with other masking system controllers on the network to allow the page audio to be routed to page zones on those masking controllers as configured from the masking system controller setup software.
- B. Paging stations to be used only with masking systems designed to support convenience paging.
  - 1. The paging station shall be network based utilizing standard 802.1X or Dante<sup>©</sup> protocols.
  - 2. The paging station shall be configured as a four- or ten-button keypad version with either a nominal 13.3" (338mm) gooseneck microphone or push-to-talk handheld microphone.
  - 3. A multi-line LCD screen shall have language support for nine languages and shall indicate the status of the paging station and provide feedback for:
    - a. Unlocking the paging station.
    - b. Selecting and executing a page code.
    - c. Recording messages.
    - d. Message playback progress.
    - e. Status of a live paging microphone.
  - 4. A security PIN shall be configurable at each page station to lock out unauthorized users.
  - 5. The paging station shall have a push-to-talk button with status indication and shall be latchable to support hands-free or long pages.
  - 6. The paging station shall include DSP to optimize audio playback for the page.
  - 7. Paging audio shall be blocked from the network until a page is being made for enhanced privacy.
  - 8. The masking system shall be able to support up to 16 paging stations on the same network.
  - 9. Each page station shall have the ability to be assigned a priority paging level via software.
  - 10. The paging station shall be capable of supporting up to (32) page zones. Each page zone shall be comprised of one or more masking zones.
  - 11. Each page station shall have the capability to record, store and play back up to (10) messages. Message length can be variable, with a pool of 50 minutes of record time available. Recordings shall be made at the paging station or downloaded to the paging station through the network via a computer. Recordings may be locked to protect from accidental erasure.

- 12. A built-in event scheduler shall allow automated playback of any recorded message.
- 13. The paging station shall include default preannounce tones and shall also support customized preannounce tones.
- 14. The paging station shall support either desktop or wall mounting.
- 15. The ten-button paging station shall support (999) page codes.
- 16. The paging station shall be configured via the masking system controller software.
- 17. The paging station shall be NRTL listed to UL 62638-1, CSA C22.2 #62368-1, CE marked and shall be RoHS compliant.
- 18. The paging station shall be TAA compliant.
- 19. The paging station shall include the manufacturer's five-year warranty.

### 2.11 CABLE ASSEMBLIES

- A. All cable assemblies shall consist of the proper number of conductors, wire gauge, and type, as approved by the system manufacturer based on the system design.
  - 1. Cabling for 1.25" (32mm) diameter emitters shall be rated either Category 3, Category 5e or Category 6. Cables shall be terminated to TIA568A or TIA568B standards as a "straight-thru" cable.
  - 2. Cabling for 3" (76mm) diameter or larger speakers shall be a jacketed UTP stranded 18 to 16 AWG cable.
  - 3. Cabling for 70V speaker systems shall be a jacketed UTP stranded 18 to 16 AWG cable.
  - 4. Cabling for emitter system power supplies shall be a jacketed UTP stranded 14 AWG cable.
  - 5. Ethernet cabling shall be UTP Category 5e, Category 6, or Category 7 rated. Cables shall be terminated to TIA568A or TIA568B standards. Each Ethernet cable shall be verified by the Installing Contractor to 10/100 MB/sec standards.
  - 6. Line Level analog audio cabling shall be a jacketed 2-conductor 22 AWG stranded, twisted pair shielded cable designed for analog audio signals.
- B. Cabling flammability rating shall meet the installation conditions as required by NFPA/NEC/CSA or local codes/ jurisdiction as follows;
  - 1. Type CM General Purpose for Commercial Installation. Meets UL-1581 requirements for smoke and flammability testing.
  - 2. Type CMR/FT4 Commercial Installation for vertical risers. Meets UL-1666 requirements for smoke and flammability testing.
  - 3. Type CMP/FT6 Commercial Installation for plenum airspaces. Meets UL-910 requirements for smoke and flammability testing.
- C. Terminations shall be completed utilizing the appropriate connector type, method, and tooling as recommended by the product manufacturer.
- D. All cabling shall be plenum rated when located in a plenum space.

#### 2.12 LABELS

- A. Except where otherwise specified, label each item of control equipment as shown on drawings.
- B. Identify all wires and cables at every connection point to controllers with reference number keyed to the as-built wiring diagrams.
- C. Room numbers appear on the contract documents for reference only. All labels shall reflect the Owner's final room designations.
- D. Cable Markers:
  - 1. High-grade PVC clip-on or permanent-type cable markers with permanent markings, or printed vinyl tape protected by clear shrink tubing or adhesive wrap shall be used for labelling cabling.

#### 2.13 SAFETY LISTINGS

- A. General
  - 1. Products and system shall comply with all applicable local, regional and national safety codes.
- B. Electrical Safety
  - 1. All electronics shall be UL Listed or listed by an equivalent body such as Intertek ETL. Outside the USA, the electronics shall be certified by an equivalent certification body to meet local and/or national safety standards.
- C. Seismic Safety
  - 1. A ceiling device seismic support system shall be installed in a manner certified by the manufacturer. Alternate seismic support system(s) must be approved by authorities having jurisdiction and based on local code requirements.
- D. Fire Safety
  - 1. The masking control processor shall have the capability to mute or otherwise disable the sound masking signal and any line-level audio input(s) of the entire sound masking system using a dry contact closure from a third party source such as a fire alarm control panel to one of the masking controllers.
  - 2. The sound masking system shall not be a primary means of emergency voice evacuation or ECS. For this reason, UL2572 compliance is not required under this specification.

#### 2.14 ENVIRONMENTAL CERTIFICATION

- A. Sound masking system shall be Green Spec Listed.
- B. Sound masking system shall be Green Globes compliant when project requirements dictate.

#### PART 3 - EXECUTION

#### 3.01 EXAMINATION:

- A. Prior to installation, verify the site is suitable for system installation.
- B. Verify all locations where system components are to be installed are free of conflicts with other trades prior to installation.
- C. Verify that colors chosen (where applicable) have been coordinated with the architect, building manager, and/or building owner.
- D. Verify that site building conditions match the system design plans including ceiling finishes, wall locations, and obstructions. Immediately notify the project manager of any discrepancies prior to the commencement of work.
- E. Ensure system power requirements, network connectivity, and any other third party infrastructure requirements for the system have been provided and installed prior to installation.

#### 3.02 DELIVERY, STORAGE AND HANDLING:

- A. Protect all system components from moisture, dust and damage during shipping, storage and handling.
- B. Deliver in manufacturer's original unopened and undamaged packages with manufacturer's labels legible and intact.
- C. Inspect all system components upon receipt and upon unpacking.

#### 3.03 INSTALLATION:

- A. General
  - 1. Comply with all applicable electrical and other safety codes.
  - 2. Install the sound masking system in compliance with manufacturer's written recommendations and published documentation.
  - 3. Utilize competent workers to install all equipment at locations shown on the drawings in strict accordance with approved shop drawings. Record any and all necessary changes to the system design in cases where different from the submittal documents and submit changes for approval prior to implementing the changes.
  - 4. Ensure that all equipment shall be firmly held in place including emitters or speakers, enclosures, amplifiers, processors, cables, etc. Fastenings and supports shall be adequate to support their loads with a safety factor of at least five unless otherwise stated.
  - 5. Ensure that all system components shall be mounted in a level and plumb fashion utilizing the dimensions indicated on the associated drawings.
  - 6. Mount user controllable devices at a location and height which allows for normal adjustment and operation.

- 7. Locate all electronics to be conveniently accessible for service.
- 8. Ensure that all equipment located in the ceiling plenum shall be UL2043 rated for air handling environments.
- B. Ceiling Mounted Masking Emitters or Speakers
  - 1. Locate masking emitter or speaker assemblies as indicated on project drawings and as required to meet the spatial uniformity requirements of this specification.
  - 2. Ensure that design approval from the sound masking manufacturer is acquired for any direct field masking emitters or speakers scheduled to be installed greater than 20 feet (6.1 M) above the finished floor prior to installation.
  - 3. Ensure that design approval from the sound masking manufacturer is acquired for any indirect field masking speakers scheduled to be installed greater than 30 feet (9.1 M) above the finished floor prior to installation.
  - 4. Ensure that the emitter or speaker coverage pattern is not obstructed by building systems or structures which may impede performance of the sound masking system.
  - 5. Ensure minimum distance between the top of an emitter or speaker and structure/obstacles is maintained to allow adequate clearance of cabling and connectors.
  - 6. Ensure that the masking emitters and speakers are installed using manufacturer supplied accessories when mounted in other substrates, ceiling types and/or building structures. Sound masking emitter and speaker assemblies shall be mounted to structure in an approved method as required by local codes and jurisdiction, and indicated by the project submittals.
  - 7. Follow manufacturer recommendations for individual emitter or speaker level controls/taps. Adjust as necessary.
- C. Cabling
  - 1. Install all cabling in a professional, workmanlike manner with adequate service loops where applicable. Cabling shall be dressed in a neat and consistent fashion using appropriate methods and materials.
  - 2. Test all field fabricated and manufacturer supplied cables, before installation, for open circuits, shorts, crossed pairs, reversed pairs, split pairs and proper pin-out.
  - 3. Refer to manufacturer recommendations as to maximum cabling distances and types to support control processor unit(s), controls, and emitters or speakers. Manufacturer's cable distance limitations and quantity of devices per cable run shall never exceed manufacturer guidelines.
  - 4. Coordinate cabling pathways to prevent conflict with other building systems. Care shall be taken to minimize and eliminate all RFI and EMI interference sources.
  - 5. Maintain appropriate separation between dissimilar signal types, voltages, and electrical devices.
  - 6. Install and support cabling in a manner and frequency utilizing approved methods and materials as required by the local AHJ (authority having jurisdiction).
  - 7. Install cabling in metallic rigid or flex conduit only as indicated on the associated project drawings/specification and using manufacturer approved accessories.
  - 8. Support all cabling from structure. Cabling shall not contact ceiling tiles or inhibit their removal for access to the plenum.

9. Consolidate infrastructure cross over points over the wood ceiling as indicated on the electrical drawings.

#### 3.04 SITE QUALITY CONTROL:

- A. Ensure that emitter and/or speaker spacing is correct, consistent, and follows design guidelines set forth by the product manufacturer.
- B. Securely terminate all cables.

#### 3.05 SYSTEM STARTUP:

- A. Coordinate with building network administrator to provide an Ethernet connection to the building LAN where required.
- B. Perform the entire product manufacturer's recommended testing and startup procedure as outlined in the manufacturer's product manual(s).
- C. Ensure functional operation of all ancillary devices to include front panel controls, audio inputs, contact closures, wall controls, software control and third party controllers. Test each setting and confirm expected results from actions taken. Correct all deficiencies in operation.
- D. Perform system startup at a time when each Zone / space is completely vacant and free of any noise contamination.

