

August 31, 2023

Whiteland Community High School Phase 1 300 E. Main Street Whiteland, IN 46184

#### TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated August 11, 2023, by Lancer Associates Architecture. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 1-1 through ADD 1-4 and attached Specification Sections 00 31 00 – Revised Indiana Bid Form, 01 34 00 BIM Coordination and Clash Detection, Logistics Plan, Wood Blocking Clarifications Drawing, and Lancer Associates Architecture Addendum No. 1, dated August 30, 2023, consisting of 8 Pages, Specification Sections 08 22 00 – Fiberglass Reinforced Plastic (FRP) Doors and Fiberglass Resin Transfer Molded Door Frames, 33 42 00 – Stormwater Conveyance, Design27 Addendum 1 Narrative, Primary Engineering Addendum 1 Narrative, Crossroad Engineers Addendum 1 Narrative, and Drawings G000, G001, A101L, A101M, A720, A721L, A721M, A722L, A722M, A723J, A723K, A751, A753, A754, 400, 401, 500, 501, 700, 804, 901, 902, 1001, P100K, P100M, P101K, E101A, E101G, E101H, E202M, E503, E504, E701, E702, E706, E707, ES201, T201J, T201K, T201L, T201M, T202J, T202K, T202L, T202M, T203J, T203K, T203L, T203M, T500, T501.

#### A. <u>SPECIFICATION SECTION 00 20 00 – INFORMATION AVAILABLE TO BIDDERS</u>

Add Paragraph C.

C. WCHS Phase 1 Site Logistics plan date August 31, 2023 is being issued as part of this addendum for reference by all contractors.

#### B. SPECIFICATION SECTION 00 31 00 BID FORM

1. DELETE entirety of this specification section and replace with 00 31 00 – BID FORM section included as part of this Addendum.

#### A. <u>SPECIFICATION SECTION 01 12 00 - MULTIPLE CONTRACT SUMMARY</u>

**a.** Paragraph 3.02 General Clarifications

#### Add the following Project Specific Clarifications:

- 1. Each contractor is responsible for means and methods used to stock materials on upper floors and roof. It is allowable to install ramps at stairs or use lift from the exterior. All existing structures and finishes are to be protected from damage. Any damage or replacement of materials such as doors, windows, masonry, etc. will be at the cost of the contractor.
- 2. During demolition each contractor will provide dumpsters/disposal for their own waste. Throughout the course of construction **Bid Category #1 Contractor** will provide the general trash dumpsters.
- **b.** Provided by the owner through the Construction Manager:
  - 1. 22 05 93 Testing, Adjusting, and Balancing for Plumbing
  - 2. 23 05 93 Testing, Adjusting, and Balancing for HVAC

#### c. Bid Category No. 1 – General Trades

#### Add the following Specification Sections:

- 08 22 00 Fiberglass Reinforced Plastic (FRP) Doors and Fiberglass Resin Transfer Molded Door Frames
- 09 55 00 Wood Flooring
- 33 42 00 Stormwater Conveyance

#### Add the following Clarifications:

- 17. **Bid Category No. 1 Contractor** is responsible for installing/removing temporary stair treads as required.
- 18. **Bid Category No. 1 Contractor** is responsible for custom benches and any custom millwork components such as laminate display surrounds. Reference Plan Notes 12 and 13 on Plans A101L and A101M as an example.

#### d. Bid Category No. 3 – Structural Steel/Misc Metals

Add the following specification section:

01 34 00 - BIM Coordination and Clash Detection

Delete the following specification section:

05 52 20 - Metal Guardrail and Rooftop Fall Protection

#### e. Bid Category No. 4 – Roofing

Add the following specification section:

05 52 20 - Metal Guardrail and Rooftop Fall Protection

#### Add the following clarification:

8. **Bid Category No. 4 Contractor** is required to provide and install any wood blocking that is required by the roofing manufacturer even if it isn't depicted in the construction documents.

#### f. Bid Category No. 5 – Metal Studs, Drywall, and Acoustical

#### Add the following clarification:

6. **Bid Category No. 5 Contractor** is responsible for providing and installing all cement backer board for tile.

#### g. Bid Category No. 8 – Flooring

Delete the following specification section:

09 55 00 - Wood Flooring

#### h. Bid Category No. 11 – Aquatic Construction

#### Add the following clarification:

1. **Bid Category No. 11 Contractor** is responsible for the tiling within the pool as well as the pool deck.

#### i. Bid Category No. 12 – Fire Protection

#### Add the following specification section:

01 34 00 - BIM Coordination and Clash Detection

#### j. Bid Category No. 13 – Plumbing

Add the following specification section:

01 34 00 - BIM Coordination and Clash Detection

Delete the following specification section:

22 05 93 - Testing, Adjusting, and Balancing for Plumbing

#### k. Bid Category No. 14 – HVAC

Add the following specification section:

01 34 00 - BIM Coordination and Clash Detection

Delete the following specification section:

23 05 93 - Testing, Adjusting, and Balancing for HVAC

#### I. Bid Category No. 15 – Electrical & Technology

Add the following specification section:

01 34 00 - BIM Coordination and Clash Detection

#### B. <u>SPECIFICATION SECTION 01 23 00 – ALTERNATES</u>

- 1. Revise Paragraph 1.04 Schedule of Alternates, Subparagraph C to read as follows:
  - C. <u>Alternate NO. 3:</u> Automated Logic Corporation DDC System:

<u>BASE BID:</u> Include any of the approved manufacturers. <u>Alternate 03: If your base bid doesn't include **Honeywell with Niagara 4, installed by local factory authorized branch**, please provide the cost for you to provide <u>Honeywell with Niagara 4, installed by local factory authorized branch in lieu</u> of the controls contractor that you have included in your base bid.</u>

Subparagraph D – Alternate 04: DELETE IN ITS ENTIRETY

Subparagraph E – Alternate 05: DELETE IN ITS ENTIRETY

Subparagraph F – Alternate 06: DELETE IN ITS ENTIRETY

#### **CONTRACTOR'S BID FOR PUBLIC WORKS FORM NO. 96**

Format (Revised 2013) (Amended for CPCSC)

## Whiteland Community High School Addition **Phase 1: 3-Story and Natatorium Additions**

(Clark-Pleasant Community School Corporation)

(Johnson County, Indiana)

#### **PART I**

(To be completed for all bids. Please type or print)

Date (month, day, year):

BIDDER (Firm)

Address P.O. Box

City/State/Zip\_\_\_\_\_

 Telephone Number:
 Email Address:

Person to contact regarding this Bid

Pursuant to notices given, the undersigned offers to furnish labor and/or materials necessary to complete the public works project of:

Insert Category No. (s) and Name(s)

Of public works project, Whiteland Community High School Addition Phase 1: 3-Story and Natatorium Additions, in accordance with Plans and Specifications prepared by Lancer Associates Architecture, 427 South College Ave., Suite 103, Indianapolis, IN 46203, as follows:

#### BASE BID

For the sum of

(Sum in words)

\_\_\_\_\_DOLLARS (\$\_\_\_\_\_\_)

(Sum in figures)

The undersigned acknowledges receipt of the following Addenda: Receipt of Addenda No. (s)

#### PROPOSAL TIME

Bidder agrees that this Bid shall remain in force for a period of sixty (60) consecutive calendar days from the due date, and Bids may be accepted or rejected during this period. Bids not accepted within said sixty (60) consecutive calendar days shall be deemed rejected.

Attended pre-bid conference	YES	NO
Has visited the jobsite	YES	NO

The Bidder has reviewed the Guideline Schedule in Section 01 32 00 and the intent Of the schedule can be met. YES \_\_\_\_\_ NO\_\_\_\_\_

Bidder has included their Written Drug Testing Plan that covers all employees of the bidder who will perform work on the public work project and meets or exceeds the requirements set in IC 4-13-18-5 or IC 4-13-18-6. YES \_\_\_\_\_ NO\_\_\_\_\_

The Skillman Corporation's diversity initiative is to create a program to encourage, assist and measure the active participation of Minority- Owned, Women-Owned, Veteran – Owned and Disabled Individual-Owned Businesses. The Program is to ensure that MWVDBEs are provided full and equal opportunity to participate in all Skillman Corporation's Projects.

Bidder has included:	DBE: YES	%	NO	
	MBE: YES	%	NO	
	WBE: YES	%	NO	
	VBE: YES	%	NO	

The undersigned further agrees to furnish a bond or certified check with this Bid for an amount specified in the Notice to Bidders. If Alternate Bids apply, submit a proposal for each in accordance with the Plans and Specifications.

If additional units of material included in the contract are needed, the cost of units must be the same as that shown in the original contract if accepted by the governmental unit. If the bid is to be awarded on a unit bases, the itemization of the units shall be shown on a separate attachment.

The contractor and his subcontractors, if any, shall not discriminate against or intimidate any employee, or applicant for employment, to be employed in the performance of this contract, with respect to any matter directly or indirectly related to employment because of race, religion, color, sex, national origin, or ancestry. Breach of this covenant may be regarded as a material breach of the contract.

## CERTIFICATION OF USE OF UNITED STATES STEEL PRODUCTS (if applicable)

I, the undersigned bidder, or agent as a contractor on a public works project, understand my statutory obligation to use steel products made in the United States (I.C. 5-16-8-2). I hereby certify that I and all subcontractors employed by me for this project will use U.S. steel on this project if awarded. I understand that violations hereunder may result in forfeiture of contractual payments.

#### ALTERNATE BIDS

A blank entry or an entry of "No Bid", "N/A", or similar entry on any Alternate will cause the bid to be rejected as non-responsive only if that Alternate is selected. If no change in the bid amount is required, indicate "No Change".

#### \*\*<u>MARK "ADD" OR "DEDUCT" FOR EACH ALTERNATE</u>\*\*

<u>Alternate Bid No. 1 – SUN SHADES</u>: Provide Sun Shades above windows on the south side of the academic wing as shown on elevations along with any associated blocking and flashing elements. Base bid: no sun shades on the south side of the south side of the building

Change the Base Bid the sum of			
(sum in words)			
	DOLLARS (\$	)	DEDUCT
	DOLLI IKS (\$(sum in f	igures)	DEDUCT
<u>Alternate Bid No. 2 – VIDEO BOARD:</u> I bid: no video board on the north side of th	Provide video board on the north e board, provide conduit and wir	wall of th ing.	e pool. Base
Change the Base Bid the sum of			
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			ADD
	DOLLARS (\$	)	DEDUCT
	(sum in f	igures)	
<u>Alternate Bid No. 3 – TEMPERATURE</u> controls contractors in your base bid. If yo <b>4, installed by local factory authorized I</b> <b>Honeywell with Niagara 4, installed by</b> controls contractor that you have included	<u>CONTROLS:</u> You may use any oper base bid doesn't include <b>Hon</b> <b>branch</b> , please provide the cost f <b>local factory authorized branch</b> in your base bid.	of the acce eywell wi or you to p h in lieu o	eptable <b>th Niagara</b> provide f the
Change the Base Bid the sum of			
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			ADD
	DOLLARS (\$	)	DEDUCT

(sum in figures)

#### PART II (For projects of \$150,000 or more – IC 36-1-12-4)

These statements to be submitted under oath by each bidder with and as a part of his bid. (Attach additional pages for each section as needed.)

#### SECTION I EXPERIENCE QUESTIONNAIRE

1. What public works projects has your organization completed for the period of one (1) year prior to the date of the current bid?

Contract Amount	Class of Work	Completion Date	Name and Address of Owner

2. What public works projects are now in process of construction by your organization?

Contract Amount	Class of Work	Completion Date	Name and Address of Owner

3. Have you ever failed to complete any work awarded to you?\_\_\_\_\_\_ If so, where and why?

4. List references from private firms for which you have performed work.

#### SECTION II PLAN AND EQUIPMENT QUESTIONNAIRE

1. Explain your plan or layout for performing proposed Work. (Examples could include a narrative of when you could begin, complete the project, number of workers, etc. and any other information which you believe would enable the governmental unit to consider your bid.)

2. Please list the names and addresses of all subcontractors (i.e. persons or firms outside your own firm who have performed part of the work) that you have used on public works projects during the past five (5) years along with a brief description of the work done by each subcontractor.

3. If you intend to sublet any portion of the work, state the name and addresses of each subcontractor, equipment to be used by the subcontractor, and whether you will required a bond. However, if you are unable to currently provide a listing, please understand a listing must be provided prior to contract approval. Until the completion of the proposed project, you are under a continuing obligation to immediately notify the governmental unit in the event that you subsequently determine that you will use a subcontractor on the proposed project.

4. What equipment do you have available to use for the proposed Project? Any equipment used by subcontractors may also be required to be listed by the governmental unit.

5. Have you into contracts or received offers for all materials which substantiate the prices used in preparing your proposal? If not, please explain the rationale used which corroborate the process listed.

#### SECTION III CONTRACTOR'S FINANCIAL STATEMENT

Attachment of Bidder's financial statement is mandatory. Any Bid submitted without said financial statement as required by statute shall thereby be rendered invalid. The financial statement provided hereunder to the governing body awarding the Contract must be specific enough in detail so that said governing body can make a proper determination of the Bidder's capability for completing the Project if awarded.

#### SECTION IV CONTRACTOR NON-COLLUSION AFFIDAVIT

The undersigned Bidder or agent, being duly sworn on oath, says that he has not, nor has any other member, representative, or agent of the firm, company, corporation or partnership represented by him, entered into any combination, collusion or agreement with any person relative to the price to be bid by anyone at such letting nor to prevent any person from bidding nor to induce anyone to refrain from bidding, and that this Bid is made without reference to any other bid and without any agreement, understanding or combination with any other person in reference to such bidding.

He further says that no person or persons, firms, or corporations has, have, or will receive directly or indirectly, any rebate, fee, gift, commission, or thing of value on account of such contract.

#### SECTION V OATH AND AFFIRMATION

# I HEREBY AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE FACTS AND INFORMATION CONTAINED IN THE FOREGOING BID FOR PUBLIC WORKS ARE TRUE AND CORRECT

Dated at	this	day of	,20
			(Name of Organization)
	By		
-			(Title of Dorson Signing)
			(The of Person Signing)
	ACKNO	WLEDGEMI	ENT
STATE OF		)	
COUNTY OF	) 55:		
Before me, a Notary Publ	ic, personally appe	eared the abov	e-named
Swore that the statements	contained in the fe	oregoing docu	ment are true and correct.
Subscribed and sworn to I	pefore me this	c	lay of,
(Title)			
1	Notary Public		
My Commission Expires:	-		
County of Residence:			
		SECTION 00	31.00

#### SECTION 01 34 00 - BIM COORDINATION AND CLASH DETECTION

#### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. This Section specifies the requirements of Building Information Modeling and Clash Detection for major project components including but not limited to:
  - 1. Structural
  - 2. Mechanical
  - 3. Plumbing
  - 4. Fire Sprinkler
  - 5. Electrical
- B. General: The Contractor and Subcontractors shall prepare Building Information Models according to requirements established in the Building Information Modeling Protocol. All BIM models will be incorporated into one aggregate BIM file for reporting and resolving Model Element Clashes.
  - 1. Each Contractor will be responsible for producing a model/models to represent the work of the Contractor in accordance with the requirements established in the Information Building Modeling Protocol and the BIM Coordination Plan provided by the Contractor.
  - 2. If the Contractor does not have the in-house capability to produce the required model/models, the Contractor may utilize the service of an outside entity to provide this service.
  - 3. Each Contractor shall maintain their own model files as sole author. Subcontractors are responsible for providing the team with NavisWorks compatible files for their scope of work which will be used for coordination.
  - 4. The Contractor will be responsible for updating the BIM throughout duration of the project with changes to Work so that the BIM will accurately represent the Work as it was installed.
  - 5. It is the sole responsibility of the Contractor to ensure that space reservation through 3D Modeling is complete. If any part or piece of the system is not accurately represented in the BIM the Contractor will be responsible to install the work within the parameters of the project conditions at no additional cost or time extension to the Project.

- C. Model Management:
  - The Contractor shall appoint a Modeling Manager responsible for working with the model and for guiding the 3D coordination process according to requirements established in the Building Information Modeling Protocol Exhibit.
  - 2. The Contractor shall establish a BIM Coordination Plan to establish:
    - a. Model origin, coordinate system, and units
    - b. File storage location(s)
    - c. Processes for transferring and accessing Model files
    - d. Identification of design coordination and clash detection procedures
    - e. Model Access rights
    - f. Other Model Management responsibilities defined in the Building Information Modeling Protocol Exhibit.
- D. BIM Coordination Meetings:
  - 1. Each Contractor is required to take part in regular coordination review meetings. The time and place for these meetings will be established by Contractor. The purpose of the coordination meeting is to identify and resolve probable interferences between building systems.
  - 2. The Schedule of BIM Coordination Meetings shall be coordinated with and inform Project Coordination activities, Submittals, and all other Project requirements.
  - 3. Subcontractors shall supply a Contractor Model Element Author, authorized to act and make decisions on behalf of their organization.
  - 4. If conflicts are identified and a resolution is agreed upon it is the Subcontractor's responsibility to have the necessary changes made in their model and republish said model to the coordination team in time for the next meeting unless another timeframe is agreed upon.

#### PART 2 – IMPLEMENTATION

IMPLEMENTA	IMPLEMENTATION TABLE		
MEP Trades	3D coordination and clash detection		
Structural	3D coordination and clash detection		
Prefabrication	Trade partners encourage to take advantage of model for prefabrication,		
	coordination, and scheduling		
Pre-Installation	3D visualization to conduct preinstallation coordination.		
Site Logistics	Coordination of site logistics, and access		
Safety	3D visualization for assessing and documenting safety concerns		

QAQC	Verification of quality assurance and quality control issues and
	documentation
As built	Verification of as built condition for record set documentation, photo graphic
	documentation.



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Blocking Clarifications 8/30/23

LANCER ASSOCIATION 4275. COLLEGE A INDIANAPOLIS, IN 462 427 S. COLLEGE AVE INDIANAPOLIS, IN 46203





#### ADDENDUM NO. ONE

#### PROJECT: CLARK-PLEASANT COMMUNITY SCHOOL CORP. WHITELAND COMM. HIGH SCHOOL ADDITION PHASE 1: 3-STORY AND NATATORIUM ADDITION

PROJECT NUMBER: 22130

DATE OF ADDENDUM:

August 30<sup>th</sup>, 2023



THIS ADDENDUM FORMS A PART OF THE CONTRACT DOCUMENTS AND IS ISSUED IN ACCORDANCE WITH THE INSTRUCTIONS TO BIDDERS. ACKNOWLEDGE RECEIPT OF THIS ADDENDUM BY SIGNING THE ADDDENDUM ACKNOWLEDGMENT SECTION OF THE BID FORM.

#### QUESTIONS

- **Q:** For specs 08 80 00 Glazing, what is the required warranty period? **A:** Standard Manufacturer Warranty
- **Q:** Interior lintels are painted, and exterior lintels are galvanized.
- A: Correct. Finish paint on interior lintels to be coordinated with architectural drawings.

Q: Are there any shoring requirements for slabs on deck? I don't see any in the specs.A: No shoring requirements. The design intent is that the deck should not require shoring.

### LANCER ASSOCIATES ARCHITECTURE

Q: Spec section 03 30 01 calls for exposed concrete surfaces to receive a smooth-formed finish. The exterior seat walls and other exposed concrete items will be formed smoothly. They will not receive any rubbed material or coating. Please confirm.
A: Confirmed, exterior seat walls are "Exposed to public view" as referenced in article 3.6.B.2.

**Q:** Need to provide section cuts through the elevator pit. \$101K **A:** See typical details 11, 12, & 13 on \$401 for elevator pit details.

**Q:** Confirm no thickened slabs required at all the interior 8" block walls. They will just sit on the 4" concrete slab.

**A:** This is incorrect. Typical detail 7 on \$401 indicates that all interior non-load bearing CMU walls per the architectural floor plan are to receive a thickened slab if the walls are not already on a footing on the foundation plan. This slab is to be increased to 12" on the stair walls.

Q: AQ000 General note 17 shouldn't say that the timing system is for reference only. The timing system will be provided and installed by the pool contractor.
A: Note 17 references the Timing System layout being referenced, as it is a schematic drawing. Actual location for installation of equipment to be found on Architectural and Electrical drawings.

Q: "Railings Per OSHA Requirements" is not shown or stated as in Detail 5 on same page. Is Railing required? A: No

**Q:** Drawing 11/A143, does the roof vapor barrier need to extend to the interior wall? **A:** Yes, the roof vapor barrier wraps around the structure to prevent high moisture in the natatorium and the development of mold, mildew, and structural damage due to excessive moisture.

**Q**: The specifications do not call out a specific product to use. The details show Kawneer Trifab 451T/601T (thermal with a single thermal break) and the elevation sheets A201/202 Note 7 is calling out the products to be similar to Trifab 451UT/601UT (dual thermal break). Based on the specified thermal performance, the single thermal break 451T/601T will meet the performance requirements. Is the use of the 451T/601T acceptable?

A: Is not acceptable

**Q:** There are numerous FRP doors and frames listed in the door schedule. Are there specifications for these doors? A: Added specifications 08 22 00 to addendum 01

## LANCER ASSOCIATES ARCHITECTURE

**Q:** There is a door in corridor J1200 that is not labeled, what is the door number? **A:** Door J2400.20

**Q**: I noticed that all of the interior frames of the vestibules involving exterior doors are listed as thermal. This is not a typical application. The interior vestibules are typically non-thermal. Please verify that these interior vestibule frames are to be thermally broken. If so, will they get insulated glass as well. **A**: No

Q: The frame schedule has some glazing infill call out as spandrel panels. The details are showing spandrel glass. Please verify which is to be used. A: spandrel glass

Q: Frame 8/A612 is called out as aluminum framing on the frame schedule. The door schedule says that wood doors K102.1, K 104.1, K 106.1, K108.1, and K110.1 are to be installed in Hollow metal framing. What is the framing to be used? A: Aluminum framing

Q: Door M104.2 on the frame take-off shows the door to be a solid flush door where the door schedule calls out for it to be a full lite glazed door. Which is correct? A: Full lite glazed door (D5)

Q: Interior door frame SF11A (door J300) is not in a vestibule application. Is this framing supposed to be thermal? A: No

Q: SF47 on the frame schedule does not appear in the drawings. Do you have a location(s) for this frame?A: SF47 located in the OFFICE/CONTROL L102 facing the pool on sheet A101L

**Q:** Rooms B110/B111 on sheet A101J do not show the "not in contract" hatching but show two (2) windows per room on the south facing wall. Are these existing to remain or are they new windows? Along this plane on this sheet there is a dash-dot-dash pattern shown that continues past door J1000.1. What is this line denoting? I looked at the life safety plans, and it does not match what is shown on that drawing. None of the aluminum framing meets any kind of fire or smoke rating.

**A:** The two windows in Rooms B110/B111 are existing and to remain. The dash-dot-dash pattern line is keynote 1 "FLOOR/WALL EXPANSION JOINT AND COVER."

### LANCER ASSOCIATES ARCHITECTURE

**Q:** The distribution plan "T" series drawings show a bottom of J-hook (BOJ) at 9'10" however, detail #3 on drawing T300 shows cable tray in corridors. I do not see the cable tray spec. section. Could I get clarification on what is expected please and if it is to be cable tray, possibly more information as to type and size.

**A:** J-hook distribution is preferred by the owner. No wire mesh basket style cable tray is required, so detail #3 on sheet T300 can be ignored. Sizes for J-hooks are shown on the floor plans (4") and more info is listed in the specs 27 05 28.

Q: Is there any wood flooring on this project?

**A:** The product is tongue and groove wood planks, which could be a flooring product. To be used on the learning risers and bench under stairs in the 1st level atrium. See these details from sheet A501.

**Q:** Reference the following and clarify either: the overall center-line to center-line dimensions of the trench drain layout; or the required distance from the edge of the pool to the center-line of the trench drain.

1) Sheet AQ200 indicates the minimum edge to edge dimensions of the pool is: 176'-3 5/16" x 75'-0 <sup>3</sup>/4". 2) Detail 5/A730 appears to indicate the distance from the edge of the pool to the nearest edge of the trench (deck) drain is 13'-6". 3) Sheets P101L & P101M appear to indicate the trench (deck) drain layout around the pool to be approximately 90' x 191'.

A: See updated A101L & A101M with dimensions from the edge of the wall to centerline trench drain and to the inside pool. See attached. 1) Correct 2) No, detail 5/A730 does not show the distance 13'-6". 3) Correct, see updated sheet A101L & A101M with dimension.

#### **SPECIFICATIONS**

1. Add Spec section 08 22 00 Fiberglass Reinforced Plastic (FRP) Doors and Fiberglass Resin Transfer Molded Door Frames to the table of contents, add the spec section to the specifications in its entirety (see attached)

#### **DRAWINGS REVISIONS:**

 Drawing Number: G000 Drawing Title: COVER - VOLUME 1 Revision:

Add sheet index: 903, S002, A602, A603, A611, A612, A613, A614 Remove sheet index: S614 Revised sheet index 301 and 302 from "Site Demolition Plan" to "Site Dimension Plans"

# LANCER ASSOCIATES

 Drawing Number: G001
 Drawing Title: COVER - VOLUME 2 Revision:

Add sheet: E401G Change sheet M103L to M103LM Change sheet E\$102 to E\$201

 Drawing Number: A101L Drawing Title: FLOOR PLAN - FIRST FLOOR - UNIT L Revision:

Added dimensions from the north wall's edge to the inside pool.

Added dimensions from the west wall's edge to the inside pool.

Added dimensions from the north wall's edge to the center line of the trench drain and to the inside pool.

Added dimensions from the west wall's edge to the center line of the trench drain and to the inside pool.

Added dimensions from the center line of the westside trench drain to the inside pool.

Added new wall to fur out the east wall of Lobby L1000.

 Drawing Number: A101M Drawing Title: FLOOR PLAN - FIRST FLOOR - UNIT M Revision:

Added dimensions from the south wall's edge to the inside pool. Added dimensions from the south wall's edge to the center line of the trench drain and to the inside pool.

 Drawing Number: A611 Drawing Title: WINDOW SCHEDULE Revision:

Drawing 14/A611 removed note "THERMALLY BROKEN."

6. Drawing Number(s): A720 Drawing Title: FINISH LEGEND Revision:

Added general notes, T, U, and V, to the General Finish Plan Notes. Revised finish material information for EPX-1, EPX-2, EB-1, and EB-2.

#### 427 S. College Avenue, STE 103, Indianapolis, IN

# LANCER ASSOCIATES

 Drawing Number: A721L Drawing Title: INTERIOR FINISH PLAN – FIRST FLOOR – UNIT L Revision:

Added general notes, T, U, and V, to the General Finish Plan Notes. Added finish plan notes 1 to Plan Notes – Finish Plan. Added new wall to fur out the east wall of Lobby L1000. Added keynote annotation, 1, to the floor plan.

 Drawing Number: A721M Drawing Title: INTERIOR FINISH PLAN – FIRST FLOOR – UNIT M Revision:

Added general notes, T, U, and V, to the General Finish Plan Notes. Added finish plan notes 1 to Plan Notes – Finish Plan. Added keynote annotation, 1, to the floor plan.

 Drawing Number: A722L Drawing Title: INTERIOR FINISH PLAN – SECOND FLOOR – UNIT L Revision:

Added general notes, T, U, and V, to the General Finish Plan Notes. Revised finish tag information in Pool Seating M200, Vestibule L202 and M204.

10. Drawing Number: A722M Drawing Title: INTERIOR FINISH PLAN – SECOND FLOOR – UNIT M Revision:

Added general notes, T, U, and V, to the General Finish Plan Notes. Revised finish tag information in Vestibule M204 and M202.

 Drawing Number: A723J
 Drawing Title: INTERIOR FINISH PLAN – THIRD FLOOR – UNIT J Revision:

Added general notes, T, U, and V, to the General Finish Plan Notes. Added keynote annotation, 18, to the floor plan. Added elevation callout referring Elevation 7 on Sheet A754.

# LANCER ASSOCIATES

12. Drawing Number: A723K Drawing Title: INTERIOR FINISH PLAN – THIRD FLOOR – UNIT K Revision:

Added general notes, T, U, and V, to the General Finish Plan Notes. Added keynote annotation, 18, to the floor plan. Added elevation callout referring Elevation 7 on Sheet A754.

13. Drawing Number: A751 Drawing Title: INTERIOR ELEVATIONS Revision:

Revised 3D Acrylic Signage Element with LED Lighting's size on Elevation 4, Elevation Lobby L1000 North.

14. Drawing Number: A753 Drawing Title: INTERIOR ELEVATIONS Revision:

Revised interior elevation notes, 15, to Elevation Notes - Interior. Revised video board housing element and keynote, 15 on Elevation 3, Pool Deck M100 – West.

15. Drawing Number: A754 Drawing Title: INTERIOR ELEVATIONS Revision:

Revised interior elevation notes, 37 and 38, to Elevation Notes - Interior. Added Elevation 7, Elevation Corridor K3000 South.

16. Drawing Number: XXX Drawing Title: XXX Revision:

Added/Removed/Revised



#### Attachments:

Specification: 08 22 00, 33 42 00, Design27 Addendum 1 Narrative, Primary Engineering Addendum 1 Narrative, Crossroad Engineers Addendum 1 Narrative, Drawings: G000, G001, A101L, A101M, A720, A721L, A721M, A722L, A722M, A723J, A723K, A751, A753, A754, 400, 401, 500, 501, 700, 804, 901, 902, 1001, P100K, P100M, P101K, E101A, E101G, E101H, E202M, E503, E504, E701, E702, E706, E707, ES201, T201J, T201K, T201L, T201M, T202J, T202K, T202L, T202M, T203J, T203K, T203L, T203M, T500, T501.

00 12 10 Prosoco R-Guard Spray Wrap MVP Substitution Request Form 10 50 00 Solid Plastic Lockers Substitution Request Form 00 12 10 Case Systems Science Casework Substitution Request Form

#### End of Addendum 1

## SECTION 08 22 00 – FIBERGLASS REINFORCED PLASTIC (FRP) DOORS AND FIBERGLASS RESIN TRANSFER MOLDED DOOR FRAMES

PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section Includes The Following:
  - 1. Fiberglass Reinforced Plastic (FRP) Doors
  - 2. Fiberglass Resin Transfer Molded Door Frames

#### **1.2 QUALITY ASSURANCE**

Test certification by an independent and accredited laboratory is required for the properties listed in this Quality Assurance section. Reports shall be made available upon request for each of the standards and certifications described below.

- A. Reference Standards
  - 1. Door Properties
    - a) Standard test method for steady state thermal transmission properties by means of the heat flow meter apparatus.
    - b) Successfully completed 1,000,000 cycles test in accordance with: AAMA 920-03 – Specification for Operating Cycle Performance of Side-Hinged Exterior Door Systems. ANSI A250.4-2001 – Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames, Frame Anchors and Hardware Reinforcings. NWWDA TM-7 Test Method to Determine the Physical Endurance of Wood Doors and Associated Hardware Under Accelerated Operating Conditions.
      c) Florida Building Code SFBC PA 201 Impact Procedures for Large Missile Impact SFBC PA 202

Uniform Static Load on Building Components SFBC PA 203 Pressure SFBC 3603.2 Forced Entry Test ASTM E 1886 Impact and Cycling, Large Missile Impact ASTM E 1996 Specifications for Performance of Exterior Doors ASTM C 518 Heat Transfer ASTM D 1761 Mechanical Fasteners

2. Laminate Properties

Door face plate is a minimum of 0.125 inch thick fiberglass reinforced plastic molded into one continuous sheet starting with a 25 mil resin-rich gelcoat layer resin integrally molded with multiple layers of 1.5 oz. sq ft fiberglass mat and one layer of 18 oz per square yard fiberglass woven roving saturated with special resin. Door plate weight shall not be less than 0.97 lbs per square foot at a ratio of

#### 30/70 glass resin.

Laminated plate by itself evaluated in accordance with Florida Building Code TAS 201 Large Missile Impact Test as per ASTM-1996-05b, Standard Specification for Performance of Exterior Windows, Curtain Wall, Doors and Storm Shutters Impacted by Windborne Debris in Hurricanes. The missile (a 2 x 4 with a weight of 9 lbs shot from a cannon at a velocity of 50 ft/sec) did not penetrate the door face plate.

- a) ASTM D 638 Tensile Strength Properties of Plastic
- b) ASTM D 790 Flexural Strength Properties of Plastic
- c) ASTM D 2583 Indention Hardness of Plastics
- d) ASTM D 256 Izod Pendulum Impact Resistance
- e) ASTM D 792 Density/Specific Gravity Of Plastics
- f) ASTM D 1761 Mechanical Properties of Fasteners
- g) ASTM E 84 Surface Burning Characteristics of Materials
- h) ASTM G 155 Xenon Light Exposure of Non Metallic Materials
- i) ASTM D 635 Method For Rate of Burning
- j) ASTM D 2843 Smoke Density
- k) ASTM D 1929 Self Ignition Temperature Properties
- I) SFBC PA 201 Impact Procedures for Large Missile Impact
- 3. Core Properties
  - a) ASTM C 177 Thermal Properties of Materials
  - b) ASTM D 1622 Density and Specific Gravity
  - c) ASTM E 84 Surface Burning Characteristics of Materials
  - d) WDMA TM-10 and TM-5 Firestop ASTM E 152 U.L 10(b)
  - e) ASTM E90-04- Sound Transmission Loss
  - f) ASTM E413-04- Classification for Rating Sound Insulation
  - g) ASTM E1332-90- Standard Classification for Determination of Outdoor-Indoor Transmission Class
  - h) ASTM E2235-04- Standard Test for Determination of Decay Rates for Use in Sound Insulation Methods
- B. Qualifications
  - 1. Manufacturer Qualifications: A company specialized in the manufacture of fiberglass reinforced plastic (FRP) doors and frames as specified herein with a minimum of 30 years documented experience and with a record of successful inservice performance for the applications as required for this project.
  - 2. Installer Qualifications: An experienced installer who has completed fiberglass door and frame installations similar in material, design, and extent to those indicated and whose work has resulted in construction with a record of successful in-service performance.
  - 3. Source limitations: Obtain fiberglass reinforced plastic doors and resin transfer molded fiberglass frames through one source fabricated from a single manufacturer, including fire rated fiberglass frames. This ensures complete

uniformity of physical properties and consistency in the resin chemistry tailored for this application.

- 4. Source limitations: Hardware and accessories for all FRP doors as specified in Section 08710 shall be provided and installed by the fiberglass door and frame manufacturer.
- 5. Source Limitations: Glass for windows in doors shall be furnished and installed by door and frame manufacturer in accordance with related section, Division 8, Glazing.
- 1.3 SUBMITTALS
  - A. Product Technical Data Including:
    - 1. Acknowledgment that products submitted meet requirements of standards referenced.
    - 2. Manufacturer shall provide certificate of compliance with current local and federal regulations as it applies to the manufacturing process.
    - 3. Manufacturer's installation instructions.
    - 4. Schedule of doors and frames indicating the specific reference numbers used on the owner's project documents, noting door type, frame type, size, handing and applicable hardware.
    - 5. Details of core and edge construction. including factory construction specifications.
    - 6. Certification of manufacturer's qualifications.
  - B. Submittal Drawings for Customer Approval Shall be Submitted Prior to Manufacture and Will Include the Following Information and Formatting:
    - 1. Summary door schedule indicating the specific reference numbers as used on owner's drawings, with columns noting door type, frame type, size, handing, accessories and hardware.
    - 2. A drawing depicting front and rear door elevations showing hardware with bill of material for each door.
    - 3. Drawing showing dimensional location of each hardware item and size of each door.
    - 4. Individual part drawing and specifications for each hardware item and FRP part or product.
    - 5. Construction and mounting detail for each frame type.
  - C. Samples:
    - 1. Provide one complete manufactured door sample which represents all aspects of the typical manufacturing process, including molded in gelcoat color and face plate construction. One edge should expose the interior of the door depicting the unique u-shaped continuous piece stile and rail, hardware reinforcement and core material.
  - D. Operation and Maintenance Manual
    - 1. Include recommended methods and frequency for maintaining optimum condition of fiberglass doors and frames under anticipated traffic and use condition.
    - 2. Include one set of final as built drawings with the same requirements as mentioned in Section B above.
    - 3. Include certificate of warranty for door and frame listing specific door registration numbers.
    - 4. Include hardware data sheets and hardware manufacturer's warranties.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Each door and frame shall be delivered individually crated for protection from damage in cardboard containers, clearly marked with project information, door location, specific reference number as shown on drawings, and shipping information. Each crate shall contain all fasteners necessary for installation as well as complete installation instructions.
  - 1. Doors shall be stored in the original container on edge, out of inclement weather for protection against the elements.
  - 2. Handle doors pursuant to the manufacturer's recommendations as posted on outside of crate.

#### 1.5 WARRANTY

- A. All fiberglass doors and frames have a lifetime guarantee against failure due to corrosion. Additionally, fiberglass doors and fiberglass frames are guaranteed for ten years against failure due to materials and workmanship, including warp, separation or delamination, and expansion of the core.
- B. On site assistance available.

#### PART 2 – PRODUCTS

#### 2.1 ACCEPTABLE MANUFACTURERS

Subject to compliance with the Contract Documents, the following manufacturers are acceptable:

- A. Chem-Pruf Door Co., Ltd., P.O. Box 4560 Brownsville, Texas 78523 Phone: 1-800-444-6924-7943, Fax: 956-544- 7943, Website: <u>www.chem-pruf.com</u>
- B. Substitutions may be considered provided manufacturer can comply with the specifications as written herein and said products are manufactured in the United States of America. Requests for substitution must be submitted in writing no less then 10 days prior to bid date. Substitution request to include a physical sample and written documentation that product will meet the specific manufacturing methods as highlighted below.

#### 2.2 FRP DOORS

A. <u>Doors</u> shall be made of fiberglass reinforced plastic (FRP) using Class 1 premium resin with no fillers that is specifically tailored to resist chemicals and contaminants typically found in environment for which these specifications are written. Doors shall be 1 <sup>3</sup>/<sub>4</sub> inch thick and of flush construction, having no seams or cracks. For

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consistency in the resin chemistry tailored for this application and to maintain the same physical properties throughout the structure, all fiberglass components including face plates, stiles and rails and frames must be fabricated by the same manufacturer. Components obtained through various outside sources for plant assembly will not be accepted.

- B. <u>Door Plates</u> shall be 0.125 inch thick minimum, molded in one continuous piece, starting with 25 mil gelcoat of the color specified, integrally molded with multiple layers of 1.5 ounces per square foot fiberglass mat and one layer of 18 ounce per square yard fiberglass woven roving. Each layer shall be individually laminated with resin as mentioned above. Door plate weight shall not be less than 0.97 lbs per square foot at a ratio of 30/70 glass to resin. Plate alone to withstand Large Missile Impact per FBC TAS 201. Face plates manufactured using the pultrusion process does not allow for a smooth molded gelcoat finish, the use of woven roving for adequate plate thickness, strength and weight, or the appropriate glass to resin ratio and will not meet the quality standards of this project.
- C. <u>Stiles and Rails</u> shall be constructed starting from the outside toward the inside, with a matrix of at least three layers of 1.5 ounce per square foot of fiberglass mat. The stile and rail shall be molded in one continuous piece to a U-shaped configuration and to the exact dimensions of the door. In this manner there will be no miter joints and disparate materials used to form the one-piece stile and rail.
- D. <u>Core</u> material shall be Polypropylene plastic honeycomb core with a non woven polyester veil for unparalleled plate bonding, 180 PSI typical compression range unless otherwise requested.
- E. <u>Internal Reinforcement</u> shall be #2 SPF of sufficient amount to adequately support required hardware and function of same.
- F. <u>Finish</u> of door frame shall be identical with 25 mil resin-rich gelcoat of the specified color integrally molded in at time of manufacture resulting in a smooth gloss surface that is dense and non-porous. To achieve optimum surface characteristics, the gelcoat shall be cured within a temperature range of 120F to 170F creating an impermeable outer surface, uniform color throughout, and a permanent homogeneous bond with the resin/fiberglass substrate beneath. Only the highest quality gelcoat will be used to ensure enduring color and physical properties. Paint and/or post application of gelcoat results in poor mechanical fusion and will be deemed unacceptable for this application. The finish of the door and frame must be field repairable without compromising the integrity of the original uniform composite structure, function or physical strength.

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- G. <u>Window</u> openings shall be provided for at time of manufacture and shall be completely sealed so that the interior of the door is not exposed to the environment. Fiberglass retainers, which hold the glazing in place, shall be resin transfer molded with a profile that drains away from glazing. The window retainer must match the color and finish of the door plates with 25 mil of resin-rich gelcoat integrally molded in at time of manufacture. Mechanical fasteners shall not be used to attach retainers. Glass, as specified herein, shall be furnished and installed by door and frame manufacturer. In order to maintain uniform appearance, product longevity and the corrosion resistance this application requires, window retainers fabricated from Metal, PVC or Vinyl will not be accepted.
- H. <u>Louver</u> openings shall be completely sealed so that the interior of the door is not exposed to the environment. Louvers are to be solid fiberglass "V" Vanes and shall match the color and finish of the door plates.
- I. <u>Transoms</u> shall be identical to the doors in finish, construction, materials, thickness and reinforcement.

#### 2.3 FRP FRAMES

- A. <u>Frames</u> (rated and non-rated) shall be fiberglass and manufactured using the resin transfer method creating one solid piece (no voids) with complete uniformity in color and size. Beginning with a minimum 25 mil gelcoat layer molded in and a minimum of two layers of continuous strand fiberglass mat saturated with resin, the frame will be of one-piece construction with molded stop. All frame profiles shall have a core material of 2 psf polyurethane foam. Metal frames or pultruded fiberglass frames will not be accepted.
- B. <u>Finish</u> of frame shall be identical to the door with 25 mil resin-rich gelcoat of the specified color integrally molded in at time of manufacture. To achieve optimum surface characteristics, the gelcoat shall be cured within a temperature range of 120F to 170F creating an impermeable outer surface, uniform color throughout, and a permanent homogeneous bond with the resin/fiberglass substrate beneath. Only the highest quality gelcoat will be used to ensure enduring color and physical properties. Paint and/or post application of gelcoat result in poor mechanical fusion and will be deemed unacceptable for this application. The finish of the door and frame must be field repairable without compromising the integrity of the original uniform composite structure, function or physical strength.
- C. Jamb/Header connection shall be mitered for tight fit.
- D. <u>Internal Reinforcement</u> shall be continuous within the structure to allow for mounting of specified hardware. Reinforcing material shall be a dense matrix of cloth glass fibers and premium resin with a minimum hinge screw holding value of 1000 lbs per screw. All reinforcing materials shall be completely encapsulated. Documented strength of frame screw holding value after third insert must be submitted. Dissimilar materials, such as steel, will be deemed unacceptable as reinforcement for hardware attachment.
- E. <u>Mortises</u> for hardware shall be accurately machined by CNC to hold dimensions to +/-0.010 inch in all three axis.
- F. <u>Hinge pockets</u> shall be accurately machined by CNC to facilitate heavy duty hinges at all hinge locations, using shims when standard weight hinges are used.