#### 3.06 SYSTEM TESTS AND ADJUSTMENTS

- A. Qualifications of Testing Party
  - 1. Testing, calibration and setup shall be performed by a qualified manufacturer's employee or an authorized dealer or consultant who has been trained by the manufacturer.
- B. Prior to test and adjustment: Ensure the site conditions are suitable for adjustment of the sound masking system. Adjustment can only be made when the following site conditions exist:
  - 1. All ceiling assemblies are currently installed and completed.
  - 2. All interior furnishings are assembled and in place.
  - 3. Mechanical systems have been previously optimized to final operational conditions and are active in areas served by sound masking signals.
  - 4. No occupants are present at the time of adjustment.
  - 5. External noise sources (e.g. construction activities) are not present during testing.
  - 6. Final testing shall be scheduled at least 30 days in advance of owner occupancy.
    - a. Notify the party listed under Section 1.07, Paragraph B of this document of the testing and adjustment schedule.
- C. Initial test and adjustments: Perform and record results of the following tests:

- 1. Masking emitter/speaker operation: Near field output of each masking emitter or speaker shall match the zone average within +/- 2.0 dB. Listen directly below each installed emitter or speaker to confirm it is operating. For any emitter or speakers found to be inoperative, or possibly operating at an incorrect level, use a calibrated sound level meter set to A-weighting and slow response to check the output. Place the microphone so as to contact each grille and measure the variation between a minimum of two adjacent emitters or speakers of the same zone.
- 2. Replace any defective emitters or speakers or cabling, or otherwise correct cause for any emitters or speakers found to be operating outside the range stated.
- 3. Buzzes, Rattles, and Distortion: With system operating at maximum level, listen for any buzzes, rattles, and objectionable distortion in all areas covered. Correct all causes of these defects.
- D. Final test and adjustment: Perform and record the results of the following tests:
  - 1. Control settings: Adjust all masking spectrum levels and audio level controls for initial operation using manufacturer recommended procedures. Document setting for each user control.
  - 2. Adjustment of sound masking Levels: With the masking system active, measure the A-weighted sound pressure level of each Zone independently. Use an ANSI S1.4 approved and calibrated Type 1 or 2 sound level meter and/or calibrated real time acoustic analyzer with one-third octave filters per ANSI S1.11. Perform all SPL measurements at a typical seated height of 4ft AFF (1.2 meters). Adjust the sound masking frequency spectrum in each zone to correspond with the A weighted average level and frequency levels (non-weighted) shown in Table 1. Document at minimum, one measurement per 1000sq ft. in open offices, one measurement in 50% of private offices, and one measurement in 50% of all other spaces where sound masking is present. All documented measurements shall meet the maximum level variation column criteria of Table 1. Correct any sound masking system deficiencies such as emitter or speaker placement or speaker tap settings to meet this performance criteria.
  - 3. When integrating the sound masking system in a space previously occupied by workers, configure the incremental level adjustment feature of the control processor. Following the initial adjustment of sound masking levels, adjust each Zone's initial sound masking level to a level 1.5 dBA above the average ambient noise level of the space. Engage the incremental level adjustment feature to automatically increase the sound masking level until reaching the "Average A-Weighted Sound Pressure Level" shown in Table 1 for each type of space listed. Use a minimum time frame of five days for the incremental level adjustment to reach the final target levels.
  - 4. Provide a final testing report which states that the performance requirements of the sound masking system have been met.
- E. Automatic real-time masking level adjustment: Automatic adjustment of masking level based on ambient noise conditions shall not be permitted under this specification. Only scheduled adjustment of sound masking levels may occur at times when each zone is vacant of occupants.

Frequency	Open Office	Private	Corridor /	Max Level Variation -	Max Level
requercy	openomee	Office	Conference	Direct Field &	Variation -
		onice	Room	Target Level Variation -	Indirect Field
			Koom	Indirect Field	maneetricia
*125 Hz	48 dB	43 dB	46 dB	+/- 3dB	+/- 5 dB
*160 Hz	47 dB	42 dB	45 dB	+/- 3dB	+/- 4 dB
200 Hz	45 dB	40 dB	43 dB	+/- 3dB	+/- 3 dB
250 Hz	44 dB	39 dB	42 dB	+/- 2dB	+/- 3 dB
315 Hz	42 dB	37 dB	40 dB	+/- 1dB	+/- 3dB
400 Hz	41 dB	36 dB	39 dB	+/- 1dB	+/- 3dB
500 Hz	40 dB	35 dB	38 dB	+/- 1dB	+/- 2.5dB
630 Hz	39 dB	34 dB	37 dB	+/- 1dB	+/- 2.5dB
800 Hz	38 dB	33 dB	36 dB	+/- 1dB	+/- 2.5dB
1000 Hz	37 dB	32 dB	35 dB	+/- 1dB	+/- 2.5dB
1250 Hz	36 dB	31 dB	34 dB	+/- 1dB	+/- 2.5dB
1600 Hz	34 dB	29 dB	32 dB	+/- 1dB	+/- 2.5dB
**2000 Hz	32 dB	27 dB	30 dB	+/- 1dB	+/- 2dB
**2500 Hz	30 dB	25 dB	28 dB	+/- 1dB	+/- 2dB
**3150 Hz	27 dB	22 dB	25 dB	+/- 1dB	+/- 2dB
**4000 Hz	24 dB	19 dB	21 dB	+/- 1dB	+/- 2dB
**5000 Hz	19 dB	14 dB	17 dB	+/- 1dB	+/- 2dB
*6300 Hz	14 dB	9 dB	12 dB	+/- 1dB	Not
					Applicable
*8000 Hz	11 dB	6 dB	9 dB	+/- 1dB	Not
					Applicable
Average "A"					
Weighted					
Sound	47 dBA	42 dBA	45 dBA	+/- 2 dBA	+/- 3 dBA
Pressure Level					
(dB A)					

#### TABLE 1 FOR ALL SYSTEM TYPES

\* Denotes additional frequency bands to be used when commissioning systems designed for background music and paging applications.

\*\* For effective speech privacy, special attention must be especially given to these frequency bands to ensure evenness of coverage. If the variation is greater than what is specified above, it is likely that the emitters or speakers are spaced too far apart to meet the above requirements.

[Specifier's Note: The Proof of Performance Section below is optional and can be used in cases where Section 1.07 Paragraph B specifies commissioning by a qualified acoustic consultant. The following section should not be used for dealer / manufacturer commissioned systems.]

- G. Proof of performance testing by a qualified Acoustic Consultant: The contractor shall employ the services of a qualified acoustic consultant at no additional cost to the owner documenting to the Owner's Representative in written form that the system is fully operable and is installed in compliance with the terms of the performance specifications hereunder.
  - 1. Test the system to demonstrate that the design goal of Privacy Index (PI) = 80% (Normal Privacy) or better is met between representative workstations separated by partitions of 66" or greater height. For this test, select adjacent workstation pairs without direct line of sight or significant sound reflecting ceiling or wall elements between, and with a ceiling material rated at NRC of 0.85 or higher. Tests shall be in accordance with ASTM Standard E1130 except that the octave band calculation method of ANSI Standard S3.5 may be used. Lower levels of PI are acceptable only if the ceiling or partition requirements described herein before are not met. Document the results of this test.
  - 2. Test the system in each open plan area zone served to demonstrate that the design goal for spatial uniformity is met. Tests shall be carried out per ASTM Standard E1573 as measured in the 2,000 Hz octave band. At each location, the average sound pressure levels shall be measured over an interval of at least four seconds at four positions at 90° intervals around a circle of 0.3 m (1 ft.) radius centered on the location. The arithmetic mean sound pressure level shall be calculated from the four measured values. For at least 75% of the test locations, the arithmetic mean sound pressure level in the 2,000 Hz octave band shall not vary by more than +/-1 dB from the average of the arithmetic mean sound pressure levels measured at all locations. Document the results of this test.
  - 3. Test the system to demonstrate that the Speech Privacy Class (SPC) is at least 75 (Standard Speech Privacy) between representative private (enclosed) offices served by the system. For this test, select adjacent offices with closed doors free of air gaps. Tests shall be in accordance with ASTM Standard E2638-10. Test 10% of all similar sized offices and meeting spaces utilizing the same basic construction methods. Lower levels of SPC are acceptable if the common walls between the offices are comprised of assemblies <=STC 40 and which do not extend to the deck above -or- in cases where the common wall <=STC40, does not extend to the deck, and the ceiling attenuation class of the ceiling material is less than 45 (<=CAC 45). If the SPC achieved is lower than 75 due to architectural factors, bring this to the attention of the Owner or General Contractor. Document the results of this test.
  - 4. The sound masking contractor will make all necessary modifications to the system design, integration, and/or settings, as specified by the System Designer, to achieve the performance testing goals contained herein at no additional expense to the Owner.

#### 3.07 CLEANING AND WASTE MANAGEMENT:

- A. Remove empty packaging and other material waste.
- B. Clean all debris created by installation of components.
- C. Clean system components where required.

#### 3.08 FINAL CLOSEOUT AND AS-BUILT DOCUMENTATION :

- A. Document, prepare and submit all final control processor settings, emitter or speaker zone maps, speaker tap settings, one line diagrams, operational instruction, and testing results in PDF format. Submit one digital copies to the design team, the project manager and, the Owner's representative for final review and acceptance.
- B. Indicate the location of each sound pressure level measurement, privacy index measurement, and spatial uniformity measurement referenced within the final documents on the zone map.
- C. In cases where the sound masking system utilizes configuration software for adjustment and operation, provide a copy on media with each documentation set utilizing the same software version as currently installed and operating. The contractor shall also provide all configuration files created by the configuration software on the same media.
- D. With 30-day advance notice, train Owner's designated representative on sound masking system maintenance and proper operation.
  - 1. Provide user instruction on operation.
  - 2. Discuss potential for mis-adjustment of sound masking levels and deterioration of both comfort / speech privacy performance.
  - 3. Demonstrate all software features, controls, and configuration.

#### 3.09 ATTACHMENTS

- A. System design schematic: Schematic of the system design on a floor plan showing the zoning requirements.
- B. Project drawing sheet(s): SM0-0.0, SM-0.1, SM-0.2, SM-0.3, SM-0.4, SM-0.5, SM-1.0, SM-1.1, SM-2.0, SM-2.1

### END OF SECTION

# **FINISH LEGEND**

## FLOORING

TILE CARPETING CODE: CPT1 MANUFACTURER: INTERFACE CONTACT: BETHANY WATSON 864.252.5762 **TYPE:MERCER STREET** NUMBER:105766 COLOR: METAL CIRCLE LOCATION: OFFICES CONTENT: CRADLE TO GATE WITH OPTIONS

**RESILIENT TILE FLOORING** CODE: LVT1 MANUFACTURER: ARMSTRONG FLOORING CONTACT: SARAH TAYLOR. 803.517.4598 **TYPE:NATURAL CREATION DIAMOND 10** NUMBER:NA190 SIZE: 6" X 36" COLOR: AVILA OAK MOROCCAN SAND LOCATION: GENERAL CONTENT: CRADLE TO GRAVE THICKNESS: 0.125 IN.

**RESILIENT TILE FLOORING** CODE: LVT2 MANUFACTURER: ARMSTRONG FLOORING CONTACT: SARAH TAYLOR, 803,517,4598 **TYPE:EXCHANGE DIAMOND 10** NUMBER:ST960 SIZE: 6"x36" COLOR: STATIC BAKELITE LOCATION: GENERAL CONTENT: CRADLE TO GRAVE THICKNESS: 0.1 IN. NOTE: DISSOLVES OUTWARD IN A GRADIENT PATTERN WHERE NOTED

**RESILIENT TILE FLOORING** CODE: LVT3 MANUFACTURER: ARMSTRONG FLOORING CONTACT: SARAH TAYLOR, 803.517.4598 **TYPE: EXCHANGE DIAMOND 10** NUMBER:ST904 SIZE: 6"x36" COLOR: STATIC BLUE SCREEN LOCATION: ACCENT CONTENT: CRADLE TO GRAVE THICKNESS: 0.1 IN.

**RESILIENT TILE FLOORING** CODE: LVT4 MANUFACTURER: ARMSTRONG FLOORING CONTACT: SARAH TAYLOR, 803.517.4598 TYPE:EXCHANGE DIAMOND 10 NUMBER:ST964 SIZE: 6"x36" COLOR: STATIC NIMBUS LOCATION: ACCENT CONTENT: CRADLE TO GRAVE THICKNESS: 0.1 IN.

SEALED CONCRETE CODE: SC1 **DESCRIPTION: SEALED CONCRETE** COLOR: CLEAR SEALANT FINISH: LEVEL 1: LOW SHEEN LOCATION: MECHANICAL AND ELECTRICAL ROOMS

WALK-OFF CARPET CODE: WOC MANUFACTURER: PATCRAFT CONTACT: SEAN NGUYEN 910.620.5208 TYPE:WALK FORWARD COLLECTION NUMBER: ACCESS 10533 SIZE: 24" X 24" COLOR: PASSAGE 00500 LOCATION: VESTIBULES CONTENT: CRADLE TO GRAVE

**RUBBER FLOORING** CODE: RF1 NAME: RUBBER STAIR FLOORING MANUFACTURER: MANNINGTON COMMERCIAL CONTACT: CHIP STACK, 704.506.4907 **TYPE:COLOR ANCHOR COLLECTION -**COLORSCAPE SIZE: 18 1/8" X 18 1/8" COLOR: ASH 603 FINISH: SCULPTURED TEXTURE LOCATION: EGRESS STAIRWELL A CONTENT: CRADLE TO GRAVE EDGE CONDITION: COMMERCIAL STEP NOSING 580 IN THE COLOR ROCKY 660 NOTE: PROFILE ROUND

**RESILIENT TILE FLOORING** CODE: VCT1 NAME: IMPERIAL TEXTURE STANDARD EXCELON DESCRIPTION: VINYL COMPOSITION TILE MANUFACTURER: ARMSTRONG CONTACT: SARAH TAYLOR, 803.517.4598 NUMBER:51804 SIZE: 12" X 12" COLOR: EARTHSTONE GREIGE FINISH: FACTORY FINISH CONTENT: CRADLE TO GRAVE THICKNESS: 1/8"

SOUND TRANSMISSION MAT UNDERLAYMENT CODE: STM NAME:GENIEMAT DESCRIPTION: LVT UNDERLAYMENT MANUFACTURER: PLITEQ NUMBER:RST02 LOCATION: UNDER SECOND FLOOR LVT ONLY THICKNESS: 5/64"

### **FINISH LEGEND**

### CEILINGS

ACOUSTICAL WOOD CEILING CODE: WD-1 NAME:INTEGRILLE MANUFACTURER: RULON CONTACT: NICK ALLEN 904.584.1400 SPECIES:SOLID WHITE OAK TYPE:15/16" HEAVY DUTY T-GRID SIZE: PGT 3-48-12W (3 BLADES PER FOOT AT 3" WIDE X 3/4" DEEP) FINISH: SATIN CLEAR BACKING: BLACK WOOD BACKERS 12" O.C. CONTENT: CRADLE TO GATE GRID SIZE:2' x 6' EDGE CONDITION: PLANK LONG EDGE: FLAT NOTE: CLASS A FLAME SPREAD RATING. 1" **INSULATION BOARD WITH NRC OF 0.70** DIRECTLY ABOVE CEILING TO MEET ACOUSTICAL PERFORMANCE. PAINT FLAT BLACK ACOUSTICAL PANEL CEILINGS CODE: ACT-1 NAME: HIGH NRC MANUFACTURER: ARMSTRONG CONTACT: DAWN SPEARS. 828.855.6337 MATERIAL: FIBERGLASS CLASS A **TYPE:OPTIMA LAY IN-TEGULAR** NUMBER:3250 WHITE FINISH: FINE SMOOTH LOCATION: GENERAL CONTENT: CRADLE TO GRAVE **GRID STYLE: SUPRAFINE** EDGE CONDITION:9/16" SQUARE TEGULAR TILE SIZE:24"x24"X1" NOTE:NRC >.90: ACOUSTIC AC >170 **ACOUSTICAL PANEL CEILINGS** CODE: ACT-2 DESCRIPTION: HIGH CAC MANUFACTURER: ARMSTRONG CONTACT: DAWN SPEARS, 828.855.6337 MATERIAL: MINERAL FIBER CLASS A TYPE:CALLA NUMBER:2824 WHITE SIZE: 24 X 24" FINISH: SMOOTH LOCATION: OFFICES & STUDY ROOMS CONTENT: CRADLE TO GRAVE **GRID STYLE: SUPRAFINE** EDGE CONDITION:9/16" SQUARE TEGULAR TILE SIZE:24"X24"X1" NOTE: BATT INSULATION TO ACHIEVE NRC >.80: CAC=35. ACOUSTIC AC >170 **ACOUSTICAL PANEL CEILINGS** CODE: ACT-3 **DESCRIPTION: AIRASSURE** MANUFACTURER: ARMSTRONG CONTACT: DAWN SPEARS. 828.855.6337 MATERIAL: MINERAL FIBER CLASS A **TYPE:CALLA HZ AIRASURE** NUMBER:WHITE SIZE: 24 X 24" FINISH: SMOOTH LOCATION: 2ND FLOOR CONTENT: CRADLE TO GRAVE **GRID STYLE: SUPRAFINE** EDGE CONDITION:9/16" SQUARE TEGULAR TILE SIZE:24"X24"X1" NOTE:NRC >.80; CAC=40, ACOUSTIC AC >170

# WALL BASE

**RESILIENT WALL BASE AND ACCESSORIES** CODE: RB1 **DESCRIPTION: RUBBER BASE** MANUFACTURER: JOHNSONITE SIZE: 4" HIGH, ROLLED GOODS ONLY COLOR: 469 MYSTIFY LOCATION: GENERAL CONTENT: CRADLE TO GATE THICKNESS: 1/8" NOTE:COVE BASE AT CONCRETE FLOORING

**RESILIENT WALL BASE AND ACCESSORIES** CODE: RB2 **DESCRIPTION: RUBBER BASE** MANUFACTURER: JOHNSONITE SIZE: 4" HIGH, ROLLED GOODS ONLY COLOR: 40 BLACK B LOCATION: ON WALLS LABELED AWP1 CONTENT: CRADLE TO GATE WITH OPTIONS THICKNESS: 1/8" NOTE: COVE BASE AT CONCRETE FLOORING

**RESILIENT WALL BASE AND ACCESSORIES** CODE: RB3 **DESCRIPTION: RUBBER BASE** MANUFACTURER: JOHNSONITE SIZE: 4" HIGH, ROLLED GOODS ONLY COLOR: VM5 DREAM TEAL LOCATION: ON WALLS NOTED AS P3, P4 OR AWP5 CONTENT: CRADLE TO GATE WITH OPTIONS THICKNESS: 1/8" NOTE: COVE BASE AT CONCRETE FLOORING **RESILIENT WALL BASE AND ACCESSORIES** 

CODE: RB4 **DESCRIPTION: RUBBER BASE** MANUFACTURER: JOHNSONITE SIZE: 4" HIGH, ROLLED GOODS ONLY COLOR: 49 BEIGE WB LOCATION: AT WALLS NOTED AS P2 CONTENT: CRADLE TO GATE WITH OPTIONS THICKNESS: 1/8" NOTE: COVE BASE AT CONCRETE FLOORING

SANITARY COVE BASE TILE CODE: CB1 DESCRIPTION: COVE BASE MANUFACTURER: GARDEN STATE TILE CONTACT: PAULINE HABER, 843.323.5768 MATERIAL:PORCELAIN TYPE:GSW ONDA AT3410 NUMBER: GSWBIAIW46CBM SIZE: 4X6 COLOR: WHITE ICE MATTE FINISH: MATTE LOCATION: AT RESTROOMS GYP WALLS ONLY

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# **FINISH LEGEND**

### WALL COVERING

WALL COVERINGS CODE: AWP1 MANUFACTURER: TURF CONTACT: MARY-KELLER COSTA, 704.280.6299 MATERIAL:POLYESTER FELT TYPE:REED SIZE: 12" & 24" WIDTH PANELS COLOR: 07 BLACK LOCATION: SILENT STUDY AND SPECIAL COLLECTIONS THICKNESS: 9 MM BASE:RB2 EDGE CONDITION:FLAT-FILLED TRIM STYLE:3" & 6" PROFILE PATTERN NAME:PATTERN #4 NOTE:NRC=0.92 **ACOUSTICAL WALL PANELS** CODE: AWP2 MANUFACTURER: TURF CONTACT: MARY-KELLER COSTA, 704.280.6299 MATERIAL:POLYESTER FELT TYPE:SLASH

SIZE: 1'-5" x 4 1/4" COLOR: 83 HOLLAND OATS LOCATION: MONUMENTAL STAIR SURROUND THICKNESS: 9 MM EDGE CONDITION: PROVIDE FRY REGLET **MWPT2550 ON EXPOSED EDGES** PATTERN NAME:CHEVRON NOTE:NRC= 0.25

**ACOUSTICAL WALL PANELS** CODE: AWP3 **MANUFACTURER: FILZFELT** CONTACT: LIBBY JERNIGAN. 704.574.0104 MATERIAL:WOOL FELT **TYPE:CHEVRON BLOCK** SIZE: 1'-5" x 4 1/4" COLOR: 100 WOLLWEIB LOCATION: SEE INTERIOR ELEVATIONS THICKNESS: 1/2" EDGE CONDITION: PROVIDE FRY REGLET MWPT2550 ON EXPOSED EDGES SUBSTRATE:05 ICE NOTE:NRC = 0.50

**ACOUSTICAL WALL PANELS** CODE: AWP4 **MANUFACTURER: FILZFELT** CONTACT: LIBBY JERNIGAN, 704,574,0104 MATERIAL:WOOL FELT **TYPE:CHEVRON BLOCK** SIZE: 1'-5" x 4 1/4" COLOR: 472 MINZE LOCATION: SEE INTERIOR ELEVATIONS THICKNESS: 1/2" EDGE CONDITION: PROVIDE FRY REGLET MWPT2550 ON EXPOSED EDGES NOTE:NRC = 0.50

**ACOUSTICAL WALL PANELS** CODE: AWP5 **MANUFACTURER: FILZFELT** CONTACT: LIBBY JERNIGAN, 704.574.0104 MATERIAL:WOOL FELT **TYPE:CHEVRON BLOCK** SIZE: 1'-5" x 4 1/4" COLOR: 548 TURKIS LOCATION: SEE INTERIOR ELEVATIONS THICKNESS: 1/2" BASE:RB3 EDGE CONDITION: PROVIDE FRY REGLET MWPT2550 ON EXPOSED EDGES NOTE:NRC = 0.50 **ACOUSTICAL WALL PANELS** CODE: AWP6 **MANUFACTURER: TURF** CONTACT: MARY-KELLER COSTA, 704.280.6299 MATERIAL:POLYESTER FELT TYPE:SLASH

COLOR: 01 CREAM LOCATION: SEE INTERIOR ELEVATIONS THICKNESS: 9 MM BASE:RB1 EDGE CONDITION: PROVIDE FRY REGLET MWPT2550 ON EXPOSED EDGES NOTE:NRC = 0.25

# INTERIOR ARCHITECTURAL WOODWORK

INTERIOR ARCHITECTURAL WOODWORK CODE: PL1 **DESCRIPTION: PLASTIC LAMINATE** MANUFACTURER: WILSONART CONTACT: SARAH HARRIS, 839.810.7023 NUMBER:7996 COLOR: NATURAL RECON FINISH: SOFT GRAIN FINISH LOCATION: RESTROOMS, BREAKROOMS, **ELEVATOR CAB INTERIOR** CONTENT: CRADLE TO GATE WITH OPTIONS INTERIOR ARCHITECTURAL WOODWORK

CODE: WD-3 **DESCRIPTION: WOOD STAIR** SPECIES:WHITE OAK FINISH: CLEAR PROTECTIVE LOCATION: MONUMENTAL STAIRS CUT: QUARTER SAWN NOTE: TREAD/ RISERS & BENCH; ALL WOOD TO BE SUPPLIED FROM SAME SUB AND MANUFACTURER FROM SINGLE LOT SOURCE