#### 2.4 HARDWARE

- A. See Section 08710
- B. The special nature of this material requires that all related hardware as specified must be furnished and installed by the door frame manufacturer to maintain product quality and function as well as to ensure sufficient support/reinforcement, precision tooling and proper sealing methods are provided.

#### PART 3 – EXECUTION

#### 3.1 INSTALLATION CONDITIONS

- A. Verification of Conditions
  - 1. Verify openings are correctly prepared to receive doors and frames.
  - 2. Verify openings are correct size and depth in accordance with submittal drawings.
- B. Installer's Examination
  - 1. Door installer shall examine conditions under which construction activities of this section are to be performed and submit a written report to general contractor if conditions are unacceptable.
  - 2. General Contractor shall submit two copies of the installer's report to the architect within 24 hours of receipt.
  - 3. Installer shall not proceed with installation until all unacceptable conditions have been corrected.

#### 3.2 INSTALLATION

- A. Doors shall be delivered at job site individually crated. Each crate to be clearly marked with the specific opening information for quick and easy identification.
- B. All single doors to be shipped completely assembled in the frame with hardware installed. Double doors to be prehung at the factory to ensure a proper fit and that hardware functions properly, then disassembled for shipping purposes.
- C. Install door opening assemblies in accordance with shop drawings and manufacturer's printed installation instructions, using installation methods and materials specified in installation instructions.
- D. Field alteration of doors or frames to accommodate field conditions is strictly prohibited.
- E. Site tolerances: Maintain plumb and level tolerance specified in manufacturer's printed installation instructions.
- F. Fire labeled doors, frames and any associated hardware must be installed by qualified professional installers in strict accordance with manufacturer's instructions and the latest revision of NFPA 80.

#### 3.3 ADJUSTING

- A. Adjust doors in accordance with the door manufacturer's maintenance instructions to swing open and shut without binding and to remain in place at any angle without being moved by gravitational influence.
- B. Adjust door hardware to operate correctly in accordance with hardware manufacturer's maintenance instruction.

#### 3.4 CLEANING

A. Clean surfaces of door opening assemblies and exposed door hardware in accordance with respective manufacturer's maintenance instructions.

#### 3.5 PROTECTION OF INSTALLED PRODUCTS

A. Protect door opening assemblies and door hardware from damage by subsequent construction activities until final inspection.

#### End of Section



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# CLARK-PLEASANT COMMUNITY SCHOOL CORP. WHITELAND COMM. HIGH SCHOOL ADDITION PHASE 1: 3-STORY AND NATATORIUM ADDITION 100% CONSTRUCTION DOCUMENT (VOLUME 2) 08-11-2023



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P002	FIRST FLOOR - PLUMBING DEMOLITION PLAN - MISC UNITS	E203J	POWER PLAN - THIRD FLOOR - UNIT J
P003	BOILER ROOM - PLUMBING DEMOLITINO PLAN	E203K	POWER PLAN - THIRD FLOOR - UNIT K
P100J	UNDERGROUND - PLUMBING PLAN - UNIT J	E203L	POWER PLAN - THIRD FLOOR - UNIT L
P100K	UNDERGROUND - PLUMBING PLAN - UNIT K	E203M	POWER PLAN - THIRD FLOOR - UNIT M
P100L		E204J	POWER PLAN - ROOF - UNIT J
P101AGH	PARTIAL FIRST FLOOR - PLUBING PLAN - UNIT M	E204K	LIGHTING PLAN - FIRST FLOOR - UNIT A
P101J	FIRST FLOOR - PLUMBING PLAN - UNIT J	E301D	LIGHTING PLAN - FIRST FLOOR - UNIT D
P101K	FIRST FLOOR - PLUMBING PLAN - UNIT K	E301E	LIGHTING PLAN - FIRST FLOOR - UNIT E
P101L	FIRST FLOOR - PLUMBING PLAN - UNIT L	E301J	LIGHTING PLAN - FIRST FLOOR - UNIT J
P101M	FIRST FLOOR - PLUMBING PLAN - UNIT M	E301K	LIGHTING PLAN - FIRST FLOOR - UNIT K
P102J		E301L	
P102R	SECOND FLOOR - PLOMBING PLAN - UNIT I	E301M	LIGHTING PLAN - SECOND ELOOR - UNIT D
P102M	SECOND FLOOR - PLUMBING PLAN - UNIT M	E302E	LIGHTING PLAN - SECOND FLOOR - UNIT E
P103J	THIRD FLOOR - PLUMBING PLAN - UNIT J	E302J	LIGHTING PLAN - SECOND FLOOR - UNIT J
P103KLM	THIRD FLOOR - PLUMBING PLAN - UNIT K	E302K	LIGHTING PLAN - SECOND FLOOR - UNIT K
P301	ENLARGED PLUMBING PLANS	E302L	LIGHTING PLAN - SECOND FLOOR - UNIT L
P302		E302M	
P401	PLUMBING DETAILS	E3035	LIGHTING PLAN - THIRD FLOOR - UNIT J
P403	PLUMBING DETAILS	E303L	LIGHTING PLAN - THIRD FLOOR - UNIT L
P501	PLUMBING SCHEDULES	E303M	LIGHTING PLAN - THIRD FLOOR - UNIT M
		E401A	FIRE ALARM PLAN - FIRST FLOOR - UNIT A
07_MECHA		E401D	FIRE ALARM PLAN - FIRST FLOOR - UNIT D
M002D	SECOND FLOOR - MECHANICAL DEMOLITION FLAN - UNIT D		FIRE ALARMPLAN - FIRST FLOOR - UNIT J
M003	FIRST FLOOR - MECHANICAL DEMOLITION PLAN - BOILER ROOM	E401K	FIRE ALARM PLAN - FIRST FLOOR - UNIT K
M101A	FIRST FLOOR - MECHANICAL PLAN - UNIT A	E401L	FIRE ALARM PLAN - FIRST FLOOR - UNIT L
M101GH	FIRST FLOOR - MECHANICAL PLAN - UNIT G AND H	E401M	FIRE ALARM PLAN - FIRST FLOOR - UNIT M
M101J	FIRST FLOOR - MECHANICAL PLAN - UNIT J	E402D	FIRE ALARM PLAN - SECOND FLOOR - UNIT D
M101K	FIRST FLOOR - MECHANICAL PLAN - UNIT K		FIRE ALARM PLAN - SECOND FLOOR - UNIT E
M101L	FIRST FLOOR - MECHANICAL PLAN - UNIT M	E402K	FIRE ALARM PLAN - SECOND FLOOR - UNIT K
M102J	SECOND FLOOR - MECHANICAL PLAN - UNIT J	E402L	FIRE ALARM PLAN - SECOND FLOOR - UNIT L
M102K	SECOND FLOOR - MECHANICAL PLAN - UNIT K	E402M	FIRE ALARM PLAN - SECOND FLOOR - UNIT M
M102L	SECOND FLOOR - MECHANICAL PLAN - UNIT L	E403J	FIRE ALARM PLAN - THIRD FLOOR - UNIT J
M102N		E403K	
M1035	THIRD FLOOR MECHANICAL PLAN - UNIT K	E403E	FIRE ALARM PLAN - THIRD FLOOR - UNIT M
M103LM	THIRD FLOOR - MECHANICAL PLAN - UNIT L	E501	DETAILS
1M104	~ ROOF-MECHANICAL PLAN-UNITSY, K, 'L'AND'M	E502	DETAILS
M105	ROOF - MECHANICAL PLAN - UNITS A,E AND F	E503	DETAILS
M301		E504	DETAILS
M302 M303		E601	SERVICE ENTRANCE AND DISTRIBUTION DIAGRAM MDP2
M401	MECHANICAL DETAILS	E603	SERVICE ENTRANCE AND DISTRIBUTION DIAGRAM MDSH
M402	MECHANICAL DETAILS	E604	GROUNDING AND BOUNDING DIAGRAMS
M403	MECHANICAL DETAILS	E701	SCHEDULES
M404	MECHANICAL DETAILS	E702	SCHEDULES
M405		E703	SCHEDULES
M501 M502		E704	
M502	MECHANICAL SCHEDULES	E705	SCHEDULES
M504	MECHANICAL SCHEDULES	E707	SCHEDULES
M601	MECHANICAL CONTROLS	E708	SCHEDULES
		E709	SCHEDULES
08_ELECT		E710	SCHEDULES
E000			
E101A			
E101E	ELECTRICAL DEMOLITION PLAN - FIRST FLOOR - UNIT E	09 TECH	
E101G	ELECTRICAL DEMOLITION PLAN - FIRST FLOOR - UNIT G	TD101	FIRST FLOOR OVERALL DEMOLITION PLAN
E101H	ELECTRICAL DEMOLITION PLAN - FIRST FLOOR - UNIT H	TD101D	FIRST FLOOR DEMOLITION PLAN - UNIT D
E102D	ELECTRICAL DEMOLITION PLAN - SECOND FLOOR - UNIT D	TD101E	FIRST FLOOR DEMOLITION PLAN - UNIT E
E102E	ELECTRICAL DEMOLITION PLAN - SECOND FLOOR - UNIT E		

	SHEET INDEX - VOLUME 2	
01K	FIRST FLOOR DISTRIBUTION PLAN - UNIT K	
01L	FIRST FLOOR DISTRIBUTION PLAN - UNIT L	
01M	FIRST FLOOR DISTRIBUTION PLAN - UNIT M	
02	SECOND FLOOR OVERALL DISTRIBUTION PLAN	
02J	SECOND FLOOR DISTRIBUTION PLAN - UNIT J	
02K	SECOND FLOOR DISTRIBUTION PLAN - UNIT K	
02L	SECOND FLOOR DISTRIBUTION PLAN - UNIT L	
02M	SECOND FLOOR DISTRIBUTION PLAN - UNIT M	
03	THIRD FLOOR OVERALL DISTRIBUTION PLAN	
03J	THIRD FLOOR DISTRIBUTION PLAN - UNIT J	
03K	THIRD FLOOR DISTRIBUTION PLAN - UNIT K	
03L	THIRD FLOOR DISTRIBUTION PLAN - UNIT L	
03M	THIRD FLOOR DISTRIBUTION PLAN - UNIT M	
00	SECURITY SITE PLAN	
01J	FIRST FLOOR TECHNOLOGY PLAN - UNIT J	
01K	FIRST FLOOR TECHNOLOGY PLAN - UNIT K	
01L	FIRST FLOOR TECHNOLOGY PLAN - UNIT L	
01M	FIRST FLOOR TECHNOLOGY PLAN - UNIT M	
02J	SECOND FLOOR TECHNOLOGY PLAN - UNIT J	
02K	SECOND FLOOR TECHNOLOGY PLAN - UNIT K	
02L	SECOND FLOOR TECHNOLOGY PLAN - UNIT L	
02M	SECOND FLOOR TECHNOLOGY PLAN - UNIT M	
03J	THIRD FLOOR TECHNOLOGY PLAN - UNIT J	
03K	THIRD FLOOR TECHNOLOGY PLAN - UNIT K	
03L	THIRD FLOOR TECHNOLOGY PLAN - UNIT L	
03M	THIRD FLOOR TECHNOLOGY PLAN - UNIT M	
00	TELECOM DIAGRAMS	
01	SECURITY DIAGRAMS	
02	ENLARGED TR LAYOUTS	
03	ENLARGED TR LAYOUTS	
04	TELECOM RACK ELEVATIONS	
05	TELECOM RACK ELEVATIONS	
06	AUDIO VISUAL DIAGRAMS	
07	AUDIO VISUAL DIAGRAMS	
08	AUDIO VISUAL DIAGRAMS	
09	AUDIO VISUAL DIAGRAMS	
10	AUDIO VISUAL RACK ELEVATIONS	
11	AUDIO VISUAL ELEVATIONS	
00	TECHNOLOGY DETAILS	
01	TECHNOLOGY DETAILS	
02	TECHNOLOGY DETAILS	
03	SECURITY DETAILS	
04	SECURITY DETAILS	
00	TELECOM/SECURITY SCHEDULES	
01	TELECOM/SECURITY SCHEDULES	













**VOLUME 2** 







A101L








# GENERAL NOTES

- 1. PROVIDE 6'-0" HIGH CORNER GUARDS AT ALL OUTSIDE CORNERS WITH GYPSUM BOARD FINISH. FLOOR TO CEILING HEIGHT
- 2. PROVIDE BULL-NOTE FINISH ON ALL OUTSIDE CORNERS OF CMU WALLS
- 3. SEE ELEVATIONS FOR MASONRY TYPE AND SIZE
- 4. PROVIDE SOLID SURFACE WINDOW SILLS @ ALL STOREFRONT GLAZING SILLS ABOVE FINISHED FLOOR HEIGHT. WINDOW SILL TO EXTEND 1" PAST FINISHED WALL SURFACE, TYP. UNLESS OTHERWISE NOTED
- 5. SEE A110s FOR ENLARGED PLANS
- 6. VIF ALL DIMENSIONS FOR WINDOWS AND CASEWORK
- 7. INTERIOR DIMENSIONS ARE TAKEN TO THE FACE OF MASONRY OR STUDS 8. FOR ALL RESTROOM FACILITIES WITH GYPSUM WALL FINISH REPLACE 5/8"
- TYPE "X" GYPSUM BOARD WIHT 5/8" MOISTURE RESISTANT GYPSUM BOARD, SEE SPECS FOR DETAILS
- 9. WHERE COLUMN IS NOT INDICATED TO BE WRAPPED, PAINT IT P2
- 10. TYPICAL FLOOR PLAN ANGLE IS 5 DEGREES FROM CARDINAL DIRECTIONS 11. WALLS TO GO UP TO DECK UNLESS OTHERWISE NOTED 12. PROVED WINDOW SHADES AT ALL EXTERIOR AND INTERIOR STOREFRONTS
- 13. PROVIDE NEW SIGNAGE ON ALL EXTERIOR DOORS AROUND THE BUILDING SHOWING UPDATED DOOR NUMBERS

# > PLAN NOTES - FLOOR PLAN

- 1 FLOOR/WALL EXPANSION JOINT AND COVER
- 5 WALL-MOUNTED MARKERBOARD, 12'-0" X 4'-0" 6 WALL-MOUNTED MARKERBOARD, 16'-0" X 4'-0"
- 7 WALL-MOUNTED MARKERBOARD, 24'-0" X 4'-0" 8 WALL-MOUNTED GLASS MARKERBOARD 6'-0"X13'4"
- 9 WOOD BENCH IN ALCOVE OVER CMU WALL
- 10 SECURITY GLAZING UP TO 7'-0" 11 SECURITY GLAZING UP TO CEILING
- 12 CUSTUM DISPLAY CASE & BENCH, REFER TO INTERIOR ELEVATION
- 13 DISPLAY CASE, REFER TO INTERIOR 14 PERFORATED METAL PANEL HAND RAILS AND GUARD RAILS 15 SOLID SURFACE COUNTERTOP AT 42" AFF
- 16 WALL MOUNTED BI-LEVEL DRINKING FOUNTAIN & BOTTLE FILLER 18 SCIENCE TABLE SIMILAR TO SHELDON LABS AXIS TABLE, FIXED HEIGHT. COORDINATE FINAL LAYOUT WITH THE MANUFACTURER. LOCATE PLUMBING AND ELECTRICAL PENETRATIONS AFTER THE COORDINATION
- 20 FUME HOOD 21 ELEVATOR SIMILAR TO TK ELEVATOR ENDURA, 5,000 LB CAPACITY
- 22 EMERGENCY WASH STATION 23 WALL-MOUNTED MONITOR
- 30 DOWNSPOUT
- 31 INFILL WALLOPENING AND MATCH EXISTING WALL CONSTRUCTION. PATCH WALL BASE
- 32 EMERGENCY SHOWER AND EYEWASH STATION 33 FREE STANDING FLOOR MOUNTED LAUNDRY SINK
- 34 SEMI-RECESS FIRE EXTINGUISHER AND CABINET 35 ALUMINUM/GLASS GURADRAIL. FACE-MOUNTED TO THE BULKHEAD
- 36 ALUMINUMHANDRAIL MOUNTED TO THE WALL
- 37 ALUMINUMHANDRAIL MOUNTED TO THE FLOOR 38 PLASTIC BLEACHER SEATS MOUNTED TO CONCRETE RISERS
- 39 PRE-MANUFACTURED STEEL STAIR 40 SANITIZING SAFETY GLASSES CABINET
- 41 FIRST AID CABINET
- 42 FIRE BLANKET CABINET 44 PATCH FLOOR SLAB AFTER REMOVING WALL BELOW THE LOUVER 45 RELOCATE EXISTING DUST COLLECTION SYSTEM
- 46 PATCH EXISTING SLAB AS NEEDED TO ACCOMMODATE NEW WORK 47 CONCRETE BENCH SEAT, SEE LA AND STR DRAWING 48 COPIER BY OWNER 49 REFRIGERATORR BY OWNER
- 50 PATCH EXISTING WALL AND BRICK IN THE WINDOW INFILLS 51 ALIGN NEW STOREFRONT WITH EXISTING MULLIONS
- 52 SLIDING SECURITY GATE SIMILAR TO CORNELL MODEL ESC31. WITH ACRYLIC INFILL PANELS. PROVIDE CONTINUOUS HINGE ON THE POCKET DOOR
- 53 DRINKING FOUNTAIN WITH BOTTLE FILLER 54 INFILL WINDOW TO MATCH ADJACENT WALL
- 55 MOP SINK
- 56 PROVIDE MULLION MATE CONNECTION BETWEEN WALL AND MULLION OR SIMILAR
- 57 GUARD RAIL AND GATES58 LADDER RUNGS
- 59 ENCASE COLUMN IN CONCRETE, SEE STRUCTURAL









A101M









A. PRI	DR TO INSTALLATION OF NEW FINISHES CONTRACTOR SHALL INSPECT ALL
SUI	3STRATES. IF A SUBSTRATE IS DEEMED UNACCEPTABLE, THE CONTRACTOR SH
REI	PAIR AS NECESSARY FOR SUBSTRATE TO ACCEPT NEW MATERIALS.
B. Con	ITRACTOR TO VERIFY EXISTING CONDITIONS AND REPAIR ALL EXISTING WALLS
Ani	O CEILINGS TO A CONDITION SUITABLE FOR ACCEPTING NEW FINISHES AS PER
MA	NUFACTURER'S RECOMMENDED INSTALLATION METHODS. MINIMUM LEVEL 4 FI
ON	EXISTING AND NEW WALLS, UNLESS NOTED OTHERWISE.
C. ALL	FLOORING TRANSITIONS TO COMPLY WITH ADA GUIDELINES AND TO OCCUR U
CEI	ITOR OF DOORWAYS, AND OR AT CENTERLINE OF WALL. UNLESS INDICATED
DIF	FERENTLY ON FINISH PLANS.
D. COI TO	ITRACTOR TO PROVIDE PROTECTION AS NEEDED DURING CONSTRUCTION, IF A PRESERVE NEW FINISHES WHILE COMPLETING CONSTRUCTION.
E. CON	ITRACTOR SHALL BE RESPONSIBLE FOR VERIFACTION OF DIMENSIONS AND JO
CO	NDITIONS. ANY DEVIATION FROM WHAT IS INDICATED ON THE FINISH PLANS SHA
BR(	DUGHT TO THE ATTENTION OF THE ARCHITECTS AND DESIGNERS.
F. ALL	DIMENSIONS SHOWN ARE TO FACE OF FINISH MATERIAL, UNLESS INDICATED
OTH	IERWISE ON PLANS.
G. WH	ERE WALLS ARE INDICATED TO RECEIVE PAINT FINISH, PAINT ALL PRIMED GRILL
FIR	E EXTINGUISHER CABINERS, AND OTHER ITEMS EMBEDDED IN WALL CONSTRUC
TO	MATCH SURFACE ON WHICH THEY OCCUR UNLESS NOTED OTHERWISE.
H. COI	ITRACTOR TO PROVIDE DRYWALL REVEAL JOINT WHERE DRYWALL MEETS
DIS	SIMILAR MATERIALS.
I. CON	TRACTOR TO PROVIDE SCHLUTER EDGE WHERE TILE MEETS DISSIMILAR MATE
REFE	TO FINISH MATERIAL LEGEND AND INTERIOR ELEVATIONS FOR FURTHER DET
J. DO I	NOT INSTALL GYPSUM BOARD BEHIND TILE BACKER BOARD LOCATIONS.
K. IF C FOI	NLY PAINT IS INDICATED AS THE FINISH, REFER TO ARCHITECTURAL FLOOR PLA SUBSTRATE INFORMATION.
L. ALL	TERRAZZO EDGES ARE TO BE SANDED AND FINISHED TO WHERE TERRAZZO MI
DIS	SIMILAR FLOORING.
M. REI	ER TO INTERIOR TRANSITION DETALS SHEET A731 FOR TRANSITION STRIP PRO
DE	AILS.
N. ALL	MECHANICAL CLOSETS TO HAVE A SEALED CONCRETE FLOOR FINISH. PROVIDI
RES	SILIENT REDUCER TO MATCH RB-1 UNDER CENTER OF DOORWAY.
O. ALL	WALLS AND CEILINGS TO BE PAINTED PT-1, UNLESS NOTED OTHERWISE.
P. MET	AL DIVIDER STRIPS TO BE PROVIDED AT EACH TERRAZZO COLOR CHANGE.
DESI	GNER TO APPROVE COLOR.
Q. ALL	WINDOWS TO RECEIVE SOLID SURFACE SILL, SS-3.
R. ALL	HM DOOR FRAMES ARE TO BE PAINTED PT-6 UNLESS NOTED OTHERWISE.
S. RE	FERENCE ELEVATIONS FOR CUSTOM WALL GRAPHICS.
T. WHI DES	ERE FLOORING PATTERN GRAIN CHANGES AT CORRIDORS, INSTALLER MUST HA
U. ALL	GYPSUM BOARD CEILING AND BULKHEADS TO BE PAINTED PT-1, UNLESS NOTE
OTI	IERWISE.
V. ALL	EXPOSED STEEL COLUMNS THAT ARE IN ATRIUM J1000 AND K1000 TO BE PAINT
PT-	1. ALL OTHERS TO MATCH ADJACENT WALL COLOR.

# FINISH LEGEND

## FLOOR COVERING

	CARPET	THE		TERRAZ	ZO	
	CPT-1:	MFG: TYPE: PATTERN: COLOR: INSTALL:	INTERFACE 25CM X 1M CARPET PLANK STREAMING COLLECTION - BITRATE 106305 DARK BLUE ASHLAR, REF. PLAN FOR DIRECTION	TER-1:	MFG: TYPE: COLOR:	SANTAROSSA TILE VITRIFIED EPOXY TERRAZZO GRAY BUTTON (MATRIX), 5% DARK BLUE GLASS #1, 5% DARK BLUE GLASS #0, 10% GEORGIA WHITE #0, 50% GEORGIA WHITE #1, 10% BEIGE BLEND #1, 20% CHINA WHITE #1
		CONTACT:	JAE PARK 317-459-8762		INSTALL:	DESIGNER TO APPROVE REF. SPECS. METAL
	CPT-2:	MFG: TYPE: PATTERN: COLOR:	INTERFACE 25CM X 1M CARPET PLANK NIGHT LIGHTS COLLECTION - LUMINESCENT IRON AZURE		LOCATION: CONTACT:	TRANSITION STRIP TO BE USED AT ALL TRANSITIONS, REF. FINISH PLAN. ATRIUM, NATATORIUM CORRIDOR ERIC SANTAROSSA 317-632-5567
		INSTALL:	90% ASHLAR, REF. PLAN FOR DIRECTION		MEG	SANTAROSSA TILE
		CONTACT:	FLEX SPACE JAE PARK 317-459-8762	1614-2.	TYPE: COLOR:	VITRIFIED EPOXY TERRAZZO ERMINE WHITE (MATRIX), 5% DARK
	CPT-3:	MFG: TYPE: PATTERN:	INTERFACE 25CM X 1CM CARPET PLANK NIGHT LIGHTS COLLECTION - LUMINESCENT			BLUE GLASS #1, 5% DARK BLUE GLASS #0, 10% GEORGIA WHITE #0, 50% GEORGIA WHITE #1, 10% BEIGE BLEND #1, 20% CHINA WHITE #1, DESIGNER TO APPROVE.
		LOCATION:	10% RANDOM ASHLAR, REF. PLAN FOR DIRECTION FLEX SPACE		INSTALL:	REF. SPECS. METAL TRANSITION STRIP TO BE USED AT ALL TRANSITIONS, REF. FINISH
	WOC-1:	CONTACT: MFG:	JAE PARK 317-459-8762 INTERFACE		LOCATION: CONTACT:	ATRIUM, NATATORIUM CORRIDOR ERIC SANTAROSSA 317-632-5567
		TYPE: PATTERN: COLOR: INSTALL: LOCATION: CONTACT:	50CM X 50CM WALK-OFF STEP REPEAT SR799 104936 IRON QUARTER-TURN VESTIBULES JAE PARK 317-459-8762	TER-3:	MFG: TYPE: COLOR:	SANTAROSSA TILE VITRIFIED EPOXY TERRAZZO GREAT SMOKIES(MATRIX), 5% DARK BLUE GLASS #1, 5% DARK BLUE GLASS #0, 10% GEORGIA WHITE #0, 50% GEORGIA WHITE #1, 10% BEIGE
	RESILIE	NT FLOOR				BLEND #1, 20% CHINA WHITE #1,
	LVI-1:	MFG: TYPE:	INTERFACE 25CM X 1CM LUXURY VINYL TILE		INSTALL:	REF. SPECS. METAL TRANSITION STRIP TO BE USED AT
		PATTERN: COLOR: INSTALL: LOCATION:	A007 STUDIO SET A00702 PEWTER ASHLAR, REF. PLAN FOR DIRECTION HALLWAYS		LOCATION: CONTACT:	ALL TRANSITIONS, REF. FINISH PLAN ATRIUM, NATATORIUM CORRIDOR ERIC SANTAROSSA 317-632-5567
		CONTACT:	JAE PARK 317-459-8762	TER-4:	MFG:	SANTAROSSA TILE
	LV1-2:	TYPE:	INTERFACE 25CM X 1CM LUXURY VINYL TILE A007 STUDIO SET		COLOR:	LEGENDARY BLUE (MATRIX), 25% MIRROR #1, 37.5% SKY BLUE GLASS #1, 37.5% CLEAR GLASS #1 -
		COLOR: INSTALL:	A00720 ROYAL BLUE ASHLAR, REF. PLAN FOR DIRECTION		INSTALL:	DESIGNER TO APPROVE REFER TO ENLARGED FLOOR FINISH PLAN
٢		CONTACT:	JAE PARK 317-459-8762		LOCATION:	ATRIUM LOGO/EMBLEM - FINAL LOGO DESIGN TO BE DETERMINED
くくくく	EPA-1:	TYPE:	PERFORMANCE FLOORING RESUFLOR 1/4" DECO FLAKE BC EPOXY SYSTEM	TER-5:	MFG: TYPE: COLOR:	SANTAROSSA TILE VITRIFIED EPOXY TERRAZZO REALLY ORANGE (MATRIX), 25% CHUNKY ORANGE #1, 65% CRYSTAL
		INSTALL:	MONOLITHIC, 4" INTEGRAL COVE BASE REF. SPECS			CLEAR GLASS #1, 10% ONE SIDED MIRROR #1 - DESIGNER TO APPROVE
ł		CONTACT:	SCOTT KAISER 503-319-5209		INSTALL:	REFER TO ENLARGED FLOOR FINISH PLAN
2	EPX-2:	MFG:	SHERWIN WILLIAMS HIGH PERFORMANCE FLOORING		LUCATION:	A I RIUM LOGO/EMBLEM - FINAL LOGO DESIGN TO BE DETERMINED
		COLOR: INSTALL:	RESUFLOR 1/8" DECOFLAKE BC EPOXY SYSTEM WITH CLEAR CHEMICAL RESISTANT TOPCOAT REBEL BLUE MONOLITHIC, 4" INTEGRAL COVE BASE REF. SPECS	TER-6:	MFG: TYPE: COLOR:	SANTAROSSA TILE VITRIFIED EPOXY TERRAZZO ERMINE WHITE (MATRIX), 30% POLAR WHITE #1, 15% MIRROR #1, 50% GEORGIA WHITE #1, 5% CHINA WHITE #1
5	uuu	CONTACT:	SCOTT KAISER 503-319-5209		INSTALL:	REFER TO ENLARGED FLOOR FINISH PLAN
	EPX-3:	MFG: TYPE: COLOR: INSTALL:	SHERWIN WILLIAMS HIGH PERFORMANCE FLOORING FASTOP MULTI TOPFLOOR SL23 DARK GRAY MONOLITHIC, 4" INTEGRAL COVE BASE REF. SPECS		LOCATION:	ATRIUM LOGO/EMBLEM - FINAL LOGO DESIGN TO BE DETERMINED

LOCATION: POOL MECHANICAL/CHEMICAL

CONTACT: SCOTT KAISER 503-319-5209

RRAZ	ZO	
R-1:	MFG: TYPE: COLOR:	SANTAROSSA TILE VITRIFIED EPOXY TERRAZZO GRAY BUTTON (MATRIX), 5% DARK BLUE GLASS #1, 5% DARK BLUE GLASS #0, 10% GEORGIA WHITE #0, 50% GEORGIA WHITE #1, 10% BEIGE BLEND #1, 20% CHINA WHITE #1,
	INSTALL:	DESIGNER TO APPROVE REF. SPECS. METAL TRANSITION STRIP TO BE USED AT ALL TRANSITIONS, REF. FINISH
	LOCATION: CONTACT:	ATRIUM, NATATORIUM CORRIDOR ERIC SANTAROSSA 317-632-5567
R-2:	MFG: TYPE: COLOR:	SANTAROSSA TILE VITRIFIED EPOXY TERRAZZO ERMINE WHITE (MATRIX), 5% DARK BLUE GLASS #1, 5% DARK BLUE GLASS #0, 10% GEORGIA WHITE #0, 50% GEORGIA WHITE #1, 10% BEIGE BLEND #1, 20% CHINA WHITE #1,
	INSTALL:	DESIGNER TO APPROVE. REF. SPECS. METAL TRANSITION STRIP TO BE USED AT ALL TRANSITIONS, REF. FINISH PLAN
	LOCATION: CONTACT:	ATRIUM, NATATORIUM CORRIDOR ERIC SANTAROSSA 317-632-5567
R-3:	MFG: TYPE: COLOR:	SANTAROSSA TILE VITRIFIED EPOXY TERRAZZO GREAT SMOKIES (MATRIX), 5% DARK BLUE GLASS #1, 5% DARK BLUE GLASS #0, 10% GEORGIA WHITE #0, 50% GEORGIA WHITE #1, 10% BEIGE BLEND #1, 20% CHINA WHITE #1,
	INSTALL:	DESIGNER TO APPROVE. REF. SPECS. METAL TRANSITION STRIP TO BE USED AT ALL TRANSITIONS, REF. FINISH PLAN
	LOCATION: CONTACT:	ATRIUM, NATATORIUM CORRIDOR ERIC SANTAROSSA 317-632-5567
R-4:	MFG: TYPE: COLOR:	SANTAROSSA TILE VITRIFIED EPOXY TERRAZZO LEGENDARY BLUE (MATRIX), 25% MIRROR #1, 37.5% SKY BLUE GLASS #1, 37.5% CLEAR GLASS #1 -
	INSTALL:	REFER TO ENLARGED FLOOR FINISH
	LOCATION:	ATRIUM LOGO/EMBLEM - FINAL LOGO DESIGN TO BE DETERMINED
R-5:	MFG: TYPE: COLOR:	SANTAROSSA TILE VITRIFIED EPOXY TERRAZZO REALLY ORANGE (MATRIX), 25% CHUNKY ORANGE #1, 65% CRYSTAL CLEAR GLASS #1, 10% ONE SIDED MIRROR #1 - DESIGNER TO APPROVE
	INSTALL:	REFER TO ENLARGED FLOOR FINISH PLAN
	LOCATION:	ATRIUM LOGO/EMBLEM - FINAL LOGO DESIGN TO BE DETERMINED
R-6:	MFG: TYPE: COLOR:	SANTAROSSA TILE VITRIFIED EPOXY TERRAZZO ERMINE WHITE (MATRIX), 30% POLAR WHITE #1, 15% MIRROR #1, 50% GEORGIA WHITE #1, 5% CHINA

FLOOR COVERING (CONT.)

FLOO	R COVER	ING (CONT.)		WALL	BASE	
	TU 6			EDOVV		
FT-1:	MFG: TYPE:	DALTILE COLOR-BODY PORCELAIN	<b>}</b>	EB-1:	MFG:	SHERW
		MOSAIC	}		TYPE:	RESUFL
	SIZE: COLOR:	2"X2" ARTIC WHITE D617 MADEL DEW/TED 02			COLOR: INSTALL:	REBEL E MONOLI
	LOCATION:	FROM POOL EDGE TO TRENCH	ł			LOCKER
	CONTACT:	ROBIN BRADFORD 317-946-0823	{	EB 2.	MEG.	
FT-2:	MFG:	DALTILE	Ę	LD-2.	WI O.	PERFOR
	TYPE:	COLOR-BODY PORCELAIN MOSAIC	{		TYPE:	RESUFL EPOXY S
	PATTERN: SIZE: COLOR:	KEYSTONES 2"X2" NAUTICAL BLUE D621			COLOR: INSTALL:	REBEL E MONOLI
	LOCATION:	POOL DECK, ADJACENT TO TRENCH DRAIN, REF. PLAN.	ł		LOCATION: CONTACT:	SCIENCI SCOTT I
	CONTACT:	ROBIN BRADFORD 317-946-0823	$\Lambda$	EB-3:	MFG:	SHERW
FT-3:	MFG: TYPE:	DALTILE COLOR-BODY PORCELAIN MOSAIC			TYPE: COLOR:	PERFOF FASTOP DARK G
	PATTERN: SIZE:	KEYSTONES 2"X2"			INSTALL:	MONOLI COVE B
	COLOR: GROUT: LOCATION:	DESERT GRAY SPECKLE D200 MAPEI, PEWTER 02 FROM TRENCH DRAIN TO REST			LOCATION: CONTACT:	POOL M SCOTT I
		OF POOL DECK, REF. PLAN.		RESILIE	NT BASE	
	CONTACT:	ROBIN BRADFORD 317-946-0823		RB-1:	MFG:	TARKE
					TYPE:	4" VIN)
CONCRI	ETE				COLOR:	48 GRE
S-CON:	TYPE:	SEALED CONCRETE,			LOCATION:	STANL
		REF. SPECS			REMARKS:	
SS-CON	: TYPE:	STAINED AND SEALED			CONTACT:	JEN M
					°E	
		REF. SPEUS			JE MEC:	ייד ואם
				10-1.	TYPE	PORCE
					PATTERN:	KEYST

TERRAZZO BASE

LOCATION: 1ST LEVEL

## PAINT/WALL FINISH

~ ~ ~		
: DR: ALL: TION: TACT:	SHERWIN WILLIAMS HIGH PERFORMANCE FLOORING RESUFLOR 1/4" DECO FLAKE BC EPOXY SYSTEM REBEL BLUE MONOLITHIC, 4" INTEGRAL COVE BASE REF. SPECS LOCKER ROOMS, RESTROOMS, SCOTT KAISER 503-319-5209	
: DR: ALL: TION: TACT:	SHERWIN WILLIAMS HIGH PERFORMANCE FLOORING RESUFLOR 1/8" DECO FLAKE BC EPOXY SYSTEM WITH CLEAR CHEMICAL RESISTANT TOPCOAT REBEL BLUE MONOLITHIC, 4" INTEGRAL COVE BASE REF. SPECS SCIENCE LABS SCOTT KAISER 503-319-5209	
	SHERWIN WILLIAMS HIGH	

PERFORMANCE FLOORING FASTOP MULTI TOPFLOOR SL23 R: DARK GRAY ALL: MONOLITHIC, 4" INTEGRAL COVE BASE REF. SPECS TION: POOL MECHANICAL/CHEMICAL

PT-6:

WT-2:

ACT: SCOTT KAISER 503-319-5209

TARKETT JOHNSONITE 4" VINYL WALL BASE OR: 48 GREY TION: STANDARD ARKS: COLOR TO ALSO BE USED WITH ALL VINYL TRANSITION STRIPS TACT: JEN MAYNARD 765-480-3266

DALTILE PORCELAIN BUILD-UP COVE BASE FERN: KEYSTONES SIZE: 6" H/MB5A COLOR: DESERT GRAY SPECKLE D200

GROUT: MAPEI, PEWTER 02 LOCATION: POOL DECK CONTACT: ROBIN BRADFORD 317-946-0823

TERB-1: MFG: SANTAROSSA TILE TYPE: 4" INTEGRAL WALL BASE COLOR: MATCH TER-1 MIX INSTALL: INTEGRAL BASE, REF. SPECS

**Paint** PT-1: MFG: PPG COLOR: SHADED WHISPER PPG0995-1 LOCATION: STANDARD/ATRIUM/CORRIDORS/ COLUMNS/ NATATORIUM/ HM DOORS AND FRAMES CONTACT: MIKE WAGGONER 502-263-9371 PT-2: MFG: PPG COLOR: STEELY GAZE PPG0996-2 LOCATION: CLASSROOMS/RESTROOMS CONTACT: MIKE WAGGONER 502-263-9371 PT-3: MFG: PPG COLOR: STATUE GARDEN PPG0996-3 LOCATION: POOL AREA ACCENT CONTACT: MIKE WAGGONER 502-263-9371 PT-4: MFG: PPG COLOR: FLORENTINE LAPIS PPG1244-7 LOCATION: ACCENT WALLS CONTACT: MIKE WAGGONER 502-263-9371 PT-5: MFG: PPG COLOR: SEASAME CRUNCH PPG1198-7 LOCATION: ACCENT WALLS CONTACT: MIKE WAGGONER 502-263-9371 MFG: PPG COLOR: CITY SKYLINE PPG0995-6 LOCATION: HM DOORS FRAMES CONTACT: MIKE WAGGONER 502-263-9371 WALL TILE WT-1: MFG: DALTILE TYPE: 4"X12" GLAZED CERAMIC WALL TILE PATTERN: COLOR WHEEL - LINEAR COLOR: ARCTIC WHITE 0190 GROUT: MAPEI, COBBLESTONE 103 INSTALL: VERTICAL STACKED, REF. ELEVATIONS REMARKS: WHEN USING AT WALL, RUN DIRECTLY TO FINISHED FLOOR AND OMIT TB-1

> : MFG: DALTILE TYPE: 4"X12" GLAZED CERAMIC WALL TILE PATTERN: COLOR WHEEL - LINEAR COLOR: SEA BREEZE 1174 GROUT: MAPEI, COBBLESTONE 103 INSTALL: VERTICAL STACKED, REF. ELEVATIONS REMARKS: WHEN USING AT WALL, RUN DIRECTLY TO FINISHED FLOOR AND OMIT TB-1 CONTACT: ROBIN BRADFORD 317-946-0823

CONTACT: ROBIN BRADFORD 317-946-0823

PLASTIC LAMINATE/SOLID SURFACE PLASTIC LAMINATE PL-1: MFG: WILSONART TYPE: PLASTIC LAMINATE

COLOR: NATURAL RECON 7996-38 INSTALL: MONOLITHIC, LOCATION: DISPLAY CASE AREAS, WORKROOM, CLASSROOMS, SCIENCE LAB CASEWORK CONTACT: CASSIE BEAMAN 317-910-0801 PL-2: MFG: FORMICA TYPE: PLASTIC LAMINATE COLOR: STAINLESS 9319-BH INSTALL: MONOLITHIC LOCATION: SCIENCE LAB CASEWORK

CONTACT: KYLIE LEYBA 317-869-8717 PL-3: MFG: FORMICA TYPE: PLASTIC LAMINATE COLOR: SPECTRUM BLUE 851-58 INSTALL: MONOLITHIC LOCATION: SPIRIT SHOP CASEWORK CONTACT: KYLIE LEYBA 317-869-8717

SOLID SURFACE SS-1: MFG: CORIAN TYPE: 1 1/2" SOLID SURFACE COLOR: LIMESTONE PRIMA INSTALL: MONOLITHIC LOCATION: WORKROOMS, DISPLAY AREAS

SS-2: TYPE: EPOXY SOLID SURFACE COLOR: BLACK, REF. SPECS INSTALL: MONOLITHIC LOCATION: SCIENCE LABS CASEWORK

SS-3: MFG: CORIAN TYPE: 1 1/2" SOLIE TYPE: 1 1/2" SOLID SURFACE COLOR: ARTISTA GRAY INSTALL: MONOLITHIC LOCATION: LOCKER ROOM COUNTERTOPS SCIENCE CLASSROOMS, WINDOW