# **FINISH LEGEND**

<u>2</u>

**PAIN** PAINTING CODE: P1/PT1 MANUFACTURER: SHERWIN WILLIAMS COLOR: SW 7004 SNOWBOUND FINISH: EGG-SHELL LOCATION: GENERAL PAINT BASE:RB1 NOTE:LOW VOC PAINTING

CODE: P2 / PT2 MANUFACTURER: SHERWIN WILLIAMS COLOR: SW 7037 BALANCED BEIGE FINISH: EGG-SHELL BASE:RB1 NOTE:LOW VOC

PAINTING CODE: P3 / PT3 MANUFACTURER: SHERWIN WILLIAMS COLOR: SW 6471 HAZEL FINISH: EGG-SHELL LOCATION: ACCENT BASE:RB3 NOTE:LOW VOC

PAINTING CODE: P4 / PT4 MANUFACTURER: SHERWIN WILLIAMS COLOR: SW 7618 DEEP SEA DIVE FINISH: EGG-SHELL LOCATION: ACCENT BASE:RB3 NOTE:LOW VOC

PAINTING CODE: P5 / PT5 MANUFACTURER: SHERWIN WILLIAMS COLOR: SW 7016 MINDFUL GRAY FINISH: SIMI-GLOSS LOCATION: HOLLOW METAL FRAMES & DOORS NOTE:LOW VOC

### **INTERIOR STONE**

INTERIOR STONEWORK CODE: IS1 **DESCRIPTION: QUARTZ COUNTERTOP MANUFACTURER: HANSTONE** CONTACT: MARY SAGER 704.264.2808 TYPE:SPECCHIO WHITE NUMBER:CT402 FINISH: POLISHED LOCATION: RESTROOMS THICKNESS: 2CM

INTERIOR STONEWORK CODE: SS1 **DESCRIPTION: SOLID SURFACE** MANUFACTURER: CORIAN COLOR: ANTARCITICA LOCATION: STAFF AREAS CONTENT: CRADLE TO GRAVE THICKNESS: 3/4 INCH

**CERAMIC TILE** CODE: T1 **DESCRIPTION: TILE FLOORING MANUFACTURER: GARDEN STATE TILE** CONTACT: PAULINE HABER, 843.323.5768 **TYPE:REVOLUTION SAND** NUMBER:GSP1102932 SIZE: 12" x 24" COLOR: SAND FINISH: MATTE LOCATION: RESTROOMS FLOORS THICKNESS: 10 MM GROUT:LATICRETE 1/8" POLYBLEND #60 DUSTY GREY

**CERAMIC TILE** CODE: CT1 **DESCRIPTION: WALL TILE** MANUFACTURER: MARCA CORONA CONTACT: PAULINE HABER. 843.323.5768 MATERIAL:PORCELAIN **TYPE:4D WHITE DIAGONAL** NUMBER:MCT4DWHDI88 SIZE: 8" X 8" COLOR: WHITE FINISH: MATTE LOCATION: RESTROOMS WET WALLS CONTENT: CRADLE TO GRAVE THICKNESS: 8.5 MM GROUT:LATICRETE 1/8" POLYBLEND #60 DUSTY GREY NOTE:FLOOR TO CEILING TILE

CERAMIC TILE CODE: CT2 **DESCRIPTION: WALL TILE** MANUFACTURER: MARCA CORONA CONTACT: PAULINE HABER. 843.323.5768 MATERIAL:PORCELAIN **TYPE:4D DEEP BLUE DIAGONAL** NUMBER:MCT4DBLDI88 SIZE: 8" X 8" COLOR: DEEP BLUE FINISH: MATTE LOCATION: RESTROOMS WET WALLS CONTENT: CRADLE TO GRAVE THICKNESS: 8.5 MM GROUT:LATICRETE 1/8" POLYBLEND #60 DUSTY GREY NOTE: FLOOR TO CEILING TILE

# **FINISH LEGEND**

# RAILING

**RAILING. INTERIOR BALCONY** CODE: RAL-1 NAME: RAILING, INTERIOR BALCONY MANUFACTURER: CR LAURENCE CO. INC. **TYPE:LAMINATED TEMPERED PANEL** LOCATION: SECOND FLOOR SLAB OPENING

THICKNESS: AS REQUIRED FOR SPAN **BASE:L565 SERIES BASE SHOE; WHITE** EDGE CONDITION: GRS SQUARE CONNECTOR SLEEVES STYLE: GRS GLASS RAILING SYSTEM NOTE: GRS CRISP CORNER 11-GAUGE CAP **RAILING TOPPER. CRL 1 1/2" STAINLESS STEEL** SQUARE CAP

**RAILING. INTERIOR MONUMENTAL STAIR** CODE: RAL-2 MANUFACTURER: CR LAURENCE CO., INC. TYPE:TEMPERED LAMINATED GLASS PANEL NUMBER:HR2EGBS COLOR: SHOE AND HANDRAILS TO BE POWDER COATED WHITE TO MATCH PT1, HANDRAIL MOUNT AND GUARDRAIL CAP TO BE BRUSHED STAINLESS STEEL FINISH: HANDRAIL MOUNT TO BE STAINLESS STEEL ANODIZED LOCATION: MONUMENTAL STAIR CONSTRUCTION: CRL MALIBU SERIES GLASS MOUNTED HANDRAIL BRACKETS, 1 1/2" **OUTSIDE DIAMETER 0.125 WALL HANDRAILS** WITH MATCHING FLAT END CAPS THICKNESS: AS REQUIRED **BASE:L565 SERIES BASE SHOE, WHITE** EDGE CONDITION: GRS SQUARE CONNECTOR SLEEVES STYLE: GRS GLASS RAILING SYSTEM NOTE: GRS CRISP CORNER 11-GAUGE CAP RAILING TOPPER. CRL 1 1/2" STAINLESS STEEL SQUARE CAP

### MISC. INTERIOR METALS

DISPLAY CABLE SYSTEM CODE: DCS DESCRIPTION: FLEXIBLE DISPLAY SHELVING CABLES FOR GLASS DISPLAY MANUFACTURER: ARAKAWAGRIP TYPE:CRC CEILING MOUNTED SYSTEM FINISH: STAINLESS STEEL LOCATION: SPECIAL COLLECTIONS DISPLAY CONSTRUCTION: 65LB LOAD RATING PER CABLE

**RIBBED BAR ABRASIVE NOSING** CODE: FST MANUFACTURER: NYSTROM MATERIAL:EXTRUDED ALUMINUM NUMBER:STSB-N SIZE: 2" WIDE MIN. COLOR: GREY LOCATION: EGRESS STAIR TREADS NOTE: SLIP RESISTANT SURFACE

**TRANSITION STRIP** CODE: TS1 **DESCRIPTION: SAME HEIGHT TRANSITION** STRIP MANUFACTURER: SCHLUTER SYSTEMS MATERIAL: ANODIZED ALUMINUM SIZE: H+2-4.5MM FINISH: NATURAL SATIN LOCATION: AT ALL SAME HEIGHT MATERIAL TRANSITIONS THICKNESS: 1/8" STYLE:SCHLUTER-SCHIENE

TRANSITION STRIP CODE: TS2 **DESCRIPTION: SLOPED TRANSITION STRIP** MANUFACTURER: SCHLUTER SYSTEMS MATERIAL: ANODIZED ALUMINUM FINISH: NATURAL SATIN LOCATION: AT ALL VARIABLE HEIGHT MATERIAL TRANSITIONS THICKNESS: 1/8" STYLE: SCHLUTER 'RENO-V' PROFILE WITH ADJUSTABLE ARM

# **TOILET PARTITIONS**

 $\searrow$ TOILET COMPARTMENT PARTITIONS CODE: TP1 MANUFACTURER: SCRANTON PRODUCTS MATERIAL:HDPE TYPE:62" HIGH COLOR: BLACK FINISH: ORANGE PEEL LOCATION: GROUP RESTROOMS CONSTRUCTION: ASTM-E84. FLOOR MOUNTED STYLE: ECLIPSE, MOUNT AT 9" AFF. NOTE: PARTITION DOORS TO HAVE CONTINUOUS HINGE

### **FINISH LEGEND**

### **STOREFRONT**

INTERIOR STOREFRONT CODE: ISF **DESCRIPTION: INTERIOR** MANUFACTURER: YKK CONTACT: TOM SHOOK, 336.207.3374 NUMBER:YKK YES 45 CS, 1-3/4" X 4-1/2" COLOR: CLEAR ANODIZE ALUM, UNO. CONTENT: CRADLE TO GATE

INTERIOR STOREFRONT CODE: AGSF **DESCRIPTION: SOLARE ACOUSTIC SINGLE** GLAZED PARTITION SYSTEM MANUFACTURER: AVANTI NUMBER: FRAMELESS SYSTEM, PANIC DOORS WHERE REQUIRED COLOR: STANDARD MATTE BLACK THICKNESS: 1/2" CLEAR LAMINATED TEMPERED GLASS

FIRE RATED STOREFRONT CODE: FSF DESCRIPTION: RATED STOREFRONT SYSTEM MANUFACTURER: FIREGLASS TYPE:FIRE FRAMES DESIGNER SERIES NUMBER:60-120 FINISH: CUSTOM COLOR TO EXTERIOR SF CONSTRUCTION: WELDED

### GLAZING

GLAZING CODE: GL2 TYPE:LAMINATED TEMPERED GLAZING LOCATION: INTERIOR THICKNESS: AS REQUIRED FOR SPANS

FIRE-RATED GLASS CODE: GL3 **DESCRIPTION: PYROSTOP** MANUFACTURER: PILKINGTON TYPE:FIRE-RATED GLAZING NUMBER:60-120 FINISH: CLEAR CONSTRUCTION: LAMINATED CONSTRUCTION OF PILKINGTON OPTIWHITE AND INTUMESCENT INTERLAYERS THICKNESS: PER DRAWINGS

GLAZING CODE: GL4 TYPE:INSULATED TEMPERED GLAZING LOCATION: INTERIOR THICKNESS: AS REQUIRED FOR SPANS

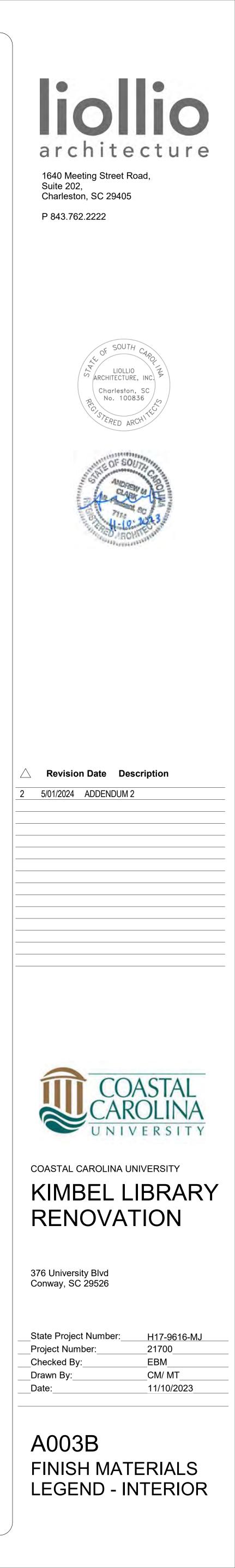
# **PRIVACY FILM**

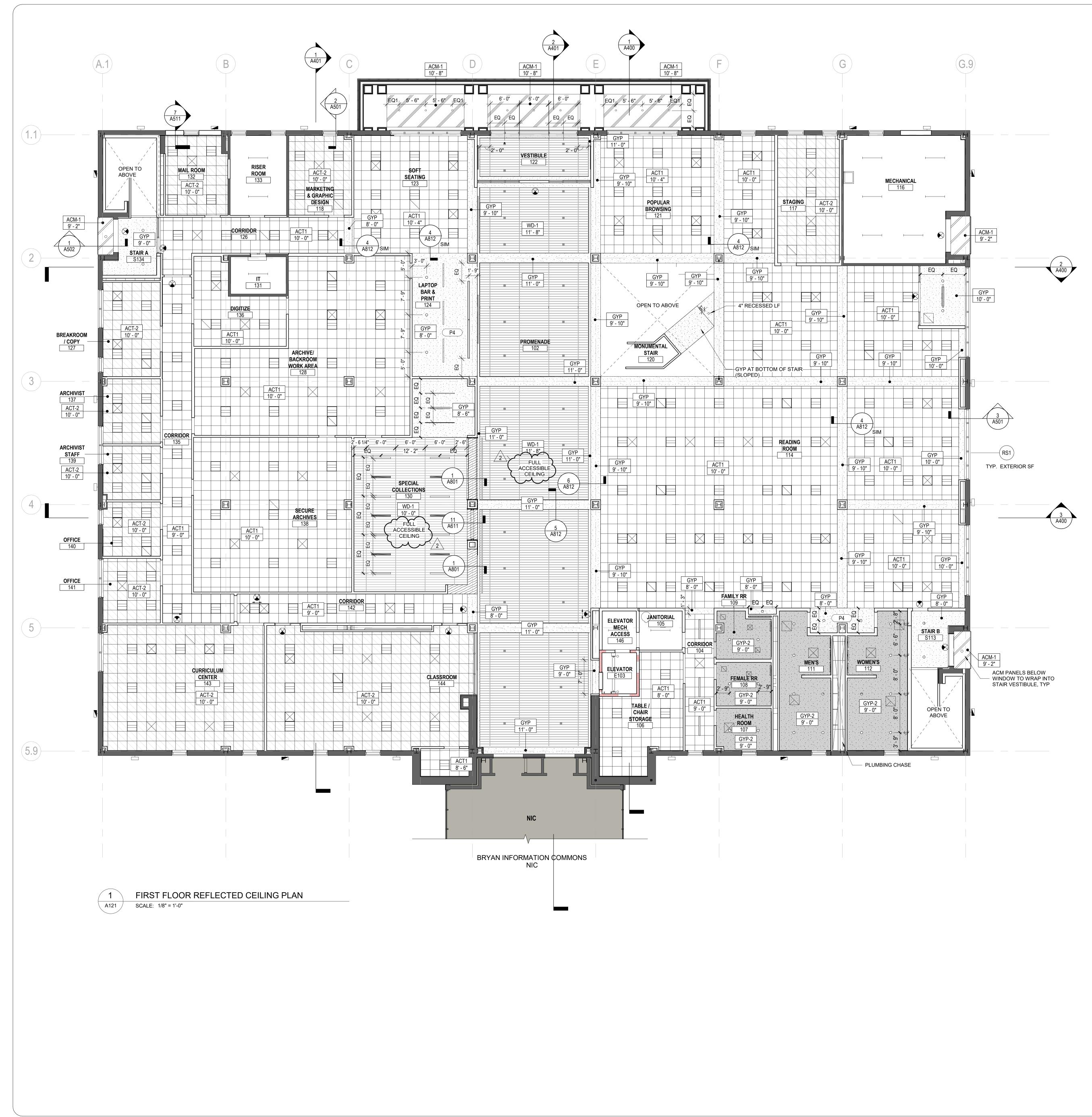
EXTERIOR STOREFRONT PRIVACY FILM CODE: FF1 NAME:LLUMAR FROST PRIVACY FILM DESCRIPTION: MATTE FROST SERIES MANUFACTURER: LLUMAR MATERIAL:POLYESTER **TYPE: PRIVACY FILM RATING 7** NUMBER:NRMPS2 LOCATION: REQUIRED AT ALL RESTROOMS AND MECHANICAL ROOM WINDOWS. SEE FLOOR PLAN THICKNESS: .002 INCHES, EXCLUDES LINER

INTERIOR STOREFRONT PRIVACY FILM CODE: FF2 NAME:LLUMAR FROST PRIVACY FILM DESCRIPTION: TEXTILE SERIES MANUFACTURER: LLUMAR MATERIAL:VINYL **TYPE: DIAGONAL CROSSHATCH** LOCATION: SEE INTERIOR STOREFRONT ELEVATIONS THICKNESS: .006 INCHES, EXCLUDES LINER **NOTE: PRIVACY FILM RATING 4** 

# SOLAR CONTROL

MANUAL ROLLER SHADES CODE: RS1 DESCRIPTION: ROLLER SHADES [MANUAL] MANUFACTURER: SWF CONTRACT CONTACT: JIM CROTTS 608.698.3385 TYPE:SUMMIT E300 NUMBER:C7711 **COLOR: GRANITE** LOCATION: TYP. EXTERIOR SF CONTENT: CRADLE TO CRADLE FABRIC: GREENGUARD - BIO-BASED PLASTICIZER SHADE CLOTH:3% OPENESS NOTE: HOUSING TO MATCH WINDOW MULLION FINISH, VERTICAL BREAKS AND SEAMS TO BE CENTERED ON VERTICAL MULLIONS





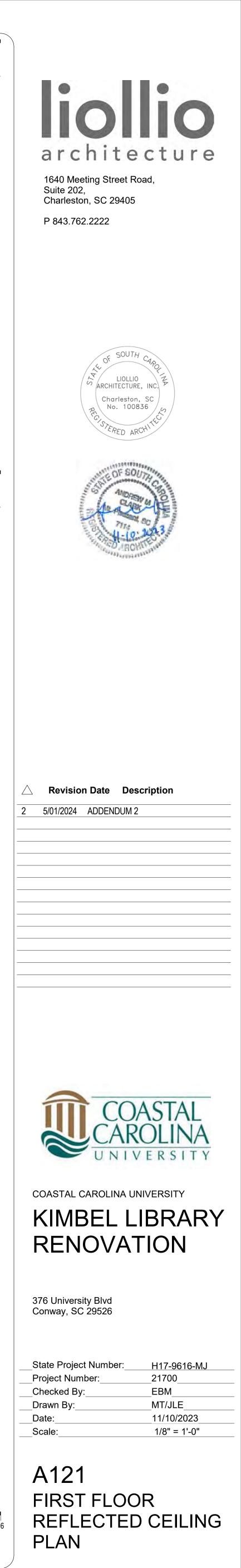
# **GENERAL NOTES - REFLECTED CEILING PLAN**

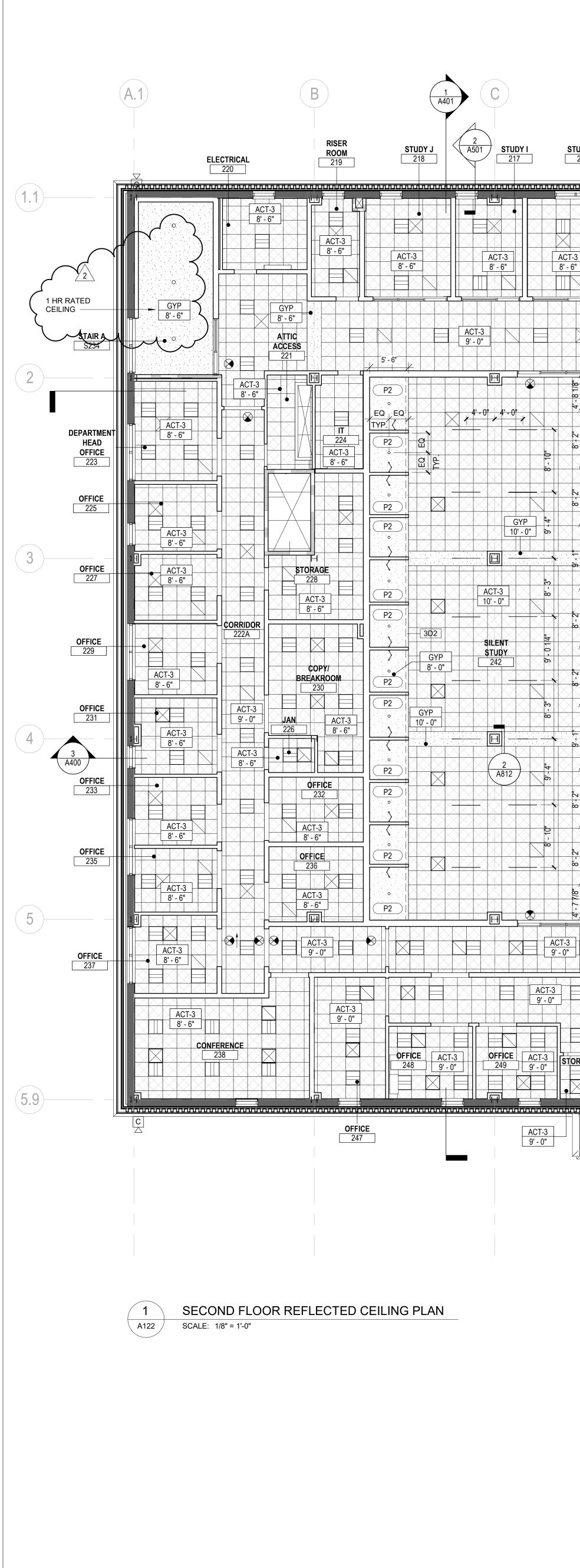
- A. GC TO COORDINATE LOCATION OF DEVICES NOT SHOWN ON ARCHITECTS DRAWINGS WITH THE MOUNTING DIAGRAMS ON SHEET A002. ARCHITECT MUST APPROVE ALL DEVICE LOCATIONS IN THE FIELD. ANY DEVICE LOCATION NOT APPROVED BY ARCHITECT MAY BE RELOCATED AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR TO COORDINATE THE REQUIRED B.
- CLEARANCES OF ALL ABOVE CEILING EQUIPMENT. ALL LIGHTS, SPRINKLER HEADS, SPEAKERS AND CEILING C. MOUNTED FIXTURES TO BE CENTERED IN CEILING PANEL IN BOTH DIRECTIONS, UNO.
- D. SPRINKLERS, EXIT SIGNS AND SPEAKERS SHALL BE LOCATED IN ALIGNMENT W/ LIGHT FIXTURES AND OTHER CEILING ELEMENTS. WHERE THERE ARE NOT LIGHT FIXTURES, SPRINKLERS SHALL BE CENTERED IN CEILING TILE. SPRINKLERS SHALL BE FULLY CONCEALED WITH WHITE CAPS. CONTRACTOR SHALL COORDINATE.
- ACCESS PANELS SHALL BE IDENTIFIED TO ARCHITECT PRIOR TO INSTALLATION OF WORK ASSOCIATED WITH ACCESS PANEL. IF REQUIRED, ACCESS PANEL TO BE FLUSH, MUD-IN GLASS FIBER REINFORCED GYPSUM
- RS1 TYPICAL ALL EXTERIOR STOREFRONT (EXCEPT AT ENTRY VESTIBULES). WHERE VERTICAL SEAMS ARE REQUIRED, SEAMS TO BE CENTERED ON EXTERIOR STOREFRONT VERTICAL MULLION.
- COMPRESSION POSTS PER SEISMIC REQUIREMENT. REFER TO SPECIFICATIONS FOR SEISMIC REQUIREMENTS. ALL CEILING MOUNTED DEVICES, FIRE ALRAMS, SPEAKERS, Η.
- CAMERAS, AND ETC. SHALL BE WHITE UNLESS NOTED OTHERWISE.
- ALL GYP CEILING TO BE PAINTED P1, UNO. ALL INTERIOR PARTITIONS AT LEVEL 1 ARE TO EXTEND TO J.
- BOTTOM OF DECK UNO. K. ALL INTERIOR PARTITIONS AT LEVEL 2 ARE TO EXTEND TO 13'-6" AFF UNO