SILLS

LOCATION: SPIRIT SHOP

CONTACT: DAN EGBERS 320-260-7633

MISCELLANEOUS				
CORNE		00.40501041		
CG-1:	MFG: TYPE: COLOR:	CS ACROVYN REFER TO SPECS TO MATCH PT-1, UNLESS NOTED OTHERWISE, DESIGNER TO		
	LOCATION:	PROVIDE AT ALL EXTERIOR		
	CONTACT:	DRYWALL CORNERS AMY FEHRIBACH 317-407-2534		
ACOUS	<b>FICAL</b>			
AWP-1:	MFG: TYPE:	NOVAWALL FABRIC WRAPPED ACOUSTICAL SYSTEM		
	PATTERN:	ANCHORAGE, 2335		
	SIZE: COLOR: BACKING:	LAPIS 2094 ARCHITECT TO APPROVE		
	LOCATION: CONTACT:	ATRIUM WALLS MARCO CAPONI 317-561-1141		
AWP-2:	MFG: TYPE:	NOVAWALL FABRIC WRAPPED ACOUSTICAL		
	PATTERN:	GUILFORD OF MAINE,		
	size: Color: Backing:	CUSTOM, REFER TO ELEVATION WHITE 2664 ARCHITECT TO		
	LOCATION:	APPROVE ATRIUM WALLS		
	CONTACT:	MARCO CAPONI 317-561-1141		
AWP-3:	MFG: TYPE:	ARMSTRONG ACOUSTICAL PANEL		
	SIZE:	1 1/2" T, 23 3/4" X 96"		
	BACKING	ELEVATIONS		
		APPROVE POOL DECK WALLS REFER TO		
	CONTACT:	ELEVATIONS PHIL CAITO 317-519-2829		
AWP-4:	MFG: TYPE: PATTERN:	ARMSTRONG ACOUSTICAL PANEL TECTUM DIRECT ATTACH		
	SIZE: COLOR:	1 1/2" I, 23 3/4" X 96" PAINT GRADE, PAINTED PT-1		
	BACKING:	ARCHITECT TO APPROVE		
		ELEVATIONS		
		PHIL CATTO 317-519-2829		
MKBD-1	:MFG:			
	COLOR:	SIGNAL BLUE RAL5005		
	LOCATION:	BACK WALLS OF HALLWAY		
	CONTACT:	ELDON WATSON 870-416-5834		
MKBD-2	: MFG: TYPE:	CLARIDGE LCS DELUXE PROCELAIN WHITEBOARD		
	COLOR: SIZE:	WHITE 4' x 12'		
	CONTACT:	ELDON WATSON 870-416-5834		
TOILET		BOBDICK		
16-1	TYPE:			
	COLOR:	CHARCOAL 0077-FH		
	CONTACT:	AMY FEHRIBACH 317-407-2534		
<b>WOOD</b> WD-1:	MFG:	SURFACE MATERIALS		
	TYPE: COLOR:	STAINED & SEALED WOOD FINIS TO MATCH PL-1, DESIGNER TO		
	LOCATION:	APPROVE NEW DOORS, HALLWAY ALCOVE ATRIUM RISERS		
WD-2:	MFG:	CUSTOM BUTCHERBLOCK		
	TYPE:	COUNTERTOP EDGE GRAIN CONSTRUCTION		
		TO APPROVE		
	LUCATION:	ATRIUM FLEX SPACE		
<b>WALL P</b> WP-1:	<b>ANEL</b> MFG: TYPE: I	MARLITE MDF SLATWALL W/ 7000 SERIES		
	COLOR:	ALUMINUM INSERTS GOSHEN WHITE 750		
	SIZE:	4' X 8' PANELS		

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	GENERAL FINISH PLAN NOTES
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B.	CONTRACTOR TO VERIFY EXISTING CONDITIONS AND REPAIR ALL EXISTING WALLS, SI AND CEILINGS TO A CONDITION SUITABLE FOR ACCEPTING NEW FINISHES AS PER MANUFACTURER'S RECOMMENDED INSTALLATION METHODS. MINIMUM LEVEL 4 FINIS ON EXISTING AND NEW WALLS, UNLESS NOTED OTHERWISE.
C.	ALL FLOORING TRANSITIONS TO COMPLY WITH ADA GUIDELINES AND TO OCCUR UND CENTOR OF DOORWAYS, AND OR AT CENTERLINE OF WALL. UNLESS INDICATED DIFFERENTLY ON FINISH PLANS.
D.	CONTRACTOR TO PROVIDE PROTECTION AS NEEDED DURING CONSTRUCTION, IF ANY TO PRESERVE NEW FINISHES WHILE COMPLETING CONSTRUCTION.
E.	CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFACTION OF DIMENSIONS AND JOB CONDITIONS. ANY DEVIATION FROM WHAT IS INDICATED ON THE FINISH PLANS SHALL BROUGHT TO THE ATTENTION OF THE ARCHITECTS AND DESIGNERS.
F	ALL DIMENSIONS SHOWN ARE TO FACE OF FINISH MATERIAL, UNLESS INDICATED OTHERWISE ON PLANS.
G.	WHERE WALLS ARE INDICATED TO RECEIVE PAINT FINISH, PAINT ALL PRIMED GRILLES FIRE EXTINGUISHER CABINERS, AND OTHER ITEMS EMBEDDED IN WALL CONSTRUCTI TO MATCH SURFACE ON WHICH THEY OCCUR UNLESS NOTED OTHERWISE.
H.	CONTRACTOR TO PROVIDE DRYWALL REVEAL JOINT WHERE DRYWALL MEETS DISSIMILAR MATERIALS.
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J. I	DO NOT INSTALL GYPSUM BOARD BEHIND TILE BACKER BOARD LOCATIONS.
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L. /	ALL TERRAZZO EDGES ARE TO BE SANDED AND FINISHED TO WHERE TERRAZZO MEE DISSIMILAR FLOORING.
M.	REFER TO INTERIOR TRANSITION DETALS SHEET A731 FOR TRANSITION STRIP PRODUDETAILS.
N.	ALL MECHANICAL CLOSETS TO HAVE A SEALED CONCRETE FLOOR FINISH. PROVIDE RESILIENT REDUCER TO MATCH RB-1 UNDER CENTER OF DOORWAY.
О.	ALL WALLS AND CEILINGS TO BE PAINTED PT-1, UNLESS NOTED OTHERWISE.
P. C	METAL DIVIDER STRIPS TO BE PROVIDED AT EACH TERRAZZO COLOR CHANGE. DESIGNER TO APPROVE COLOR.
Q.	ALL WINDOWS TO RECEIVE SOLID SURFACE SILL, SS-3.
R.	ALL HM DOOR FRAMES ARE TO BE PAINTED PT-6 UNLESS NOTED OTHERWISE.
S.	REFERENCE ELEVATIONS FOR CUSTOM WALL GRAPHICS.
۱. ٣	WHERE FLOORING PATTERN GRAIN CHANGES AT CORRIDORS, INSTALLER MUST HAVE DESIGNER PRESENT FOR REVIEW MEETING PRIOR TO INSTALLATION OF ANY FLOORI
U.	ALL GYPSUM BOARD CEILING AND BULKHEADS TO BE PAINTED PT-1, UNLESS NOTED OTHERWISE.
V.	ALL EXPOSED STEEL COLUMNS THAT ARE IN ATRIUM J1000 AND K1000 TO BE PAINTED PT-1. ALL OTHERS TO MATCH ADJACENT WALL COLOR.
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	PLAN NUTES - FINISH FLAN
1	ALL EXPOSED STRUCTURAL STEEL COLUMNS, BEAMS, AND TRUSSES, ALONG WITH A CEILING AND CEILING MECHANICAL EQUIPMENT IN NATATORIUM M100 TO BE PAINTED TYPICAL
2	PROVIDE TERRAZZO LOGO AT THIS LOCATION. COORDINATE FINAL DESIGN WITH OWI
3	CUSTOM GRAPHIC/PAINT AT THIS LOCATION. REFER TO INTERIOR ELEVATIONS A750 SERIES, COORDINATE FINAL DESIGN WITH OWNER.
4	PROVIDE WT-2 AT THIS LOCATION. REFER TO INTERIOR ELEVATIONS SHEET A751.
6	CUSTOM 3D ACRYLIC SIGNAGE ELEMENT AT THIS LOCATION WITH LIGHTING. PROVIDE POWER FOR LED LIGHTS. COORDINATE FINAL DESIGN WITH OWNER. REFER TO INTER ELEVATIONS A750 SERIES.
7 8	REFER TO INTERIOR ELEVATION 1/A754 FOR FURTHER INFORMATION.
9	ROLL-DOWN GRILLE DOOR TO RECEIVE CUSTOM VINYL DECAL. COORDINATE FINAL D
11	WALL MOUNTED TV MONITOR.
12 13	TYPICAL TERRAZZO PATTERN. REFER TO ENLARGED FINISH PLAN 2/A730 FOR DETAIL
14 15	TYPICAL VINYL PLANK DESIGN. REFER TO ENLARGED FINISH PLAN 3/A730 FOR DETAIL THIRD FLOOR CORRIDOR VINYL PLANK DESIGN. NOT TYPICAL
16 17	ACCENT PAINT, PT-3 AT THIS LOCATION. ELOORING DIRECTION CHANGE, INSTALLER TO COORDINATE ANGLE WITH DESIGNER
18	SITE BEFORE INSTALL.
19	OWNER. REFER TO INTERIOR ELEVATIONS A750 SERIES. ALL METAL MECHANICAL DOORS AND TRIM IN ACADEMIC CORRIDORS ARE TO BE PAIN
20	PT-1. 4' H X 1/2" T X 8' L LAYERED PVC WITH MATTE VINYL ON TOP. COORDINATE FINAL DESI
21	WITH OWNER. CUSTOM PAINT AT THIS LOCATION. REFER TO INTERIOR ELEVATION 6/A755.
22	CUSTOM VINYL GRAPHIC ON DRYWALL AT THIS LOCATION. COORDINATE FINAL DESIG WITH OWNER. REFER TO INTERIOR ELEVATION 6/A751.
23	CUSTOM VINYL GRAPHIC AND PAINT ON DRYWALL AT THIS LOCATION. COORDINATE F DESIGN WITH OWNER. REFER TO INTERIOR ELEVATIONS A750 SERIES.

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25 ACCENT PAINT, PT-3, AND SLAT WALL PANEL, WP-1. REFER TO ELEVATION 1/A760. 26 TYPICAL NATATORIUM FLOOR TILE PATTERN. REFER TO ENLARGED FINISH PLAN 5/A730 27 FT-1 IS TO BE INSTALLED FROM POOL GUTTER AND CONITNUE UNTIL ACCENT BAND. REFER













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	CPT-2		WOC-1
	CPT-3		LVT-1
			LVT-2







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GENERAL FINISH PLAN NOTES
A. PRIOR TO INSTALLATION OF NEW FINISHES CONTRACTOR SHALL INSPECT ALL SUBSTRATES. IF A SUBSTRATE IS DEEMED UNACCEPTABLE, THE CONTRACTOR S REPAIR AS NECESSARY FOR SUBSTRATE TO ACCEPT NEW MATERIALS.
B. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND REPAIR ALL EXISTING WALL AND CEILINGS TO A CONDITION SUITABLE FOR ACCEPTING NEW FINISHES AS PER MANUFACTURER'S RECOMMENDED INSTALLATION METHODS. MINIMUM LEVEL 4 F ON EXISTING AND NEW WALLS, UNLESS NOTED OTHERWISE.
C. ALL FLOORING TRANSITIONS TO COMPLY WITH ADA GUIDELINES AND TO OCCUR CENTOR OF DOORWAYS, AND OR AT CENTERLINE OF WALL. UNLESS INDICATED DIFFERENTLY ON FINISH PLANS.
D. CONTRACTOR TO PROVIDE PROTECTION AS NEEDED DURING CONSTRUCTION, IF TO PRESERVE NEW FINISHES WHILE COMPLETING CONSTRUCTION.
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F. ALL DIMENSIONS SHOWN ARE TO FACE OF FINISH MATERIAL, UNLESS INDICATED OTHERWISE ON PLANS.
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J. DO NOT INSTALL GYPSUM BOARD BEHIND TILE BACKER BOARD LOCATIONS.
K. IF ONLY PAINT IS INDICATED AS THE FINISH, REFER TO ARCHITECTURAL FLOOR PL FOR SUBSTRATE INFORMATION.
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N. ALL MECHANICAL CLOSETS TO HAVE A SEALED CONCRETE FLOOR FINISH. PROVI RESILIENT REDUCER TO MATCH RB-1 UNDER CENTER OF DOORWAY.
O. ALL WALLS AND CEILINGS TO BE PAINTED PT-1, UNLESS NOTED OTHERWISE.
P. METAL DIVIDER STRIPS TO BE PROVIDED AT EACH TERRAZZO COLOR CHANGE. DESIGNER TO APPROVE COLOR.
Q. ALL WINDOWS TO RECEIVE SOLID SURFACE SILL, SS-3.
R. ALL HM DOOR FRAMES ARE TO BE PAINTED PT-6 UNLESS NOTED OTHERWISE.
S. REFERENCE ELEVATIONS FOR CUSTOM WALL GRAPHICS.
T. WHERE FLOORING PATTERN GRAIN CHANGES AT CORRIDORS, INSTALLER MUST I DESIGNER PRESENT FOR REVIEW MEETING PRIOR TO INSTALLATION OF ANY FLO
U. ALL GYPSUM BOARD CEILING AND BULKHEADS TO BE PAINTED PT-1, UNLESS NOT OTHERWISE.
V. ALL EXPOSED STEEL COLUMNS THAT ARE IN ATRIUM J1000 AND K1000 TO BE PAIN PT-1. ALL OTHERS TO MATCH ADJACENT WALL COLOR.

- ALL EXPOSED STRUCTURAL STEEL COLUMNS, BEAMS, AND TRUSSES, ALONG WITH ALL CEILING AND CEILING MECHANICAL EQUIPMENT IN NATATORIUM M100 TO BE PAINTED PT-2 -
- TYPICAL ...... 2 PROVIDE TERRAZZO LOGO AT THIS LOCATION. COORDINATE FINAL DESIGN WITH OWNER. REFER TO ENLARGED FINISH PLAN 1/A730 FOR FURTHER INFORMATION. 3 CUSTOM GRAPHIC/PAINT AT THIS LOCATION. REFER TO INTERIOR ELEVATIONS A750
- SERIES. COORDINATE FINAL DESIGN WITH OWNER. 4 PROVIDE WT-2 AT THIS LOCATION. REFER TO INTERIOR ELEVATIONS SHEET A751. 5 PROVIDE WT-1 AT THIS LOCATION. FLOOR TO CEILING HEIGHT, VERTICALLY STACKED. 6 CUSTOM 3D ACRYLIC SIGNAGE ELEMENT AT THIS LOCATION WITH LIGHTING. PROVIDE
- POWER FOR LED LIGHTS. COORDINATE FINAL DESIGN WITH OWNER. REFER TO INTERIOR ELEVATIONS A750 SERIES. 7 REFER TO INTERIOR ELEVATION 1/A754 FOR FURTHER INFORMATION.
- 8 ACCENT PAINT, PT-4 AT THIS LOCATION.
- 9 ROLL-DOWN GRILLE DOOR TO RECEIVE CUSTOM VINYL DECAL. COORDINATE FINAL DESIGN WITH OWNER. REFER TO INTERIOR ELEVATION 8/A751. 11 WALL MOUNTED TV MONITOR. 12 ACCENT PAINT, PT-5 AT THIS LOCATION.
- 13 TYPICAL TERRAZZO PATTERN. REFER TO ENLARGED FINISH PLAN 2/A730 FOR DETAILS.
- 14 TYPICAL VINYL PLANK DESIGN. REFER TO ENLARGED FINISH PLAN 3/A730 FOR DETAILS. 15 THIRD FLOOR CORRIDOR VINYL PLANK DESIGN. NOT TYPICAL 16 ACCENT PAINT, PT-3 AT THIS LOCATION.
- 17 FLOORING DIRECTION CHANGE. INSTALLER TO COORDINATE ANGLE WITH DESIGNER ON SITE BEFORE INSTALL.
- 18 CUSTOM VINYL GRAPHIC ON CMU AT THIS LOCATION. COORDINATE FINAL DESIGN WITH OWNER. REFER TO INTERIOR ELEVATIONS A750 SERIES. 19 ALL METAL MECHANICAL DOORS AND TRIM IN ACADEMIC CORRIDORS ARE TO BE PAINTED
- PT-1. 20 4' H X 1/2" T X 8' L LAYERED PVC WITH MATTE VINYL ON TOP. COORDINATE FINAL DESIGN WITH OWNER.
- 21 CUSTOM PAINT AT THIS LOCATION. REFER TO INTERIOR ELEVATION 6/A755. 22 CUSTOM VINYL GRAPHIC ON DRYWALL AT THIS LOCATION. COORDINATE FINAL DESIGN WITH OWNER. REFER TO INTERIOR ELEVATION 6/A751.
- 23 CUSTOM VINYL GRAPHIC AND PAINT ON DRYWALL AT THIS LOCATION. COORDINATE FINAL DESIGN WITH OWNER. REFER TO INTERIOR ELEVATIONS A750 SERIES.
- 24 TERRAZZO STAIR TREADS, TER-2. REF. FINISH LEGEND. 25 ACCENT PAINT, PT-3, AND SLAT WALL PANEL, WP-1. REFER TO ELEVATION 1/A760.
- 26 TYPICAL NATATORIUM FLOOR TILE PATTERN. REFER TO ENLARGED FINISH PLAN 5/A730 FOR DETAILS.
- 27 FT-1 IS TO BE INSTALLED FROM POOL GUTTER AND CONITNUE UNTIL ACCENT BAND. REFER TO DIMENSIONS NOTED FOR WIDTHS.



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U. /	ALL GYPSUM BOARD CEILING AND BULKHEADS TO BE PAINTED PT-1, UNLESS NOTED OTHERWISE.
V. /	ALL EXPOSED STEEL COLUMNS THAT ARE IN ATRIUM J1000 AND K1000 TO BE PAINTED PT-1. ALL OTHERS TO MATCH ADJACENT WALL COLOR.
$\bigcirc$	PLAN NOTES - FINISH PLAN
1	ALL EXPOSED STRUCTURAL STEEL COLUMNS, BEAMS, AND TRUSSES, ALONG WITH ALL CEILING AND CEILING MECHANICAL EQUIPMENT IN NATATORIUM M100 TO BE PAINTED PT-
2	PROVIDE TERRAZZO LOGO AT THIS LOCATION. COORDINATE FINAL DESIGN WITH OWNER.
3	REFER TO ENLARGED FINISH PLAN 1/A730 FOR FURTHER INFORMATION. CUSTOM GRAPHIC/PAINT AT THIS LOCATION. REFER TO INTERIOR ELEVATIONS A750
4	PROVIDE WT-2 AT THIS LOCATION. REFER TO INTERIOR ELEVATIONS SHEET A751.
5 6	PROVIDE WT-1 AT THIS LOCATION. FLOOR TO CEILING HEIGHT, VERTICALLY STACKED. CUSTOM 3D ACRYLIC SIGNAGE ELEMENT AT THIS LOCATION WITH LIGHTING. PROVIDE POWER FOR LED LIGHTS. COORDINATE FINAL DESIGN WITH OWNER. REFER TO INTERIOR
7	ELEVATIONS A750 SERIES. REFER TO INTERIOR ELEVATION 1/A754 FOR FURTHER INFORMATION.
8	ACCENT PAINT, PT-4 AT THIS LOCATION.
9	WITH OWNER. REFER TO INTERIOR ELEVATION 8/A751.
12	ACCENT PAINT, PT-5 AT THIS LOCATION.
13 14	I YPICAL LERRAZZO PATTERN. REFER TO ENLARGED FINISH PLAN 2/A730 FOR DETAILS. TYPICAL VINYL PLANK DESIGN. REFER TO ENLARGED FINISH PLAN 3/A730 FOR DETAILS.
15 16	ACCENT PAINT, PT-3 AT THIS LOCATION.
17	FLOORING DIRECTION CHANGE. INSTALLER TO COORDINATE ANGLE WITH DESIGNER ON SITE BEFORE INSTALL.
18	CUSTOM VINYL GRAPHIC ON CMU AT THIS LOCATION. COORDINATE FINAL DESIGN WITH OWNER. REFER TO INTERIOR ELEVATIONS A750 SERIES.
19 20	ALL METAL MECHANICAL DOORS AND TRIM IN ACADEMIC CORRIDORS ARE TO BE PAINTED PT-1. 4' H X 1/2" T X 8' L LAYERED PVC WITH MATTE VINYL ON TOP COORDINATE FINAL DESIGN
 21 22	WITH OWNER. CUSTOM PAINT AT THIS LOCATION. REFER TO INTERIOR ELEVATION 6/A755. CUSTOM VINYL GRAPHIC ON DRYWALL AT THIS LOCATION. COORDINATE FINAL DESIGN
	WITH OWNER. REFER TO INTERIOR ELEVATION 6/A751.

DESIGN WITH OWNER. REFER TO INTERIOR ELEVATIONS A750 SERIES.

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23 CUSTOM VINYL GRAPHIC AND PAINT ON DRYWALL AT THIS LOCATION. COORDINATE FINAL

25 ACCENT PAINT, PT-3, AND SLAT WALL PANEL, WP-1. REFER TO ELEVATION 1/A760. 26 TYPICAL NATATORIUM FLOOR TILE PATTERN. REFER TO ENLARGED FINISH PLAN 5/A730 27 FT-1 IS TO BE INSTALLED FROM POOL GUTTER AND CONITNUE UNTIL ACCENT BAND. REFER TO DIMENSIONS NOTED FOR WIDTHS.



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1 INTERIOR FINISH PLAN - THIRD FLOOR - UNIT J SCALE: 1/8" = 1'-0"











	GENERAL FINISH PLAN NOTES
A.	PRIOR TO INSTALLATION OF NEW FINISHES CONTRACTOR SHALL INSPECT ALL SUBSTRATES. IF A SUBSTRATE IS DEEMED UNACCEPTABLE, THE CONTRACTOR SHALL REPAIR AS NECESSARY FOR SUBSTRATE TO ACCEPT NEW MATERIALS.
B.	CONTRACTOR TO VERIFY EXISTING CONDITIONS AND REPAIR ALL EXISTING WALLS, SLAE AND CEILINGS TO A CONDITION SUITABLE FOR ACCEPTING NEW FINISHES AS PER MANUFACTURER'S RECOMMENDED INSTALLATION METHODS. MINIMUM LEVEL 4 FINISH ON EXISTING AND NEW WALLS, UNLESS NOTED OTHERWISE.
C.	ALL FLOORING TRANSITIONS TO COMPLY WITH ADA GUIDELINES AND TO OCCUR UNDER CENTOR OF DOORWAYS, AND OR AT CENTERLINE OF WALL. UNLESS INDICATED DIFFERENTLY ON FINISH PLANS.
D.	CONTRACTOR TO PROVIDE PROTECTION AS NEEDED DURING CONSTRUCTION, IF ANY TO PRESERVE NEW FINISHES WHILE COMPLETING CONSTRUCTION.
E.	CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFACTION OF DIMENSIONS AND JOB CONDITIONS. ANY DEVIATION FROM WHAT IS INDICATED ON THE FINISH PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECTS AND DESIGNERS.
F.	ALL DIMENSIONS SHOWN ARE TO FACE OF FINISH MATERIAL, UNLESS INDICATED OTHERWISE ON PLANS.
G.	WHERE WALLS ARE INDICATED TO RECEIVE PAINT FINISH, PAINT ALL PRIMED GRILLES, FIRE EXTINGUISHER CABINERS, AND OTHER ITEMS EMBEDDED IN WALL CONSTRUCTION TO MATCH SURFACE ON WHICH THEY OCCUR UNLESS NOTED OTHERWISE.
Н.	CONTRACTOR TO PROVIDE DRYWALL REVEAL JOINT WHERE DRYWALL MEETS DISSIMILAR MATERIALS.
I. ( F	CONTRACTOR TO PROVIDE SCHLUTER EDGE WHERE TILE MEETS DISSIMILAR MATERIALS REFER TO FINISH MATERIAL LEGEND AND INTERIOR ELEVATIONS FOR FURTHER DETAILS.
J.	DO NOT INSTALL GYPSUM BOARD BEHIND TILE BACKER BOARD LOCATIONS.
K.	IF ONLY PAINT IS INDICATED AS THE FINISH, REFER TO ARCHITECTURAL FLOOR PLANS FOR SUBSTRATE INFORMATION.
L	ALL TERRAZZO EDGES ARE TO BE SANDED AND FINISHED TO WHERE TERRAZZO MEETS DISSIMILAR FLOORING.
M.	DETAILS.
іч. О	ALL MECHANICAL CLOSETS TO HAVE A SEALED CONCRETE FLOOR FINISH. PROVIDE RESILIENT REDUCER TO MATCH RB-1 UNDER CENTER OF DOORWAY.
Р.	METAL DIVIDER STRIPS TO BE PROVIDED AT EACH TERRAZZO COLOR CHANGE.
L Q.	ALL WINDOWS TO RECEIVE SOLID SURFACE SILL, SS-3.
R.	ALL HM DOOR FRAMES ARE TO BE PAINTED PT-6 UNLESS NOTED OTHERWISE.
S.	REFERENCE ELEVATIONS FOR CUSTOM WALL GRAPHICS
т.	WHERE ELOORING PATTERN GRAIN CHANGES AT CORRIDORS. INSTALLER MUST HAVE A
·. ~	DESIGNER PRESENT FOR REVIEW MEETING PRIOR TO INSTALLATION OF ANY FLOORING
0.	OTHERWISE.
۷.	ALL EXPOSED STEEL COLUMNS THAT ARE IN ATRIUM J1000 AND K1000 TO BE PAINTED PT-1. ALL OTHERS TO MATCH ADJACENT WALL COLOR.
$\bigcirc$	PLAN NOTES - FINISH PLAN
$\sim$	
1	ALL EXPOSED STRUCTURAL STEEL COLUMNS, BEAMS, AND TRUSSES, ALONG WITH ALL CEILING AND CEILING MECHANICAL EQUIPMENT IN NATATORIUM M100 TO BE PAINTED PT TYRICAL
2 3	PROVIDE TERRAZZO LOGO AT THIS LOCATION. COORDINATE FINAL DESIGN WITH OWNER REFER TO ENLARGED FINISH PLAN 1/A730 FOR FURTHER INFORMATION. CUSTOM GRAPHIC/PAINT AT THIS LOCATION. REFER TO INTERIOR ELEVATIONS A750
4	SERIES. COORDINATE FINAL DESIGN WITH OWNER. PROVIDE WT-2 AT THIS LOCATION REFER TO INTERIOR ELEVATIONS SHEET A751
5 6	PROVIDE WT-1 AT THIS LOCATION. FLOOR TO CEILING HEIGHT, VERTICALLY STACKED. CUSTOM 3D ACRYLIC SIGNAGE ELEMENT AT THIS LOCATION WITH LIGHTING. PROVIDE POWER FOR LED LIGHTS. COORDINATE FINAL DESIGN WITH OWNER. REFER TO INTERIO
7	ELEVATIONS A750 SERIES. REFER TO INTERIOR ELEVATION 1/A754 FOR FURTHER INFORMATION.
8 9	ROLL-DOWN GRILLE DOOR TO RECEIVE CUSTOM VINYL DECAL. COORDINATE FINAL DESI
11	WITH OWNER. REFER TO INTERIOR ELEVATION 8/A751. WALL MOUNTED TV MONITOR
12	ACCENT PAINT, PT-5 AT THIS LOCATION.
13 14	TYPICAL TERRAZZO PATTERN. REFER TO ENLARGED FINISH PLAN 2/A730 FOR DETAILS. TYPICAL VINYL PLANK DESIGN. REFER TO ENLARGED FINISH PLAN 3/A730 FOR DETAILS.
15	THIRD FLOOR CORRIDOR VINYL PLANK DESIGN. NOT TYPICAL
16 17	FLOORING DIRECTION CHANGE. INSTALLER TO COORDINATE ANGLE WITH DESIGNER ON
18	SITE BEFORE INSTALL. CUSTOM VINYL GRAPHIC ON CMU AT THIS LOCATION. COORDINATE FINAL DESIGN WITH
19	OWNER. REFER TO INTERIOR ELEVATIONS A750 SERIES. ALL METAL MECHANICAL DOORS AND TRIM IN ACADEMIC CORRIDORS ARE TO BE PAINTE
20	4' H X 1/2" T X 8' L LAYERED PVC WITH MATTE VINYL ON TOP. COORDINATE FINAL DESIGN WITH OWNER.
21 22	CUSTOM PAINT AT THIS LOCATION. REFER TO INTERIOR ELEVATION 6/A755. CUSTOM VINYL GRAPHIC ON DRYWALL AT THIS LOCATION. COORDINATE FINAL DESIGN
23	WITH OWNER. REFER TO INTERIOR ELEVATION 6/A751. CUSTOM VINYL GRAPHIC AND PAINT ON DRYWALL AT THIS LOCATION. COORDINATE FINA DESIGN WITH OWNER. REFER TO INTERIOR FLEVATIONS 4750 SERIES
24	TERRAZZO STAIR TREADS, TER-2. REF. FINISH LEGEND.
∠5 26	TYPICAL NATATORIUM FLOOR TILE PATTERN. REFER TO ENLARGED FINISH PLAN 5/A730 FOR DETAILS.
27	FT-1 IS TO BE INSTALLED FROM POOL GUTTER AND CONITNUE UNTIL ACCENT BAND. REF TO DIMENSIONS NOTED FOR WIDTHS.





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# **GENERAL NOTES - INTERIOR ELEVATIONS**

#### A. CONTRACTOR TO PROVIDE SCHLUTER EDGE WHERE TILE MEETS DISSIMILAR MATERIALS. REFER TO FINISH MATERIAL LEGEND AND INTERIOR ELEVATIONS FOR FURTHER DETAILS.LS

- B. DO NOT INSTALL GYPSUM BOARD BEHIND TILE BACKER BOARD LOCATIONS.
- C. CONTRACTOR TO PROVIDE DRYWALL REVEAL JOINT WHERE DRYWALL MEETS DISSIMILAR MATERIALS.

# ELEVATION NOTES - INTERIOR

- 15 FURRING STRIPS TO BE PROVIDED FOR VIDEO BOARD HOUSING. EXACT DIMENSIONS TO BE FIELD VERIFIED. VIDEO BOARD HOUSING TO ALSO INCLUDE 1/2" LETTERING

- 23 CUSTOM VINYL GRAPHIC ON DRYWALL AT THIS LOCATION. COORDINATE FINAL DESIGN
- OUTSIDE CORNERS TO BE FINISHED WITH SCHLUTER SATIN ANODIZED ALUMINUM

- 32 ALL EXPOSED STRUCTURAL STEEL COLUMNS, BEAMS, AND TRUSSES, ALONG WITH ALL CEILING AND CEILING MECHANICAL EQUIPMENT IN NATATORIUM TO BE PAINTED PT-2 -













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# **GENERAL NOTES - INTERIOR ELEVATIONS**

- A. CONTRACTOR TO PROVIDE SCHLUTER EDGE WHERE TILE MEETS DISSIMILAR MATERIALS. REFER TO FINISH MATERIAL LEGEND AND INTERIOR ELEVATIONS FOR FURTHER DETAILS.LS
- B. DO NOT INSTALL GYPSUM BOARD BEHIND TILE BACKER BOARD LOCATIONS.
- C. CONTRACTOR TO PROVIDE DRYWALL REVEAL JOINT WHERE DRYWALL MEETS DISSIMILAR MATERIALS.
- D. CONTRACTOR TO PROVIDE SCHLUTER EDGE WHERE TILE MEETS DISSIMILAR MATERIALS. REFER TO FINISH MATERIAL LEGEND AND INTERIOR ELEVATIONS FOR FURTHER DETAILS.
- E. IF ONLY PAINT IS INDICATED AS THE FINISH, REFER TO ARCHITECTURAL FLOOR PLANS FOR SUBSTRATE INFORMATION.
- F. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFACTION OF DIMENSIONS AND JOB CONDITIONS. ANY DEVIATION FROM WHAT IS INDICATED ON THE FINISH PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECTS AND DESIGNERS.
- G. ALL DIMENSIONS SHOWN ARE TO FACE OF FINISH MATERIAL, UNLESS INDICATED OTHERWISE ON PLANS.

H. ALL EXPOSED METAL SURFACES, SUCH AS GRILLES, FIRE EXTINGUISHER CABINETS, ETC., THAT ARE NOTED TO BE PAINTED ARE TO BE PAINTED MATCH WALL COLOR. I. ALL WALLS TO BE PAINTED PT-1, UNLESS NOTED OTHERWISE.

# **DELEVATION NOTES - INTERIOR**

- 3 1/4" SATIN ANODIZED ALUMINUM FINISH, SCHLUTER JOLLY TRIM WALL/CEILING
- 6 1/4" SATIN ANODIZED ALUMINUM FINISH, SCHLUTER DILEX-AHK TRIM WALL/WALL

- 14 ROLL-DOWN GRILLE DOOR TO HAVE VINYL DECAL. COORDINATE FINAL DESIGN WITH 15 FURRING STRIPS TO BE PROVIDED FOR VIDEO BOARD HOUSING. EXACT DIMENSIONS

## TO BE FIELD VERIFIED. VIDEO BOARD HOUSING TO ALSO INCLUDE 1/2" LETTERING

- 18 CUSTOM 3D ACRYLIC SIGNAGE ELEMENT AT THIS LOCATION. COORDINATE FINAL

- 23 CUSTOM VINYL GRAPHIC ON DRYWALL AT THIS LOCATION. COORDINATE FINAL DESIGN
- 24 CUSTOM VINYL GRAPHIC ON CMU AT THIS LOCATION. COORDINATE FINAL DESIGN WITH
- 25 NATATORIUM COLUMNS TO HAVE WALL TILE, WT-1 WRAPPED AROUND ALL SIDES. ALL OUTSIDE CORNERS TO BE FINISHED WITH SCHLUTER SATIN ANODIZED ALUMINUM
- 28 CUSTOM BANNER/GRAPHIC TO BE INSTALLED OVER AWP-3. COORDINATE FINAL
- 32 ALL EXPOSED STRUCTURAL STEEL COLUMNS, BEAMS, AND TRUSSES, ALONG WITH ALL CEILING AND CEILING MECHANICAL EQUIPMENT IN NATATORIUM TO BE PAINTED PT-2 -
- 33 CMU WRAPPED NATATORIUM COLUMNS TO BE PAINTED PT-3 ON ALL SIDES.
- 37 DOUBLE STACKED LOCKERS. COLOR TO BE ROYAL BLUE. FINISH AND MATERIAL TO BE
- 38 SINGLE STACK LOCKERS. COLOR TO BE ROYAL BLUE. FINISH AND MATERIAL TO BE















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ELEVATIONS

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August 30, 2023

Mr. Misha Belyayev Lancer Associates Architecture 145 N. East Street Indianapolis, IN 46204



RE: Whiteland Community High School Campus Improvements Phase 1 Summary of Civil Revisions – Addendum No. 001

#### Misha:

Please see below for a summary of the plan and technical specification revisions, dated August 30, 2023, which are associated with Addendum No. 001 for the above referenced project:

#### • Utility Plan (sheet 400):

- "Sanitary Sewer Lateral Table" revised upstream invert elevations ("U.S. INV.") of sanitary cleanout lateral runs ANT (acid neutralization tank), #1, and #4 to match Underground Plumbing Plan prepared by Primary Engineering, Inc.
- "Sanitary Sewer Lateral Table" revised diameter of lateral run #2 to match Underground Plumbing Plan prepared by Primary Engineering, Inc.

#### • Utility Plan (sheet 401):

- Revised locations of sanitary cleanout #8 and #9 and deleted lateral run #9 direct connection to sanitary manhole Str. No. SS-6 per IDEM sanitary sewer permit review.
- "Sanitary Sewer Lateral Table" revised upstream invert elevations ("U.S. INV.") and lengths of lateral runs #8 and #9.
- "Storm Sewer Structure Table" revised diameter of pipe entering Str. No. 51 from the north to match Underground Plumbing Plan prepared by Primary Engineering, Inc.
- "Storm Sewer Structure Table" revised Str. No. 64 description to include CheckMate UltraFlex Inline Check Valve per comments received from Johnson Co. Surveyor's Office outside review consultant.
- "Storm Sewer Structure Table" revised direction of pipe entering Str. No. 68 from roof drain system to match Underground Plumbing Plan prepared by Primary Engineering, Inc.
- "Storm Sewer Structure Table" added storm sewer cleanout (Str. No. 68A) for roof drain connection.
- "Sanitary Sewer Structure Table" deleted lateral connection to Str. No. SS-6 per IDEM sanitary sewer permit review.
- Revised alignment of roof drain connection to Str. No. 68 and added storm sewer cleanout (Str. No. 68A).

#### • Grading Plan (sheets 500 & 501):

 Deleted proposed pad elevation ("PROP. PE") and revised Grading Notes #3 to indicate that the contractor shall refer to the architectural or structural plans for internal changes to the proposed finished floor elevation, concrete slab and stone subbase thickness, slab slopes, elevator pit elevations, and swimming pool elevations.

#### • Sanitary Plan and Profile (sheet 700):

- Revised sanitary sewer profile "SS-E" to include sanitary lateral connection from cleanout #9 and deleted lateral connection to Str. No. SS-6 per IDEM sanitary sewer permit review.
- Storm Plan and Profile (sheet 804):

- Revised storm sewer profile "STM-BB" to include new storm sewer cleanout (Str. No. 68A) for roof drain connection.
- Erosion Control Plan (sheets 901 & 902):
  - Revised to denote silt fence locations in response to Constructability Review dated 8/28/23.
- Miscellaneous Details (sheet 1001):
  - Revised "Outlet Control Structure Detail Str. No. 64" to include CheckMate UltraFlex Inline Check Valve per comments received from Johnson Co. Surveyor's Office outside review consultant.
- Section 33 4200 Stormwater Conveyance:
  - Revised to include CheckMate UltraFlex Inline Check Valve specifications per comments received from Johnson Co. Surveyor's Office outside review consultant.

In addition, please accept the follow as our formal response to the civil site drawing comments provided in the Constructability Review dated 8/28/23 (CrossRoad Engineers' responses in bold).

- A. Site Drawings
  - c. Is silt fence required? I don't see any.

Yes, silt fence is required and shown on the Erosion Control Plans (sheets 901 & 902). The silt fence locations have been denoted on the revised Erosion Control Plans.

d. Is the new sign out front shown?

Yes, the location of the new electronic sign is shown on the Site Dimension Plan in between the existing and proposed underground detention systems (see sheet 302).

Please find the revised construction plans and technical specifications enclosed. Please feel free to contact me at 317-780-1555 ext. 135 or <u>dsnyder@crossroadengineers.com</u> if you have any questions or need additional information on these subjects.

Sincerely, CrossRoad Engineers, P.C.

Dut M. Singen

Derek M. Snyder, P.E. Project Engineer





PROPOSED	
(1) PSL PSL PSL PSL C	PROPERTY LINE SECTION LINE PHASE LINE SETBACK LINE EASEMENT LINE FENCE LINE DITCH LINE SANITARY SEWER WITH MANHOLE SANITARY SEWER LATE WITH CLEANOUT STORM SEWER W/MAN & END SECTION
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## **EXISTING LEGEND**

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## **UTILITIES NOTES**

- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND PROVIDING ALL NECESSARY FLAGMAN, BARRELS, SIGNAGE, ETC. DURING CONSTRUCTION. ALL APPLICABLE M.U.T.C.D. STANDARDS SHALL GOVERN THIS WORK. CONTRACTOR SHALL REFER TO THE ELECTRICAL SITE PLAN PREPARED BY PRIMARY ENGINEERING, INC. FOR PARKING LOT LIGHTING AND SPECIFICATIONS. ALL STORM SEWER CASTINGS SHALL BE NPDES PHASE II COMPLIANT. CASTINGS SHALL BE MANUFACTURED WITH A STATEMENT SAYING: "DUMP NO WASTE, DRAINS TO RIVER" IN  $\frac{1}{2}$ " RAISED LETTERS. ALL FIELD TILES DISTURBED DURING CONSTRUCTION MUST BE REPAIRED/CONNECTED TO NEW STORMWATER FACILITIES. CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING UNDERGROUND STORMWATER DETENTION CHAMBERS DURING THE ENTIRE DURATION OF THE PROJECT. CONTRACTOR SHALL COORDINATE WITH ADVANCED DRAINAGE SOLUTIONS, INC. (ADS) TO DETERMINE THE
- MINIMUM COVER REQUIRED OVER THE EXISTING CHAMBERS DURING CONSTRUCTION, AS WELL AS, THE APPROPRIATE EQUIPMENT AND OPERATIONS TO PROTECT THE CHAMBERS. WATER MAIN INSTALLATION AND MATERIALS SHALL CONFORM TO THE TOWN OF WHITELAND TYPICAL CONSTRUCTION GUIDELINES AND DETAILS. TAPPING SLEEVES AND VALVES SHALL BE EJP OR MUELLER H-615, H-616 OR STAINLESS STEEL SLEEVES. TAPPING VALVES SHALL BE 2360 SERIES BY MEULLER OR AFC 2500.
- FIRE HYDRANT ASSEMBLIES SHALL BE SUPER CENTURION 250 HYDRANT BY MEULLER CO. WITH STORZ FITTING ON STEAMER WITH 5'-6" MIN. BURIAL DEPTH. ALL FITTINGS SHALL BE DUCTILE IRON (D.I.) WITH MECHANICAL JOINTS (M.J.) CONFORMING TO AWWA C-110, C-111, C-153, AND NSF-61. ALL WATER MAIN FITTINGS SHALL BE
- RESTRAINED IN ACCORDANCE WITH THE TOWN OF WHITELAND TYPICAL CONSTRUCTION GUIDELINES AND DETAILS. MEG-A-LUG RETAINER GLANDS BY EBBA IRON, INC. , FIELD-LOK GASKETS, OR ONE BOLT RESTRAINED FITTINGS SHALL BE USED ON EACH SIDE OF FITTINGS WHERE THE WATER MAIN
- CHANGES DIRECTION. CONTRACTOR SHALL COORDINATE CONSTRUCTION SEQUENCE WITH THE OWNER AND SKILLMAN CORPORATION AND MAINTAIN ACTIVE UTILITY SERVICES AT ALL TIMES. ALL TEMPORARY UTILITY SERVICE INTERRUPTIONS MUST BE APPROVED BY THE OWNER AND SKILLMAN CORPORATION PRIOR TO INSTALLATION OF IMPROVEMENTS.
- EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND 17 SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL SIZING AND MATERIAL INFORMATION PROVIDED. IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOWN ON THE PLANS, THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY. CONTRACTOR SHALL CONNECT ROOF DRAINS TO STR. NO. 38, 44, 49, 51, AND 58 AS
- SHOWN. CONFIRM ROOF DRAIN LOCATIONS, DIAMETERS, AND INVERT ELEVATIONS EXITING THE BUILDING WITH THE MEP PLANS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CONFIRM SANITARY LATERAL LOCATIONS, DIAMETERS, AND INVERT ELEVATIONS EXITING THE BUILDING WITH THE MEP PLANS PRIOR TO CONSTRUCTION.