# **REFLECTED CEILIING PLAN LEGEND**

CEILINGS		ACT-1 2' x 2' SUSPENDED ACOUSTICAL CEILING PANEL
		ACT-2 2' x 2' SUSPENDED ACOUSTICAL CEILING PANEL
		ACT-3 2' x 2' SUSPENDED ACOUSTICAL CEILING SEALED PANEL
		WD-1 ACOUSTICAL WOOD CEILING WITH ACOUSTICAL INSULATION BOARD DIRECTLY ABOVE (PAINTED FLAT BLACK)
		GYPSUM BOARD
		GYP-2 MOISTURE RESISTANT GYPSUM BOARD
		EXPOSED TO STRUCTURE
		ACM-1
SYMBOLS		
STWBOLS		2' x 2' LIGHT FIXTURE
	0	RECESSED DOWN LIGHT
		SQUARE DOWN LIGHT
		RECESSED LINEAR LIGHT
	<b>⊢−−−−</b>	CHAIN HUNG LINEAR FIXTURE
	Fi	UNDER CABINET FIXTURE
		SUSPENDED DIRECT/INDIRECT PENDANT
		SUSPENDED LINEAR TRACK LIGHT
	6	PENDANT FIXTURE
		LARGE ACCENT PENDANT FIXTURE
	$\bigotimes$	EXIT SIGN
	4	RESTROOM WALL SCONCE
	$\geq$	WALL SCONCE

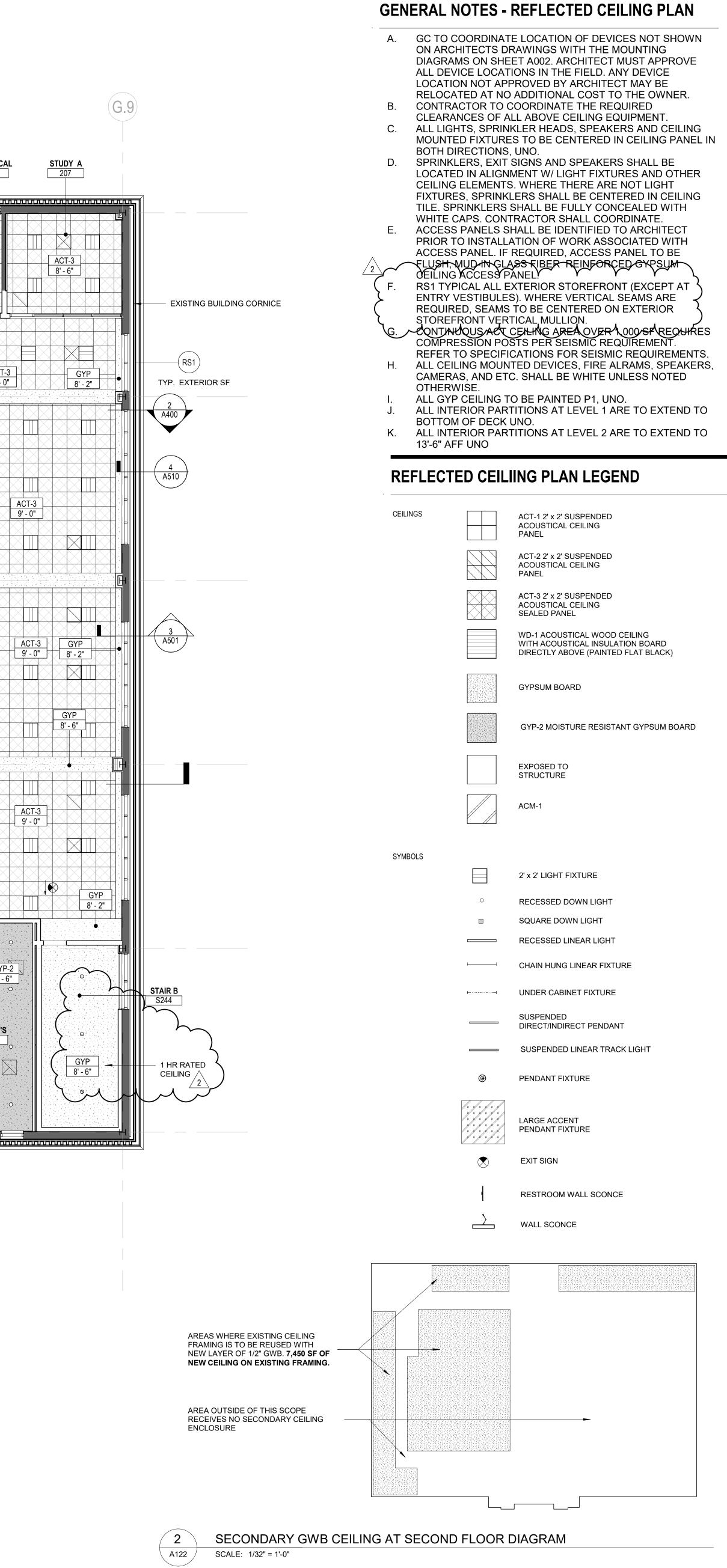


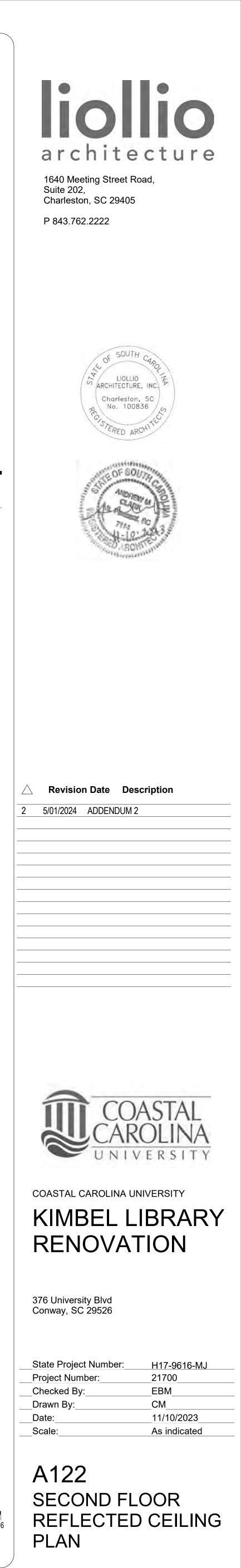




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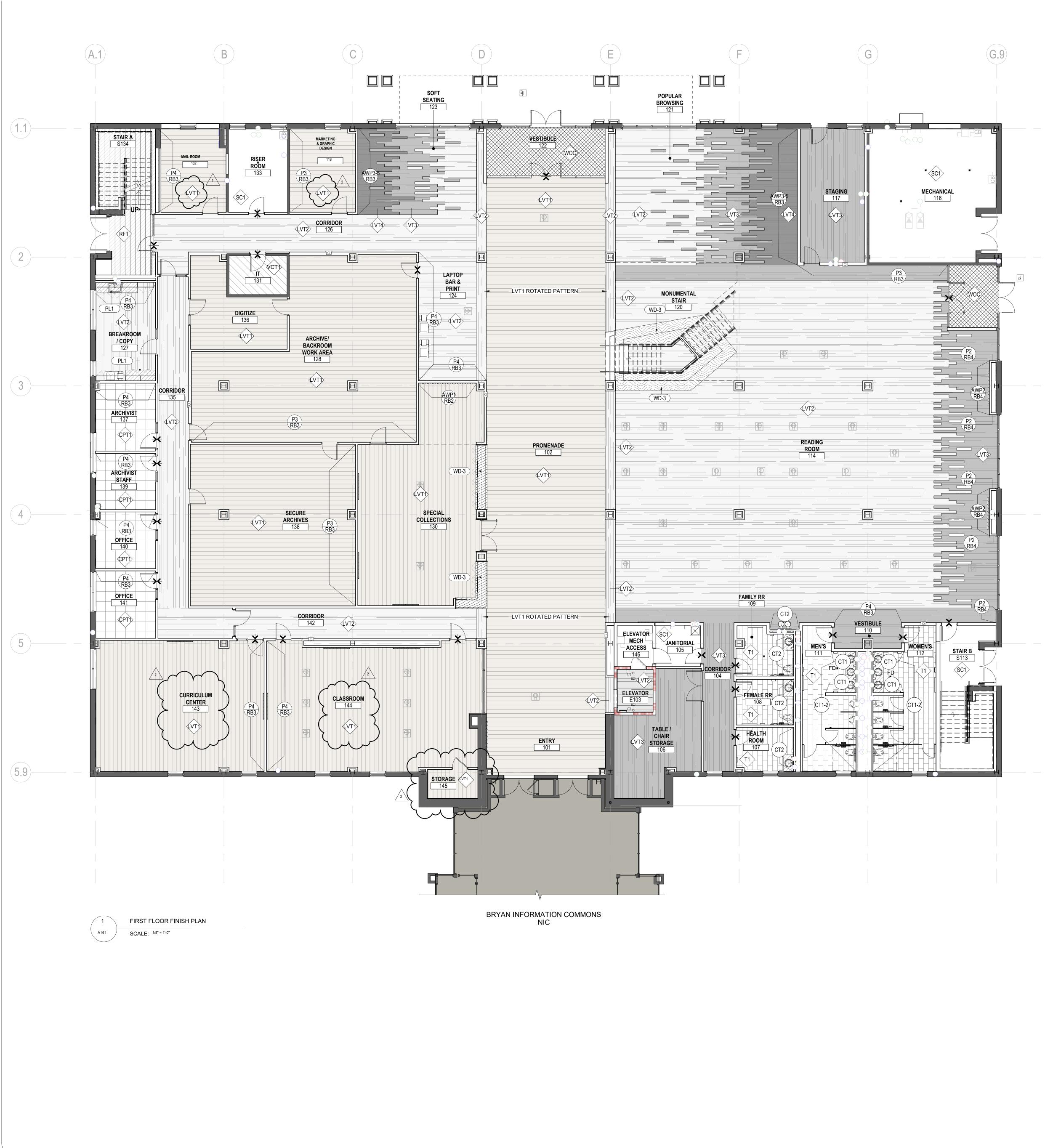
D	2 A401	E 1 A400	F	G
STUDY H         STUDY G           216         215	лллллллллллллллл	213	212 2	 9 208
Image: Simple service     Image: Simple service     Image: Simple service     Image: Simple service       Image: Simple service     Image: Simple service     Image: Simple service     Image: Simple service       Image: Simple service     Image: Simple service     Image: Simple service     Image: Simple service       Image: Simple service     Image: Simple service     Image: Simple service     Image: Simple service       Image: Simple service     Image: Simple service     Image: Simple service     Image: Simple service       Image: Simple service     Image: Simple service     Image: Simple service     Image: Simple service       Image: Simple service     Image: Simple service     Image: Simple service     Image: Simple service       Image: Simple service     Image: Simple service     Image: Simple service     Image: Simple service       Image: Simple service     Image: Simple service     Image: Simple service     Image: Simple service       Image: Simple service     Image: Simple service     Image: Simple service     Image: Simple service       Image: Simple service     Image: Simple service     Image: Simple service     Image: Simple service       Image: Simple service     Image: Simple service     Image: Simple service     Image: Simple service       Image: Simple service     Image: Simple service     Image: Simple service     Image: Simple service       Image: Simple	Image: Control of the second secon	Image: state of the state	ACT-3 8 - 6' ACT-3 8 - 6' ACT-3 A	
BRYAN IN	FORMATION COMMONS	S		