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- DETENTION CHAMBERS DURING THE ENTIRE DURATION OF THE PROJECT. CONTRACTOR SHALL COORDINATE WITH ADVANCED DRAINAGE SOLUTIONS, INC. (ADS) TO DETERMINE TH MINIMUM COVER REQUIRED OVER THE EXISTING CHAMBERS DURING CONSTRUCTION, AS WELL AS, THE APPROPRIATE EQUIPMENT AND OPERATIONS TO PROTECT THE CHAMBERS.
- WATER MAIN INSTALLATION AND MATERIALS SHALL CONFORM TO THE TOWN OF WHITELAND TYPICAL CONSTRUCTION GUIDELINES AND DETAILS.
- TAPPING SLEEVES AND VALVES SHALL BE EJP OR MUELLER H-615, H-616 OR STAINLESS STEEL SLEEVES. TAPPING VALVES SHALL BE 2360 SERIES BY MEULLER OR AFC 2500.
- FIRE HYDRANT ASSEMBLIES SHALL BE SUPER CENTURION 250 HYDRANT BY MEULLER CO WITH STORZ FITTING ON STEAMER WITH 5'-6" MIN. BURIAL DEPTH. ALL FITTINGS SHALL BE DUCTILE IRON (D.I.) WITH MECHANICAL JOINTS (M.J.) CONFORMING
- TO AWWA C-110, C-111, C-153, AND NSF-61. ALL WATER MAIN FITTINGS SHALL BE RESTRAINED IN ACCORDANCE WITH THE TOWN OF WHITELAND TYPICAL CONSTRUCTION GUIDELINES AND DETAILS. MEG-A-LUG RETAINER GLANDS BY EBBA IRON, INC. , FIELD-LOK GASKETS, OR ONE BOLT
- RESTRAINED FITTINGS SHALL BE USED ON EACH SIDE OF FITTINGS WHERE THE WATER MAIN CHANGES DIRECTION. CONTRACTOR SHALL COORDINATE CONSTRUCTION SEQUENCE WITH THE OWNER AND SKILLMAN CORPORATION AND MAINTAIN ACTIVE UTILITY SERVICES AT ALL TIMES. AL
- TEMPORARY UTILITY SERVICE INTERRUPTIONS MUST BE APPROVED BY THE OWNER AND SKILLMAN CORPORATION PRIOR TO INSTALLATION OF IMPROVEMENTS. EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND I
- INFORMATION PROVIDED IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOW ON THE PLANS, THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY. CONTRACTOR SHALL CONNECT ROOF DRAINS TO STR. NO. 38, 44, 49, 51, AND 58 AS
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F	STORM SEWER	SANITARY SEWER	$\sim$	$\sim$	$\frown$	$\sim$	$\sim$	
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0.00%	RIM=800.45	INV IN (8"~N)=791.88 INV OUT (8"~W)=791.88	8	TYPE 1	6"	57'	2.00%	796.44
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71	INISTALL TYPE 'C' MANHOLE WITH	WITH NEENAH R-1772 CASTING OR AN						
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₽ 1.00%	STR. NO. 68							
1	INSTALL TYPE 'C' MANHOLE WITH							
71	NEENAH CASTING R-1772 OR AN APPROVED EQUAL AND							
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## TES









EXISTS, CONTRACTOR SHALL POUR CLASS 'A'

CONCRETE COLLAR BETWEEN STORM AND WATER.



# MECHANICAL ROOM EXPANSION





RY PATH : R:\Active\Lancer+Beebe\Whiteland High School\Design\CAD\Plans\PH E : 500 GRADING PLAN.dwg









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D	COIR LOG/FILTER SOCK (SEE DETAIL-



## SECTION 33 4200 - STORMWATER CONVEYANCE

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. INDOT 2022 Standard Specifications Sections 702, 715, 718 and 720.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Installation of storm sewer pipes.
  - 2. Installation of storm inlets, storm manholes, stormwater quality treatment units, water quality diversion structures, and detention system outlet structures.

#### 1.3 ACTION SUBMITTALS

- A. Product Certificates: Contractor shall submit the following certifications and documentation:
  - 1. Producer name, location and source/approval number of the precast reinforced concrete pipe, pipe end section, riser rings and storm structures from the INDOT Certified Precast Concrete Producers list.
  - 2. Manufacturer name, location and source/approval number of the HDPE pipe, PVC pipe and all plastic fittings from the INDOT plastic pipe and pipe liner sources list.
- B. Product Data: For each type of product.
  - 1. Contractor shall submit shop drawings, manufacturer information, details, material descriptions, and dimensions of individual components for the following:
    - a. Precast concrete storm structures
    - b. Storm sewer castings
    - c. Nyloplast Drain Basins
    - d. Aqua-Swirl hydrodynamic separators
    - e. CheckMate UltraFlex inline check valves
  - 2. Contractor shall submit concrete mix designs for Class 'A' concrete collars.

### 1.4 PROJECT CONDITIONS

- A. The Contractor shall field verify location, size, and elevation of the existing storm sewer system where proposed storm sewer systems are to be connected. Contractor shall report discrepancies to the Owner and Engineer immediately.
- B. The Contractor shall field verify the location, size, and elevation of other existing utility conveyances including domestic water, sanitary sewer, natural gas, electric, and telecommunication cables/ducts prior to construction and immediately report conflicts with the proposed storm sewer systems to the Owner and Engineer.
- C. Storm sewer pipe and structures shall comply with current specifications of the Town of Whiteland Stormwater Department/Utility and Town of Whiteland Design Standards and Specifications Manual and all other responsible agencies in respect to design and quality of construction.
- D. If the Contractor elects to use alternate precast structures, casting manufacturers, or stormwater quality unit makes and models, detailed shop drawings shall be submitted to the Engineer for review and written approval prior to construction. Acceptance of alternates shall be at the discretion of the Owner and Engineer.
- E. Storm sewer pipe material substitutions must be approved in writing by the Engineer.

## PART 2 - PRODUCTS

### 2.1 REINFORCED CONCRETE PIPE (RCP)

- A. Where reinforced concrete pipe (RCP) is shown on the construction plans, it shall be Class III, Wall "B" conforming to ASTM C76, AASHTO M170, and the Indiana Department of Transportation (INDOT) Standard Specifications Section 907.
  - 1. Provide RCP with tongue and groove joints with compression type rubber gasket which conforms to ASTM C443.

### 2.2 HIGH-DENSITY POLYETHYLENE (HDPE) PIPE

- A. Where high-density polyethylene (HDPE) pipe is shown on the construction plans, it shall be dual wall corrugated HDPE pipe and fittings consisting of an annular outer corrugate pipe wall and a smooth inner wall in accordance with ASTM F2648 and the Indiana Department of Transportation (INDOT) Standard Specifications Section 907.
  - 1. Pipe and fitting materials shall be, in accordance with ASTM D3350, either virgin high-density polyethylene or engineering compound of virgin and recycled high density polyethylene with a minimum cell class of 435420C.
  - 2. Furnish HDPE pipe with bell and spigot joints in conformance with ASTM F2648.

- 3. Gasket material shall conform to ASTM F477.
- 4. Provide fittings of the same manufacturer for each type of HDPE pipe. Manufactured fittings shall not be accepted substitutes for precast storm structures.

#### 2.3 POLYVINYL CHLORIDE (PVC) PIPE

- A. Where polyvinyl chloride (PVC) pipe is shown on the construction plans, it shall be solid wall gravity flow PVC storm sewer pipe and fittings with bell and spigot joints with elastomeric seals and smooth inner walls in accordance with ASTM D3034 (SDR 35, 12 to 15-inch diameter), ASTM F679 (PS 46, 18 to 36-inch diameter), and INDOT Standard Specification Section 907.
  - 1. Minimum cell class shall be in accordance with ASTM D1784 as follows:
    - a. Cell class 12364 for 12 to 15-inch diameter pipes.
    - b. Cell class 12454 for 18 to 24-inch diameter pipes.
  - 2. Pipe shall have a minimum stiffness of 46 pounds per square inch when tested in accordance with ASTM D2412.
  - 3. Furnish PVC pipe with flexible, gasketed compression type joints so that, when assembled, the gasket inside the bell is compressed radially on the pipe spigot to form a soil-tight seal. Assemble joints in accordance with the pipe manufacturer's recommendations and ASTM D3212. Gaskets shall conform to ASTM F477.
  - 4. Manufactured fittings shall not be accepted substitutes for precast storm structures.

#### 2.4 POLYPROPYLENE (PP) PIPE

- A. Where polypropylene (PP) pipe is shown on the construction plans, it shall be double wall PP pipe with a smooth interior and annular exterior corrugations in accordance with ASTM F2736.
  - 1. Polypropylene compound for pipe and fitting production shall be impact modified copolymer meeting the material requirements of ASTM F2736 Section 4, ASTM F2881 Section 5, and AASHTO M330 Section 6.1 for respective diameters.
  - 2. Provide pipe joined with a gasketed integral bell and spigot joint meeting the requirements of ASTM F2736. Joints shall be watertight.

#### 2.5 SLOTTED DRAIN PIPE

A. Slotted drain pipe shall consist of the Duraslot slotted drain pipe system as manufactured by Advanced Drainage Solutions (ADS) Inc.

STORMWATER CONVEYANCE

B. Duraslot system shall utilize a variable height riser and pedestrian grate.

## 2.6 PRECAST CONCRETE STORM STRUCTURES

- A. All storm manholes, catch basins, and inlets shall be precast concrete.
- B. Precast concrete and steel for manholes and inlets shall be in accordance with ASTM C-478.
- C. Castings shall be as shown on the detail sheet(s) for manufacturer, type, and model numbers.
- D. Weir plates and angle iron connectors for outlet control and/or diversion structures shall be galvanized steel of the thickness as specified on the plans. Bolts utilized for connecting the angle iron to the precast structure shall be galvanized steel of sufficient length to attach angle iron to the structure. The weir plates shall extend the full inside width or diameter of the precast storm structure to which it connects. The weir plate heights shall be as shown on the construction plans.
- E. Debris screens/trash guards, for outlet control structure orifices, shall be galvanized steel. Each screen shall extend beyond the orifice opening by a minimum of 2 inches on any and all sides.

### 2.7 NYLOPLAST DRAIN BASINS

A. Nyloplast drain basins, grates, and covers shall be as manufactured by Advanced Drainage Solutions (ADS).

### 2.8 STORMWATER QUALITY TREATMENT UNITS

- A. Aqua-Swirl hydrodynamic separators as manufactured by Aqua-Shield, Inc. shall be installed for stormwater quality treatment as indicated on the construction plans. No substitutions will be allowed without prior written approval by the Engineer.
- B. Units shall be handled and stored in accordance with the manufacturer's specifications to avoid damage.
- C. Aqua-Swirl units shall be fabricated from polymer pre-coated steel sheet for corrugated steel pipe and shall comply with ASTM A 760 and ASTM A 742. Units must be installed in offline configurations as shown on the plans.
  - 1. Stub outs and internal components shall be supplied by the manufacturer and MIG welded using accepted welding practices.
  - 2. The manufacturer shall supply direct access to the unit via a riser. The riser shall not be field cut by the contractor.
- D. Pipe coupling connections to and from Aqua-Swirl shall be Mar-Mac, Fernco, or Mission style flexible boot with stainless steel tension bands and shear guard. Fabricated HDPE

bends shall be installed as noted on the plans between the hydrodynamic separators and diversion manholes.

- E. Bedding Stone: Stable base consisting of at least 6 inches of fine, readily compacted soil or granular fill material. Bedding shall not contain stones retained on a 3-inch ring, frozen lumps, highly plastic clay, organic material, corrosive material, or other deleterious foreign materials.
- F. Backfill Stone: Class I or II stone materials, (well graded gravels, gravely sands; contains little or no fines) as defined by ASTM D 2321, Section 5, Materials.
- G. Contractor shall install the hydrodynamic separators in accordance with the manufacturer's specifications and details including all traffic rated, reinforced concrete pads around castings for units located in areas subject to traffic loading.

#### 2.9 INLINE CHECK VALVE

- A. Inline check valves shall be CheckMate UltraFlex inline check valves as manufactured by Tideflex Technologies.
- B. Inline check valves shall be handled, stored, and installed in accordance with the manufacturer's specifications to avoid damage.

#### 2.10 MORTAR

A. Mortar for setting casting frames shall be composed of 1 part cement to 2 parts No. 23 fine aggregate by volume.

#### PART 3 - EXECUTION

#### 3.1 GENERAL

- A. Permits and Codes: The intent of this section of the specifications is that the Contractor's bid on the work covered herein shall be based upon the drawings and specifications but that the work shall comply with all applicable codes and regulations as amended by any waivers. The contractor shall furnish all bonds necessary to get permits for cuts and connections to existing sewers.
- B. Contractor shall be responsible for confirming, coordinating, and scheduling all necessary inspections by the Town of Whiteland related to the storm sewer system installation.
- C. Local Standards: The term "local standards" as used herein means the standards of design and construction of the Town of Whiteland Stormwater Department/Utility and Town of Whiteland Design Standards and Specifications Manual.

- D. Existing Improvements: The Contractor shall maintain in operating condition all active utilities, sewers, and other drains encountered in the sewer installation. The Contractor shall repair to the satisfaction of the Owner any damage to existing active improvements.
- E. Utilities: It shall be the responsibility of the Contractor to verity all existing utilities and conditions pertaining to his work. It shall also be the Contractor's responsibility to contact the owners of the various utilities before work is started. The Contractor shall notify in writing the Owner and Engineer of any changes, errors, or omissions found on these plans or in the field before work is started or resumed.
- F. Workmanship: This work shall conform to all local, state, and national codes and to be approved by all local and state agencies having jurisdiction.

## 3.2 TRENCH EXCAVATION

A. Excavate storm sewer trenches to the widths and depths as indicated on the construction plans and details and in accordance Section 31 20 00 Earthwork.

### 3.3 STRUCTURE INSTALLATION

- A. Contractor shall install precast concrete storm structures in accordance with Section 720 of the INDOT 2020 Standard Specifications.
- B. Contractor shall install and backfill Nyloplast drain basins and Duraslot slotted drain pipe in accordance with the manufacturer's details, specifications, and recommendations.
- C. Excavation shall be to the established bottom of the structure foundations and shall result in a firm, smooth surface. If soft or yielding spots are encountered at this elevation, the Contractor shall remove the soft soil and backfill it with suitable granular backfill or crushed limestone aggregate materials tamped into place. If rock is encountered at the bottom elevation, the excavation shall be carried down 6 inches further and backfilled with an approved material tamped to the required elevation.
- D. Inlet and outlet pipes shall extend through structure walls a sufficient distance to allow for connections to the outside and concrete/mortar carefully placed around them to prevent leakage around the pipe.
- E. Frames for castings and bearing plates for manholes shall be set in full mortar beds and secured. Mortar shall be composed of 1 part cement to 2 parts No. 23 fine aggregate by volume. Castings shall be set to the finished pavement elevations so that subsequent adjustments are not necessary.
- F. Where castings are adjacent to or are surrounded by cement concrete construction, each casting shall be entirely separated from the concrete by a preformed joint filler not less than 3/8" thick. Grates shall be places with the maximum dimension of the rectangular opening parallel to the direction of flow.

- G. If a manhole is constructed within the pavement area, the total height of the casting specified plus the height of the adjusting rings shall be based on the adjacent pavement section depth.
- H. If the completed structure is partially or completely under or at its nearest point is within 5 feet of pavement, sidewalks, curbs, gutters or buildings, the excavated space not occupied by the structure shall be backfilled with granular backfill material.
- I. Backfilling Aqua-Swirl Units: contractor shall backfill unit in accordance with ASTM A 798, Section 10, Structural Backfill Placement. The backfill stone shall be placed in 6 to 12 inch lifts and compacted to 90% proctor density. The backfill shall extend at least 18 inches outward from the unit and for the full height of the unit (including risers) extending laterally to undisturbed soils.
- J. Manhole Inverts: construct manhole flow channels of concrete sewer pipe or brick, smoothly finished and of semicircular section conforming to the inside diameter of the connecting sewers. Make changes in size or grade gradually and changes indirection by true curves. Provide such channels for all connecting sewers at each manhole.
- K. The Contractor shall install galvanized steel weir plates at the elevations as shown on the plans. Weir plates for outlet control structures shall be attached to the precast structure utilizing galvanized steel angle iron connectors and bolts. Weir plates for diversion structures shall be attached to precast structure utilizing waterproof epoxy.

#### 3.4 PIPE INSTALLATIONS

- A. Contractor shall install storm sewer pipe and underdrains in accordance with Sections 715 and 718 of the INDOT 2020 Standard Specifications.
- B. Excavate trenches in accordance with the details included in the construction plans and Section 31 20 00 Earthwork. Where pipe is to be place in fill sections, a portion of the fill shall be constructed and compacted in accordance with the specifications prior to pipe installation.
- C. Sheet and brace trenches as necessary to protect workmen and adjacent structures. All trenching to comply with current Occupational Safety and Health Administration (OSHA) standards. Keep trenches free from water while construction is in progress. Under no circumstances shall pipe or appurtenances be laid in standing water. Conduct the discharge from trench de-watering to appropriately designed and sized dewatering bags or basins prior to discharging into storm sewer drains or natural drainage channels.
- D. Install #8 compacted aggregate for bedding of flexible pipe in 6-inch lifts. Compaction shall be accomplished by hand or mechanical tamping or walking the granular material in.
- E. Lay pipe to the lines and grades shown on the construction plans. All pipe shall be laid commencing from the lowest point, proceeding upstream, with the spigot ends pointing towards the direction of the flow. HDPE and PVC pipe shall not be blocked for support. The practice of blocking pipe up to grade with bedding material then backfilling

STORMWATER CONVEYANCE

underneath the pipe is prohibited. The entire length of the bed section shall be at the proper grade before installing pipe.

- F. Where HDPE and PVC pipe are to be installed below the maximum ground water table, Contractor shall provide adequate weights to prevent floatation of the pipe.
- G. Install HDPE and PVC pipe on a firm, uniform foundation of bedding material under the entire lower quadrant of the barrel. No weight shall be supported by the pipe bell.
- H. Install reinforced concrete pipe on a firm, uniform foundation of undisturbed soil and cut recesses into the soil to receive any projecting hubs or bells.
- I. Pipe shall be carefully inserted into the bell in such that there will be no unevenness of any kind along the bottom half of the pipes and that there is a uniform joint space all around.
- J. Contractor shall take special precautions when homing PVC pipe as to not over-seat past the home marks. Field cut pipes shall have the homing marks reestablished to ensure proper seating depths. Field cut pipes shall have the cut ends re-tapered, by grinding or filing, as close as possible, to the original taper provided by the manufacturer. When homing pipe with a spud-bar or other mechanical equipment, other than by hand, a piece of wood shall be placed between the pipe and tool to prevent damage to the bell end section.
- K. All pipes which settle, or which are not in alignment, shall be taken up and re-laid at the Contractor's expense.
- L. All storm sewer pipe, except underdrains, shall be video inspected for acceptance a minimum of 30 days after the completion of backfill operations.
- M. Backfilling: Pipe bedding and backfill shall be placed as shown in the plans. Contractor shall install initial backfill consisting of Class I material such as #8 aggregate a minimum of 12" above the top of flexible pipe (PVC, HDPE, and PP pipe). Contractor shall hand tamp or walk-in bedding and initial backfill. Contractor shall install Class II or clean sand granular backfill in 6-inch maximum lifts and mechanical compact to 95% modified proctor density when trenches are within 5 feet of sidewalks, pavement, curbs, or buildings. Compaction operations shall be completed taking care not to disturb the pipe.

### 3.5 INLINE CHECK VALVE INSTALLATION

A. Contractor shall install the inline check valve in accordance with the manufacturer's specifications.

### 3.6 DEWATERING

A. If necessary due to site conditions or excessive rainfall events, the Contractor shall dewater the site and/or excavations utilizing a system of pumps and re-useable dewatering bags. The Contractor shall not allow dewatering operations to discharge directly into storm sewers, storm inlets or manholes, ditches, or swales without an

appropriately sized and selected dewatering bag. Under no circumstances shall dewatering operations associated with groundwater or precipitation be discharged into a sanitary sewer.

### 3.7 FIELD QUALITY CONTROL

- A. Deflection Testing for Flexible (HDPE, PP, PVC) Pipes: Contractor shall be responsible for performing deflection testing in accordance with the following requirements:
  - 1. Performing testing in presence of the Owner's designated representative.
  - 2. Perform testing on all flexible pipes 12-inch diameter and larger after the final backfill has been in place for at least 30 days.
  - 3. Perform deflection testing using a mandrel pulled by hand. The mandrel (go/nogo) devise shall be cylindrical in shape and constructed with nine or ten evenly spaced arms or prongs.
  - 4. No pipe shall exceed a vertical deflection of 5%. Contractor shall uncover, replace, and retest any pipe not passing the deflection test until a satisfactory result is achieved.
- B. Television Inspection: Contractor shall be responsible for televising the storm sewer in accordance with the following requirements:
  - 1. Televise all mainline storm sewers (manhole to manhole).
  - 2. Televise all lateral storm sewers (manhole to inlet, inlet to inlet, etc.) exceeding 40 feet in length.
  - 3. Perform television inspection in the presence of the Owner's designated representative.
  - 4. Clean all new storm sewers prior to television inspection so the image is clear and interior condition of the pipe is easily evaluated.
  - 5. Correct all unacceptable conditions found during television inspection and retelevise until no unacceptable conditions are found.
  - 6. Unacceptable conditions are those adversely impacting the ability of the system to function as designed or to be properly maintained including but not limited to the following:
    - a. Protruding taps
    - b. Cracked or faulty pipe
    - c. Misaligned or deformed pipe
    - d. Debris in line

- e. Infiltration/exfiltration
- f. Excessive gaps in joints
- g. Bellies or sags with a depth greater than or equal to 10% of the pipe diameter (maximum of 3 inches) or a length greater than 25 feet.
- 7. Submit copy of the televising recording (DVD format) to the Owner within 14 calendar days of the inspection.

END OF SECTION 33 4200



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Addendum:1Date:08/30/23Project:Clark-Pleasant Community School Corp.<br/>Whiteland Comm. High School Addition

Comm #: 22417

The following items shall be incorporated into the specifications and drawings and are considered to be integral to the bid documents for the project. Acknowledgement of receipt of this addendum is required on the bid form.

## Item #1: Specification Section 230900, "Instrumentation and Control for HVAC".

A. Add Part 2.2 A.6: Honeywell with Niagara 4, installed by local factory authorized branch.

## Item #2: Drawing Sheet P100K.

A. Revise underground storm drain piping. Refer to attached drawing revision.

### Item #3: Drawing Sheet P100M.

A. Revise underground sanitary drain piping invert elevation. Refer to attached drawing revision.

## Item #4: Drawing Sheet P101K.

A. Delete CO-2. Refer to attached drawing revision.

### Item #5: Drawing Sheet E101A

A. Added Plan note #20 to drawings. Refer to supplemental information drawing E101A for additional information.

### Item #6: Drawing Sheet E101G

A. Added Plan note #20 to drawings. Refer to supplemental information drawing E101G for additional information.

## Item #7: Drawing Sheet E101H

A. Added Plan note #3 to drawings. Refer to supplemental information drawing E101H for additional information.

### Item #8: Drawing Sheet E202M.

A. RM. M2000: Deleted HP-2.03 and added TF-M1. Refer to supplemental information drawing E202M for additional information.

#### Item #9: Drawing Sheet E503

A. Added Detail #7 to the drawings. Refer to supplemental information Drawing E503 for additional information.

#### Item #10: Drawing Sheet E504

A. Revised Detail #2 to the drawings. Refer to supplemental information Drawing E504 for additional information.

#### Item #11: Drawing Sheet E701.

- A. Equipment Schedule: Deleted equipment HP2.03. Refer to supplement information drawing E701 for additional information.
- B. Equipment Schedule: Add TF-M1. Refer to supplement information drawing E701 for additional information.

#### Item #12: Drawing Sheet E702

A. Light fixture Schedule: Added manufacturers and fixtures. Refer to supplement information drawing E701 for additional information.

#### Item #13: Drawing Sheet E706

A. Panel 2HK1: Change circuit 50(52,54) to be spare circuit breaker. Refer to supplement information drawing E706 for additional information.

#### Item #14: Drawing Sheet E707

A. Panel 2LK1: Added TF-M1 to circuit #58. Refer to supplemental information drawing E707 for additional information.

#### Item #15: Drawing Sheet ES201.

A. Refer to supplemental information drawing ES201 for revisions to plan notes.





SCALE: 1/16" = 1<sup>'</sup>-0"

SCALE: 3/32" = 1'-0"

32

SCALE: 1/8" = 1'-0"

## $(\mathbf{X})$

## **PLAN NOTES**

- 1. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION WITH SITE CONTRACTOR. 2. SANITARY PIPING UP TO FLOOR DRAIN FOR HEAT PUMP CONDENSATE DRAINAGE. COORDINATE WITH LOCATION OF EQUIPMENT BEING SERVED.
- 3. SLEEVE THROUGH UNDERGROUND FOUNDATION AS REQUIRED. COORDINATE WITH GENERAL CONTRACTOR. TYPICAL. AT UNDERGROUND ROUGH-IN LOCATED ABOVE UNDERGROUND FOOTER, UNDERGROUND SANITARY OR STORM PIPING SHALL ROUTE ABOVE UNDERGROUND FOOTING BUT BELOW BOTTOM OF SLAB.
- BEYOND FOOTER, DECREASE PIPE INVERT ELEVATION TO 98'-6" MINIMUM. TYPICAL.
- 5. RECONNECT TO EXISTING UNDERGROUND DRAIN PIPING.
- 6. PROVIDE AND INSTALL ACID NEUTRALIZATION TANK PER MANUFACTURER'S INSTALLATION REQUIREMENTS. REFER TO DETAIL ON DRAWING SHEET P402 FOR MORE INFORMATION.

7. 2" SANITARY UP TO WALL BOX DRAIN FOR HVAC CONDENSATE DRAIN.





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TRUE NORTH




SCALE: 3/32" = 1'-0"

32

SCALE: 1/8" = 1'-0"

SCALE: 1/4" = 1'-0"

SCALE: 1/2" = 1'-0"

SCALE: 3/4" = 1'-0"

4 SCALE: 1" = 1'-0"

$\mathbf{X}$	PLAN NOTES
1.	REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE EXACT LOCATION WITH SITE CONTRACTOR.
2.	2" SANITARY UP TO WALL BOX DRAIN FOR HVAC CONDENSATE DRAIN.
3.	2" PERIMETER REINFORCED POLYMER CONCRETE TRENCH DRAIN AT 1% SLOPE. GRATE SHALL BE 3" WIDE SLOTTED ADA DIN CLASS A THERMAL PLASTIC.
4.	4" WIDE GULLY BOXES WITH SEDIMENT BASKET AND BOTTOM OUTLET.
5.	TRENCH DRAIN HIGH POINT.
6.	AT UNDERGROUND ROUGH-IN LOCATED ABOVE UNDERGROUND FOOTER, UNDERGROUND SANITARY OR STORM PIPING SHALL ROUTE ABOVE UNDERGROUND FOOTING BUT BELOW BOTTOM OF SLAB. BEYOND FOOTER, DECREASE PIPE INVERT ELEVATION TO 98'-6" MINIMUM. TYPICAL.
7.	COORDINATE EXACT LOCATION OF ALL SANITARY DRAINS WITH AQUATICS CONTRACTOR. REFER TO AQUATICS DRAWINGS FOR MORE INFORMATION.

# H SITE

# ROUND SANITARY TOM OF SLAB.



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PRIMARY JOB # 22417

В

С

D

TRUE NORTH

Α

Ε

J





SCALE: 1/16" = 1'-0"

SCALE: 3/32" = 1'-0"

SCALE: 1/8" = 1'-0"



CO-1

со-1



# **PLAN NOTES** $(\mathbf{x})$

PROVIDE AND INSTALL WALL BOX FOR HVAC CONDENSATE DRAIN. REFER TO DETAIL ON PLUMBING SHEET P401 FOR MORE INFORMATION.





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PRIMARY JOB # 22417







![](_page_75_Picture_1.jpeg)

0 16 SCALE: 1/16" = 1'-0"

0 8 SCALE: 3/32" = 1'-0"

"

0 8 SCALE: 1/8" = 1'-0"

# $1 = \frac{ELECTRICAL DEMOLITION PLAN - FIRST FLOOR - UNIT G}{1/8" = 1"-0"}$

4

![](_page_75_Figure_12.jpeg)

![](_page_75_Figure_13.jpeg)

![](_page_75_Figure_14.jpeg)

Fort WayneIndianapolis2828 Lake Ave.9785 Crosspoint Blvd., Suite 103Fort Wayne, Indiana 46805Indianapolis, Indiana 46256260.424.0444 ph317.324.1221 phinfo@primary-eng.comwww.primary-eng.comAll concepts, ideas, plans, and details asshown on this document are the soleproperty of Primary Engineering, Inc.,and shall not be used for any otherpurpose without their expressed writtenconsent. The project owner shall be

![](_page_75_Figure_16.jpeg)

![](_page_75_Figure_17.jpeg)

PRIMARY JOB # 22417

![](_page_76_Figure_0.jpeg)

![](_page_76_Picture_1.jpeg)

# **PLAN NOTES**

- 1. DISCONNECT AND SALVAGE FIRE ALARM CONTROL PANEL. REMOVE ASSOCIATED CONDUCTORS AND CONDUIT BACK TO SOURCE. FIRE ALARM CABLING SHALL BE JUNCTIONED ABOVE ACCESSIBLE CEILING TO BE EXTENDED TO NEW LOCATION OF FIRE ALARM PANEL. CONTRACTOR SHALL PROTECT FIRE ALARM CONTROL PANEL DURING CONSTRUCTION.
- DISCONNECT ADA OPERATOR. REMOVE ASSOCIATED CONDUCTORS, LOW-VOLTAGE CABLING AND 2. CONDUIT BACK TO BACK TO SOURCE. DEVICE BOX AND CONDUIT CONCEALED IN WALL SHALL BE ABANDONED IN PLACE. PROVIDE AND INSTALL BLANK WALL PLATE ON DEVICE BOX. CONTRACTOR SHALL REMOVE OR SUPPORT LIGHT FIXTURES, AND FIRE ALARM DEVICES, AS REQUIRED, TO ALLOW FOR REMOVAL OF CEILING. CONTRACTOR SHALL RE-INSTALL LIGHTS AND FIRE ALARM DEVICES BACK INTO CEILING AFTER CEILING IS REINSTALLED.

![](_page_76_Figure_12.jpeg)

![](_page_76_Figure_13.jpeg)

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![](_page_76_Figure_16.jpeg)

PRIMARY JOB # 22417

![](_page_77_Figure_0.jpeg)

![](_page_77_Picture_1.jpeg)

![](_page_77_Figure_7.jpeg)

 $2^{\frac{\text{ENLARGED POWER PLAN - RM. M201A}}{1/4" = 1'-0"}}$ 

 $1 \frac{POWER PLAN - SECOND FLOOR - UNIT M}{\frac{1}{8^{n} = 1^{n} - 0^{n}}}$ 

0 1 SCALE: 1" = 1'-0"

4

SCALE: 1/4" = 1'-0"

# **PLAN NOTES**

- 1. COORDINATE LOCATION, ROUGH-IN AND ELECTRICAL REQUIREMENTS WITH CONTRACTOR AND APPROVED SHOP DRAWINGS PRIOR TO ROUGH-IN. REFER TO EQUIPMENT SCHEDULE ON SHEET E701 FOR ADDITIONAL INFORMATION.
- 2. MOUNT DOUBLE DUPLEX RECEPTACLES ON PLYWOOD BACKBOARD. COORDINATE LOCATION WITH DIVISION 27 CONTRACTOR PRIOR TO ROUGH-IN. TYPICAL OF DOUBLE DUPLEX RECEPTACLES UNLESS OTHERWISE NOTED MOUNT DUPLEX RECEPTACLE AS 18-24" FROM BACK SIDE OF TELECOMMUNICATION RACK TO SERVE 3.
- OWNER PROVIDED NETWORK HARDWARE. COORDINATE LOCATION WITH DIVISION 27 CONTRACTOR.
- 4. MOUNT NEMA L6-30R RECEPTACLE AS 18-24" FROM BACK SIDE OF TELECOMMUNICATION RACK TO SERVE OWNER PROVIDED NETWORK HARDWARE. COORDINATE LOCATION WITH DIVISION 27 CONTRACTOR. COORDINATE NEMA CONFIGURATION WITH OWNER.
- PROVIDE AND INSTALL FSR PBW-250-2KO-BX BACK BOX TO MOUNT DOUBLE DUPLEX RECEPTACLE. BOX TO BE MOUNTED AT +72" TO BOTTOM OF WALL BOX. COORDINATE LOCATION WITH MOUNTING BRACKET/BLOCKING AND ARCHITECTURAL ELEVATION PRIOR TO ROUGH-IN. COVER COLOR SHALL 5 BE SELECTED BY ARCHITECT.

![](_page_77_Figure_21.jpeg)

![](_page_77_Figure_23.jpeg)

![](_page_77_Figure_24.jpeg)

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.

![](_page_77_Figure_27.jpeg)

![](_page_77_Picture_28.jpeg)

PRIMARY JOB # 22417

![](_page_78_Figure_0.jpeg)

- NOT TO SCALE

![](_page_78_Figure_5.jpeg)

![](_page_78_Picture_7.jpeg)

A NOT TO SCALE

![](_page_78_Figure_9.jpeg)

GREENGATE

0-10V

DIMMER

#WSD-010SLD-XX

![](_page_78_Figure_10.jpeg)

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![](_page_78_Figure_12.jpeg)

![](_page_78_Picture_13.jpeg)

PRIMARY JOB # 22417

LOAD GRAY (0-10V)

"a"

SWITCHES AS

REQUIRED. REFER TO

VIOLET (0-10V)

VIOLET (0-10V)

GRAY (0-10V)

![](_page_79_Figure_0.jpeg)

1 CORD REEL MOUNTING DETAIL NOT TO SCALE

![](_page_79_Figure_2.jpeg)

![](_page_79_Picture_3.jpeg)

NOTE: CONTRACTOR SHALL PROVIDE POWER PACKS AS REQUIRED TO ACCOMMODATE SENSOR QUANTITIES INDICATED.

![](_page_79_Figure_5.jpeg)

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![](_page_79_Figure_7.jpeg)

![](_page_79_Picture_8.jpeg)

PRIMARY JOB # 22417

					_	EQUI	PMEN <sup>.</sup>	T SCHEDI	JLE										_			EQU	PME	NT S	СН	EDULE					
	NOL	_			CIRCUIT INFORMATIC	ON		DISCONNECT		VA FREQUE DRIVE	RIABLE ENCY/SPEED (VFD/VSD)	SC	OLID STATE MOTOR STARTER				NOI	_			CIRCUIT INFORMATI	ON		DISCO	NNECT	1	VARIABLE FREQUENCY/SF DRIVE (VFD/V	PEED (SD)	SOLID STATE	MOTOR STA	ARTER
	JIPMENT DESIGNAT	JIPMENT LOCATION	JIPMENT LOAD	TAGE/PHASE	CONDUIT AND CONDUCTOR SIZE	BRANCH CIRCUIT DESIGNATION	VIDED BY ED OR NON-	A ENCLOSURE			ALLED BY	A SIZE	TROL E CONNECT CCH SIZE E RATING	A ENCLOSURE	REMARKS		JIPMENT DESIGNAT	JIPMENT LOCATION	JIPMENT LOAD	.TAGE/PHASE	CONDUIT AND CONDUCTOR SIZE	BRANCH CIRCUIT DESIGNATIO	Z VIDED BY	ED OR NON- ED	A ENCLOSURE	E RATING FRMENT MOUNTED ITROL PANEL	VIDED BY	ALLED BY	A SIZE TROL	E CONNECT CUL SIZE	E RATING
	<b>D</b> HP-J2.10	<b>ğ</b> RM. J214	9.8 MCA	<b>5</b> 480V/3PH	3/4"C,3-#12,1-#12G	2HJ2-26(38,30)	P INT				INSI	NES NES	CON DISC			B-	<b>ਰੁੱ</b> 3-1	<b>0</b> RM. A114	22.0 FLA	480V/3PH	H 3/4"C, 3-#10,1-#10G	HPA-25(27,29	) DRO								
	HP-J2.11 HP-J2.12 HP-J2.13	RM. J216 RM. J209 RM. J211	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	2HJ2-31(33,35) 2HJ2-32(34,36) 2HJ2-37(39,41)	INT INT INT									B- B- B-	3-2 3-3 3-4	RM. A114 RM. A114 RM. A114	22.0 FLA 22.0 FLA 22.0 FLA	480V/3PH 480V/3PH 480V/3PH	I         3/4"C, 3-#10,1-#10G           I         3/4"C, 3-#10,1-#10G           I         3/4"C, 3-#10,1-#10G	HPA-20(22,24 HPA-31(33,35 HPA-26(28,30	) )) ))								
	HP-J2.14 HP-J2.15	RM. J211 RM. J232	9.8 MCA 7.9 MCA	480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	2HJ2-38(40,42) 2HJ2-43(45,47)	INT INT									CF	F1	RM. M101A	15 MCA	120V/1PH	H 3/4"C,2-#12,1-#12G	1LK1-42				INT					
	HP-K2.01 HP-K2.02 HP-K2.03	RM. K01 RM. K202 RM. K204	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	2HK1-1(3,5) 2HK1-2(4,6) 2HK1-7(,9,11)	INT INT INT									CF	7-1	RM. M101A RM. A114A	15 MCA (2) 75 HP	120V/1PH 480V/3PH	3/4"C,2-#10,1-#10G	1LK1-44 MDP1				INT					
	HP-K2.04 HP-K2.05	RM. K2000 RM. K2000	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	2HK1-8(10,12) 2HK1-13(15,17)	INT INT										T-2 T-1	RM. A114A RM. A114A	(2)75 HP (2) - 10KW	480V/3PH 480V/3PH	SEE RISER DIAGRAM ON E601           1         3/4"C,3-#10,1-#10G	MDP1 HPA-37(39,41	) EC	NF 1	1 3	INT 30A					
	HP-K2.06 HP-K2.07 HP-K2.08	RM. K203 RM. KL205 RM. K206	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	2HK1-14(16,18) 2HK1-19(21,23) 2HK1-20(22,24)	) INT ) INT ) INT									СТ	ГР-1	RM. A114A RM. A114	(2) - 10KW 60 HP	480V/3PH 480V/3PH	1         3/4*C,3-#10,1-#10G           1         SEE RISER DIAGRAM ON E601	MDP1			1 3	30A	MC E	EC			
	HP-K2.09 HP-K2.10 HP-K2.11	RM. K208 RM. K207 RM. K209	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	2HK1-25(27,29) 2HK1-26(38,30) 2HK1-31(33,35)	INT INT									СТІ	TP-2	RM. A114	60 HP	480V/3PH	SEE RISER DIAGRAM ON E601	MDP1						c			
	HP-K2.12 HP-K2.13	RM. K210 RM. K212	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	2HK1-32(34,36) 2HK1-37(39,41)	) INT INT									DH	IU-2	UNIT L ROOF	247.8 MCA	480V/3PH	SEE RISER DIAGRAM ON E602	MDP2	INT								
	HP-K2.14 HP-K2.15 HP-L2.01	RM. K211 RM. K2000 RM. L2000	9.8 MCA 7.9 MCA 7.9 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	2HK1-38(40,42) 2HK1-43(45,47) 2HL1-1(3,5)	) INT ) INT INT									DOA	AS-1 AS-2	UNIT K ROOF UNIT L ROOF	15.0 HP 58.6 MCA	480V/3PH 480V/3PH	SEE RISER DIAGRAM ON E602           1         1-1/4"C,3-#1,1-#8G	3HK3-7 3HL1-2(4,6)	INT								
	HP-L2.02 HP-L2.03	RM. L208 RM. L203	7.9 MCA 7.9 MCA	480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	2HL1-2(4,6) 2HL1-7(9,11)	INT INT									DB	3P-1	RM. 910	(4) - 15 HP	480V/3PH	SEE RISER DIAGRAM ON E602	MDP2				INT					
$\wedge$	HP-L2.04 HP-L2.05 HP-L2.06	RM. L2000 RM. L201	9.8 MCA 10.9 MCA	480V/3PH 208V/1PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	2HL1-13(15,17) 2LL1-36(38)	INT INT								9	EF		RM. J1300 RM. J222	3/4 HP 3/4 HP	120V/1PH 120V/1PH 120V/1PH	1         3/4"C,2-#10,1-#10G           1         3/4"C,2-#10,1-#10G           1         3/4"C,2-#10,1-#10G	1LJ1-29 2LJ1-24	INT								
	HP-M2.01	RM. M203	9.8 MCA	480V/3PH	3/4"C,3-#12,1-#12G	2HK1-49(51,53)	INT		~~~~								=-J3 =-J4 =-J5	RM. J324 UNIT J ROOF UNIT J ROOF	3/4 HP 1/2 HP 1/2 HP	120V/1PH 120V/1PH 120V/1PH	I         3/4"C,2-#10,1-#10G           I         3/4"C,2-#12,1-#12G           I         3/4"C,2-#12,1-#12G	3LJ1-38 3LJ2-72 3LJ2-70	INT INT								
ر ب	HP-J3.01 HP-J3.02	RM. J300	7.9 MCA 9.8 MCA	480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	3HJ2-1(3,5) 3HJ2-2(4,6)	INT INT									EF-	=-J6 =-J7	UNIT J ROOF RM. J313	1/2 HP 28 WATTS	120V/1PH 120V/1PH	I         3/4"C,2-#12,1-#12G           I         3/4"C,2-#12,1-#12G	3LJ2-68 3LJ2-61	INT								
	HP-J3.03 HP-J3.04 HP-J3.05	RM. J303 RM. J302 RM. J304	9.8 MCA 9.8 MCA 7.9 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	3HJ2-7(,9,11) 3HJ2-8(10,12) 3HJ2-13(15,17)	INT INT INT									EF- EF- EF-	K1 K2 K3	UNIT K ROOF UNIT K ROOF UNIT K ROOF	1/2 HP 1/2 HP 1/2 HP	120V/1PH 120V/1PH 120V/1PH	I         3/4"C,2-#12,1-#12G           I         3/4"C,2-#12,1-#12G           I         3/4"C,2-#12,1-#12G           I         3/4"C,2-#12,1-#12G	3LK2-53 3LK2-55 3LK2-57	INT INT INT								
	HP-J3.06 HP-J3.07	RM. J3200 RM. J322	9.8 MCA 7.9 MCA	480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	3HJ2-14(16,18) 3HJ2-19(21,23)	INT INT									EF- EF-	K4	UNIT K ROOF RM. K305	1/2 HP 28 WATTS	120V/1PH 120V/1PH	I         3/4"C,2-#12,1-#12G           I         3/4"C,2-#12,1-#12G           I         3/4"C,2-#12,1-#12G	3LJ2-66 3LK2-59	INT INT								
	HP-J3.09 HP-J3.10	RM. J305 RM. J307	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4°C,3-#12,1-#12G 3/4°C,3-#12,1-#12G 3/4°C,3-#12,1-#12G	3HJ2-25(27,29) 3HJ2-20(22,24)	INT INT INT									EF-	-M1 -M2	RM. M101	3/4 HP	120V/1PH	1 3/4°C,2-#10,1-#10G	1LK1-34	INT								
	HP-J3.11 HP-J3.12 HP-J3.13	RMN. J314 RM. J316 RM. J309	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	3HJ2-31(33,35) 3HJ2-26(28,30) 3HJ2-37(39,41)	INT INT INT									GF: GF:	=S-1 =S-2	RM. J324 RM. J324	3/4 HP 3/4 HP	120V/1PH 120V/1PH	3/4"C,2-#10,1-#10G           3/4"C,2-#10,1-#10G	3LJ1-34 3LJ1-36	EC EC	NF 1 NF 1	1 3 1 3	30A		INT INT			
	HP-J3.14 HP-J3.15	RM. J313 RM. J3200	7.9 MCA 7.9 MCA	480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	3HJ2-32(34,36) 3HJ2-43(45,47)	INT INT									GW	VH-3	RM. G100	9.4 FLA	120V/1PH	1 3/4"C,2-#12,1-#12G	LD-34	EC	NF 1	1 2	20A					
	HP-J3.16 HP-J3.17 HP-J3.18	RM. J234 RM. J324 RM. J324	56.7 MCA 56.7 MCA 7.9 MCA	480V/3PH 480V/3PH 480V/3PH	SEE RISER DIAGRAM ON E602           SEE RISER DIAGRAM ON E602           3/4"C,3-#12,1-#12G	SEE RISER SEE RISER 3HJ2-38(40,42)	INT INT									HF HF	P-1 P-2 P-3	RM. J324 RM. J324 RM. J324	79.4 FLA 79.4 FLA 79.4 FLA	480V/3PH 480V/3PH 480V/3PH	SEE RISER       I     SEE RISER       I     SEE RISER	3HJ3-1 3HJ3-2 3HJ3-3	INT INT INT								
	HP-J3.19 HP-J3.20 HP-K3.01	RM. J315 RM. J317 RM. K302	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G 3/4" 3-#12 1-#12G	3HJ2-49(51,53) 3HK1-38(40,42) 3HK1-1(3,5)	INT INT									HF HF	P-4	RM. J324 RM. J324	79.4 FLA 79.4 FLA 79.4 FLA	480V/3PH 480V/3PH 480V/3PH	SEE RISER     SEE RISER     SEE RISER	3HJ3-4 3HJ3-5 3HJ3-6	INT INT								
	HP-K3.02 HP-K3.03	RM. K3000 RM. K3000	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4",3-#12,1-#12G 3/4",3-#12,1-#12G	3HK1-2(4,6) 3HK1-7(,9,11)	INT INT									HP-J	J1.01	RM. J1100A	7.9 MCA	480V/3PH	1 3/4"C,3-#12,1-#12G	1HJ2-1(3,5)	INT								
	HP-K3.04 HP-K3.05 HP-K3.06	RM. K301 RM. K303 RM. K304	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4",3-#12,1-#12G 3/4",3-#12,1-#12G 3/4",3-#12,1-#12G	3HK1-8(10,12) 3HK1-13(15,17) 3HK1-14(16,18)	INT ) INT ) INT									HP-J HP-J HP-J	J1.02 J1.03 J1.04	RM. J101 RM. J103 RM. J102	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G	1HJ2-2(4,6) 1HJ2-7(,9,11 1HJ2-8(10,12	INT ) INT ) INT								
	HP-K3.07 HP-K3.08	RM. K306 RM. K305	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4",3-#12,1-#12G 3/4",3-#12,1-#12G	3HK1-19(21,23) 3HK1-20(22,24)	) INT ) INT									HP-J HP-J	J1.05 J1.06	RM. J104 RM. J1100	7.9 MCA 9.8 MCA	480V/3PH 480V/3PH	1         3/4"C,3-#12,1-#12G           1         3/4"C,3-#12,1-#12G           2/4"C,3-#12,1-#12G	1HJ2-13(15,1 1HJ2-14(16,1	7) INT 3) INT								
	HP-K3.10 HP-K3.11	RM. K300 RM. K310 RM. K307	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4",3-#12,1-#12G 3/4",3-#12,1-#12G 3/4",3-#12,1-#12G	3HK1-26(38,30) 3HK1-31(33,35)	) INT ) INT ) INT									HP-J HP-J	J1.08 J1.09	RM. 51300 RM. ST101 RM. J1000A	10.9 MCA 13.0 MCA	208V/1PH 480V/3PH	1         3/4 C,3-#12,1-#12G           1         3/4"C,2-#12,1-#12G           1         3/4"C,3-#12,1-#12G	1LJ2-35(37) 1HJ2-25(27,2)	INT           INT           )           INT								
	HP-K3.12 HP-L3.01 HP-L3.02	RM. RM. K3000 RM. L3000 RM. L303	9.8 MCA 7.9 MCA 10.9 MCA	480V/3PH 480V/3PH 208V/1PH	3/4",3-#12,1-#12G 3/4",3-#12,1-#12G 3/4",3-#12,1-#12G	3HK1-32(34,36) 3HL1-1(3,5) 3LL1-28(30)	) INT INT INT									HP-J HP-J HP-J	J1.10 J1.11 J1.12	RM. J1000A RM. J105 RM. J107	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G	1HJ2-20(22,2 1HJ2-31(33,3 1HJ2-26(2,30	4) INT 5) INT ) INT								
	HP-L3.03 HP-M3.01	RM. L301 RM. 302	11.6 MCA 11.6 MCA	480V/3PH 480V/3PH	3/4",2-#12,1-#12G 3/4",3-#12,1-#12G	3HL1-2(4,6) 3HL1-7(9,11)	INT INT									HP-J HP-J	J1.13 J1.14	RM. J114 RM. J116	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	1         3/4"C,3-#12,1-#12G           1         3/4"C,3-#12,1-#12G           1         3/4"C,3-#12,1-#12G	1HJ2-37(39,4 1HJ2-32(34,3	) INT 6) INT								
	HP-M3.02 HP-M3.03	RM. S1302 RM. M301	10.9 MCA 13.0 MCA	208V/1PH 480V/3PH	3/4",2-#12,1-#12G 3/4",3-#12,1-#12G	3LK1-32(34) 3HK1-37(39,41)	INT									HP-J HP-J HP-J	J1.15 J1.16 J1.17	RM. J109 RM. J111 RM. J111	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	1         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G	1HJ2-43(45,4 1HJ2-38(40,4 1HJ2-49(51,5	7) INT 2) INT 3) INT								
	HS-1.1 HS-1.2 HS-2.1	RM. A114A RM. A114A RM. A114A	1.0 FLA 1.0 FLA	120V/1PH 120V/1PH 120V/1PH	3/4"C,2-#12,1-#12G 3/4"C,2-#12,1-#12G 3/4"C,2-#12,1-#12G	1LA1-5 1LA1-5 1LA1-7	EC NF EC NF FC NF	1 20A 1 20A								HP-J HP-J HP-K	J1.18 J1.19 K1.01	RM. J128 RM. J128 RM. K101	7.9 MCA 7.9 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G	1HJ2-44(46,4 1HJ2-55(57,5 1HK1-1(3,5)	3) INT 9) INT								
	HS-2.2	RM. A114A	1.0 FLA	120V/1PH	3/4"C,2-#12,1-#12G	1LA1-7	EC NF	1 20A								HP-K	K1.02 K1.03	RM. K102 RM. K104	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	i         3/4"C,3-#12,1-#12G           i         3/4"C,3-#12,1-#12G           i         3/4"C,3-#12,1-#12G	1HK1-2(4,6) 1HK1-7(,9,11	INT ) INT								
	HWRP-1 HWRP-2	RM. G100 RM. G100	3.0 HP 3.0 HP	480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	HPB-33(35,374) HPB-33(35,37)					EC	0	HOAFVNR30A8AHOAFVNR30A8A		7 7	HP-K HP-K HP-K	K1.04 K1.05 K1.06	RM. K1100 RM. K1100 RM. K103	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G	1HK1-8(10,12 1HK1-13(15,1 1HK1-14(16,1	<ol> <li>INT</li> <li>INT</li> <li>INT</li> <li>INT</li> </ol>								
	P-1 P-2	RM. A114 RM. A114	25 HP 25 HP	480V/3PH 480V/3PH	1-1/4"C,3-#4,1-#8G 1-1/4"C,3-#4,1-#8G	HPA-(1.3.5) HPA-2(4,6)				MC MC	EC EC				5,6 5,6	HP-K	K1.07 K1.08	RM. K105 RM. K106	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	1     3/4"C,3-#12,1-#12G       1     3/4"C,3-#12,1-#12G       4     2/4"C,3-#12,1-#12G	1HK1-19(21,2 1HK1-20(22,2	3) INT 4) INT								
	P-4 P-5	RM. A114 RM. A114 RM. A114	25 HP 40 HP	480V/3PH 480V/3PH	1-1/4 C,3-#4,1-#8G           1-1/4"C,3-#3,1-#8G	HPA-8(10,12) HPA-13(15,17)				MC MC MC	EC EC				5,6 1,6	HP-K	K1.10 K1.11	RM. K107 RM. K1109	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	1         3/4 C,3-#12,1-#12G           1         3/4"C,3-#12,1-#12G           1         3/4"C,3-#12,1-#12G	1HK1-26(38,3 1HK1-31(33,3	INT           5)         INT								
	P-6 P-7 P-8	RM. A114 RM. A114 RM. J324	40 HP 40 HP 10 HP	480V/3PH 480V/3PH 480V/3PH	1-1/4"C,3-#3,1-#8G           1-1/4"C,3-#3,1-#8G           3/4"C,3-#10,1-#10G	HPA-14(16,18) HPA-19(21,23) 3HJ2-44(46,48)				MC MC MC	EC EC EC				1,6 1,6 6	HP-K HP-K HP-K	K1.12 K1.13 K1.14	RM. K110 RM. K112 RM. K111	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	i         3/4"C,3-#12,1-#12G           i         3/4"C,3-#12,1-#12G           i         3/4"C,3-#12,1-#12G	1HK1-32(34,3 1HK1-37(39,4 1HK1-38(40,4	6) INT 1) INT 2) INT								
	P-9 P-10	RM. J324 RM. J324	10 HP 5.0 HP	480V/3PH 480V/3PH	3/4"C,3-#10,1-#10G 3/4"C,3-#12,1-#12G	3HJ2-50(52,54) 3HJ2-56(58,60)				MC MC	EC EC				6 6	HP-K HP-L	K1.15 L1.01	RM. K114 RM. L1000A	7.9 MCA 9.8 MCA	480V/3PH 480V/3PH	1         3/4"C,3-#12,1-#12G           1         3/4"C,3-#12,1-#12G           4         2/4"C,3-#12,1-#12G	1HM1-37(39,4 1HM1-25(27,2	1) INT 9) INT								
	PH-1	RM. M101	15 MCA	120V/1PH	3/4°C,2-#12,1-#12G	1LK1-49	EC NF	1 20A							0	HP-L HP-L	L1.02 L1.03 M1.01	RM. L1000 RM. L117 RM. M101	7.9 MCA 11.6 MCA	480V/3PH 480V/3PH 480V/3PH	1         3/4 C,3-#12,1-#12G           1         3/4"C,3-#12,1-#12G           1         3/4"C,3-#12,1-#12G	1HM1-20(28,3 1HM1-31(33,3 1HM1-1(3,5)	5) INT INT								
	PHP-1 PP1	RM. M101 RM. M101	3.0 HP 40 HP	480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G	1HM1-20(22,24 1HM1-13(15,17	) EC NF	4X 30		PEC	EC					HP-N HP-N HP-J	M1.02 M1.03 J2.01	RM. M1000A RM. M1000 RM. J200	9.8 MCA 11.6 MCA 7.9 MCA	480V/3PH 480V/3PH 480V/3PH	I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G	1HM1-2(4,6) 1HM1-7(9,11 2HJ2-1(3,5)	INT ) INT INT								
	PP2 PP3	RM. M101 RM. M101	40 HP 1.5 HP	480V/3PH 480V/3PH	1-1/4"C,3-#3,1-#8G 3/4"C,3-#12,1-#12G	1HM1-14(16,18 1HM1-19(21,23	)			PEC	EC EC	0	HOA FVNR 30A 6A	4X		HP-J HP-J	J2.02 J2.03	RM. J201 RM. J203	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	1         3/4"C,3-#12,1-#12G           1         3/4"C,3-#12,1-#12G           1         3/4"C,3-#12,1-#12G	2HJ2-2(4,6) 2HJ2-7(,9,11	INT								
1	TF-K1 TF-L1	RM. K111 RM. L1000	1/4 HP 1/4 HP	120V/1PH 120V/1PH	3/4"C,2-#12,1-#12G 3/4"C,2-#12,1-#12G	1KL1-46 1LL1-40	INT INT									HP-J HP-J HP-J	J2.04 J2.05 J2.06	RM. J202 RM. J204 RM. J220	9.8 MCA 7.9 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	1         3/4"C,3-#12,1-#12G           1         3/4"C,3-#12,1-#12G           1         3/4"C,3-#12,1-#12G           1         3/4"C,3-#12,1-#12G	2HJ2-8(10,12 2HJ2-13(15,1 2HJ2-14(16,1	) INT 7) INT 3) INT								
<u>}</u>	TF-J1	RM. J138 ~~ <b>RM. K2001</b>	1/4 HP ~~~~1/4\버문~~ 1/4 HP	120V/1PH 120以1Rは 120V/1PH	3/4"C,2-#12,1-#12G	LS-26	INT ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~									HP-J HP-J HP-J	J2.07 J2.08 J2.09	RM. J220 RM. J205 RM. J207	7.9 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G           I         3/4"C,3-#12,1-#12G	2HJ2-19(21,2 2HJ2-20(22,2 2HJ2-25(27,2	<ul> <li>3) INT</li> <li>4) INT</li> <li>3) INT</li> </ul>								
L.	U1	RM. M101	12.0 KW	480V/3PH	3/4"C,3-#10,1-#10G	1HM1-8(10,12)			INT	r l								BREVATIONS MPACITY	DACTOR	HL		MCA				W V					
	VAV-1	RM. L104	1.0 KW	1200V/1PH	3/4°C,2-#12,1-#12G	1LL1-34	EC NF	1 20A								EC EX F	E) Fl	LECTRICAL CONT XISTING EQUIPME JSED	ENT	HOA HP	HIGH/LOW/OFF SWITCH HAND/OFF/AUTO HORSE POWER	MHLO NF	MOMENT/ MOMENT/ NON-FUSI	ARY HIGH/LO ED	OW SWI	SWITCH	AMP CINCUIT B	JREAKER, I PO			
	VAV-2 SCHEDULE A A	RM. M102 BBREVATIONS AMPACITY	1.0 KW	120V/1PH	3/4"C,2-#12,1-#12G	1LK1-49 MCA	EC NF	1 20A	w	WATTS						FLA FVNR FVR	FL FL FL	JLL LOAD AMPS JLL VOLTAGE NO JLL VOLTAGE RE <sup>V</sup>	N-REVERSING /ERSING	INT G LOR M	INTEGRAL WITH EQUIPMENT LOCAL/OFF REMOTE SWITCH MOMENTARY ON/OFF SWITCH	PEC O RLA	POOL EQU OWNER F RUNNING	JIPMENT CO URNISHED / LOAD AMPS	ONTRAC AND INS S	CTOR STALLED					
	EC EX E	ELECTRICAL CON EXISTING EQUIPM	ITRACTOR IENT	HLO HOA HP	HIGH/LOW/OFF SWITCH HAND/OFF/AUTO HORSE POWER	MHL MHLO NE	MOMENTARY MOMENTARY	HIGH/LOW SWITCH HIGH/LOW/OFF SWITCH	XA/YF	P X AMP C	IRCUIT BREAKER, Y	POLE				G	GI	ENERAL CONTRA	CTOR	MC	MECHANICAL CONTRACTOR	S	ON/OFF S	WITCH							
	FLA FVNR	FULL LOAD AMPS	ON-REVERSING	INT LOR	INTEGRAL WITH EQUIPMENT	PEC O	POOL EQUIPM OWNER FURN	IENT CONTRACTOR								1. PF	ROVIDE AI	ND INSTALL NEW BRANCH CIRCUIT	90A/3P CIRCU TO EXISTING	JIT BREAKER	TO REPLACE EXISTING CIRCUIT BREAK	ER IN EXISTING ED.	SIEMENS PA	NEL	NG						
	FVR G	FULL VOLTAGE RI GENERAL CONTR	EVERSING ACTOR	M MC	MOMENTARY ON/OFF SWITCH MECHANICAL CONTRACTOR	RLA S	RUNNING LOA	D AMPS CH								3. TE 4. RE 5. PF	ERMINATE EMOVE EX ROVIDE AI	E EACH COOLING KISTING TWIN 604 ND INSTALL NEW	10WER MOTO V3P FUSIBLE S 70A/3P CIRCU	UR TO EXISTI SWITCH IN E JIT BREAKER	ING SPARE 200A/3P FUSIBLE SWITCH IN XISTING MDP1 AND PROVIDE NEW 100A TO REPLACE EXISTING CIRCUIT BREAK	MDP1 AS INDIC /3P TWIN TO SEF ER IN EXISTING	ATED. REFEF RVE NEW CO SIEMENS PA	TO DRAWII OLING TOW NEL	NG E601 /ER PUM	1 For additional info IPS. Refer to drawing	≺MATION. Э̀ E601 FOR ADE	JITIONAL INFO	RMATION.		
	REMARKS															6. CC 7. PF 8. CU	ONTRACT	OR SHALL PROVI ND INSTALL NEW IALL BE ROUTED	DE CONDUCTO 30A/3P CIRCU THROUGH CO	ORS IN CON	DUIT FROM VSD TO MOTOR. TO REPLACE EXISTING CIRCUIT BREAK FOR EMERGENCY SHUT-OFF REFER TO	ER IN EXISTING	SIEMENS PA	NEL FOR ADDITIO	ONAL IN	FORMATION					
																9. CC 10. P 11. C	ONNECT ( PROVIDE A CHEMICAI	CONDESNATE PU AND INSTALL NEV	MP ON LINE S V 20A/1P CIRC T SHALL BE RO	SIDE OF DISC CUIT BREAKEI OUTED THRC	CONNECT ON UNIT. R IN EXISTING SIEMENS PANEL DUGH CHEMICAL CONTROLLER. RFFFR	TO AQ600 FOR 4	DDITIONAL	NFORMATIC							

![](_page_80_Picture_1.jpeg)

![](_page_80_Figure_13.jpeg)

![](_page_80_Picture_14.jpeg)

	LIGHT	FIXTURE SCHEDULE				LIGHT FIXTU	JRE SCHEI	DULE	
TAG	MANUFACTURER'S CATALOG NUMBER	MAX. WATTS MOUNT MIN. UUMEN OUTPUT *(D/I) CCT CR	DESCRIPTION         F           120V-277V, 4" x 8'-0" DIRECT/INDIRECT WALL MOUNTED LINEAR FIXTURE WITH FLUSH LENS AND ASYMMETRIC OPTIC. WHITE FINISH. 0-10V DIMMING DRIVER, DIMMABLE TO	REMARKS TAG	MANUFACTURER'S CATALOG NUMBER HALO #HC4-20-D010-HM40525-840-41MD-H	MAX WATT	S MOUNT MIN. LUMEN OUTPU *(D/I)	NUT ) CCT CRI CRI DESCRIPTION 120-277V, 4" DIAMETER DOWNLIGHT WITH MEDIUM DISTRIBUTION ANI SEMI-SPECULAR CLEAR REFLECTOR. ELECTRONIC 0-10V DIMMING DR	ID SELF-FLAT
L12	LITECONTROL #4L-M-IAD-LPAD-8-8-SOF-C1-40K-I075-D120-D01-1C-UNV-W1 MARK LIGHTING #S4WID LLP 8FT MSL8 80CRI 40K 1200LMF I80CRI I40K I800LMF SCT MIN1 FLL MVOLT WHT	T ZT 158 WALL 9,600/6,00 4000 80	1%. ELECTRONIC DRIVER WITH <20% THD. UL LISTED. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	DL1	PRESCOLITE #LFR-4RD-M-20L40K8-MD-DM1 LFR-4RD-T-SS LFR-4RD-H LITHONIA #LDN4 40/20 LO4AR LSS MVOLT GZ10		RECESSED 1,933	3 4000 80 RANGE FROM 100% TO 1%. UL LISTED	
L12A	SAME AS LT         SAME AS LT         LUMENWERX #VSPLR-D-TMG-HL-SW-80CRI-1000LMF-40K-4FT-UNV-D1-1C-EF-MTL-NATA         FORUM LIGHTING #AQR-F-32-100-40-SAT-4-277-WH-D10V         A-LIGHT #D5 4 LH 40 80CRI U HE X X D K	39 RECESSED 4,000 4000 80	120V - 277V, 4"x 4'-0", SEALED LINEAR FIXTURE WITH TEMPERED CLEAR GLASS LENS, WHITE FINISH. 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH <20% THD. UL LISTED IP66 WITH NATATORIUM FINISH. COLOR TO BE SELECTED BY ARCHITECT. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	DL2	HALO #HC4-30-D010-HM43040-840-41MD-H PRESCOLITE #LFR-4RD-M-30L40K8-MD-DM1 LFR-4RD-T-SS LFR-4RD-H LITHONIA #LDN4 40/30 LO4AR LSS MVOLT GZ10	32	RECESSED 3,000	0     4000     80     120-277V, 4" DIAMETER DOWNLIGHT WITH MEDIUM DISTRIBUTION ANI SEMI-SPECULAR CLEAR REFLECTOR. ELECTRONIC 0-10V DIMMING DR RANGE FROM 100% TO 1%. UL LISTED	D SELF-FLAN
L13-4/	A SAME AS L13 LUMENWERX #VSPLR-D-TMG-HLO-SW-80CRI-1000LMF-40K-8FT-UNV-D1-1C-EF-MTL-NATA FORUM LIGHTING #AQR-F-32-100-40-SAT-8-277-WH-D10V A-LIGHT #D5 8 LH 40 80CRI U HE X X D K	78     RECESSED     8,000     4000     80	120V - 277V, 4"x 4'-0", SEALED LINEAR FIXTURE WITH TEMPERED CLEAR GLASS LENS, WHITE FINISH. 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH <20% THD. UL LISTED IP66 WITH NATATORIUM FINISH. COLOR TO BE SELECTED BY ARCHITECT. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	DL2A	HALO #HC4-20-D010-HM40525-840-41PS-MD-W PRESCOLITE #LFR-4RD-M-30L40K8-WD-DM1 LFR-4RD-T-SH-WT-ACL LFR-4RD-H	26	RECESSED 2,000	INVERTER         120V-277V, 4" DOWN LIGHT WITH NON-CONDUCTIVE POLYMER "DEAD         REFLECTOR AND MEDIUM DISTRBIUTION WITH WHITE FLANGE. UL WE         LISTED.	FRONT" T LOCATION
L13-8/	A SAME AS L13 LUMENWERX #VSPLR-D-TMG-HLO-SW-80CRI-1000LMF-40K-12FT-UNV-D1-1C-TF-NATA FORUM LIGHTING #AQR-F-32-100-40-SAT-12-277-WH-D10V A-LIGHT #D5 12 LH 40 80CRI U HE X X D K	B-8 EXCEPT WITH EMERGENCY BATTERY INVERTER           116         RECESSED         12,000         4000         80	120V - 277V, 4"x 4'-0", SEALED LINEAR FIXTURE WITH TEMPERED CLEAR GLASS LENS, WHITE FINISH. 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH <20% THD. UL LISTED IP66 WITH NATATORIUM FINISH. COLOR TO BE SELECTED BY ARCHITECT. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	DL3A	HALO #HC4-15-D010-HM40525-840-41WD-W-WF PRESCOLITE #LFR-4RD-M-15L40K8-MD-DM1 LFR-4RD-T-WC LFR-4RD-H LITHONIA #LDN4 40/25 LO4AR LSS MVOLT GZ1	SAME AS DL3 EXCEPT WIT           18	RECESSED 1,498	INVERTER         120-277V, 4" DIAMETER DOWNLIGHT WITH MEDIUM DISTRIBUTION AND MATTE WHITE REFLECTOR. ELECTRONIC 0-10V DIMMING DRIVER WITH 100% TO 1%. UL LISTED	) SELF-FLAN + RANGE FF
L13-12 L14	A SAME AS L13- LUMENWERX #VSPLP-DI-TMG-HL-SW-80CRI-1000LMF-1000LMF-40K-8FT-UNV-D1-1C-TF-NATA FORUM LIGHTING #AQUD-32-95-40-SAT-H**-8-UNV-CC-D10V ACCOLADE #ALD2ST 8 ILH DLH 40 80CRI U HE BW S XX 1 D K	12 EXCEPT WITH EMERGENCY BATTERY INVERTER       158     PENDANT     8000/8000     4000     80	120V - 277V, 4"x 8'-0", SEALED DIRECT/INDIRECT LINEAR FIXTURE WITH TEMPERED CLEAR GLASS LENS, WHITE FINISH. 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH <20% THD. UL LISTED IP66 WITH NATATORIUM FINISH. COLOR TO BE SELECTED BY ARCHITECT. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.		ALS #LPTW-4-WH-UD <b>NEW STAR #AGG-G-24-OP-UN-TW0-CW56WATTS</b> LITHONIA #CPXTW 2X4 TUWH RHYR 6000LM 80CRI SWL MVOLT NLT	56 SAME AS L1 EXCEPT WIT	RECESSED 4750-525	2700K 2700K -6000 K 80 Y INVERTER	MING DRIVE
L14A L15-4	SAME AS L1 LUMENWERX #VIA4R-HL0-FH-80-1200-DUO-4FT-120-0-10-1 LITECONTROL #4L-LG-D-4-6-SOF-C1-2765T-D120-D01-1C-UNV-W1 MARK LIGHTING #SL4L LOP 4FT FLP FL 80CRI TUWH RHYR 1200LMF DARK 277	4 EXCEPT WITH EMERGENCY BATTERY INVERTER         52       RECESSED       4,800       2700K -6000 K       80	120V - 277V, 4"x 4'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS AND TUNABLE WHITE, WHITE FINISH. 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH <20% THD. UL LISTED. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	L2	COLUMBIA #CFP24-LSCS LITHONIA #CPX-2X4-AL08-80CRI-SWW7-SWL-MVOLT	27 SAME AS LO EXCEPT W/T	RECESSED 3,150	4000 80 4000 80 4000 4000 4000 4000 4000 4000 4000 40	OR OR CATED
L15-4/	A SAME AS L15 LUMENWERX #VIA4R-HL0-FH-80-1200-DUO-8FT-120-0-10-1 LITECONTROL #4L-LG-D-8-6-SOF-C1-2765T-D120-D01-1C-UNV-W1 MARK LIGHTING #SL4L LOP 8FT FLP FL 80CRI TUWH RHYR 1200LMF DARK 277	5-4 EXCEPT WITH EMERGENCY BATTERY INVERTER 104 RECESSED 9,600 2700K -6000 K 80	120V - 277V, 4"x 8'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS AND TUNABLE WHITE, WHITE FINISH. 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH <20% THD. UL LISTED. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	L2A	METALUX #24FPSL2SCT3-MED COLUMBIA #CFP24-LSCS LITHONIA #CPX-2X4-AL08-80CRI-SWW7-SWL-MVOLT	40	RECESSED 4,291	1 4000 80 1 4000 80 1 120-277V, 2'X4' LED FLAT PANEL WITH SELECTABLE LUMENS AND COL TEMPERAUTRE. 0-10V ELECTRONIC DIMMING TO 10% UL LISTED. COL TEMPERATURE AND LUMEN OUTPUT TO BE SET AT FACTORY AS INDIC	OR OR CATED
L15-8/	A SAME AS L15 LUMENWERX #VIA4R-HL0-FH-80-1200-DUO-12FT-120-0-10-1 LITECONTROL #4L-LG-D-12-6-SOF-C1-2765T-D120-D01-1C-UNV-W1 MARK LIGHTING #SL4L LOP 12FT FLP FL 80CRI TUWH RHYR 1200LMF DARK 277	5-8 EXCEPT WITH EMERGENCY BATTERY INVERTER 156 RECESSED 14,400 2700K K 80	120V - 277V, 4"x 12'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS AND TUNABLE         WHITE, WHITE FINISH. 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC         DRIVER WITH <20% THD. UL LISTED.	L3A	METALUX #24FPSL2SCT3-HIGH COLUMBIA #CFP22-LSCS LITHONIA #CPX-2X2-AL07-80CRI-SWW7-SWL	56	RECESSED 6,011	Y INVERTER         1       120-277V, 2'X4' LED FLAT PANEL WITH SELECTABLE LUMENS AND COL         1       4000       80         1       4000       80	OR OR CATED
L15-12 L16	A SAME AS L154 LUMENWERX #VIA4PDI-HLO-FH-CLO-LED-80-1200-500-DU-12FT-277-01-1-W LITECONTROL #4L-P-ID-STD-12-06-SOF-C1-2765T-I500-D120-D1-2C-UNV-XX- MARK LIGHTING #S4PID-LPP-12FT-MSL6-80CRI-TUWH-RHYR-1200LMF-I80CRI-600LMF-DCT-FFL-DC-MVOLT-XX	-12 EXCEPT WITH EMERGENCY BATTERY INVERTER 192 PENDANT 20,400 2700K K	120-277V, 4"X12'-0" DIRECT/INDIRECT LINEAR PENDANT WITH TUNABLE WHITE CONTROL.	L4A L5-4	LUMENWERX #VIA4R-HLO-FH-SW-80-1000-40-4FT LITECONTROL #4L-LG-D-4-6-SOF-C1-40K-D100-D01-1C-UNV-W1 MARK LIGHTING #SL4L-LOP-4FT-FLP-XX-80CRI-40K-1000LMF-277	SAME AS L4 EXCEPT WIT	H EMERGENCY BATTERY           RECESSED         4,000	Y INVERTER         0       4000         80       120V - 277V, 4"x 4'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS, V         0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH         LISTED.         CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	NHITE FINIS H <20% THD
L16A L17	SAME AS L1 METALUX #4BCLED-LD4-48HL-F-UNV-L840-CD-1- COLUMBIA #CWM4-40MLSM-FRFP-EDU LITHONIA #BLWP4 48L ADP EZ1 LP840	6 EXCEPT WITH EMERGENCY BATTERY INVERTER 51 WALL 4,800 4000 80	120-277V WALL MOUNTED BRACKET LIGHT. 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH <20% THD. UL LISTED.	L5-44	LUMENWERX #VIA4R-HLO-FH-SW-80-1000-40-8FT LITECONTROL #4L-LG-D-8-6-SOF-C1-40K-D100-D01-1C-UNV-W1 MARK LIGHTING #SL4L-LOP-8FT-FLP-XX-80CRI-40K-1000LMF-277	SAME AS L5-4 EXCEPT WIT	RECESSED 8,000	AY INVERTER           0         4000         80         120V - 277V, 4"x 8'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS, V 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH LISTED. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	//HITE FINISI H <20% THD
L17A CV1-1;	2 IO LED #LM-15L-940-120-ID-UNV-S-ADJ-STD-12FT TRAXOM #COVE LIGHT AC DIM GEN II 12W/FT 4000K / 12' RUN ECOSENSE #L60 I 48 14 40 80 MULT-50X90	7 EXCEPT WITH EMERGENCY BATTERY INVERTER       175     COVE     16,704     4000     80	120-277V, 12FT INTERIOR ARCHITECTURAL COVE LIGHT WITH INTEGRAL DRIVER UL LISTED	L5-84	LUMENWERX #VIA4R-HLO-FH-SW-80-1000-40-10FT LITECONTROL #4L-LG-D-10-6-SOF-C1-40K-D100-D01-1C-UNV-W1 MARK LIGHTING #SL4L-LOP-10FT-FLP-XX-80CRI-40K-1000LMF-277	SAME AS L5-8 EXCEPT WIT	RECESSED 10,000	AY INVERTER           00         4000         80         120V - 277V, 4"x 10'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS, 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH LISTED. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	WHITE FINIS H <20% THD
CV1-1	IO LED #LM-15L-940-120-ID-UNV-S-ADJ-STD-13FT           TRAXOM #COVE LIGHT AC DIM GEN II 12W/FT 4000K / 13' RUN           ECOSENSE #L60 I 12FT 14 40 80 MULT-50X90	190 COVE 18,788 4000 80	120-277V, 13FT INTERIOR ARCHITECTURAL COVE LIGHT WITH INTEGRAL DRIVER UL LISTED	L5-10	A LUMENWERX #VIA4R-HLO-FH-SW-80-1000-40-12FT LITECONTROL #4L-LG-D-12-6-SOF-C1-40K-D100-D01-1C-UNV-W1 MARK LIGHTING #SL4L-LOP-12FT-FLP-XX-80CRI-40K-1000LMF-277	SAME AS L5-10 EXCEPT WI	TH EMERGENCY BATTERY RECESSED 12,000	AY INVERTER         120V - 277V, 4"x 12'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS,         0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH         LISTED.         CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	WHITE FINIS H <20% THD
CV1-1	4 IO LED #LM-15L-940-120-ID-UNV-S-ADJ-STD-14FT TRAXOM #COVE LIGHT AC DIM GEN II 12W/FT 4000K / 14' RUN ECOSENSE #L60 I 14FT 14 40 80 MULT-50X90 IO LED #LM-15L-940-120-ID-UNV-S-ADJ-STD-24FT	204 COVE 21,000 4000 80	120-277V, 14FT INTERIOR ARCHITECTURAL COVE LIGHT WITH INTEGRAL DRIVER UL LISTED 120-277V, 24FT INTERIOR ARCHITECTURAL COVE LIGHT WITH INTEGRAL DRIVER UL	L5-12 L5-20	A LUMENWERX #VIA4R-HLO-FH-SW-80-1000-4020FT LITECONTROL #4L-LG-D-20-6-SOF-C1-40K-D100-D01-1C-UNV-W1 MARK LIGHTING #SL4L-LOP-20FT-FLP-XX-80CRI-40K-1000LMF-277	SAME AS L5-12 EXCEPT WI	TH EMERGENCY BATTERY RECESSED 12,000	ATY INVERTER         120V - 277V, 4"x 12'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS,         0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH         LISTED.         CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	WHITE FINIS H <20% THD
CV1-2	4       TRAXOM #COVE LIGHT AC DIM GEN II 12W/FT 4000K / 24' RUN         4       ECOSENSE #L60 I 48 24FT 40 80 MULT-50X90         IO LED #LM-15L-940-120-ID-UNV-S-ADJ-STD-3FT         TRAXOM COVE LIGHT AC DIM GEN II 12W/FT 4000K / 32' RUN	384 COVE 36,000 4000 80	LISTED 120-277V, 32FT INTERIOR ARCHITECTURAL COVE LIGHT WITH INTEGRAL DRIVER UL LISTED	L5-20	A LUMENWERX #VIA4R-HLO-FH-SW-80-1200-40-4FT LITECONTROL #4L-LG-D-6-6-SOF-C1-40K-D120-D01-1C-UNV-W1 MARK LIGHTING #SL4L LOP 4FT FLP XX 80CRI 40K 1200LMF MIN1 120 ZT	SAME AS L5-20 EXCEPT WI	TH EMERGENCY BATTERY RECESSED 4,800	ATY INVERTER         120V - 277V, 4"x 4'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS, V         0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH         LISTED.         CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	NHITE FINIS H <20% THD
ТК1	ECOSENSE #L60 I 32FT 14 40 80 MULT-50X90           CONTECH #8062V-S-35-D-P           ALINE #A-FLX15-3515T-WH (2-CIRCIUTATK) ATK**-2C-WH           JUNO #T254L-35K-S-W / T4-W	20 TRACK 1,480 3500 80	120V, TRACK LIGHT WITH SPOT DISTRIBUTION. PROVIDE AND INSTALL 2 CIRCUIT TRACK AND ALL NECESSARY COMPONENTS TO MAKE A COMPLETE AND OPERATIONAL SYSTEM. REFER TO DRAWINGS FOR TRACK LENGTH. COLOR TO BE SELECTED BY ARCHITECT.	L6-44	LUMENWERX #VIA4R-HLO-FH-SW-80-1500-40-4FT LITECONTROL #4L-LG-D-4-4-SOF-C1-40K-D150-D01-1C-UNV-W1 MARK LIGHTING #SL4L LOP 4FT FLP XX 80CRI 40K 1500LMF MIN1 120 ZT	SAME AS L6-4 EXCEPT WIT	RECESSED 6,000	AY INVERTER         BY INVERTER         120V - 277V, 4"x 4'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS, WO-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH LISTED.         0       4000         80       CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	WHITE FINIS H <20% THC
BL1	MCGRAW EDISON #ISS-SA1-D-740-U-T4W BEACON #QSP2-24L-50-4K7-4-UNV-XX LITHONIA #WSQ-P4-40K-SR4-MVOLT-XX	61 WALL 5,664 4000 70	120-277V, SMALL QUARTER SPHERE DIE CAST ALUMINUM WITH TYPE IV DISTRIBUTION, ELECTRONIC DRIVER. UL LISTED. COLOR BY ARCHITECT. MOUNT FIXTURE AT 10'-0" A.F.G. UNLESS OTHERWISE NOTED.	L7-44	LUMENWERX #VIA4R-HLO-FH-SW-80-1500-40-20FT LITECONTROL #4L-LG-D-20-8-SOF-C1-40K-D150-D01-1C-UNV-W1 MARK LIGHTING #SL4L LOP 20FT FLP XX 80CRI 40K 1500LMF MIN1 120 ZT	SAME AS L7-4 EXCEPT WIT	TH EMERGENCY BATTERY RECESSED 30,000	Image: NY INVERTER         I	, WHITE FINI: H <20% THC
BL2	SAME AS BL SPI LIGHTING #SEW12146-1FT-14W-120-277V-4000K-MCS-PSE-WL-FT_FT-OAP12-XX INSIGHT LIGHTING #E5X-HO-40K-*L-EXA-*-*-DIM-** /LC5 / CEL ELLIPTIPAR #S151-H-1H-XX-M-1FT-0-940-ZX-HGF-0-XX-HE	14 WALL 1,424 4000 80	120-277V, 1.5" DIAMETER BY 12" LONG FIXTURE WITH FORWARD THROW OPTICS MOUNTED 12" OF WALL. DIMMABLE TO 1%. ELECTRONIC DRIVER WITH <20% THD. IP66 RATED LIGHT ENGINE AND WET LOCATION LISTED HOUSING.	L7-22	2 LUMENWERX #VIA4R-HLO-FH-SW-80-1500-40-22FT LITECONTROL #4L-LG-D-22-8-SOF-C1-40K-D150-D01-1C-UNV-W1 MARK LIGHTING #SL4L LOP 20FT FLP XX 80CRI 40K 1500LMF MIN1 120 ZT	330	RECESSED 33,000	4000 4000 80 120V - 277V, 4"x 22'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS, 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH LISTED. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	WHITE FINI H <20% THD
FL1	LUMARK #NFFLD-S-C15-D-UNV-33-KNC-XX BEACON #RFL2-90L-40-4K7-N-UNC-K-XX LITHONIA #DSXF1 LED-P2-40K-NSP-MVOLT-THK LUMARK #NFFLD-S-C15-D-UNV-33-KNC-XX	51 SURFACE 4,525 4000 70	277V, SMALL FORM FLOOD LIGHT WITH 3X3 DISTRBUTION. ELECTRONIC DRIVER. UL LISTED. COLOR TO BE SELECTED BY ARCHITECT. 277V, SMALL FORM FLOOD LIGHT WITH 3X3 DISTRBUTION. ELECTRONIC DRIVER. UL	L7-24	LUMENWERX #VIA4R-HLO-FH-SW-80-1500-40-24FT LITECONTROL #4L-LG-D-24-8-SOF-C1-40K-D150-D01-1C-UNV-W1 MARK LIGHTING #SL4L LOP 24FT FLP XX 80CRI 40K 1500LMF MIN1 120 ZT	360	RECESSED 36,000	4000       80       120V - 277V, 4"x 24'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS, 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH LISTED. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.         120V - 277V, 4"x 26'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS, 0-10V DIMMING.	WHITE FINI 1 <20% THD
FL2	BEACON #RFL2-90L-40-4K7-N-UNC-K-XX LITHONIA #DSXF1 LED-P2-40K-NSP-MVOLT-THK	51 SURFACE 4,525 4000 70	LISTED. COLOR TO BE SELECTED BY ARCHITECT.	L7-26	LUMENWERX #VIA4R-HLO-FH-SW-80-1500-40-28FT	390	RECESSED 39,000	4000       80       0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH LISTED. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.         120V - 277V, 4"x 28'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS, 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH	1 <20% THD
INV1	DUAL LITE #LG250         ISOLITE #E3MIMI-250-MB         SURELITE #INV-375-PB-S         DUAL-LITE #LG375S	220 SURFACE	120-277V, 375VA WALL MOUNTED BATTERY INVERTER UL LISTED	L7-28	LITECONTROL #4L-LG-D-28-8-SOF-C1-40K-D150-D01-1C-UNV-W1 MARK LIGHTING #SL4L LOP 28FT FLP XX 80CRI 40K 1500LMF MIN1 120 ZT LUMENWERX #VIA4R-HLO-FH-SW-80-1500-40-32FT LITECONTROL #4L-LG-D-32-8-SOF-C1-40K-D150-D01-1C-UNV-W1	420	RECESSED 42,000	4000     80     LISTED. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.       120V - 277V, 4"x 32'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS, 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH LISTED.	, WHITE FINI: H <20% THC
PL1	ISOLITE #E3-375-LC-V2 SPI LIGHTING #LRU12243-L866-120-277V-4000K-DF-DA-NAT-PTXX	866 TRUSS 109,809 4000 80	120-277V, LIGHT TRUSS FIXTURE WITH AYSMMETRIC DISTRIBUTION AND NATATORIUM GRADE FINISH. CUSTOM COLOR TO BE SELECTED BY ARCHITECT. CONTRACTOR SHALL PROVIDE TRUSS SYSTEM AS INDICATED ON DRAWINGS. ELECTRONIC DRIVER.	1 L7-34	MARK LIGHTING #SL4L LOP 32FT FLP XX 80CRI 40K 1500LMF MIN1 120 ZT LUMENWERX #VIA4R-HLO-FH-SW-80-1500-40-34FT LITECONTROL #4L-LG-D-34-8-SOF-C1-40K-D150-D01-1C-UNV-W1 MARK LIGHTING #SL4L LOP 34FT FLP XX 80CRI 40K 1500LMF MIN1 120 ZT	510	RECESSED 51,000	4000       80       CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.         120V - 277V, 4"x 34'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS, 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH LISTED.         00       4000         80       CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	, WHITE FINI: H <20% THC
_1EM1	LIFE SAFETY LIGHTING #LSMM6-WL-PLED DUAL LITE #EL-SE-205LED ISOLITE #HZN NC MBC L65 SD	5 WALL 600	120-277V 5.0W LED HIGH LUMEN LAMPS WITH INJECTION MOLDED HIGH-IMPACT THERMAL PLASTIC HOUSING WITH CLEAR COVER. UL LISTED FOR WET LOCATIONS.		LUMENWERX #VIA4R-HLO-FH-SW-80-1500-40-36FT LITECONTROL #4L-LG-D-36-8-SOF-C1-40K-D150-D01-1C-UNV-W1 MARK LIGHTING #SL4L LOP 36FT FLP XX 80CRI 40K 1500LMF MIN1 120 ZT	540	RECESSED 54,000	4000 4000 80 120V - 277V, 4"x 36'-0", RECESSED LINEAR FIXTURE WITH FLUSH LENS, 0-10V DIMMING DRIVER, DIMMABLE TO 1%. ELECTRONIC DRIVER WITH LISTED. CONTROL WIRING REQUIRED FOR OPERATION OF 0-10V DIMMING.	WHITE FINI H <20% THD
EX1	UIFE SAFETY LIGHTING #LSWLEZTELL-B-G-EM-CW-SDT	2 UNIVERSAL 0	120-277C, POLYCARBONATE HOUSING WITH UV-STABILIZED POLYCARBONATE	L8	METALUX #14FPSL4235C-HIGH COLUMBIA #CFP14-LSCS LITHONIA #CPX-1X4-AL07-80CRI-SWW7-SWL-MVOLT.	36	RECESSED 4,100	0     3500     80         120-277V, 1'X4' RECESSED LED PANEL. ELECTRONIC 0-10V DIMMING D       0     3500     80	RIVER WITH
EX2	BEGHELLI #PX-A-R-SA-AT LITHONIA #WLTE-GY-1-R-EL-SD		MOUNTING CANOPY WITH CLEAR LENSE. UL LISTED FOR WET LOCATIONS.	L9	FAIL-SAFE #FSP14-42-40-CP125-DFCL-1248W-U NEW STAR #AGV-14-OP-UN-40-DM1 KENALL #CVSEDO-14-45L-40K8-DIM-DV-5F-4H-SYM-FN	45	RECESSED 3,800	120-277V, 1'X4' SEALED LED FLAT PANEL WITH 0.125 CLEAR POLYCARE AND DRYWALL KIT. 0-10V ELECTRONIC DIMMING TO 10% UL WET LOC/ 0 4000 80	30NATE LEN ATION LISTE
1. CON	THACTON SHALL PROVIDE AN ALLOWANCE OF \$350,000.00 FOR FIXTURE AND TRUSS SYSTEM THIS INCLUDES FRE	LIGITT AND SHIPPING COSTS.			LITHONIA #Z1LD-L48-SMR-3000LM-FST-MVOLT-40K-80CRI-WH COLUMBIA #CLS4-LSCS-GLH5	SAME AS L9 EXCEPT WIT	SUSPENDED 3,966	Y INVERTER         120-277V.4: LINEAR STRIE FIXTURE WITH EBOSTED.LENS AND COLD B         HOUSING. ELECTRONIC 0-10V DIMMING DRIVER WITH RANGE FROM 10         6       4000         80	QUEDSTER 00% TO 10%
				L10A	METALUX #4VT3-LD5-8W-UNV-EL10W-L840-CD1 COLUMBIA #LXEM4-40VL-RFP-EDU LITHONIA #FEM L48 8000LM IMAFL MD MVOLT GZ10 40K 80CRI	SAME AS L10 EXCEPT WIT	H EMERGENCY BATTERY SUSPENDED 8,000	Y INVERTER       120-277V, 4' LED VAPOR TIGHT STRIP LIGHT, FULLY GASKETED, FIBER         0       4000       80	GLASS HOU