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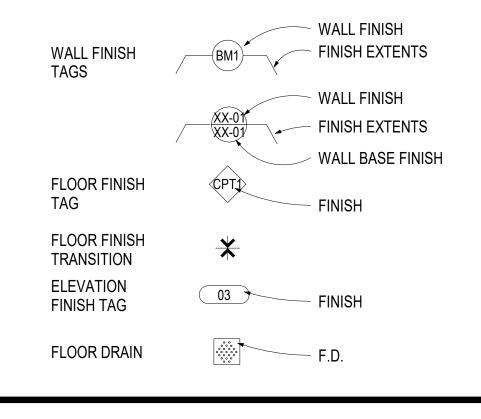
SCALE: As indicated



# **GENERAL NOTES - FINISH PLAN**

- A ALL SURFACES NOT SCHEDULED, NOTED OR SHOWN TO RECEIVE NEW FINISHES, INCLUDING SPACES OUTSIDE CONTRACT LIMIT LINE FOR REQ MECH AND ELEC WORK SHALL BE FINISHED TO MATCH EXISTING ADJACENT LIKE WORK AS REQ FOR REMOVAL AND THE INSTALLATION OF NEW WORK.
- B ALL FINISHES TO MEET 'CLASS A': FLAME SPREAD 76-200; SMOKE DEVELOPED INDEX 0-450 PER IBC 2021 CHAPTER 8
- C ALL FLOOR TILES TO BE SLIP RESISTANT IN ACCORDANCE WITH THE 2017 ADA SECTION 302.1
- D ALL INTERIOR GLAZING TO RECEIVE NEOPRENE GASKETS TO FORM AN AIRTIGHT SEAL AROUND THE GLAZING PERIMETER.
- E ALL DEVICES AND ASSOCIATED COVERPLATES ARE TO BE BRIGHT WHITE UNO.
- F WHERE DEVICES OCCUR AT COLUMNS, CENTER HORIZONTALLY ON FACE OF COLUMN.
- G SEE A701 INTERIOR ELEVATIONS FOR ALL WALLS LABELED AWP3-5.
- H ALL GYP. BD WALLS TO RECEIVE (RB1) UNO.
- I ALL GYP. BD WALLS TO BE PAINTED (P1) UNO.
- J ALL FLOORING TRANSITIONS TO OCCUR CENTERED ON DOOR SLAB.
- K AT PAINTED ACCENT WALLS WHERE HOLLOW METAL DOOR AND/ OR FRAME OCCURE, PAINT HOLLOW METAL TO MATCH ADJACENT WALL.

# **FINISH SYMBOLS**



# FLOOR FINISHES

CPT1 - CARPET TILE	
LVT1 - LUXURY VINYL TILE	SC1 - SEALED CONCRETE
LVT2 - LUXURY VINYL TILE	CT1 - PORCELAIN FLOOR TILE
LVT3 - LUXURY VINYL TILE	WOC - WALK OFF CARPET TILE
LVT4 - LUXURY VINYL TILE	RB1 - RUBBER FLOOR

ALL SECOND FLOOR LVT TO RECEIVE STM SOUND TRANSMISSION MAT UNDERLAYMENT, PER A003 FINISH MATERIALS LEGEND





1640 Meeting Street Road, Suite 202, Charleston, SC 29405 P 843.762.2222





**Revision Date Description** 2 5/01/2024 ADDENDUM 2



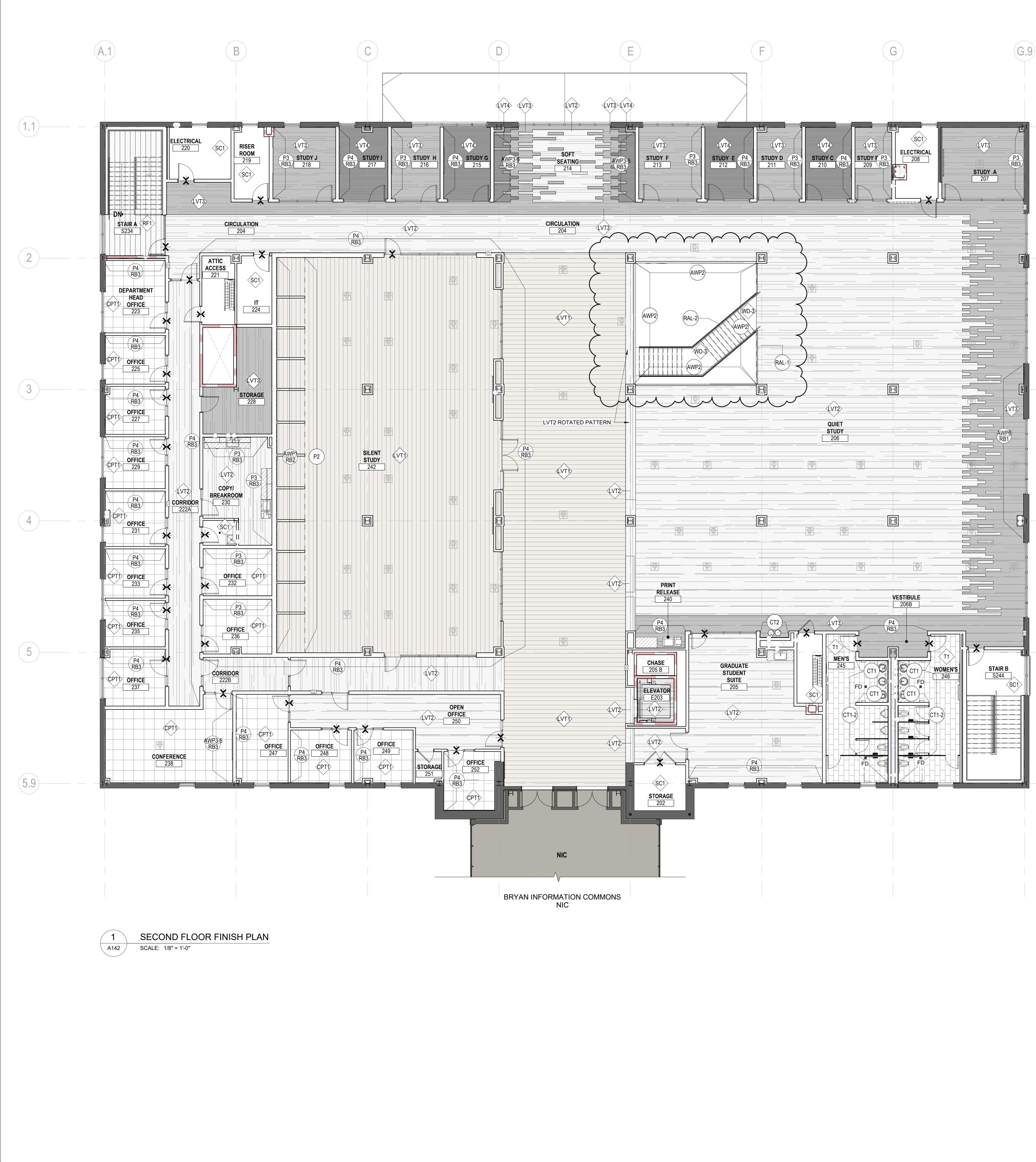
COASTAL CAROLINA UNIVERSITY KIMBEL LIBRARY RENOVATION

376 University Blvd Conway, SC 29526

State Project Number:	H17-9616-MJ
Project Number:	21700
Checked By:	EBM
Drawn By:	СМ
Date:	11/10/2023
Scale:	1/8" = 1'-0"

A141

FIRST FLOOR FINISH PLAN



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# **GENERAL NOTES - FINISH PLAN**

- A ALL SURFACES NOT SCHEDULED, NOTED OR SHOWN TO RECEIVE NEW FINISHES, INCLUDING SPACES OUTSIDE CONTRACT LIMIT LINE FOR REQ MECH AND ELEC WORK SHALL BE FINISHED TO MATCH EXISTING ADJACENT LIKE WORK AS REQ FOR REMOVAL AND THE INSTALLATION OF NEW WORK.
- B ALL FINISHES TO MEET 'CLASS A': FLAME SPREAD 76-200; SMOKE DEVELOPED INDEX 0-450 PER IBC 2021 CHAPTER 8
- C ALL FLOOR TILES TO BE SLIP RESISTANT IN ACCORDANCE WITH THE 2017 ADA SECTION 302.1
- D ALL INTERIOR GLAZING TO RECEIVE NEOPRENE GASKETS TO FORM AN AIRTIGHT SEAL AROUND THE GLAZING PERIMETER.
- E ALL DEVICES AND ASSOCIATED COVERPLATES ARE TO BE BRIGHT WHITE UNO.
- F WHERE DEVICES OCCUR AT COLUMNS, CENTER HORIZONTALLY ON FACE OF COLUMN.
- G SEE A701 INTERIOR ELEVATIONS FOR ALL WALLS LABELED AWP3-5.
- H ALL GYP. BD WALLS TO RECEIVE (RB1) UNO.
- I ALL GYP. BD WALLS TO BE PAINTED (P1) UNO.
- J ALL FLOORING TRANSITIONS TO OCCUR CENTERED ON DOOR SLAB.
- K AT PAINTED ACCENT WALLS WHERE HOLLOW METAL DOOR AND/ OR FRAME OCCURE, PAINT HOLLOW METAL TO MATCH ADJACENT WALL.

# **FINISH SYMBOLS**

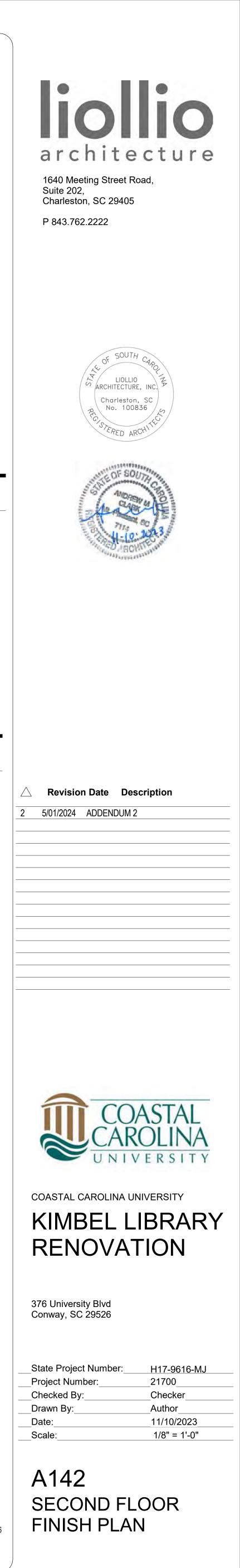
WALL FINISH TAGS	WALL FINISH BM1 FINISH EXTENTS
	WALL FINISH
	FINISH EXTENTS
	WALL BASE FINISH
FLOOR FINISH TAG	CPT FINISH
FLOOR FINISH TRANSITION	*
ELEVATION FINISH TAG	G3 FINISH
FLOOR DRAIN	F.D.