![](_page_81_Picture_1.jpeg)

L11 LITHONIA #FE

1. CONTRACTOR

SAME AS L11 EXCEPT WITH EMERGENCY BATTERY INVERTER

1. CONTRACTOR SHALL REFER TO DRAWINGS FOR LOCATIONS THAT REQUIRE DRYWALL FRAMES FOR RECESSED FIXTURES.

![](_page_81_Figure_6.jpeg)

![](_page_81_Picture_7.jpeg)

![](_page_82_Picture_0.jpeg)

PANEL: MOUNTING TYPE: PANEL REMARKS:	2HJ1 SURFAC	Ξ	MLO: K.A.I.C.: FED FROM:	225 AMPERE 18 SEE RISER		VOLTAGI PHASE: WIRE:	E: 277/480 3 4+G			PANEL: MOUNTING PANEL RE	G TYPE: MARKS:	2HJ2 SURFACE		MLO: K.A.I.C.: FED FROM:	225 AMPERE 18 SEE RISER		VOLTA PHASE WIRE:	GE: 277/480 : 3 4+G
HINGED DOOR WITH	N HINGED C	OVER, 100% RATED NEUTRAL BUS								HINGED DO	JOR WITH	IN HINGED COVER	R, 100% RATED NEUTRAL BUS					
REMARKS CKT NO	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE	СКТ NO	REMARKS	REMARKS	СКТ NO	. BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE CKT NO
1	20A/1P	LIGHTS - RMS. J201, J203, & J205	1800 1285	-		LIGHTS - RMS. J200, J202, J206, J208,.	20A/1P	2			1			2188 2715				2
3	20A/1P	LIGHTS - RMS. J207 & J109		1200 1200		LIGHTS - RMS. J214 & J216	20A/1P	4			3	15A/3P	HP-J2.01		2188 2715	-	HP-J2.02	15A/3P 4
5	20A/1P	LIGHTS - RM. J211			1412 1357	LIGHTS - RM. J220	20A/1P	6			5					2188 2715		6
7	20A/1P	LIGHTS - RMS. K203 & K205	1800 3155	-		LIGHTS - RMS. J2000, J2100	20A/1P	8			7			2715 2715	-			8
9	20A/1P	LIGHTS - RMS. K207 & K211		1950 642		LIGHTS - RMS. J226, J228 & J230	20A/1P	10			9	15A/3P	HP-J2.03		2715 2715	-	HP-J2.04	15A/3P 10
1 11	20A/1P				0 1750	LIGHTS - RMS. K204 & K206	20A/1P	12			11					2715 2715		12
1 13	20A/1P		0 1650			LIGHTS - RMS. K208, K210 & K212	20A/1P	14			13			2715 2715	-			14
1 15	20A/1P			0			20A/1P	16	1		15	15A/3P	HP-J2.05		2715 2715		HP-J2.06	15A/3P 16
1 17	20A/1P				0		20A/1P	18	1		17					2715 2715		18
1 19	20A/1P		0				20A/1P	20	1		19			2715 2715	-			20
1 21	20A/1P			0			20A/1P	22	1		21	15A/3P	HP-J2.07		2715 2715		HP-J2.08	15A/3P 22
1 23	20A/1P				0	_	20A/1P	24	1		23					2715 2715		24
1 25	20A/1P		0	-			20A/1P	26	1		25			2188 2715	-			26
1 27	20A/1P			0	-		20A/1P	28	1		27	15A/3P	HP-J2.09		2188 2715		HP-J2.10	15A/3P 28
1 29	20A/1P				0		20A/1P	30	1		29					2188 2715		30
1 31	20A/1P		0				20A/1P	32	1		31			2715 2715	-			32
1 33	20A/1P			0			20A/1P	34	1		33	15A/3P	HP-J2.11		2715 2715		HP-J2.12	15A/3P 34
1 35	20A/1P				0		20A/1P	36	1		35					2715 2715		36
1 37	20A/1P		0				20A/1P	38	1		37			2715 2715	-			38
1 39	20A/1P			0	-		20A/1P	40	1		39	15A/3P	HP-J2.13		2715 2715		HP-J2.14	15A/3P 40
1 41	20A/1P				0		20A/1P	42	1		41					2715 2715		42
REMARKS	· · ·		9,690	4,992	4,519						43			2188 0	-			20A/1P 44
1. PROVIDE SPARE C	IRCUIT BREA	KER, AS INDICATED, IN SPACE. SPARE	CIRCUIT BREAK	KER SHALL BE	TURNED IN TH	HE OFF POSITION AT END OF CONSTRUC	CTION.				45	15A/3P	HP-J2.15		2188 0			20A/1P 46
											47					2188 0		20A/1P 48
										1	49	20A/1P		0	-			20A/1P 50
										1	51	20A/1P			0			20A/1P 52
										1	53	20A/1P				0		20A/1P 54
										1	55	20A/1P		0	-			20A/1P 56
										1	57	20A/1P			0			20A/1P 58
										1	59	20A/1P				0		20A/1P 60
										BEWYDRG				39,144	39,144	39,144		· · ·
										1. PROVIDE	E SPARE C	CIRCUIT BREAKER,	AS INDICATED, IN SPACE. SPAR	E CIRCUIT BREAK	ER SHALL BE	TURNED IN THE C	OFF POSITION AT END OF CONSTRU	JCTION.

PANEL: MOUNTIN PANEL RE HINGED D	<b>g type:</b> Marks: Dor Within	2HK1 SURFACE I HINGED COVE	R, 100% RATED NEUTRAL BUS	MLO: K.A.I.C.: FED FROM:	225 AMPERE 18 SEE RISER		VOLTAG PHASE: WIRE:	GE: 277/480 3 4+G				PANEL: MOUNTING PANEL RE HINGED D	<b>g type:</b> <b>Marks</b> : Dor Withii	2HL1 SURFACE N HINGED CC	OVER, 100% RATED NEUTRAL BUS	MLO: K.A.I.C.: FED FROM:	225 AMPERE 18 SEE RISER		VOLTAGE PHASE: WIRE:	277/480 3 4+G		
REMARKS	CKT NO.	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE		REMARK	s	REMARKS	СКТ NO.	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE	СКТ NO	REMARKS
	1			2715	-				2				1			2188	-			20A/1P	2	
	3	15A/3P	HP-K3.01		2715 2715	-	HP-K3.02	15A/3P	4				3	15A/3P	HP-L2.01		2188 2188		HP-L2.02	20A/1P	4	15A/3P
	5					2715 2715			6				5					2188 2188	-	20A/1P	6	
	7			2715 2715	-				8				7			2188 2715	-			20A/1P	8	
	9	15A/3P	HP-K3.03		2715 2715		HP-K3.04	15A/3P	10				9	15A/3P	HP-L2.03		2188 2715		HP-L2.04	20A/1P	10	15A/3P
	11					2715 2715			12				11					2188 2715		20A/1P	12	
	13			2715 2715					14				13			2715 1263	_		LIGHTS - RMS. L205, L206, L207, L208,	20A/1P	14	
	15	15A/3P	HP-K3.05		2715 2715		HP-K3.06	15A/3P	16				15	15A/3P	HP-L2.05		2715 0			20A/1P	16	1
	17					2715 2715			18				17					2715 0		20A/1P	18	1
	19			2715 2715	-				20				19	20A/1P	LIGHTS - RMS. L203 & L204	1343 0				20A/1P	20	1
	21	15A/3P	HP-K3.07		2715 2715	-	HP-K3.08	15A/3P	22				21	20A/1P	LIGHTS - RMS. M201, M201A & M203	_	1394 0	-		20A/1P	22	1
	23					2715 2715			24			1	23	20A/1P				0	_	20A/1P	24	1
	25			2715 2715		-			26			1	25	20A/1P		0				20A/1P	26	1
	27	15A/3P	HP-K3.09		2715 2715	0745	HP-K3.10	15A/3P	28			1	27	20A/1P		_	0			20A/1P	28	1
	29			0715		2/15 2715			30			1	29	20A/1P				0		20A/1P	30	1
	31			2715	0715				32			1	31	20A/1P		0				20A/1P	32	1
	33	15A/3P	HP-K3.11		2715 2715	0745	HP-K3.12	15A/3P	34			1	33	20A/1P		_	0			20A/1P	34	1
	35			0715		2715 2715			36			1	35	20A/1P				0		20A/1P	36	1
	37			2715	0715	-			38			1	37	20A/1P		0	0	-		20A/1P	38	1
	39	15A/3P	HP-K3.13		2715	0715	HP-K3.14	15A/3P	40			1	39	20A/1P		_	0	0		20A/1P	40	1
	41			0100		2715			42			1	41	20A/1P				0		20A/1P	42	1
	43			2715	0100				44			1	43	20A/1P		0				20A/1P	44	1
	45	15A/3P	HP-K3.15		2188	0100	HP-M2.02	15A/3P	46			1	45	20A/1P		_	0	0		20A/1P	46	1
	47			0715		2715	****	m	~~~48~		$\rightarrow$	1	47	20A/1P		0		0	-	20A/1P	48	1
	49			0	0715	}			50	_		1	49	20A/1P		0				20A/1P	50	1
	51	15A/3P	HP-M2.01		0	0715		15A/3P	52	1		1	51	20A/1P		_	0	0		20A/1P	52	1
	53			0		0			54		_ {	1	53	20A/1P		0		0	-	20A/1P	54	1
1	55	20A/1P		0	0	- L	······	~~~204/1P	- 1561	mun	m	1	55	20A/1P		0	- 0			20A/1P	56	1
1	57	20A/1P		_	0	0		20A/1P	58	1		1	57	20A/1P		_	0	0		20A/1P	58	1
1	59	20A/1P		45,608	45.609	0		20A/1P	60	1		1	59	20A/1P		14 600	10.099	0		20A/1P	60	1
REMARKS	E SPARE CIF	RCUIT BREAKER	, AS INDICATED, IN SPACE. SPARI	E CIRCUIT BREAK	ER SHALL BE	TURNED IN TH	E OFF POSITION AT END OF CONSTRU	ICTION.				REMARKS	E SPARE CI	RCUIT BREAK	ER, AS INDICATED, IN SPACE. SPARE	CIRCUIT BREAK	ER SHALL BE	TURNED IN TH	HE OFF POSITION AT END OF CONSTRUC	TION.		

![](_page_82_Figure_3.jpeg)

![](_page_82_Figure_4.jpeg)

> 0

![](_page_82_Picture_5.jpeg)

![](_page_82_Picture_6.jpeg)

PRIMARY JOB # 22417

PANEL: MOUNTING PANEL REI HINGED DO	<b>G TYPE:</b> MARKS: DOR WITHIN	2LJ1 SURFAC	E OVER, 100% RATED NEUTRAL BUS	MLO: K.A.I.C.: FED FROM:	225 AMPERE 22 SEE RISER		VOLTAGE: PHASE: WIRE:	120/208 3 4+G		
REMARKS	CKT NO.	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE	CKT NO	REMARKS
	1	20A/1P	REC RM. K201	900 720			REC RMS. J218, J220 J222, & J2200	20A/1P	2	
	3	20A/1P	REC RM. K201		720 900		REC RM. J226	20A/1P	4	
	5	20A/1P	REC RM. K201			720 900	REC RM. J228	20A/1P	6	
	7	20A/1P	REC RM. K203	720 900	-		REC RM. J230	20A/1P	8	
	9	20A/1P	REC RM. K203		720 1440		REC RM. J2400	20A/1P	10	
	11	20A/1P	REC RM. K203			720 720	REC RM. K202	20A/1P	12	
	13	20A/1P	REC RM. J211	720 720	_		REC RM. K202	20A/1P	14	
	15	20A/1P	REC RM. J211		720 900		REC RM. K202	20A/1P	16	
	17	20A/1P	REC RM. J211			720 720	REC RM. K204	20A/1P	18	
	19	20A/1P	REC RM. J211	540 720	-		REC RM. K204	20A/1P	20	
1	21	20A/1P			0 720		REC RM. K204	20A/1P	22	
1	23	20A/1P				0 1656	EF-J2	25A/1P	24	
1	25	20A/1P		0 1500	-		REC RM. 220	20A/1P	26	
1	27	20A/1P			0 1500		REC RM. 220	20A/1P	28	
1	29	20A/1P				0 1500	REC RM. 220	20A/1P	30	
1	31	20A/1P		0 1500	-		REC RM. 220	20A/1P	32	
1	33	20A/1P			0 1500		REC RM. 220	20A/1P	34	
1	35	20A/1P				0 2500	REC RM. 220	004/00	36	
1	37	20A/1P		0 2500	-		REC RM. 220	- 30A/2P	38	
1	39	20A/1P			0 1500		REC RM. 220	20A/1P	40	
1	41	20A/1P				0 1500	REC RM. 220	20A/1P	42	
1	43	20A/1P		0 1500	-		REC RM. 220	20A/1P	44	
1	45	20A/1P			0			20A/1P	46	1
1	47	20A/1P				0		20A/1P	48	1
1	49	20A/1P		0	-			20A/1P	50	1
1	51	20A/1P			0			20A/1P	52	1
1	53	20A/1P				0		20A/1P	54	1
1	55	20A/1P		0	-			20A/1P	56	1
1	57	20A/1P			0			20A/1P	58	1
1	59	20A/1P				0		20A/1P	60	1
Remarks 1. provide 2. circuit	SPARE CI	RCUIT BREA TO BE GFCI	KER, AS INDICATED, IN SPACE. SPARE TYPE.	12,940 CIRCUIT BREAK	10,620 KER SHALL BE 1	11,656 URNED IN TH	E OFF POSITION AT END OF CONSTRUCT	fion.		

![](_page_83_Picture_1.jpeg)

PANEL: MOUNTING PANEL REM HINGED DC	<b>A TYPE:</b> MARKS: DOR WITHIN	2LJ2 SURFAC N HINGED C	E OVER, 100% RATED NEUTRAL BUS	MLO: K.A.I.C.: FED FROM:	225 AMPERE 22 SEE RISER		VOLTAGE: PHASE: WIRE:	120/208 3 4+G		
REMARKS	CKT NO.	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE	CKT NO	REMARKS
	1	20A/1P	REC RM. J201	540 1080			REC RM. J202	20A/1P	2	
	3	20A/1P	REC RM. J201		720 720		REC RM. J202	20A/1P	4	
	5	20A/1P	REC RM. J201			720 720	REC RM. J202	20A/1P	6	
	7	20A/1P	REC RM. J203	720 540	_		REC RM. J204	20A/1P	8	
	9	20A/1P	REC RM. J203		720 360		REC RM. J204	20A/1P	10	
	11	20A/1P	REC RM. J203		-	720 360	REC RM. J204	20A/1P	12	
	13	20A/1P	REC RM. J205	720 360			REC RM. J204	20A/1P	14	
	15	20A/1P	REC RM. J205		720 1500	-	REC RM. J204	20A/1P	16	
	17	20A/1P	REC RM. J205		-	720 1500	REC RM. J204	20A/1P	18	
	19	20A/1P	REC RM. J207	720 540			REC RM. J204	20A/1P	20	
	21	20A/1P	REC RM. J207		720 540		REC RMS. J210, J212 & ST201	20A/1P	22	
	23	20A/1P	REC RM. J207		-	720 1500	REC RM. J206	20A/1P	24	
	25	20A/1P	REC RM. J209	720	-		REC RM. J208	20A/1P	26	
	27	20A/1P	REC RM. J209		720		REC RM. J212	20A/1P	28	
	29	20A/1P	REC RM. J209		-	720 720	REC RM. J214	20A/1P	30	
	31	20A/1P	REC RM. J200	720	-		REC RM. J214	20A/1P	32	
	33	20A/1P	REC RM. J200		720 720		REC RM. J214	20A/1P	34	
	35	20A/1P	REC RM. J2000		-	540 720	REC RM. J216	20A/1P	36	
	37	20A/1P	REC RM. J2000	360 720	-		REC RM. J216	20A/1P	38	
1	39	20A/1P			0		REC RM. J216	20A/1P	40	
1	41	20A/1P			-	0	REC RM. J2200	20A/1P	42	
1	43	20A/1P		0	- 1			20A/1P	44	1
1	45	20A/1P			0	-		20A/1P	46	1
1	47	20A/1P			-	0		20A/1P	48	1
1	49	20A/1P		0	-	-		20A/1P	50	1
1	51	20A/1P			0	-		20A/1P	52	1
1	53	20A/1P			-	0		20A/1P	54	1
1	55	20A/1P		0	-	<u> </u>		20A/1P	56	1
1	57	20A/1P			0			20A/1P	58	1
1	59	20A/1P				0		20A/1P	60	1
DEMARK	1	1		9,960	10,380	10,200		1		1
1. PROVIDE 2. CIRCUIT	SPARE CII BREAKER 1	RCUIT BREA TO BE GFCI	AKER, AS INDICATED, IN SPACE. SPARE ( TYPE.	CIRCUIT BREAK	KER SHALL BE T	URNED IN THE	E OFF POSITION AT END OF CONSTRUCT	fion.		

PANEL: MOUNTING PANEL REI HINGED DO	<b>A TYPE:</b> MARKS: DOR WITHIN	2LL1 SURFACE N HINGED CO	VER, 100% RATED NEUTRAL BUS	MLO: K.A.I.C.: FED FROM:	225 AMPERE 22 SEE RISER		VOL PHA WIR
REMARKS	СКТ NO.	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION
	1	20A/1P	REC RMS. L2100, & L209	900 720			REC RM. L204
	3	20A/1P	REC RM. L210		1500 720		REC RM. L204
	5	20A/1P	REC RM. L205			1500 360	REC RM. L204
	7	20A/1P	REC RM. L206	1500 360	-		REC RM. L203
	9	20A/1P	REC RMS. L202, L207, & L208		900 720		REC RM. L203
	11	20A/1P	REC RM. L208			1500 720	REC RM. L203
	13	20A/1P	REC RM. L208	1500 540	-		REC RM. M200
	15	20A/1P	REC RM. L208		1500 1500		POKE-THRU - RM.M200
	17	20A/1P	REC RM. L208			1500	POKE-THRU - RM.M200
	19	20A/1P	REC RM. L208	1500	-		REC RM. L201
	21	20A/1P	REC RM. L208		1500 360		REC RM. L201
	23	20A/1P	REC RM. L208			1500	REC RM. L201
	25	20A/1P	REC RM. L208	1500	-		REC RM. L201
	27	20A/1P	REC RM. L208	1000	1500 1500		REC RM. L201
	29					2500	REC RM. L201
	31	30A/2P	REC RM. L208	2500 1500	-	1000	REC RM. L201
	33	20A/1P	REC RM. L2100	1000	360		REC RM. L201
1	35	20A/1P			1000	0	
1	37	20A/1P		0	-		HP-L2.06
1	39	20A/1P			0		
1	41	20A/1P				0	
1	43	20A/1P		0	-		
1	45	20A/1P			0		
1	47	20A/1P		-		0	
1	49	20A/1P		0	-		
1	51	20A/1P		0	0		
1	53	20A/1P				0	
1	55	20A/1P		0			
1	57	20A/1P		0	0		
1	59	20A/1P				0	
				15,874	13,560	15,214	

PANEL: MOUNTING PANEL REM	TYPE: MARKS:	2LK1 SURFAC		MLO: K.A.I.C.: FED FROM:	225 AMPERE 22 SEE RISER		VOLTAGE: PHASE: WIRE:	120/208 3 4+G	
			OVER, 100% NATED NEUTRAL BUS						
REMARKS	СКТ NO.	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE	СКТ NO
	1	20A/1P	REC RM. K205	720 720	_		REC RM. K208	20A/1P	2
	3	20A/1P	REC RM. K205		720 720		REC RM. K208	20A/1P	4
	5	20A/1P	REC RM. K205			720 720	REC RM. K208	20A/1P	6
	7	20A/1P	REC RM. K207	720 720			REC RM. K208	20A/1P	8
	9	20A/1P	REC RM. K207		720 720	-	REC RM. K208	20A/1P	10
	11	20A/1P	REC RM. K207			720 900	REC RM. K208	20A/1P	12
	13	20A/1P	REC RM. K209	720 720	-		REC RM. K210	20A/1P	14
	15	20A/1P	REC RM. K209		720 720	-	REC RM. K210	20A/1P	16
	17	20A/1P	REC RM. K209			720 720	REC RM. K210	20A/1P	18
	19	20A/1P	REC RM. K111	720	-		REC RM. K212	20A/1P	20
	21	20A/1P	REC RM. K111		720 720		REC RM. K212	20A/1P	22
	23	20A/1P	REC RM. K111			900 720	REC RM. K212	20A/1P	24
	25	20A/1P	REC RM. M201	540 720	-		REC RM. M203	20A/1P	26
	27	20A/1P	REC RM. M201	120	540 720	-	REC RM. M203	20A/1P	28
	29	20A/1P	REC RM. M201			720	REC RM. M203	20A/1P	30
	31	20A/1P	REC RM. M201	360	-	000	REC RM. M2000	20A/1P	32
	33	20A/1P	REC RMS. M2000 & ST202		900 720	-	REC RM. K2000	20A/1P	34
	35	20A/1P	REC RM. M200			540 1500	REC RM. M201A	20A/1P	36
1	37	20A/1P		0	-	1000	REC RM. M201A	20A/1P	38
1	39	20A/1P		1000	0	-	REC RM. M201A	20A/1P	40
1	41	20A/1P				0	REC RM. M201A	20A/1P	42
1	43	20A/1P		0	-	1000	REC RM. M201A	20A/1P	44
1	45	20A/1P		1000	0	-			46
1	47	20A/1P		-	2300	0	REC RM. M201A	30A/2P	48
1	49	20A/1P		0	-	2300	REC RM. L204 & L2200	20A/1P	50
1	51	20A/1P		120	0	-	POKE-THRU - RM. M200	20A/1P	52
1	53	20A/1P		-		0	POKE-THRU - RM. M200	20A/1P	54
1	55	20A/1P		0	-	1000	REC RMS: L2200 & M204	20A/1P	56
1	57	20A/1P		1000	0		TF-M1	20A/1P	58
1	59	20A/1P				0 2	ummmmm	20A/1P	moon
				12,540	14,836	14,740		<u> </u>	1
1. PROVIDE 2. CIRCUIT	SPARE CII BREAKER	RCUIT BREA TO BE GFCI	KER, AS INDICATED, IN SPACE. SPARE TYPE.	CIRCUIT BREAK	KER SHALL BE T	URNED IN TH	E OFF POSITION AT END OF CONSTRUCT	ION.	

LTAGE: 120/208 ASE: 3 **RE:** 4+G BRK SIZE CKT NO REMARKS 
 20A/1P
 2

 20A/1P
 4

 20A/1P
 6
 20A/1P 8 20A/1P 10 20A/1P 12 20A/1P 14 \_\_\_\_\_ 20A/1P 16 20A/1P 18 20A/1P 20 20A/1P 22 20A/1P 24 20A/1P 26 20A/1P 28 20A/1P 30 20A/1P 32 20A/1P 34 
 20A/IP
 34

 15A/2P
 36

 38
 38

 20A/1P
 40
 1

 20A/1P
 42
 1

 20A/1P
 42
 1

 20A/1P
 44
 1

 20A/1P
 46
 1

 20A/1P
 46
 1

 20A/1P
 48
 1

 20A/1P
 50
 1

 20A/1P
 50
 1

 20A/1P
 52
 1

 20A/1P
 54
 1

 20A/1P
 56
 1

 20A/1P
 58
 1
 20A/1P 60 1 STRUCTION.

к WITHIN СКТ NO. 1 3		H, 100% HATED NEUTRAL BUS		1				
1 3		LOAD DESCRIPTION	FILADEA	PHASE B	PHASE C			OKT
1 3			(VA) 720	(VA)	(VA)			
3	20A/1P	REC RM. L201	1650	360	-	SCOREBOARD REC - RM. L100	20A/1P	2
_	20A/1P	REC RM. L201		1650	1500	SCOREBOARD REC - RM. L100	20A/1P	4
5	20A/1P	REC RM. L201	1500		1650	SCOREBOARD REC - RM. L100	20A/1P	6
7	20A/1P	REC RM. L201	1650	1500	-	SCOREBOARD REC - RM. L100	20A/1P	8
9	20A/1P	REC RM. L201		1650	1500	SCOREBOARD REC - RM. L100	20A/1P	10
11	20A/1P	REC RM. L201	1500		1650	SCOREBOARD REC - RM. L100	20A/1P	12
13	20A/1P	REC RM. L201	1650	1500		SCOREBOARD REC - RM. L100	20A/1P	14
15	20A/1P	REC RM. L201		1650		SCOREBOARD REC - RM. L100	20A/1P	16
17	20A/1P				1650	SCOREBOARD REC - RM. L100	20A/1P	18
19	20A/1P		1650			SCOREBOARD REC - RM. L100	20A/1P	20
21	20A/1P			0 1425	-	RECORD BOARD REC -RM. I 100	20A/2P	22
23	20A/1P				0 1425		20,421	24
25	20A/1P		0 1425				204/2P	26
27	20A/1P			0 1425	-	NEOCHD DOAND NEO -NW. ETOO	200/21	28
29	20A/1P				0		20A/1P	30
31	20A/1P		0	-			20A/1P	32
33	20A/1P			0			20A/1P	34
35	20A/1P				0		20A/1P	36
37	20A/1P		0	-			20A/1P	38
39	20A/1P			0	-		20A/1P	40
41	20A/1P				0		20A/1P	42
43	20A/1P		0	-	Ū		20A/1P	44
45	20A/1P		0	0	-		20A/1P	46
47	20A/1P			0	0		20A/1P	48
49	20A/1P		0	-	0		20A/1P	50
51	20A/1P		0	0	-		20A/1P	52
53	20A/1P			0	0		20A/1P	54
55	20A/1P		0		U		20A/1P	56
57	20A/1P		0	0			20A/1P	58
59	20A/1P			0	0		20A/1P	60
			11,745	11,160	0 9,375			
	13         15         17         19         21         23         25         27         29         31         33         35         37         39         41         43         45         47         49         51         53         55         57         59	13       20A/1P         15       20A/1P         17       20A/1P         19       20A/1P         21       20A/1P         23       20A/1P         23       20A/1P         25       20A/1P         27       20A/1P         29       20A/1P         31       20A/1P         33       20A/1P         33       20A/1P         33       20A/1P         34       20A/1P         35       20A/1P         36       20A/1P         37       20A/1P         41       20A/1P         43       20A/1P         44       20A/1P         45       20A/1P         47       20A/1P         49       20A/1P         51       20A/1P         53       20A/1P         55       20A/1P         57       20A/1P         59       20A/1P	13     20A/1P     REC RM. L201       15     20A/1P     REC RM. L201       17     20A/1P       19     20A/1P       21     20A/1P       23     20A/1P       24     20A/1P       25     20A/1P       27     20A/1P       29     20A/1P       31     20A/1P       33     20A/1P       34     20A/1P       35     20A/1P       36     20A/1P       37     20A/1P       38     20A/1P       39     20A/1P       41     20A/1P       43     20A/1P       44     20A/1P       45     20A/1P       47     20A/1P       43     20A/1P       44     20A/1P       45     20A/1P       47     20A/1P       49     20A/1P       51     20A/1P       53     20A/1P       54     20A/1P       55     20A/1P       56     20A/1P       57     20A/1P       59     20A/1P	13       20A/1P       REC RM. L201       1000         15       20A/1P       REC RM. L201       0         19       20A/1P       0       1650         21       20A/1P       0       1650         23       20A/1P       0       1850         25       20A/1P       0       1425         27       20A/1P       0       1425         27       20A/1P       0       0         31       20A/1P       0       0         33       20A/1P       0       0         35       20A/1P       0       0         37       20A/1P       0       0         37       20A/1P       0       0         39       20A/1P       0       0         41       20A/1P       0       0         43       20A/1P       0       0         441       20A/1P       0       0         45       20A/1P       0       0         49       20A/1P       0       0         53       20A/1P       0       0         54       20A/1P       0       0         55       <	13     20A/1P     REC RM. L201     1000       15     20A/1P     REC RM. L201     1650       17     20A/1P     0       19     20A/1P     0       21     20A/1P     0       23     20A/1P     0       25     20A/1P     0       25     20A/1P     0       26     20A/1P     0       27     20A/1P     0       31     20A/1P     0       33     20A/1P     0       33     20A/1P     0       33     20A/1P     0       33     20A/1P     0       34     20A/1P     0       37     20A/1P     0       39     20A/1P     0       43     20A/1P     0       43     20A/1P     0       441     20A/1P     0       43     20A/1P     0       443     20A/1P     0       45     20A/1P     0       51     20A/1P     0       54     20A/1P     0       55     20A/1P     0       55     20A/1P     0       56     20A/1P     0       57     20A/1P <t< td=""><td>13         20A/1P         REC RM. L201         1050 1650         1500 1650         1500 1650           17         20A/1P         REC RM. L201         0         1650         0           19         20A/1P         0         1650         0         1650           21         20A/1P         0         1650         0         1650           23         20A/1P         0         1425         0         1425           25         20A/1P         0         1425         0         1425           29         20A/1P         0         1425         0         0           31         20A/1P         0         0         0         0         0           33         20A/1P         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0<td>13       20A/IP       REC RM. L201       1800       SCOREBOARD REC RM. L100         15       20A/IP       REC RM. L201       1500       0       SCOREBOARD REC RM. L100         17       20A/IP       0       1850       0       SCOREBOARD REC RM. L100         19       20A/IP       0       0       SCOREBOARD REC RM. L100       RECORD BOARD REC RM. L100         21       20A/IP       0       0       0       RECORD BOARD REC RM. L100         23       20A/IP       0       0       0       RECORD BOARD REC RM. L100         23       20A/IP       0       0       0       RECORD BOARD REC RM. L100         24       20A/IP       0       0       0       0       0         23       20A/IP       0       0       0       0       0       0         33       20A/IP       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0</td><td>13         20A/P         REC RM. L201         1000 1650         SCOREBOARD REC - RM. L100         20A/P           17         20A/P         REC RM. L201         1000 1650         1500 1650         SCOREBOARD REC - RM. L100         20A/P           19         20A/P         0         SCOREBOARD REC - RM. L100         20A/P           19         20A/P         0         SCOREBOARD REC - RM. L100         20A/P           21         20A/P         0         1425         SCOREBOARD REC - RM. L100         20A/P           23         20A/P         0         1425         0         RECORD BOARD REC - RM. L100         20A/P           23         20A/P         0         1425         0         20A/P         20A/P           24         20A/P         0         1425         0         20A/P         20A/P           29         20A/P         0         0         0         0         20A/P         20A/P           30         20A/P         0         0         0         0         0         20A/P           31         20A/P         0         0         0         0         0         20A/P           31         20A/P         0         0         0</td></td></t<>	13         20A/1P         REC RM. L201         1050 1650         1500 1650         1500 1650           17         20A/1P         REC RM. L201         0         1650         0           19         20A/1P         0         1650         0         1650           21         20A/1P         0         1650         0         1650           23         20A/1P         0         1425         0         1425           25         20A/1P         0         1425         0         1425           29         20A/1P         0         1425         0         0           31         20A/1P         0         0         0         0         0           33         20A/1P         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 <td>13       20A/IP       REC RM. L201       1800       SCOREBOARD REC RM. L100         15       20A/IP       REC RM. L201       1500       0       SCOREBOARD REC RM. L100         17       20A/IP       0       1850       0       SCOREBOARD REC RM. L100         19       20A/IP       0       0       SCOREBOARD REC RM. L100       RECORD BOARD REC RM. L100         21       20A/IP       0       0       0       RECORD BOARD REC RM. L100         23       20A/IP       0       0       0       RECORD BOARD REC RM. L100         23       20A/IP       0       0       0       RECORD BOARD REC RM. L100         24       20A/IP       0       0       0       0       0         23       20A/IP       0       0       0       0       0       0         33       20A/IP       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0</td> <td>13         20A/P         REC RM. L201         1000 1650         SCOREBOARD REC - RM. L100         20A/P           17         20A/P         REC RM. L201         1000 1650         1500 1650         SCOREBOARD REC - RM. L100         20A/P           19         20A/P         0         SCOREBOARD REC - RM. L100         20A/P           19         20A/P         0         SCOREBOARD REC - RM. L100         20A/P           21         20A/P         0         1425         SCOREBOARD REC - RM. L100         20A/P           23         20A/P         0         1425         0         RECORD BOARD REC - RM. L100         20A/P           23         20A/P         0         1425         0         20A/P         20A/P           24         20A/P         0         1425         0         20A/P         20A/P           29         20A/P         0         0         0         0         20A/P         20A/P           30         20A/P         0         0         0         0         0         20A/P           31         20A/P         0         0         0         0         0         20A/P           31         20A/P         0         0         0</td>	13       20A/IP       REC RM. L201       1800       SCOREBOARD REC RM. L100         15       20A/IP       REC RM. L201       1500       0       SCOREBOARD REC RM. L100         17       20A/IP       0       1850       0       SCOREBOARD REC RM. L100         19       20A/IP       0       0       SCOREBOARD REC RM. L100       RECORD BOARD REC RM. L100         21       20A/IP       0       0       0       RECORD BOARD REC RM. L100         23       20A/IP       0       0       0       RECORD BOARD REC RM. L100         23       20A/IP       0       0       0       RECORD BOARD REC RM. L100         24       20A/IP       0       0       0       0       0         23       20A/IP       0       0       0       0       0       0         33       20A/IP       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0       0	13         20A/P         REC RM. L201         1000 1650         SCOREBOARD REC - RM. L100         20A/P           17         20A/P         REC RM. L201         1000 1650         1500 1650         SCOREBOARD REC - RM. L100         20A/P           19         20A/P         0         SCOREBOARD REC - RM. L100         20A/P           19         20A/P         0         SCOREBOARD REC - RM. L100         20A/P           21         20A/P         0         1425         SCOREBOARD REC - RM. L100         20A/P           23         20A/P         0         1425         0         RECORD BOARD REC - RM. L100         20A/P           23         20A/P         0         1425         0         20A/P         20A/P           24         20A/P         0         1425         0         20A/P         20A/P           29         20A/P         0         0         0         0         20A/P         20A/P           30         20A/P         0         0         0         0         0         20A/P           31         20A/P         0         0         0         0         0         20A/P           31         20A/P         0         0         0

![](_page_83_Figure_7.jpeg)

![](_page_83_Picture_8.jpeg)

![](_page_84_Figure_0.jpeg)

SCALE: 1" = 40'-0" SCALE: 1" = 50'-0" SCALE: 1" = 60'-0"

127 TECHNOLOGY + ACOUSTICS	Whiteland High School Addendum 1 Narrative	August 30, 2023
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## **SPECIFICATIONS:**

NONE

## **DRAWINGS:**

- 1) Sheet T201J FIRST FLOOR TECHNOLOGY PLAN UNIT J
  - a) Security camera J120-E-05 changed from dual-sensor to single sensor and shifted to corner of stairwell. Added sheet note #10 and corresponding callout to define camera mounting height.
  - **b)** Updated data labeling for devices as required.
- 2) Sheet T201K FIRST FLOOR TECHNOLOGY PLAN UNIT K
  - **a)** Changed height of security camera L117-E-05. Added sheet note #6 and corresponding callout to note installation of existing camera.
  - **b)** Changed height of security camera L117-E-06.
  - c) Updated data labeling for devices as required.
- 3) Sheet T201L FIRST FLOOR TECHNOLOGY PLAN UNIT L
  - a) Changed height of security camera L117-E-09. Shifted camera east to ensure column wraps do not impede camera field-of-view.
  - **b)** Updated data labeling for devices as required.
- 4) Sheet T201M FIRST FLOOR TECHNOLOGY PLAN UNIT M
  - a) Changed height of security camera M201A-E-05. Shifted camera east to ensure column wraps do not impede camera field-of-view.
  - **b)** Security camera M201A-E-11 changed from dual-sensor to single sensor and shifted to corner of stairwell. Added sheet note #6 and corresponding callout to define camera mounting height.
  - c) Updated data labeling for devices as required.
- 5) Sheet T202J SECOND FLOOR TECHNOLOGY PLAN UNIT J
  - a) Changed existing security camera to new camera. Modified sheet note #2 to indicate removal of existing dual-sensor camera and installation of new multi-sensor camera at same location.
  - **b)** Security camera J220-E-05 changed from dual-sensor to single sensor and shifted to corner of stairwell. Added sheet note #5 and corresponding callout to define camera mounting height.
- 6) Sheet T202K SECOND FLOOR TECHNOLOGY PLAN UNIT K
  - a) Updated data labeling for devices as required.
- 7) Sheet T202L SECOND FLOOR TECHNOLOGY PLAN UNIT L
  - a) Deleted security camera J220-C-01.
  - **b)** Updated data labeling for devices as required.
- 8) Sheet T202M SECOND FLOOR TECHNOLOGY PLAN UNIT M
  - a) Security camera M201A-E-12 changed from dual-sensor to single sensor and shifted to corner of stairwell. Added sheet note #2 and corresponding callout to define camera mounting height.

- **b)** Updated data labeling for devices as required.
- 9) Sheet T203J THIRD FLOOR TECHNOLOGY PLAN UNIT J
  - a) Security camera J322-D-01 changed from dual-sensor to single sensor and shifted to cover stairs.
     Added sheet note #6 and corresponding callout to define camera mounting height.
  - **b)** Updated data labeling for devices as required.
- 10) Sheet T203K THIRD FLOOR TECHNOLOGY PLAN UNIT K
  - a) Updated data labeling for devices as required.
- 11) Sheet T203L THRID FLOOR TECHNOLOGY PLAN UNIT L
  - a) Changed height of security camera L302-D-01.
  - **b)** Deleted security camera L302-D-03.
  - c) Relocated security camera L302-D-04 to avoid column.
  - d) Updated data labeling for devices as required.
- 12) Sheet T203M THIRD FLOOR TECHONOLGOY PLAN UNIT M
  - a) Updated data labeling for devices as required.
- 13) Sheet T500 TELECOM / SECURITY SCHEDULES
  - a) Removed security camera J220-C-01 from Telecom Schedule IDF L208 and updated camera labeling.
  - **b)** Updated labeling for "TELECOM SCHEDULE IDF J120 & TELECOM SCHEDULE IDF L117" so that devices are shown in the correct schedule and order.
- 14) Sheet T501 TELECOM / SECURITY SCHEDULES
  - a) Removed security camera L302-D-03 from Telecom Schedule IDF L302 and updated camera labeling.
  - **b)** Updated labeling for "TELECOM SCHEDULE IDF M201A &TELECOM SCHEDULE IDF L302" so that devices are shown in the correct order.

## **SHEET INDEX:**

T201J - FIRST FLOOR TECHNOLOGY PLAN - UNIT J T201K - FIRST FLOOR TECHNOLOGY PLAN - UNIT K T201L - FIRST FLOOR TECHNOLOGY PLAN - UNIT L T201M - FIRST FLOOR TECHNOLOGY PLAN - UNIT M T202J - SECOND FLOOR TECHNOLOGY PLAN - UNIT J T202K -SECOND FLOOR TECHNOLOGY PLAN - UNIT K T202L - SECOND FLOOR TECHNOLOGY PLAN - UNIT L T202M - SECOND FLOOR TECHNOLOGY PLAN - UNIT M T203J - THIRD FLOOR TECHNOLOGY PLAN - UNIT M T203K - THIRD FLOOR TECHNOLOGY PLAN - UNIT J T203K - THIRD FLOOR TECHNOLOGY PLAN - UNIT K T203L - THIRD FLOOR TECHNOLOGY PLAN - UNIT K T203M - THIRD FLOOR TECHNOLOGY PLAN - UNIT K T203M - THRID FLOOR TECHNOLOGY PLAN - UNIT K T500 - TELECOM / SECURITY SCHEDULES

![](_page_87_Figure_0.jpeg)

FIRST FLOOR TECHNOLOGY PLAN -UNIT J 1/8" = 1'-0"

	GENE	RAL HORIZONTAL CABLING NOTES
	A MINIMUM UNSHIEL	CATEGORY 6 (6A FOR WAPS) COMPLIANT 4-PAI DED TWISTED PAIR (UTP). ALL HORIZONTAL
	CABLING B CONTRA MANUFA	MUST BE PLENUM RATED. CTOR SHALL PROVIDE A DOCUMENTED CTURER CERTIFIED SOLUTION INCLUDING THE
	C PAINTING	PERFORMANCE AND APPLICATIONS WARRANT
	WARRAN PAINTING IS PROTE	ITY. ENSURE PROPER COORDINATION WITH CONTRACTOR SO THAT ALL STRUCTURED CAE ECTED PRIOR TO ANY PAINTING.
	D PROVIDE HORIZON	A MINIMUM 10 FOOT MAINTENANCE LOOP ON E ITAL CABLING RUN. MAINTENANCE LOOPS SHAL
	STORED	ABOVE ACCESIBLE CEILINGS, IN CABLE TRAY, A COMMUNICATION ROOM CABLE TRAY. CABLING
	ABOVE C SUPPOR	EILING SHALL BE SUSPENDED FROM APPROPRI TS AND SHALL NOT TOUCH THE CEILING.
	E ALL PIN/F	PAIR ASSIGNMENTS SHALL BE T568B. O SPECIFICATION SECTION 27 15 13 FOR CABLE
	G LABELING	COLOR REQUIREMENTS G SHALL BE COMPLETED AS DEFINED IN THE
	CONTRAC THE OWN	CT DOCUMENTS AND SHALL BE COORDINATED V NER.
	H PROVIDE THE DRA CONNEC DRAWING	ALL TELECOMMUNICATION OUTLETS AS SHOW WINGS AND AS REQUIRED TO PROVIDE TIONS FOR EACH DEVICE SHOWN ON THE GS.
	I ALL TEST COMPLE	TING OF HORIZONTAL CABLING SHALL BE TED AS DIRECTED BY THE PROJECT
	CERTIFIE	CATIONS. ALL CABLING MUST BE TESTED AND ED TO THE APPLICABLE STANDARDS.
		TELECOM LEGEND
		ATA LOCATION
	-\$\vec{1}{2}- AB	BOVE CEILING DATA LOCATION
		/ INPUT LOCATION
	AV AV	/ FLOOR BOX LOCATION
		LUETOOTH RECEIVER LOCATION
	MON MON M	ONITOR LOCATION
	DS ▼ DI	GITAL SIGNAGE LOCATION
	© cı	LOCK LOCATION
	CC DI	JAL SIDED CLOCK LOCATION
	₩A W	IRELESS MICROPHONE ANTENNA LOCATION
		EARING ASSISTANCE ANTENNA LOCATION
		EILING MOUNTED LOUDSPEAKER LOCATION
	S Cr	
		ALL MOUNTED SPEAKER - PAGING LOCATION
	- (AP)- W	IRELESS ACCESS POINT - CEILING MOUNTED
	↔ ♥ W	IRELESS ACCESS POINT - WALL MOUNTED
		/ EQUIPMENT RACK LOCATION
	(D) D(	OOR POSITION SENSOR LOCATION
	CR C/	ARD READER LOCATION
	AC AC	CCESS CONTROL SYSTEM HOLD-OPENS
$\underline{1}$	SC SE	ECURITY CAMERA - WALL MOUNTED
$\langle$	· · ·	SHEET NOTES
	1 DATA LOO ENCLOSU PATCH CO	CATION INSTALLED ADJACENT TO ACCESS CON JRE. CONTRACTOR SHALL PROVIDE AND INSTAL ORD(S) FROM DATA LOCATION TO ENCLOSURE /
}	2 ADD EXIS	D. TING 2.4mm LENS MODULE TO EXISTING CAMER
	3 DEVICES DIRECTLY ON OTHE DESIGNA	SHOWN WITHIN OUTLINE SHALL BE STUBBED Y THROUGH EXISTING WALL ABOVE CEILING HEI R SIDE OF WALL. CABLING SHALL CONTINUE TO TED POINT OF TERMINATION VIA J-HOOKS AND
	CONDUIT 4 C.F.C.I. 75	AS REQUIRED. 5" FLAT PANEL DISPLAY MOUNTED TO MOBILE CA 2) SPECIFICATION 27 41 46 FOR ADDITIONAL
	INFORMA	TION. MENT RACK SERVING ATRIUM. DATA LOCATION
	SERVING RACK KN 6 EXISTING	RAGK SHALL BE INSTALLED BEHIND RACK WITH OCKOUT AT 46" AFF. SECURITY CAMERA TO REMAIN.
	7 INSTALL E LOCATIO	EXISTING HANWHA XNP-6321H PTZ CAMERA AT <sup>-</sup> N.
$\langle$	8 NSTALL E LOCATION	XISTING HANWHA PNM-9000VQ CAMERA AT THIS N WITH THREE (3) 2.4mm LENS MODULES.
	9 INSTALLE LOCATION POSITION POSITION	AND TWO (2) 6mm LENS MODULES IN EAST/WE I AND TWO (2) 6mm LENS MODULES IN EAST/WE IS.

10 MOUNT CAMERA AT 12' 10" ABOVE STAIR LANDING. 

![](_page_87_Picture_4.jpeg)

![](_page_88_Figure_0.jpeg)

![](_page_88_Figure_1.jpeg)

1 UNIT K 1/8" = 1'-0"

	GENERAL HORIZONTAL CABLING NO	)
A	MINIMUM CATEGORY 6 (6A FOR WAPS) COMPLIAN	T
	UNSHIELDED TWISTED PAIR (UTP). ALL HORIZON CABLING MUST BE PLENUM RATED.	T,
В	CONTRACTOR SHALL PROVIDE A DOCUMENTED	
	MINIMUM PERFORMANCE AND APPLICATIONS WA	R
C	WARRANTY. ENSURE PROPER COORDINATION W	וכ רו
	PAINTING CONTRACTOR SO THAT ALL STRUCTUR IS PROTECTED PRIOR TO ANY PAINTING.	E
D	PROVIDE A MINIMUM 10 FOOT MAINTENANCE LOO HORIZONTAL CABLING RUN, MAINTENANCE LOOP	PF S
	STORED ABOVE ACCESIBLE CEILINGS, IN CABLE T	ΓF 
	ABOVE CEILING SHALL BE SUSPENDED FROM APP	2
E	ALL PIN/PAIR ASSIGNMENTS SHALL BE T568B.	
F	REFER TO SPECIFICATION SECTION 27 15 13 FOR JACKET COLOR REQUIREMENTS	C
G	LABELING SHALL BE COMPLETED AS DEFINED IN	T
L	THE OWNER.	<u> </u>
Н	PROVIDE ALL TELECOMMUNICATION OUTLETS AS THE DRAWINGS AND AS REQUIRED TO PROVIDE	-
	DRAWINGS.	=
I	ALL TESTING OF HORIZONTAL CABLING SHALL BE COMPLETED AS DIRECTED BY THE PROJECT	
	SPECIFICATIONS. ALL CABLING MUST BE TESTED CERTIFIED TO THE APPLICABLE STANDARDS.	) /
	TELECOM LEGEND	
7	DATA LOCATION	
-(	ABOVE CEILING DATA LOCATION	
	▼ AV FLOOR BOX LOCATION	
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ų k		
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M		
	DUAL SIDED CLOCK LOCATION	
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7		)\
	LOUDSPEAKER JUNCTION BOX LOCATION	
	S CEILING MOUNTED LOUDSPEAKER LOCAT	10
	S CEILING SPEAKER - PAGING LOCATION	
S		N
S	WALL MOUNTED SPEAKER - PAGING LOCA	
-(4	WIRELESS ACCESS POINT - CEILING MOUN	٩.
	WIRELESS ACCESS POINT - WALL MOUNT	E
A		
<u>н</u> (	DOOR POSITION SENSOR LOCATION	
	R CARD READER LOCATION	
	ACCESS CONTROL SYSTEM HOLD-OPENS	
	SECURITY CAMERA - WALL MOUNTED	
$\sim$		_
	SHEET NOTES	
1	DATA LOCATION TO SERVE ELEVATOR CONTROLS	S,
	INSTALL CAT 6 PATCH CORD(S) FROM OUTLET TO	A
2	DEVICES SHOWN WITHIN OUTLINE SHALL BE STUP	31
	DIRECTLY THROUGH EXISTING WALL ABOVE CEILI ON OTHER SIDE OF WALL. CABLING SHALL CONTIN	N N
	DESIGNATED POINT OF TERMINATION VIA J-HOOK	ç

![](_page_88_Picture_5.jpeg)

![](_page_88_Picture_6.jpeg)

![](_page_89_Figure_0.jpeg)

FIRST FLOOR TECHNOLOGY PLAN - $1 \frac{\text{UNIT L}}{1/8" = 1'-0"}$ 

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![](_page_89_Figure_3.jpeg)

	GENERAL HORIZONTAL CABLING NO
A	MINIMUM CATEGORY 6 (6A FOR WAPS) COMPLIANT UNSHIELDED TWISTED PAIR (UTP). ALL HORIZONT/ CABLING MUST BE PLENUM RATED.
В	CONTRACTOR SHALL PROVIDE A DOCUMENTED MANUFACTURER CERTIFIED SOLUTION INCLUDING MINIMUM PERFORMANCE AND APPLICATIONS WAR
С	PAINTING OF THE STRUCTURED CABLING WILL VOI WARRANTY. ENSURE PROPER COORDINATION WIT PAINTING CONTRACTOR SO THAT ALL STRUCTURE IS PROTECTED PRIOR TO ANY PAINTING.
D	PROVIDE A MINIMUM 10 FOOT MAINTENANCE LOOF HORIZONTAL CABLING RUN. MAINTENANCE LOOPS STORED ABOVE ACCESIBLE CEILINGS, IN CABLE TF IN TELECOMMUNICATION ROOM CABLE TRAY. CAB ABOVE CEILING SHALL BE SUSPENDED FROM APPF SUPPORTS AND SHALL NOT TOUCH THE CEILING.
E	ALL PIN/PAIR ASSIGNMENTS SHALL BE T568B.
F	REFER TO SPECIFICATION SECTION 27 15 13 FOR C JACKET COLOR REQUIREMENTS
G	LABELING SHALL BE COMPLETED AS DEFINED IN THE CONTRACT DOCUMENTS AND SHALL BE COORDINATHE OWNER.
Η	PROVIDE ALL TELECOMMUNICATION OUTLETS AS S THE DRAWINGS AND AS REQUIRED TO PROVIDE CONNECTIONS FOR EACH DEVICE SHOWN ON THE DRAWINGS.
Ι	ALL TESTING OF HORIZONTAL CABLING SHALL BE COMPLETED AS DIRECTED BY THE PROJECT SPECIFICATIONS. ALL CABLING MUST BE TESTED A CERTIFIED TO THE APPLICABLE STANDARDS.

# TELECOM LEGEND **V** DATA LOCATION - ABOVE CEILING DATA LOCATION AV INPUT LOCATION AV FLOOR BOX LOCATION BLUETOOTH RECEIVER LOCATION AUDIO CONNECTION LOCATION VIDEO CONNECTION LOCATION MOBLE CART CONNECTION AV CONTROL LOCATION TOUCH PANEL LOCATION MONITOR LOCATION DIGITAL SIGNAGE LOCATION CLOCK LOCATION DUAL SIDED CLOCK LOCATION WIRELESS MICROPHONE ANTENNA LOCATION HEARING ASSISTANCE ANTENNA LOCATION LOUDSPEAKER JUNCTION BOX LOCATION CEILING MOUNTED LOUDSPEAKER LOCATION **CEILING SPEAKER - PAGING LOCATION** SPK WALL MOUNTED LOUDSPEAKER LOCATION WALL MOUNTED SPEAKER - PAGING LOCATION WIRELESS ACCESS POINT - CEILING MOUNTED WIRELESS ACCESS POINT - WALL MOUNTED A/V RACK AV EQUIPMENT RACK LOCATION DOOR POSITION SENSOR LOCATION CARD READER LOCATION CR ACCESS CONTROL SYSTEM HOLD-OPENS AC SECURITY CAMERA - CEILING MOUNTED

# SHEET NOTES

 DATA LOCATION INSTALLED ADJACENT TO ACCESS CONTROL ENCLOSURE. CONTRACTOR SHALL PROVIDE AND INSTALL PATCH CORD(S) FROM DATA LOCATION TO ENCLOSURE AS REQUIRED.
 DATA LOCATION TO SERVE BUILDING AUTOMATION SYSTEM /

SECURITY CAMERA - WALL MOUNTED

- 2 DATA LOCATION TO SERVE BUILDING AUTOMATION SYSTEM / CONTROLS CONNECTIVITY. CONTRACTOR SHALL PROVIDE AND INSTALL CAT 6 PATCH CORD(S) FROM OUTLET TO DEVICE AS REQUIRED.
- 3 APPROXIMATE LOCATION OF DROWNING DETECTION SYSTEM CAMERA (PROVIDED AND INSTALLED BY OTHERS). CONTRACTOR SHALL PROVIDE 1" EMT CONDUIT FROM EACH LIGHT/CAMERA LOCATION TO AN ACCESSIBLE JUNCTION BOX, AND THEN A 1" CONDUIT FROM THE JUNCTION BOX HOMERAN BACK TO AV ROOM L201. JUNCTION BOX SHALL BE PROVIDED BY THE DRWONING DETECTION SYSTEM MANUFACTURER AND INSTALLED BY THE CONTRACTOR. PROVIDE ONE CAT 6 CABLE FROM THE NETWORK SWITCH WITHIN THE DROWNING DETECTION SYSTEM RACK (PROVIDED BY OTHERS, INSTALLED BY CONTRACTOR) TO THE ACCESSIBLE JUNCTION BOX. CABLE SHALL BE TERMINATED WITH A MALE RJ45 CONNECTOR AT THE RACK END FOR DIRECT CONNECTION TO SWITCH AND TERMINATED IN A 1-PORT SURFACE MOUNT BOX WITH A FEMALE RJ45 CONECTION WITHIN THE JUNCTION BOX. PROVIDE MINIMUM 5' SERVICE LOOP ON EACH END. REFER TO AQ-SERIES DRAWINGS FOR FINAL CAMERA/LIGHT LOCATIONS. COORDINATE ALL INFRASTRUCTURE AND CABLING
- COORDINATE ALL INFRASTRUCTURE AND CABLING COMPINENTS OF SYSTEM WITH MANUFACTURER PRIOR TO INSTALLATION. INSTALL ONE (1) EXISTING 2.4mm LENS MODULE AND TWO (2)
- NEW LENS MODULES WITH NEW CAMERA AT THIS LOCATION.
  INSTALL EXISTING HANWHA PNM-9000VQ CAMERA AT THIS LOCATION WITH THREE (3) 2.4mm LENS MODULES.
- 6 INSTALL EXISTING HANWHA XNO-L6080R CAMERA AT THIS LOCATION.

![](_page_89_Figure_13.jpeg)

![](_page_89_Picture_14.jpeg)

![](_page_89_Picture_15.jpeg)

T201L

FIRST FLOOR TECHNOLOGY PLAN -1 UNIT M 1/8" = 1'-0"

![](_page_90_Figure_2.jpeg)

IDF M201A (FLOOR ABOVE)

IDF L117

	GEN	ERAL	HORIZ	ZONT	AL C	CABL	ING	NO
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В	CABLIN		SHALL F	NUM R				D
C								WAR
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П	IS PRO					NTING.		OOP
	HORIZO	DNTAL C	ABLING	RUN. M	/AINT EILIN	ENAN IGS, IN	CE LO I CABL	
	IN TELE ABOVE	ECOMMU CEILINO	JNICATIO G SHALL	ON ROC	OM CA SPEN	ABLÉ T IDED F	RAY.	CAB APPF
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F	REFER			ION SE	CTIO	N 27 1	5 13 F	OR C
G	LABELI	NG SHA		OMPLE	TED A	AS DEF		
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	SPECIF CERTIF	ICATION	NS. ALL THE APF	CABLIN PLICABL	IG MU LE ST	JST BE ANDAI	E TEST RDS.	fed A
			TELE		LEG	END		
7	<b>V</b>	DATA LO	OCATION	N				
-(	<b>)</b> -	ABOVE	CEILING	DATA	LOCA	TION		
	¥ .	AV INPU	JT LOCA	TION				
A		AV FLO	OR BOX	LOCAT	ION			
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		DUAL SI		OCK LC	DCAT	ION		
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	<u>.S</u>	LOUDSF	PEAKER	JUNCT	'ION E	BOX LO	DCATI	ON
	S	CEILING		TED LO	UDSF	PEAKE	R LOC	CATIO
	S	CEILING	SPEAK	ER - PA	GING	G LOCA	ATION	
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![](_page_90_Figure_5.jpeg)

![](_page_90_Figure_6.jpeg)

![](_page_90_Figure_7.jpeg)

FIRST FLOOR TECHNOLOGY PLAN -2 CONT M102 1/4" = 1'-0"

![](_page_91_Figure_0.jpeg)

SECOND FLOOR TECHNOLOGY PLAN -UNIT J 1/8" = 1'-0"

)T DATE/TIME:8/30/2023 10:16:33 /

		GENERAL HORIZONTAL CABLING NO           A         MINIMUM CATEGORY 6 (6A FOR WAPS) COMPLIANT UNSHIELDED TWISTED PAIR (UTP). ALL HORIZONT/ CABLING MUST BE PLENUM RATED.           B         CONTRACTOR SHALL PROVIDE A DOCUMENTED MANUFACTURER CERTIFIED SOLUTION INCLUDING MINIMUM PERFORMANCE AND APPLICATIONS WAR           C         PAINTING OF THE STRUCTURED CABLING WILL VOI WARRANTY. ENSURE PROPER COORDINATION WIT PAINTING CONTRACTOR SO THAT ALL STRUCTURE IS PROTECTED PRIOR TO ANY PAINTING.           D         PROVIDE A MINIMUM 10 FOOT MAINTENANCE LOOP HORIZONTAL CABLING RUN. MAINTENANCE LOOPS STORED ABOVE ACCESIBLE CEILINGS, IN CABLE TR IN TELECOMMUNICATION ROOM CABLE TRAY. CAB ABOVE CEILING SHALL BE SUSPENDED FROM APPF SUPPORTS AND SHALL NOT TOUCH THE CEILING.           E         ALL PIN/PAIR ASSIGNMENTS SHALL BE T568B.           F         REFER TO SPECIFICATION SECTION 27 15 13 FOR C JACKET COLOR REQUIREMENTS           G         LABELING SHALL BE COMPLETED AS DEFINED IN TH CONTRACT DOCUMENTS AND SHALL BE COORDINA THE OWNER.           H         PROVIDE ALL TELECOMMUNICATION OUTLETS AS S THE DRAWINGS AND AS REQUIRED TO PROVIDE CONNECTIONS FOR EACH DEVICE SHOWN ON THE DRAWINGS.           I         ALL TESTING OF HORIZONTAL CABLING SHALL BE COMPLETED AS DIRECTED BY THE PROJECT SPECIFICATIONS. ALL CABLING MUST BE TESTED A CEPTIFIED TO THE ABDI LOABLE SETADAPDED
E-01 J220-A-10/11 J220-A-10/11 J220-A-10/11 J220-A-12 J220-A-12		TELECOM LEGEND         Image: Colspan="2">Image: Colspan="2">TELECOM LEGEND         Image: Colspan="2">Image: Colspan="2">TELECOM LEGEND         Image: Colspan="2">ABOVE CEILING DATA LOCATION         Image: Colspan="2">ADVINUPUT LOCATION         Image: Colspan="2">AV INPUT LOCATION         Image: Colspan="2">AV INPUT LOCATION LOCATION         Image: Colspan="2">OUDED CONNECTION LOCATION         Image: Colspan="2">MOBLE CART CONNECTION LOCATION         Image: Colspan="2">Image: Colspan="2">Colspan="2">CONTROL LOCATION         Image: Colspan="2">Image: Colspan="2">CONTROL LOCATION         Image: Colspan="2">Image: Colspan="2">Colspan="2">CONTROL LOCATION         Image: Colspan="2">Image: Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2">Colspan="2"         VIDEO CONNECTION         Image: Colspan="2"         OUDEN FOR COLSPAN=         Colspan="2"         VIDEO CONNECTION     <
J220-A-18/19 J220-A 220-A-20/21 C L117-A-19 S L117-A-19 C L117-A-18 J200 CLASSROOM J201 J202 C L117-A-19 S L117-A-19 S J220-D-01/02 S J220-A-07	D-03/04 J220-A-08/09 Monitor : Size 55" J220-A-01/02 MON SMALL GROUP J200 T311 J220-A-05/06	SECURITY CAMERA - CEILING MOUNTED     SECURITY CAMERA - WALL MOUNTED     SHEEL ADJACENT TO ACCESS     ENCLOSURE. CONTRACTOR SHALL PROVIDE AND IN     PATCH CORD(S) FROM DATA LOCATION TO ENCLOS     REQUIRED.     EXISTING DUAL SENSOR SECURITY CAMERA TO BE     FOR INSTALLATION ELSEWHERE. INSTALL NEW     MULTI-SENSOR CAMERA AT THIS LOCATION. EXISTI     CABLING SHALL REMAIN FOR REUSE WITH NEW CA     C.F.C.I. 75" FLAT PANEL DISPLAY MOUNTED TO MOE     REFER TO SPECIFICATION 27 41 16 FOR ADDITIONA     INFORMATION.     EXISTING SECURITY CAMERA TO REMAIN.     MOUNT CAMERA AT 13' 6" ABOVE STAIR LANDING.

![](_page_91_Picture_4.jpeg)

![](_page_92_Figure_0.jpeg)

	GENERAL HORIZONTAL CABLING NOT
A	MINIMUM CATEGORY 6 (6A FOR WAPS) COMPLIANT 4 UNSHIELDED TWISTED PAIR (UTP). ALL HORIZONTA CABLING MUST BE PLENUM RATED.
В	CONTRACTOR SHALL PROVIDE A DOCUMENTED MANUFACTURER CERTIFIED SOLUTION INCLUDING MINIMUM PERFORMANCE AND APPLICATIONS WARF
2	PAINTING OF THE STRUCTURED CABLING WILL VOID WARRANTY. ENSURE PROPER COORDINATION WITH PAINTING CONTRACTOR SO THAT ALL STRUCTURED IS PROTECTED PRIOR TO ANY PAINTING.
D	PROVIDE A MINIMUM 10 FOOT MAINTENANCE LOOP HORIZONTAL CABLING RUN. MAINTENANCE LOOPS STORED ABOVE ACCESIBLE CEILINGS, IN CABLE TRA IN TELECOMMUNICATION ROOM CABLE TRAY. CABL ABOVE CEILING SHALL BE SUSPENDED FROM APPR SUPPORTS AND SHALL NOT TOUCH THE CEILING.
E	ALL PIN/PAIR ASSIGNMENTS SHALL BE T568B.
F	REFER TO SPECIFICATION SECTION 27 15 13 FOR CA JACKET COLOR REQUIREMENTS
G	LABELING SHALL BE COMPLETED AS DEFINED IN TH CONTRACT DOCUMENTS AND SHALL BE COORDINATION THE OWNER.
Η	PROVIDE ALL TELECOMMUNICATION OUTLETS AS SI THE DRAWINGS AND AS REQUIRED TO PROVIDE CONNECTIONS FOR EACH DEVICE SHOWN ON THE DRAWINGS.
	ALL TESTING OF HORIZONTAL CABLING SHALL BE COMPLETED AS DIRECTED BY THE PROJECT SPECIFICATIONS. ALL CABLING MUST BE TESTED A

$\mathbf{V}$	DATA LOCATION
	ABOVE CEILING DATA LOCATION
AV	AV INPUT LOCATION
AV	AV FLOOR BOX LOCATION
BR	BLUETOOTH RECEIVER LOCATION
	AUDIO CONNECTION LOCATION
	VIDEO CONNECTION LOCATION
MC	MOBLE CART CONNECTION
	AV CONTROL LOCATION
	TOUCH PANEL LOCATION
	MONITOR LOCATION
	DIGITAL SIGNAGE LOCATION
Ċ	CLOCK LOCATION
CC	DUAL SIDED CLOCK LOCATION
WA	WIRELESS MICROPHONE ANTENNA LOCATIO
HA	HEARING ASSISTANCE ANTENNA LOCATION
LS	LOUDSPEAKER JUNCTION BOX LOCATION
S	CEILING MOUNTED LOUDSPEAKER LOCATIO
S	CEILING SPEAKER - PAGING LOCATION
	WALL MOUNTED LOUDSPEAKER LOCATION
SPK	WALL MOUNTED SPEAKER - PAGING LOCATI
-AP-	WIRELESS ACCESS POINT - CEILING MOUNT
	WIRELESS ACCESS POINT - WALL MOUNTED
A/V RACK	AV EQUIPMENT RACK LOCATION
D	DOOR POSITION SENSOR LOCATION
CR	CARD READER LOCATION
AC	ACCESS CONTROL SYSTEM HOLD-OPENS
SC	SECURITY CAMERA - CEILING MOUNTED
sc	SECURITY CAMERA - WALL MOUNTED

![](_page_92_Picture_13.jpeg)

![](_page_93_Figure_1.jpeg)

![](_page_93_Figure_2.jpeg)

	GENERAL HORIZONTAL CABLING NOTI
A	MINIMUM CATEGORY 6 (6A FOR WAPS) COMPLIANT 4- UNSHIELDED TWISTED PAIR (UTP). ALL HORIZONTAL CABLING MUST BE PLENUM RATED.
В	CONTRACTOR SHALL PROVIDE A DOCUMENTED MANUFACTURER CERTIFIED SOLUTION INCLUDING TO MINIMUM PERFORMANCE AND APPLICATIONS WARRA
С	PAINTING OF THE STRUCTURED CABLING WILL VOID WARRANTY. ENSURE PROPER COORDINATION WITH PAINTING CONTRACTOR SO THAT ALL STRUCTURED IS PROTECTED PRIOR TO ANY PAINTING.
D	PROVIDE A MINIMUM 10 FOOT MAINTENANCE LOOP C HORIZONTAL CABLING RUN. MAINTENANCE LOOPS S STORED ABOVE ACCESIBLE CEILINGS, IN CABLE TRA IN TELECOMMUNICATION ROOM CABLE TRAY. CABLI ABOVE CEILING SHALL BE SUSPENDED FROM APPRC SUPPORTS AND SHALL NOT TOUCH THE CEILING.
Е	ALL PIN/PAIR ASSIGNMENTS SHALL BE T568B.
F	REFER TO SPECIFICATION SECTION 27 15 13 FOR CAI JACKET COLOR REQUIREMENTS
G	LABELING SHALL BE COMPLETED AS DEFINED IN THE CONTRACT DOCUMENTS AND SHALL BE COORDINATI THE OWNER.
Η	PROVIDE ALL TELECOMMUNICATION OUTLETS AS SH THE DRAWINGS AND AS REQUIRED TO PROVIDE CONNECTIONS FOR EACH DEVICE SHOWN ON THE DRAWINGS.
I	ALL TESTING OF HORIZONTAL CABLING SHALL BE COMPLETED AS DIRECTED BY THE PROJECT SPECIFICATIONS. ALL CABLING MUST BE TESTED AN CERTIFIED TO THE APPLICABLE STANDARDS.
	TELECOM LEGEND
-	ABOVE CEILING DATA LOCATION
	1

	ABOVE CEILING DATA LOCATION
₩	AV INPUT LOCATION
AV	AV FLOOR BOX LOCATION
BR	BLUETOOTH RECEIVER LOCATION
AUD	AUDIO CONNECTION LOCATION
	VIDEO CONNECTION LOCATION
₩C	MOBLE CART CONNECTION
	AV CONTROL LOCATION
TP	TOUCH PANEL LOCATION
	MONITOR LOCATION
	DIGITAL SIGNAGE LOCATION
Ċ	CLOCK LOCATION
CC	DUAL SIDED CLOCK LOCATION
WA	WIRELESS MICROPHONE ANTENNA LOCATIC
HA	HEARING ASSISTANCE ANTENNA LOCATION
LS	LOUDSPEAKER JUNCTION BOX LOCATION
S	CEILING MOUNTED LOUDSPEAKER LOCATIO
S	CEILING SPEAKER - PAGING LOCATION
SPK	WALL MOUNTED LOUDSPEAKER LOCATION
SPK	WALL MOUNTED SPEAKER - PAGING LOCATION
-AP-	WIRELESS ACCESS POINT - CEILING MOUNTI
	WIRELESS ACCESS POINT - WALL MOUNTED
A/V RACK	AV EQUIPMENT RACK LOCATION
D	DOOR POSITION SENSOR LOCATION
CR	CARD READER LOCATION
AC	ACCESS CONTROL SYSTEM HOLD-OPENS
SC	SECURITY CAMERA - CEILING MOUNTED
SC	SECURITY CAMERA - WALL MOUNTED
ι	

1	DATA LOCATION INSTALLED ADJACENT TO ACCES ENCLOSURE. CONTRACTOR SHALL PROVIDE AND PATCH CORD(S) FROM DATA LOCATION TO ENCLO REQUIRED.
2	AV EQUIPMENT RACK SERVING POOL.
3	C.F.C.I. 75" FLAT PANEL DISPLAY MOUNTED TO MC

![](_page_93_Picture_8.jpeg)

![](_page_94_Figure_0.jpeg)

SECOND FLOOR TECHNOLOGY PLAN -1 UNIT M 1/8" = 1'-0"

IDF L208 \_\_\_\_\_

IDF M201A

	GE	NERAL HORIZONTAL CABLING NOT
A	MININ UNSF CABL	/UM CATEGORY 6 (6A FOR WAPS) COMPLIANT HELDED TWISTED PAIR (UTP). ALL HORIZONTA
В	CONT MANU MININ	RACTOR SHALL PROVIDE A DOCUMENTED JFACTURER CERTIFIED SOLUTION INCLUDING JUM PERFORMANCE AND APPLICATIONS WARF
С	PAIN WARI PAIN	TING OF THE STRUCTURED CABLING WILL VOID RANTY. ENSURE PROPER COORDINATION WIT TING CONTRACTOR SO THAT ALL STRUCTURED
D	PROV HORIZ STOR IN TE	/IDE A MINIMUM 10 FOOT MAINTENANCE LOOP ZONTAL CABLING RUN. MAINTENANCE LOOPS RED ABOVE ACCESIBLE CEILINGS, IN CABLE TR LECOMMUNICATION ROOM CABLE TRAY. CABI
	SUPP	PORTS AND SHALL NOT TOUCH THE CEILING.
E F	ALL P	'IN/PAIR ASSIGNMENTS SHALL BE T568B. R TO SPECIFICATION SECTION 27 15 13 FOR C/
G	JACK LABE	ET COLOR REQUIREMENTS LING SHALL BE COMPLETED AS DEFINED IN TH
-	CONT THE C	RACT DOCUMENTS AND SHALL BE COORDINA OWNER.
Η	PROV THE I CONN	/IDE ALL TELECOMMUNICATION OUTLETS AS S DRAWINGS AND AS REQUIRED TO PROVIDE NECTIONS FOR EACH DEVICE SHOWN ON THE WINGS
I	ALL T COMF SPEC CERT	ESTING OF HORIZONTAL CABLING SHALL BE PLETED AS DIRECTED BY THE PROJECT DIFICATIONS. ALL CABLING MUST BE TESTED A TIFIED TO THE APPLICABLE STANDARDS.
		TELECOM LEGEND
	V	DATA LOCATION
-(	<b>)</b> -	ABOVE CEILING DATA LOCATION
•	AV V	AV INPUT LOCATION
[	AV	AV FLOOR BOX LOCATION
,	BR	BLUETOOTH RECEIVER LOCATION
Ą		AUDIO CONNECTION LOCATION
ļ		VIDEO CONNECTION LOCATION
ļ	MC V	MOBLE CART CONNECTION
Ģ		AV CONTROL LOCATION
	TP	TOUCH PANEL LOCATION
Ń		MONITOR LOCATION
	V	DIGITAL SIGNAGE LOCATION
(	Ċ	CLOCK LOCATION
Ć	C	DUAL SIDED CLOCK LOCATION
ļ	NA V	WIRELESS MICROPHONE ANTENNA LOCATIO
,	HA V	HEARING ASSISTANCE ANTENNA LOCATION
[	LS	LOUDSPEAKER JUNCTION BOX LOCATION
[	S	CEILING MOUNTED LOUDSPEAKER LOCATIO
(	S	CEILING SPEAKER - PAGING LOCATION
1	SPK	WALL MOUNTED LOUDSPEAKER LOCATION
5		WALL MOUNTED SPEAKER - PAGING LOCAT
-(	AP-	WIRELESS ACCESS POINT - CEILING MOUNT
,		WIRELESS ACCESS POINT - WALL MOUNTED
	A/V	AV EQUIPMENT RACK LOCATION
R		DOOR POSITION SENSOR LOCATION
C	CR	CARD READER LOCATION
	AC	ACCESS CONTROL SYSTEM HOLD-OPENS
(	sc	SECURITY CAMERA - CEILING MOUNTED
Γ	sc	SECURITY CAMERA - WALL MOUNTED
L	]	

# SHEET NOTES

2 MOUNT CAMERA AT 13' 6" ABOVE STAIR LANDING.

![](_page_94_Picture_6.jpeg)

![](_page_95_Figure_0.jpeg)

THIRD FLOOR TECHNOLOGY PLAN -UNIT J 1/8" = 1'-0"

	GEN	NERAL	HORIZON	ITAL	CABL	ING	NOTE
A	MINIM UNSH CABLI	IUM CATE	EGORY 6 (6A IWISTED PAI T BE PLENUN	FOR V R (UTF / RATE	VAPS) C P). ALL ED.	OMPL HORIZ	IANT 4- ONTAL
В	CONT MANU MINIM	RACTOR IFACTUR IUM PERF	SHALL PROV ER CERTIFIE FORMANCE A	VIDE A D SOL AND AF	DOCUN UTION I PPLICAT	VENTE NCLUI	D DING TH WARRA
С	PAINT WARF PAINT	ING OF T RANTY. E ING CON	THE STRUCT	JRED PER C O THA	CABLIN OORDIN T ALL S	G WILL NATION TRUCT	- VOID N WITH TURED (
D	PROV HORIZ STOR IN TEL ABOV SUPP	IDE A MII ZONTAL ( ED ABOV LECOMMI E CEILING ORTS AN	NIMUM 10 FO CABLING RUN E ACCESIBL UNICATION F G SHALL BE ID SHALL NO	OT MA N. MAIN E CEIL ROOM SUSPE T TOU	INTENA NTENAN INGS, II CABLE ENDED I CH THE	NCE L ICE LC N CABI TRAY. FROM	OOP O OPS SH E TRAY CABLIN APPRO NG.
E	ALL P	IN/PAIR A	SSIGNMENT	S SHA	LL BE T	568B.	
F	REFE	R TO SPE ET COLO	ECIFICATION R REQUIREN	SECTI	ON 27 1	5 13 F	OR CAE
G	LABEL CONT THE C	ING SHA RACT DC WNER.	LL BE COMP CUMENTS A	LETED ND SH	) AS DE ALL BE	FINED COOR	IN THE
Η	PROV THE D CONN DRAW	IDE ALL T RAWING IECTIONS /INGS.	TELECOMMU IS AND AS RE IS FOR EACH	NICAT EQUIRI DEVIC	ion ou Ed to p E shov	tlets Rovie Vn on	AS SHO E THE
I	ALL TI COMP SPEC CERT	ESTING ( PLETED A IFICATIO IFIED TO	DF HORIZON S DIRECTED NS. ALL CAB THE APPLIC	TAL CA BY TH LING N ABLE \$	ABLING IE PRO MUST BI STANDA	SHALL JECT E TEST IRDS.	BE FED AN
			TELECO	M LE	GEND		
7	V	DATA L	OCATION				
-(	<b>\</b> -	ABOVE	CEILING DA	TA LOO	CATION		
	AV	AV INPL	JT LOCATION	١			
	AV	AV FLO	OR BOX LOC		J		
7	BR	BLUETO	DOTH RECEI	VER LO	OCATIO	N	
Ą		AUDIO	CONNECTIO	N LOC	ATION		
/		VIDEO (	CONNECTIO	N LOC	ATION		
ļ	MC	MOBLE	CART CONN	IECTIC	N		
ç		AV CON	ITROL LOCA	TION			
7	TP	тоисн	PANEL LOC	ATION			
Ņ		MONITO	OR LOCATIO	N			
7	DS V	DIGITAL	SIGNAGE L	OCATI	ON		
(	Ċ	CLOCK	LOCATION				
Ć		DUAL S	IDED CLOCK	LOCA	TION		
ĺ	NA V	WIRELE	SS MICROP	HONE	ANTEN	NA LO	CATION
ļ	HA V	HEARIN	IG ASSISTAN	ICE AN	ITENNA	LOCA	TION
Γ	LS	LOUDS	PEAKER JUN	ICTION	I BOX L	OCATI	ON
[	S	CEILING	G MOUNTED	LOUD	SPEAKE	ER LOO	
(	ŝ	CEILING	SPEAKER -	PAGI		ATION	
0		WALL M	IOUNTED LO	UDSP	EAKER	LOCA	TION
5		WALL M	10UNTED SP	EAKE	R - PAG	ING LO	OCATIO
-(	AP-	WIRELE	ESS ACCESS	POIN	Γ - CEILI	ING M	OUNTE
7	+ AP ✓	WIRELE	ESS ACCESS	POIN	F - WAL	L MOU	NTED
[/		AV EQU	JIPMENT RAC		CATION		
R.	D	DOOR F	POSITION SE	NSOR	LOCAT	ION	
C	CR	CARD F	READER LOC	ATION			
	AC	ACCES	S CONTROL	SYSTE	EM HOL	D-OPE	NS
Ľ ()	sc)	SECUR	ITY CAMERA	- CEIL	.ING MC	UNTE	D
[	sc	SECUR	ITY CAMERA	- WAL	L MOUI	NTED	
Ľ							

# SHEET NOTES

- REQUIRED.
- INFORMATION.
- AND INSTALL CAT 6 PATCH CORD(S) FROM OUTLET TO DEVICE AS REQUIRED.
- AV EQUIPMENT RACK SERVING DIVISIBLE SCIENCE LABS. DATA LOCATION SERVING RACK SHALL BE INSTALLED BEHIND RACK WIHIN RACK KNOCKOUT AT 46" A.F.F.
- 5 DOOR POSITION SENSOR MONITORING ROOF HATCH. REFER TO T400 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
- Man Market Marke

![](_page_95_Picture_11.jpeg)

![](_page_96_Figure_0.jpeg)

THIRD FLOOR TECHNOLOGY PLAN -1 UNIT K 1/8" = 1'-0"

![](_page_96_Figure_3.jpeg)

![](_page_96_Figure_4.jpeg)

SHEET	NOTES

![](_page_96_Picture_9.jpeg)

![](_page_97_Figure_0.jpeg)

THIRD FLOOR TECHNOLOGY PLAN -1 UNIT L 1/8" = 1'-0"

![](_page_97_Figure_4.jpeg)

		AMINI UNS CABBCON MAN MINICPAIN UNS CABBCON MAN MINICPAIN UNS PAIN IS PDPRC HOF STO IN T ABO SUPEALLFREF JACGLAB CON THEHPRC THE CON DRAIALL CON DRA	<ul> <li>INERAL HORIZONTAL CABLING NO</li> <li>MUM CATEGORY 6 (6A FOR WAPS) COMPLIANT</li> <li>HIELDED TWISTED PAIR (UTP). ALL HORIZONT</li> <li>LING MUST BE PLENUM RATED.</li> <li>TRACTOR SHALL PROVIDE A DOCUMENTED</li> <li>UFACTURER CERTIFIED SOLUTION INCLUDING</li> <li>MUM PERFORMANCE AND APPLICATIONS WAF</li> <li>TING OF THE STRUCTURED CABLING WILL VO</li> <li>RANTY. ENSURE PROPER COORDINATION WI</li> <li>TING CONTRACTOR SO THAT ALL STRUCTURE</li> <li>ROTECTED PRIOR TO ANY PAINTING.</li> <li>VIDE A MINIMUM 10 FOOT MAINTENANCE LOOF</li> <li>RED ABOVE ACCESIBLE CEILINGS, IN CABLE T</li> <li>SLECOMMUNICATION ROOM CABLE TRAY. CAB</li> <li>VE CEILING SHALL BE SUSPENDED FROM APP</li> <li>PORTS AND SHALL NOT TOUCH THE CEILING.</li> <li>PIN/PAIR ASSIGNMENTS SHALL BE T568B.</li> <li>ER TO SPECIFICATION SECTION 27 15 13 FOR C</li> <li>(ET COLOR REQUIREMENTS)</li> <li>SLING SHALL BE COMPLETED AS DEFINED IN T</li> <li>TRACT DOCUMENTS AND SHALL BE COORDIN.</li> <li>OWNER.</li> <li>VIDE ALL TELECOMMUNICATION OUTLETS AS DRAWINGS AND AS REQUIRED TO PROVIDE</li> <li>NECTIONS FOR EACH DEVICE SHOWN ON THE</li> <li>WINGS.</li> <li>TESTING OF HORIZONTAL CABLING SHALL BE</li> <li>IPLETED AS DIRECTED BY THE PROJECT</li> <li>CIFICATIONS. ALL CABLING MUST BE TESTED</li> <li>TIFIED TO THE APPLICABLE STANDARDS.</li> </ul>
			TELECOM LEGENDDATA LOCATIONABOVE CEILING DATA LOCATIONAV INPUT LOCATIONAV FLOOR BOX LOCATIONBLUETOOTH RECEIVER LOCATIONAUDIO CONNECTION LOCATIONVIDEO CONNECTION LOCATIONMOBLE CART CONNECTIONAV CONTROL LOCATIONMOBLE CART CONNECTIONAV CONTROL LOCATIONMONITOR LOCATIONDIGITAL SIGNAGE LOCATIONDIGITAL SIGNAGE LOCATIONDUAL SIDED CLOCK LOCATIONWIRELESS MICROPHONE ANTENNA LOCATIONLOUDSPEAKER JUNCTION BOX LOCATIONCEILING MOUNTED LOUDSPEAKER LOCATIONWALL MOUNTED LOUDSPEAKER LOCATIONWALL MOUNTED LOUDSPEAKER LOCATIONWIRELESS ACCESS POINT - CEILING MOUNTEDAV EQUIPMENT RACK LOCATIONDOOR POSITION SENSOR LOCATION
L117-B-38 MULTPURPOSE I301 I301 I301 I301 I301 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302-C-19/20 I302	L303.2-DPS T T T T T T T T T T T T	-O1 CR AC SC SC SC SC 1 DAT ENC PATO REQ 2 C.F.O REFNINFO	CARD READER LOCATION ACCESS CONTROL SYSTEM HOLD-OPENS SECURITY CAMERA - CEILING MOUNTED SECURITY CAMERA - WALL MOUNTED SHEET NOTES ALOCATION INSTALLED ADJACENT TO ACCESS OSURE. CONTRACTOR SHALL PROVIDE AND I 2H CORD(S) FOR DATA LOCATION TO ENCLOSI URIED. 21. 75° FLAT PANEL DISPLAY MOUNTED TO MOI PR TO SPECIFICATION 27 41 16 FOR ADDITIONA (RMATION.