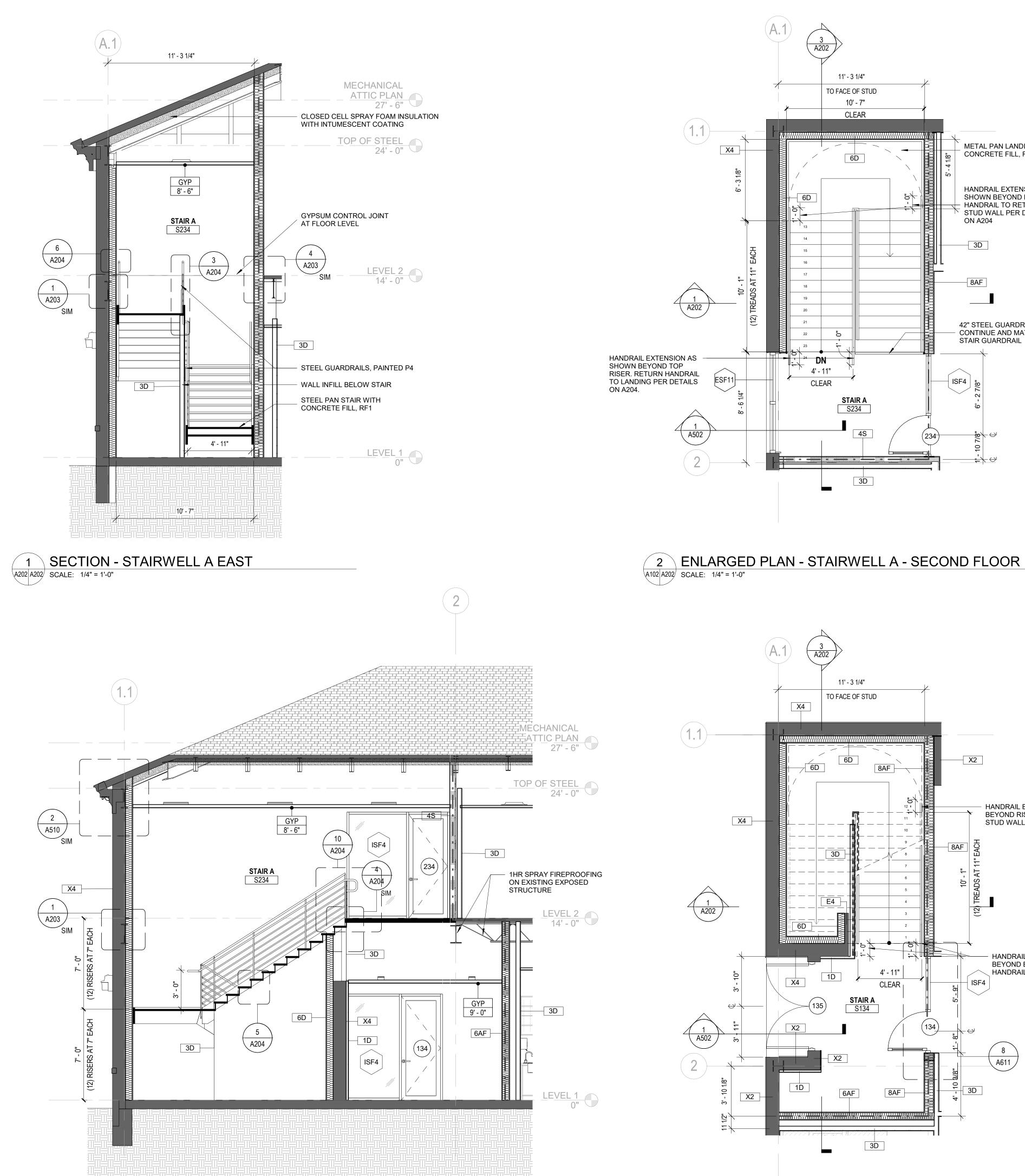
# **FLOOR FINISHES**

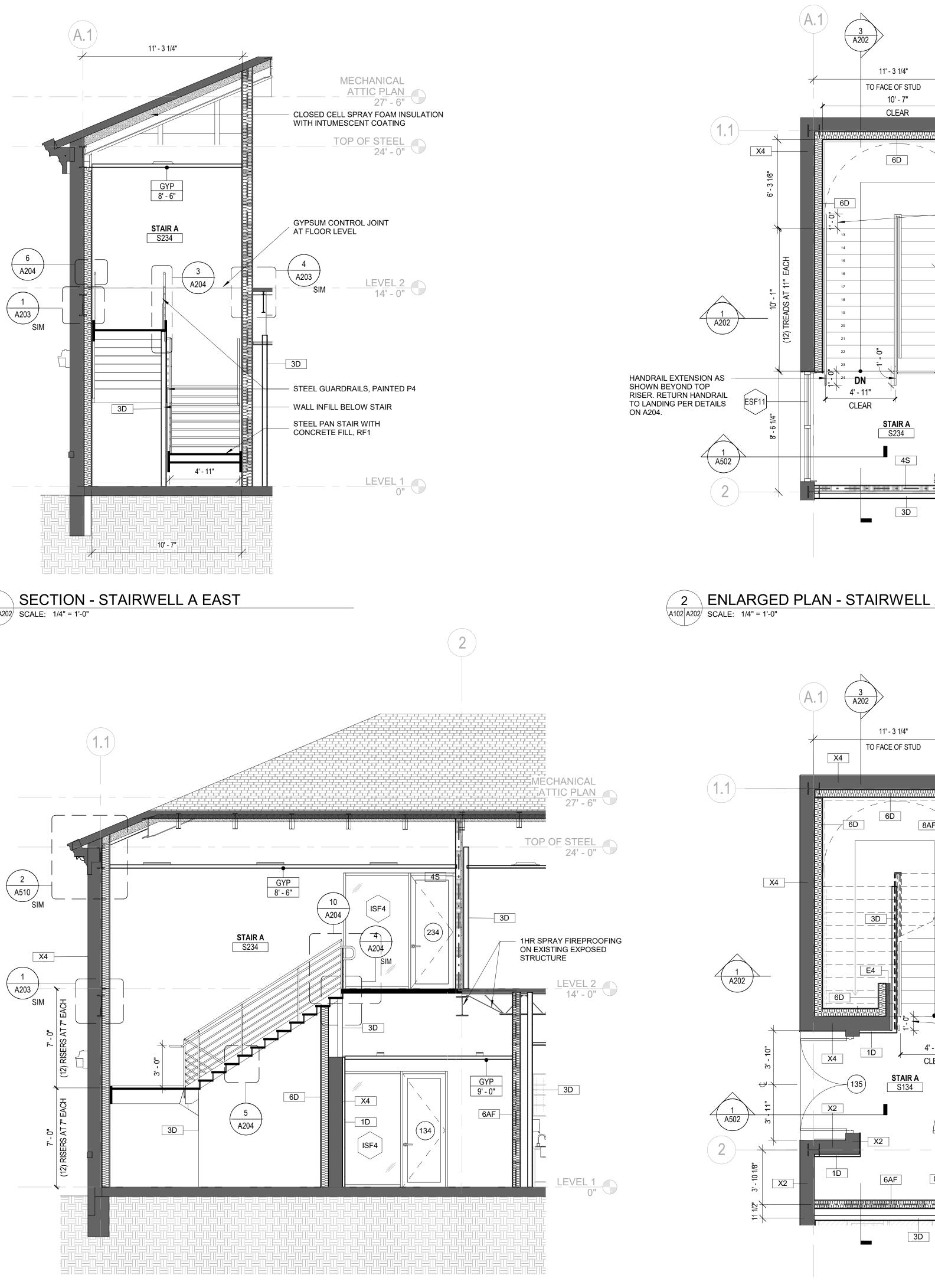
CPT1 - CARPET TILE	
LVT1 - LUXURY VINYL TILE	SC1 - SEALED CONCRETE
LVT2 - LUXURY VINYL TILE	CT1 - PORCELAIN FLOOR TILE
LVT3 - LUXURY VINYL TILE	WOC - WALK OFF CARPET TILE
LVT4 - LUXURY VINYL TILE	RB1 - RUBBER FLOOF

ALL SECOND FLOOR LVT TO RECEIVE STM SOUND TRANSMISSION MAT UNDERLAYMENT, PER A003 FINISH MATERIALS LEGEND











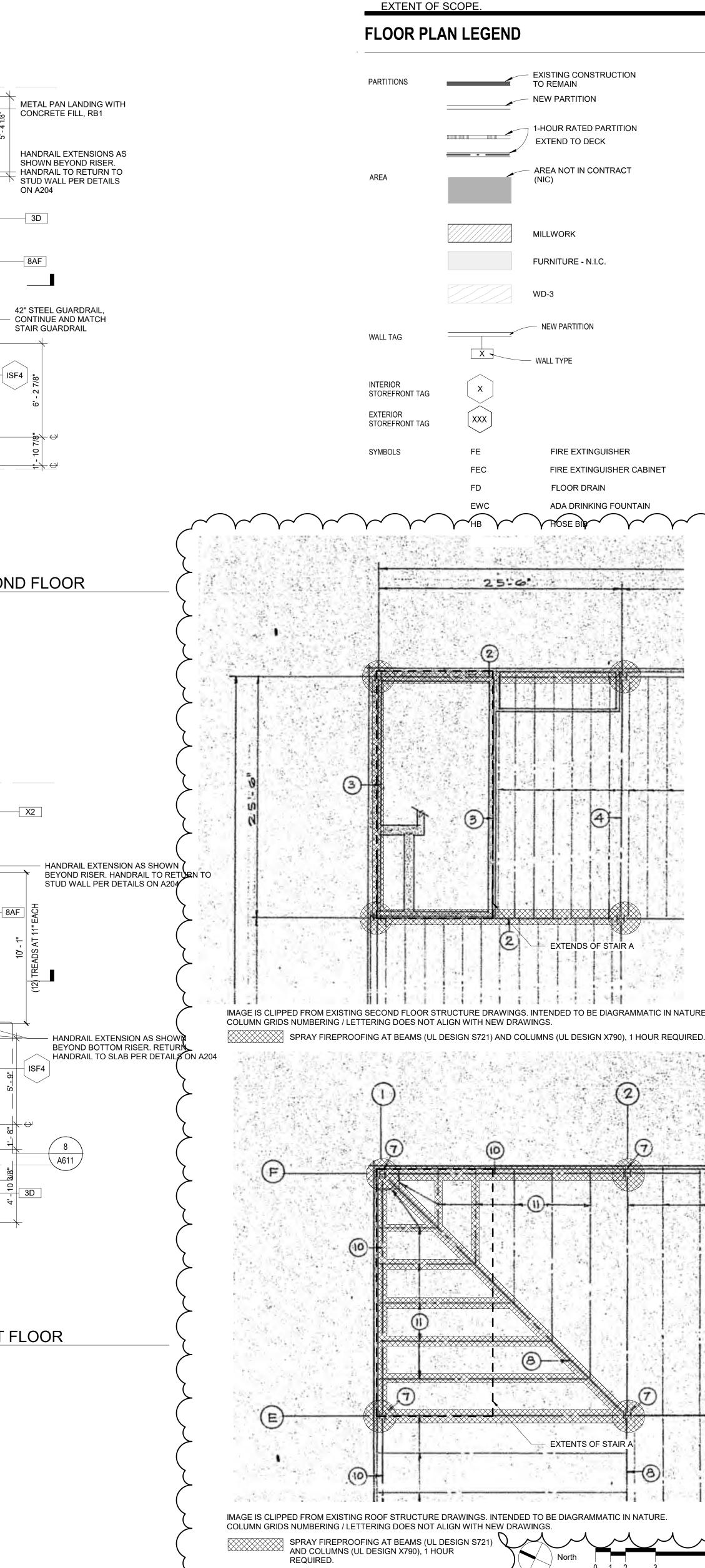
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4 ENLARGED PLAN - STAIRWELL A - FIRST FLOOR A101 A202 SCALE: 1/4" = 1'-0"

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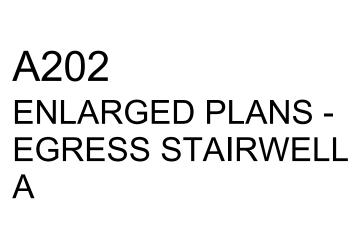
A REFER TO SHEETS A001 THRU A002 FOR ADDITIONAL NOTES, SYMBOLS AND SCHEDULES. B SHADED AREAS INDICATE AREAS NOT IN CONTRACT. COORDINATE WITH ENGINEER'S DRAWINGS FOR FULL



STAIR A FIREPROOFING

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(5)



H17-9616-MJ \_State Project Number: 21700 \_Project Number: EBM Checked By: ΤW \_Drawn By:\_ 11/10/2023 Date: \_Scale:\_ As indicated

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**Revision Date Description** 2 5/01/2024 ADDENDUM 2



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