L302-B-20/21

![](_page_97_Picture_6.jpeg)

THIRD FLOOR TECHNOLOGY PLAN -1 <u>UNIT M</u> 1/8" = 1'-0"

![](_page_98_Figure_2.jpeg)

![](_page_98_Figure_3.jpeg)

![](_page_98_Figure_4.jpeg)

# SHEET NOTES

1	C.F.C.I. 75" FLAT PANEL DISPLAY MOUNTED TO MOBIL REFER TO SPECIFICATION 27 41 16 FOR ADDITIONAL INFORMATION.
2	INSTALL EXISTING HANWHA PNM-7000VD CAMERA AT LOCATION.

![](_page_98_Figure_7.jpeg)

![](_page_98_Picture_8.jpeg)

1650 E. 49TH ST. INDIANAPOLIS, IN 46205 UTECHNOLOGY 317.536.8000 +ACOUSTICS DESIGN27.COM 84  $\overline{}$ Q 4 Ζ  $\square$ Ш T >0 0 Š Bicsi DOUGLAS J DRISCOLL BICSI ID# 123408 EXPIRES 12-31-23 • RCDD •

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427 S. COLLEGE DIANAPOLIS, IN 4

100% CONSTRUCTION<br/>DOCUMENTPROJECT: #22130DATE: 07-28-2023DRAWN BY: MRF

		TELECO	M SCHEDULE - I	DF J120	TELECOM SCHEDULE - IDF L117						
ROOM NUMBE	R TELECOM ROOM	Mark	DATA PORTS	COMMENTS	ROOM NUMBER	TELECOM ROOM	Mark	DATA PORTS	COMMENTS		
EXT EXT	IDF J120 IDF J120	J120-E-01 J120-E-02	1 1	SECURITY CAMERA - WALL MOUNTED SECURITY CAMERA - WALL MOUNTED	EXT EXT	IDF L117 IDF L117	L117-E-01 L117-E-02	1 1	SECURITY CAMERA - WALL MOUNTED SECURITY CAMERA - WALL MOUNTED		
EXT EXT	IDF J120 IDF J120	J120-E-03 J120-E-04	1	SECURITY CAMERA - WALL MOUNTED SECURITY CAMERA - CEILING MOUNTED	EXT J138	IDF L117 IDF L117	L117-E-03 L117-A-01/02/03/04	1 · 4	SECURITY CAMERA - WALL MOUNTED DATA LOCATION		
IDF J11 J101	2 IDF J120 IDF J120	J120-E-05 J120-A-01/02	1 2	SECURITY CAMERA - WALL MOUNTED DATA LOCATION	J139 J140	IDF L117 IDF L117	L117-A-05/06 L117-A-07/08	2	MONITOR LOCATION MONITOR LOCATION		
J101 J101	IDF J120	J120-A-03/04 J120-A-05	2	DATA LOCATION CLOCK LOCATION	J140 J140	IDF L117 IDF L117	L117-A-09/10	2	MONITOR LOCATION MONITOR LOCATION		
J101	IDF 0120	J120-A-06	1		J140	IDF L117	L117-A-13	1	ABOVE CEILING DATA LOCATION		
J101 J102	IDF J120	J120-D-01/02 J120-A-07/08	2	DATA LOCATION	J141 J142	IDF L117 IDF L117	L117-A-14/15 L117-D-01/02	2	WIRELESS ACCESS POINT - CEILING MOUNTED		
J102 J102	IDF J120 IDF J120	J120-A-09/10 J120-A-11	<u> </u>	CLOCK LOCATION	J143 J201	IDF L117 IDF L117	L117-A-16/17 L117-A-18	2 1	CLOCK LOCATION		
J102 J102	IDF J120 IDF J120	J120-A-12 J120-D-03/04	<u> </u>	ABOVE CEILING DATA LOCATION WIRELESS ACCESS POINT - CEILING MOUNTED	J202 J203	IDF L117 IDF L117	L117-A-19 L117-A-20	1 1	CLOCK LOCATION CLOCK LOCATION		
J103 J103	IDF J120 IDF J120	J120-A-13/14 J120-A-15/16	2 2	DATA LOCATION DATA LOCATION	J204 J205	IDF L117 IDF L117	L117-A-21 L117-A-22	1	CLOCK LOCATION CLOCK LOCATION		
J103 J103	IDF J120 IDF J120	J120-A-17 J120-A-18	1	CLOCK LOCATION ABOVE CEILING DATA LOCATION	J207 J209	IDF L117 IDF L117	L117-A-23 L117-A-24	1	CLOCK LOCATION CLOCK LOCATION		
J103	IDF J120	J120-D-05/06	2	WIRELESS ACCESS POINT - CEILING MOUNTED	J211	IDF L117	L117-A-25	1			
J104	IDF J120	J120-A-21/22	2		J214	IDF L117	L117-A-27	1			
J104	IDF J120	J120-A-24/25	2	DATA LOCATION	J301	IDF L117	L117-A-20 L117-A-29	1	CLOCK LOCATION CLOCK LOCATION		
J104 J104	IDF J120 IDF J120	J120-A-26 J120-D-07/08	2	WIRELESS ACCESS POINT - CEILING MOUNTED	J302 J303	IDF L117 IDF L117	L117-A-30 L117-A-31	1	CLOCK LOCATION CLOCK LOCATION		
J105 J105	IDF J120 IDF J120	J120-A-27/28 J120-A-29/30	2	DATA LOCATION DATA LOCATION	J304 J305	IDF L117 IDF L117	L117-A-32 L117-A-33	1	CLOCK LOCATION CLOCK LOCATION		
J105 J105	IDF J120 IDF J120	J120-A-31 J120-A-32	1	CLOCK LOCATION ABOVE CEILING DATA LOCATION	J307 J309	IDF L117 IDF L117	L117-A-34 L117-A-35	1	CLOCK LOCATION CLOCK LOCATION		
J105	IDF J120	J120-D-09/10	2	WIRELESS ACCESS POINT - CEILING MOUNTED	J313 J314	IDF L117	L117-A-36	1	CLOCK LOCATION		
J107	IDF J120	J120-A-35/36	2		J315	IDF L117	L117-A-39	1			
J107	IDF J120	J120-A-37 J120-A-38	1	ABOVE CEILING DATA LOCATION	J1000	IDF L117	L117-D-03/04	2	WIRELESS ACCESS POINT - WALL MOUNTED		
J107 J109	IDF J120 IDF J120	J120-D-11/12 J120-A-39/40	2	DATA LOCATION	K101 K102	IDF L117 IDF L117	L117-A-40 L117-A-41	1	CLOCK LOCATION CLOCK LOCATION		
J109 J109	IDF J120 IDF J120	J120-A-41/42 J120-A-43	2	DATA LOCATION CLOCK LOCATION	K103 K104	IDF L117 IDF L117	L117-A-42 L117-A-43	1	CLOCK LOCATION CLOCK LOCATION		
J109 J109	IDF J120 IDF J120	J120-A-44 J120-D-13/14	1 2	ABOVE CEILING DATA LOCATION WIRELESS ACCESS POINT - CEILING MOUNTED	K105 K106	IDF L117 IDF L117	L117-A-44 L117-A-45	1	CLOCK LOCATION CLOCK LOCATION		
J111 J111	IDF J120	J120-A-45/46 J120-A-47/48	2	DATA LOCATION DATA LOCATION	K107 K108	IDF L117 IDF L117	L117-A-46	1	CLOCK LOCATION CLOCK LOCATION		
J111 J111	IDF J120	J120-B-01	1		K109	IDF L117	L117-A-48	1	CLOCK LOCATION		
J111	IDF J120	J120-B-02 J120-B-03/04	2	DATA LOCATION	K110 K111	IDF L117	L117-B-01 L117-B-02	1	CLOCK LOCATION CLOCK LOCATION		
J111 J111	IDF J120 IDF J120	J120-B-05/06 J120-B-07/08	2	DATA LOCATION DATA LOCATION	K112 K114	IDF L117 IDF L117	L117-B-03 L117-B-04/05	2	DATA LOCATION		
J111 J111	IDF J120 IDF J120	J120-B-09/10 J120-B-11	<u> </u>	ABOVE CEILING DATA LOCATION	K114 K1000	IDF L117 IDF L117	L117-D-05/06 L117-B-06/07	2 2	WIRELESS ACCESS POINT - CEILING MOUNTED DUAL SIDED CLOCK LOCATION		
J111 J111	IDF J120 IDF J120	J120-D-15/16 J120-D-17/18	2 2	WIRELESS ACCESS POINT - CEILING MOUNTED WIRELESS ACCESS POINT - CEILING MOUNTED	K1000 K1000	IDF L117 IDF L117	L117-B-08/09 L117-B-10/11	2	DATA LOCATION DATA LOCATION		
J114 J114	IDF J120 IDF J120	J120-B-12/13 J120-B-14/15	2	DATA LOCATION DATA LOCATION	K1000 K1000	IDF L117 IDF L117	L117-B-12/13 L117-B-14/15	2	DATA LOCATION MONITOR LOCATION		
J114	IDF J120	J120-B-16	1		K1000	IDF L117	L117-B-16/17	2			
J114	IDF 3120	J120-D-19/20	2	WIRELESS ACCESS POINT - CEILING MOUNTED	K1000	IDF L117	L117-D-07/08	2	WIRELESS ACCESS POINT - WALL MOUNTED		
J116	IDF J120	J120-B-20/21	2	DATA LOCATION DATA LOCATION	K1000	IDF L117	L117-E-04	1	SECURITY CAMERA - WALL MOUNTED		
J116 J116	IDF J120 IDF J120	J120-B-22 J120-B-23	1	ABOVE CEILING DATA LOCATION	K1000 K1000	IDF L117 IDF L117	L117-E-05 L117-E-06	1	SECURITY CAMERA - WALL MOUNTED SECURITY CAMERA - WALL MOUNTED		
J116 J120	IDF J120 IDF J120	J120-D-21/22 J120-B-24/25	2	WIRELESS ACCESS POINT - CEILING MOUNTED DATA LOCATION	L103 L103	IDF L117 IDF L117	L117-B-20/21 L117-B-22/23	2	DATA LOCATION DATA LOCATION		
J126 J126	IDF J120 IDF J120	J120-B-26 J120-B-27	1	AV CONTROL LOCATION	L103 L104	IDF L117 IDF L117	L117-B-24 L117-B-25/26	1 2	TOUCH PANEL LOCATION MONITOR LOCATION		
J126 J126	IDF J120 IDF J120	J120-B-28/29 J120-B-30/31	2	MONITOR LOCATION DATA LOCATION	L105 L105	IDF L117 IDF L117	L117-B-27/28 L117-B-29	2	DATA LOCATION CLOCK LOCATION		
J126	IDF J120	J120-B-32	1	DATA LOCATION WIRELESS ACCESS POINT - CEILING MOUNTED	L105	IDF L117	L117-D-11/12	2	WIRELESS ACCESS POINT - CEILING MOUNTED		
J130	IDF J120	J120-B-33/34	2		L110	IDF L117	L117-B-32/34	1			
J134	IDF 3120	J120-B-37/38	2		L117	IDF L117	L117-B-35/36	2			
J136 J1000	IDF J120	J120-B-39/40 J120-B-41/42	2	DUAL SIDED CLOCK LOCATION	L301	IDF L117 IDF L117	L117-B-37 L117-B-38	1	CLOCK LOCATION CLOCK LOCATION		
J1000 J1000	IDF J120 IDF J120	J120-D-25/26 J120-D-27/28	2 2	WIRELESS ACCESS POINT - WALL MOUNTED WIRELESS ACCESS POINT - WALL MOUNTED	L1000 L1000	IDF L117 IDF L117	L117-B-39/40 L117-B-41/42	2	DIGITAL SIGNAGE LOCATION DUAL SIDED CLOCK LOCATION		
J1000 J1000	IDF J120 IDF J120	J120-E-06 J120-E-07	1	SECURITY CAMERA - WALL MOUNTED SECURITY CAMERA - WALL MOUNTED	L1000 L1000	IDF L117 IDF L117	L117-B-43/44 L117-B-45/46	2	DIGITAL SIGNAGE LOCATION DIGITAL SIGNAGE LOCATION		
J1100 J1100	IDF J120 IDF J120	J120-B-43/44 J120-D-29/30	2 2	DUAL SIDED CLOCK LOCATION WIRELESS ACCESS POINT - CEILING MOUNTED	L1000 L1000	IDF L117 IDF L117	L117-D-13/14 L117-D-15/16	2 2	WIRELESS ACCESS POINT - CEILING MOUNTED WIRELESS ACCESS POINT - CEILING MOUNTED		
J1100 J1100	IDF J120 IDF J120	J120-D-31/32 J120-E-08	2	WIRELESS ACCESS POINT - CEILING MOUNTED SECURITY CAMERA - CEILING MOUNTED	L1000 L1000	IDF L117 IDF L117	L117-D-17/18 L117-E-07	2	WIRELESS ACCESS POINT - CEILING MOUNTED SECURITY CAMERA - CEILING MOUNTED		
J1100 J1200	IDF J120	J120-E-09 J120-E-10	1 1	SECURITY CAMERA - CEILING MOUNTED	L1000 M100	IDF L117 IDF L 117	L117-E-08 L117-B-47	1	SECURITY CAMERA - CEILING MOUNTED		
K101	IDF J120	J120-B-45/46	2		M100	IDF L117	L117-B-48	1 2	CLOCK LOCATION		
K101	IDF J120	J120-C-01	1	ABOVE CEILING DATA LOCATION	M100	IDF L117	L117-E-09	1	SECURITY CAMERA - WALL MOUNTED		
K101 K102	IDF J120	J120-D-33/34 J120-C-02/03	2	DATA LOCATION	M200	IDF L117 IDF L117	L117-C-01	1 1	CLOCK LOCATION CLOCK LOCATION		
K102 K102	IDF J120 IDF J120	J120-C-04/05 J120-C-06	2	ABOVE CEILING DATA LOCATION	M201 M203	IDF L117 IDF L117	L117-C-03 L117-C-04	1	CLOCK LOCATION CLOCK LOCATION		
K102 K103	IDF J120 IDF J120	J120-D-35/36 J120-C-07/08	2	WIRELESS ACCESS POINT - CEILING MOUNTED DATA LOCATION	M301 M301	IDF L117 IDF L117	L117-C-05 L117-C-06	1	CLOCK LOCATION CLOCK LOCATION		
K103 K103	IDF J120 IDF J120	J120-C-09/10 J120-C-11	2	DATA LOCATION ABOVE CEILING DATA LOCATION	M302 M302	IDF L117 IDF L117	L117-C-07 L117-C-08	1	CLOCK LOCATION CLOCK LOCATION		
K103	IDF J120	J120-D-37/38 J120-C-12/13	2	WIRELESS ACCESS POINT - CEILING MOUNTED DATA LOCATION	Grand total			132			
K104	IDF J120	J120-C-14/15	2								
K104	IDF J120	J120-D-39/40	2	WIRELESS ACCESS POINT - CEILING MOUNTED	qui		<u> </u>	M			
K105 K105	IDF J120	J120-C-19/20	2	DATA LOCATION DATA LOCATION	$\boldsymbol{\zeta}$						
K105 K105	IDF J120 IDF J120	J120-C-21 J120-D-41/42	1 2	ABOVE CEILING DATA LOCATION WIRELESS ACCESS POINT - CEILING MOUNTED	$\langle$						
K106	IDF J120 IDF J120	J120-C-22/23 J120-C-24/25	2	DATA LOCATION DATA LOCATION	$\neq$						
K106 K106	IDF J120 IDF J120	J120-C-26 J120-D-43/44	1 2	ABOVE CEILING DATA LOCATION WIRELESS ACCESS POINT - CEILING MOUNTED	$\left\{ \right.$						
K1100	IDF J120	J120-C-27/28	2		$\left\{ \right.$						
K1100	IDF J120	0120 0 40/40	_	WINELESS ACCESS FOINT - CEILING MOUNTED	N N						
K1100 K1100 SITF	IDF J120 IDF J120 IDF J120	J120-E-11 J120-E-12	 1 1	SECURITY CAMERA - CEILING MOUNTED SECURITY CAMERA - POLE MOUNTED	$\left\{ \right\}$						

DOOR NUMBER	PANEL LOCATION	LABEL	DOOR TYPE / DESCRIPTION
J1000.1	IDF J120	J1000.1-AC	EAC DOOR TYPE D4
J1000.1	IDF J120	J2400.20-AC	EAC DOOR TYPE D4
J1000.1	IDF J120	J142.2-AC	EAC DOOR TYPE D4
J1000A.1	IDF J120	J1000A.1-CR	EAC DOOR TYPE D3
J1000A.2	IDF J120	J1000A.2-DPS	EAC DOOR TYPE D2
J1000A.3	IDF J120	J1000A.3-DPS	EAC DOOR TYPE D2
J1000A.4	IDF J120	J1000A.4-CR	EAC DOOR TYPE D3
J1000A.5	IDF J120	J1000A.5-DPS	EAC DOOR TYPE D2
J1000A.6	IDF J120	J1000A.6-DPS	EAC DOOR TYPE D2
J1100A.1	IDF J120	J1100A.1-DPS	EAC DOOR TYPE D1
ST101.2	IDF J120	ST101.2-DPS	EAC DOOR TYPE S1

		TELECON		- IDF L117
DOM MBER	TELECOM ROOM	Mark	DATA PORTS	COMMENTS
XT	IDF L117	L117-E-01	1	SECURITY CAMERA - WALL MOUNTED
XT	IDF L117	L117-E-02 L117-E-03	1	SECURITY CAMERA - WALL MOUNTED
138	IDF L117	L117-A-01/02/03/04	4	DATA LOCATION
139	IDF L117	L117-A-05/06	2	MONITOR LOCATION
140	IDF L117	L117-A-07/08	2	
140	IDF L117	L117-A-09/10	2	MONITOR LOCATION
140	IDF L117	L117-A-13	1	ABOVE CEILING DATA LOCATION
141	IDF L117	L117-A-14/15	2	MONITOR LOCATION
142	IDF L117	L117-D-01/02	2	WIRELESS ACCESS POINT - CEILING MOUNTED
143 201	IDF L117	L117-A-16/17	2	
201 202		L 1 17-A-18	1	
202	IDF L117	L117-A-20	1	CLOCK LOCATION
204	IDF L117	L117-A-21	1	CLOCK LOCATION
205	IDF L117	L117-A-22	1	CLOCK LOCATION
207	IDF L117	L117-A-23	1	
209 211	IDF L117	L117-A-24	1	
211	IDF L117	L117-A-25	1	CLOCK LOCATION
214	IDF L117	L117-A-27	1	CLOCK LOCATION
216	IDF L117	L117-A-28	1	CLOCK LOCATION
301	IDF L117	L117-A-29	1	CLOCK LOCATION
302	IDF L117	L117-A-30	1	
303 304		L11/-A-31	1	
305	IDF L117	L117-A-33	1 1	CLOCK LOCATION
307	IDF L117	L117-A-34	1	CLOCK LOCATION
309	IDF L117	L117-A-35	1	CLOCK LOCATION
313	IDF L117	L117-A-36	1	
314	IDF L117	L117-A-37		
316	IDF L117	LII/-A-38	1	
000	IDF L117	L117-D-03/04	2	WIRELESS ACCESS POINT - WALL MOUNTED
101	IDF L117	L117-A-40	1	CLOCK LOCATION
102	IDF L117	L117-A-41	1	CLOCK LOCATION
103	IDF L117	L117-A-42	1	CLOCK LOCATION
104	IDF L117	L117-A-43	1	
105		L117-A-44	1	
107	IDF L117	L117-A-46	1	CLOCK LOCATION
108	IDF L117	L117-A-47	1	CLOCK LOCATION
109	IDF L117	L117-A-48	1	CLOCK LOCATION
110	IDF L117	L117-B-01	1	CLOCK LOCATION
111	IDF L117	L117-B-02	1	
112		L117-B-03	2	
114	IDF L117	L117-D-05/06	2	WIRELESS ACCESS POINT - CEILING MOUNTED
000	IDF L117	L117-B-06/07	2	DUAL SIDED CLOCK LOCATION
000	IDF L117	L117-B-08/09	2	DATA LOCATION
.000	IDF L117	L117-B-10/11	2	DATA LOCATION
000	IDF L117	L117-B-12/13	2	
000	IDF L117	L117-B-16/17	2	MONITOR LOCATION
000	IDF L117	L117-B-18/19	2	MONITOR LOCATION
000	IDF L117	L117-D-07/08	2	WIRELESS ACCESS POINT - WALL MOUNTED
000	IDF L117	L117-D-09/10	2	WIRELESS ACCESS POINT - WALL MOUNTED
000	IDF L117	L117-E-04	1	SECURITY CAMERA - WALL MOUNTED
000		L117-E-U0	1	
103	IDF L117	L117-B-20/21	2	DATA LOCATION
103	IDF L117	L117-B-22/23	2	DATA LOCATION
103	IDF L117	L117-B-24	1	TOUCH PANEL LOCATION
104	IDF L117	L117-B-25/26	2	
105	IDF L117	L11/-B-27/28	2	
105	IDF L117	L117-D-29	2	WIRELESS ACCESS POINT - CEILING MOUNTED
107	IDF L117	L117-B-30	1	CLOCK LOCATION
110	IDF L117	L117-B-31	1	CLOCK LOCATION
113	IDF L117	L117-B-32/34	2	DATA LOCATION
117	IDF L117	L117-B-35/36	2	DATA LOCATION
5U1 201		L11/-B-37	1	
000		L117-B-39/40	2	
000	IDF L117	L117-B-41/42	2	DUAL SIDED CLOCK LOCATION
000	IDF L117	L117-B-43/44	2	DIGITAL SIGNAGE LOCATION
000	IDF L117	L117-B-45/46	2	DIGITAL SIGNAGE LOCATION
000	IDF L117	L117-D-13/14	2	WIRELESS ACCESS POINT - CEILING MOUNTED
000		L117-D-15/16	2	WIRELESS ACCESS POINT - CEILING MOUNTED
000		נייזי-ט-יו/וא 117-F-07	∠ 1	SECURITY CAMERA - CEILING MOUNTED
000	IDF L117	L117-E-08	1	SECURITY CAMERA - CEILING MOUNTED
100	IDF L117	L117-B-47	1	CLOCK LOCATION
100	IDF L117	L117-B-48	1	CLOCK LOCATION
100	IDF L117	L117-D-19/20	2	WIRELESS ACCESS POINT - WALL MOUNTED
100	IDF L117	L117-E-09	1	SECURITY CAMERA - WALL MOUNTED
1 IU 200		L117-C-01	1	
201	IDF L117	L117-C-02	1 1	CLOCK LOCATION
203	IDF L117	L117-C-04	1	CLOCK LOCATION
301	IDF L117	L117-C-05	1	CLOCK LOCATION
301	IDF L117	L117-C-06	1	CLOCK LOCATION
302	IDF L117	L117-C-07	1	
302	IDF L117	L117-C-08	1	

		TELECOM	SCHEDULE -	IDF J220
ROOM				
		Mark	DATA PORTS	
J200 J201		J220-A-01/02	2	
.1201	IDF .1220	1220-A-05/06	2	
.1201	IDF .1220	.1220-A-03/00	1	ABOVE CEILING DATA LOCATION
J201	IDF J220	J220-D-01/02	2	WIRELESS ACCESS POINT - CEILING MOUNTE
J202	IDF J220	J220-A-08/09	2	DATA LOCATION
J202	IDF J220	J220-A-10/11	2	DATA LOCATION
J202	IDF J220	J220-A-12	1	ABOVE CEILING DATA LOCATION
J202	IDF J220	J220-D-03/04	2	WIRELESS ACCESS POINT - CEILING MOUNTE
J203	IDF J220	J220-A-13/14	2	DATA LOCATION
J203	IDF J220	J220-A-15/16	2	DATA LOCATION
J203	IDF J220	J220-A-17	1	ABOVE CEILING DATA LOCATION
J203	IDF J220	J220-D-05/06	2	WIRELESS ACCESS POINT - CEILING MOUNTE
J204	IDF J220	J200-C-12	1	DATA LOCATION
J204	IDF J220	J220-A-18/19	2	DATA LOCATION
J204	IDF J220	J220-A-20/21	2	DATA LOCATION
J204	IDF J220	J220-A-22/23	2	DATA LOCATION
J204	IDF J220	J220-D-07/08	2	WIRELESS ACCESS POINT - CEILING MOUNTE
J205	IDF J220	J220-A-24/25	2	DATA LOCATION
J205	IDF J220	J220-A-26/27	2	DATA LOCATION
J205	IDF J220	J220-A-28	1	ABOVE CEILING DATA LOCATION
J205	IDF J220	J220-D-09/10	2	WIRELESS ACCESS POINT - CEILING MOUNTE
J207	IDF J220	J220-A-29/30	2	DATA LOCATION
J207	IDF J220	J220-A-31/32	2	DATA LOCATION
J207	IDF J220	J220-A-33	1	ABOVE CEILING DATA LOCATION
J207	IDF J220	J220-D-11/12	2	WIRELESS ACCESS POINT - CEILING MOUNTE
J209	IDF J220	J220-A-34/35	2	DATA LOCATION
J209	IDF J220	J220-A-36/37	2	DATA LOCATION
J209	IDF J220	J220-A-38	1	ABOVE CEILING DATA LOCATION
J209	IDF J220	J220-D-13/14	2	WIRELESS ACCESS POINT - CEILING MOUNTE
J211	IDF J220	J220-A-39/40	2	DATA LOCATION
J211	IDF J220	J220-A-41/42	2	DATA LOCATION
J211	IDF J220	J220-A-43/44	2	DATA LOCATION
J211	IDF J220	J220-A-45/46	2	DATA LOCATION
J211	IDF J220	J220-A-47/48	2	DATA LOCATION
J211	IDF J220	J220-B-01/02	2	DATA LOCATION
J211	IDF J220	J220-B-03	1	ABOVE CEILING DATA LOCATION
J211	IDF J220	J220-D-15/16	2	WIRELESS ACCESS POINT - CEILING MOUNTE
J211	IDF J220	J220-D-17/18	2	WIRELESS ACCESS POINT - CEILING MOUNTE
J212	IDF J220	J220-B-04/05	2	DATA LOCATION
J214	IDF J220	J220-B-06/07	2	DATA LOCATION
J214	IDF J220	J220-B-08/09	2	DATA LOCATION
J214	IDF J220	J220-B-10	1	ABOVE CEILING DATA LOCATION
J214	IDF J220	J220-D-19/20	2	WIRELESS ACCESS POINT - CEILING MOUNTE
J216	IDF J220	J220-B-11/12	2	DATA LOCATION
J216	IDF J220	J220-B-13/14	2	
J216	IDF J220	J220-B-15	1	ABOVE CEILING DATA LOCATION
J216	IDF J220	J220-D-21/22	2	WIRELESS ACCESS POINT - CEILING MOUNTE
J226	IDF J220	J220-B-16/17	2	
J228	IDF J220	J220-B-18/19	2	
J228	IDF J220	J220-D-23/24	2	WIRELESS ACCESS POINT - CEILING MOUNTE
J230	IDF J220	J220-B-20/21	2	
J2000	IDF J220	J220-E-01	1	
J2200	IDF J220	J220-B-22/23	2	DUAL SIDED CLOCK LOCATION
J2200	IDF J220	J220-D-25/26	2	WIRELESS ACCESS POINT - CEILING MOUNTED
J2200	IDF J220	J220-E-02	1	
J2400	IDF J220	J220-D-27/28	2	WIRELESS ACCESS POINT - CEILING MOUNTE
J2400	IDF J220	J220-E-03	1	
K201	IDF J220	J220-B-24/25	2	
K201	IDF J220	J220-B-26/27	2	
K201	IDF J220	J220-B-28	1	
K201	IDF J220	J220-B-29	1	
K201	IDF J220	J220-D-29/30	2	WIRELESS ACCESS POINT - CEILING MOUNTE
K202	IDF J220	J220-B-30/31	2	
K202	IDF J220	J220-B-32/33	2	
K202	IDF J220	J220-B-34	1	
K202	IDF J220	J220-B-35	1	
n202		JZZU-D-31/32	2	WIRELESS ACCESS POINT - CEILING MOUNTE
K203		JZZU-B-36/37	2	
K203	IDF J220	JZZU-B-38/39	2	
r203		JZZU-B-4U	1	
N2UJ		JZZU-D-41		
N2U3		JZZU-D-33/34	2	WIRELESS AUGESS PUINT - CEILING MOUNTE
r_204		JZZU-B-42/43	2	
N204		JZZU-D-44/40	<u>∠</u>	
NZU4		JZZU-D-40	1	
K204		1220-D-41	ו ר	
K204		1220-D-33/30	2	
K205		J220-D-40,J220-0-01	2	
K205		JZZU-U-UZ/U3	<u>ک</u>	
N205		JZZU-U-U4	1	
N205		JZZU-U-U5	1	
K205		JZZU-D-37/38	2	WIRELESS ACCESS POINT - CEILING MOUNTE
r/206	IDF J220	JZZU-U-U6/U7	2	
1/000	IDF J220	J220-C-08/09	2	
K206		1770-0-10	1	ABOVE CEILING DATA LOCATION
K206 K206	IDF J220	3220-0-10	-	
K206 K206 K206	IDF J220 IDF J220	J220-C-11	1	
K206 K206 K206 K206	IDF J220 IDF J220 IDF J220	J220-C-11 J220-D-39/40	1 2	CLOCK LOCATION WIRELESS ACCESS POINT - CEILING MOUNTE
K206 K206 K206 K206 K2000	IDF J220 IDF J220 IDF J220 IDF J220	J220-C-11 J220-D-39/40 J220-D-41/42	1 2 2	CLOCK LOCATION WIRELESS ACCESS POINT - CEILING MOUNTE WIRELESS ACCESS POINT - CEILING MOUNTE

ACCESS CONTROL SCHEDULE - IDF L117									
DOOR NUMBER	PANEL LOCATION	LABEL	DOOR TYPE / DESCRIPTION						
ELEVATOR	IDF L117	ELEV-CR	EAC READER FOR ELEVATOR CALL BUTTON CONTROL						
J142.1	IDF L117	J142.1-CR	EAC DOOR TYPE D5						
J236.1	IDF L117	J236.1-CR	EAC DOOR TYPE D5						
J236.2	IDF L117	J236.2-MHO	EAC DOOR TYPE D4						
L115b	IDF L117	L1000.5-AC	EAC DOOR TYPE D4						
L115b	IDF L117	L1000.4-AC	EAC DOOR TYPE D4						
L201a.1	IDF L117	L201a.1-DPS	EAC DOOR TYPE D1						
L1000.2	IDF L117	L1000.2-AC	EAC DOOR TYPE D4						
L1000.2	IDF L117	L1000.1-AC	EAC DOOR TYPE D4						
L1000A.1	IDF L117	L1000A.1-DPS	EAC DOOR TYPE D2						
L1000A.2	IDF L117	L1000A.2-CR	EAC DOOR TYPE D3						
L1000A.3	IDF L117	L1000A.3-DPS	EAC DOOR TYPE D2						
L1000A.4	IDF L117	L1000A.4-CR	EAC DOOR TYPE D3						
M100	IDF L117	M100-DPS	EAC DOOR TYPE D1						
M101.1	IDF L117	M101.1-DPS	EAC DOOR TYPE D1						
M1000A.1	IDF L117	M1000A.1-DPS	EAC DOOR TYPE D2						
M1000A.2	IDF L117	M1000A.2-CR	EAC DOOR TYPE D3						
M1000A.3	IDF L117	M1000A.3-DPS	EAC DOOR TYPE D2						
M1000A.4	IDF L117	M1000A.4-CR	EAC DOOR TYPE D3						

ACCESS CONTROL SCHEDULE - IDF J220							
DOOR NUMBER	PANEL LOCATION	LABEL	DOOR TYPE / DESCRIPTION				
J241	IDF J220	J241-AC	EAC DOOR TYPE D4				
ST201	IDF J220	ST201-CR	EAC DOOR TYPE S2				

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		TELECOM	SCHEDULE	- IDF L208
ROOM NUMBER	TELECOM ROOM	Mark	DATA PORTS	COMMENTS
EXT	IDF L208	L208-C-01	1	SECURITY CAMERA - WALL MOUNTED
J234	IDF L208	L208-A-01/02	2	MONITOR LOCATION
J234	IDF L208	L208-A-03/04	2	MONITOR LOCATION
J234	IDF L208	L208-A-05/06	2	MONITOR LOCATION
J235	IDF L208	L208-A-07/08	2	MONITOR LOCATION
J236	IDF L208	L117-A-09	1	CLOCK LOCATION
J236	IDF L208	L117-A-10	1	CLOCK LOCATION
J236	IDF L208	L208-B-01/02	2	WIRELESS ACCESS POINT - CEILING MOUNTED
J237	IDF L208	L208-A-11/12	2	MONITOR LOCATION
J239	IDF L208	L208-A-12/13	2	MONITOR LOCATION
J2000	IDF L208	L208-C-02	1	SECURITY CAMERA - WALL MOUNTED
L201	IDF L208	L208-A-14/15/16/17	4	DATA LOCATION
L203	IDF L208	L208-A-18/19	2	DATA LOCATION
L203	IDF L208	L208-A-20/21	2	DATA LOCATION
L203	IDF L208	L208-A-22	1	ABOVE CEILING DATA LOCATION
L203	IDF L208	L208-B-03/04	2	WIRELESS ACCESS POINT - CEILING MOUNTED
L204	IDF L208	L208-A-23/24	2	DATA LOCATION
L204	IDF L208	L208-A-25/26	2	DATA LOCATION
L204	IDF L208	L208-A-27	1	ABOVE CEILING DATA LOCATION
L204	IDF L208	L208-B-05/06	2	WIRELESS ACCESS POINT - CEILING MOUNTED
L208	IDF L208	L208-A-28/29	2	DATA LOCATION
L209	IDF L208	L208-A-30	1	CLOCK LOCATION
L210	IDF L208	L208-A-31	1	CLOCK LOCATION
L2000	IDF L208	L208-A-32/33	2	DIGITAL SIGNAGE LOCATION
L2000	IDF L208	L208-B-07/08	2	WIRELESS ACCESS POINT - CEILING MOUNTED
L2000	IDF L208	L208-C-03	1	SECURITY CAMERA - CEILING MOUNTED
L2100	IDF L208	L208-A-34/35	2	DUAL SIDED CLOCK LOCATION
L2100	IDF L208	L208-B-09/10	2	WIRELESS ACCESS POINT - CEILING MOUNTED
L2100	IDF L208	L208-C-04	1	SECURITY CAMERA - CEILING MOUNTED
M200	IDF L208	L208-A-36/37	2	AV FLOOR BOX LOCATION
M200	IDF L208	L208-A-38/39	2	AV FLOOR BOX LOCATION
M200	IDF L208	L208-C-05	1	SECURITY CAMERA - WALL MOUNTED
M200	IDF L208	L208-C-06	1	SECURITY CAMERA - WALL MOUNTED
Frand total	,	· ·	56	

	ACCESS CONTROL SCHEDULE - IDF L208								
	DOOR NUMBER	PANEL LOCATION	LABEL	DOOR TYPE / DESCRIPTION					
	ELEVATOR	IDF L208	ELEV-CR	EAC READER FOR ELEVATOR CALL BUTTON CONTROL					
	I205c	IDF L208	L205c-AC	EAC DOOR TYPE D4					
	l205c	IDF L208	L205b-AC	EAC DOOR TYPE D4					

![](_page_99_Picture_12.jpeg)

![](_page_99_Figure_13.jpeg)

TELECOM SCHEDU			SCHEDULE - ID	F M201A	$\left\{\begin{array}{c} 1 \\ 1 \end{array}\right\}$		TELECO	TELECO	
ROOM NUMBER EXT	TELECOM ROOM	<b>Mark</b> M201A-E-01	DATA PORTS	COMMENTS SECURITY CAMERA - WALL MOUNTED	ROOM NUMBER EXT	TELECOM ROOM	Mark J322-D-01	-	
EXT	IDF M201A	M201A-E-02	1	SECURITY CAMERA - WALL MOUNTED	J300	IDF J322	J322-A-01/02	_	
K107 K107	IDF M201A IDF M201A	M201A-A-01/02 M201A-A-03/04	2	DATA LOCATION	J301 J301	IDF J322 IDF J322	J322-A-03/04 J322-A-05/06	_	
K107	IDF M201A	M201A-A-05	1	ABOVE CEILING DATA LOCATION	J301	IDF J322	J322-A-07	_	
K107	IDF M201A	M201A-D-01/02	2	WIRELESS ACCESS POINT - CEILING MOUNTED	J301	IDF J322	J322-C-01/02		
K108 K108	IDF M201A IDF M201A	M201A-A-06/07 M201A-A-08/09	2	DATA LOCATION	J302 J302	IDF J322 IDF J322	J322-A-08/09 J322-A-10/11	_	
K108	IDF M201A	M201A-A-10	1	ABOVE CEILING DATA LOCATION	J302	IDF J322	J322-A-12	_	
K108	IDF M201A	M201A-D-03/04	2	WIRELESS ACCESS POINT - CEILING MOUNTED	J302	IDF J322	J322-C-03/04	_	
K109 K109	IDF M201A	M201A-A-13/14	2	DATA LOCATION -	J303	IDF J322 IDF J322	J322-A-15/14 J322-A-15/16	_	
K109	IDF M201A	M201A-A-15	1	ABOVE CEILING DATA LOCATION	J303	IDF J322	J322-A-17	_	
K109	IDF M201A	M201A-D-05/06	2	WIRELESS ACCESS POINT - CEILING MOUNTED -	J303	IDF J322	J322-C-05/06		
K110 K110	IDF M201A	M201A-A-18/19	2	DATA LOCATION -	J304	IDF 3322	J322-A-10/19 J322-A-20/21	_	
K110	IDF M201A	M201A-A-20	1	ABOVE CEILING DATA LOCATION	J304	IDF J322	J322-A-22/23	_	
K110 K111	IDF M201A	M201A-D-07/08 M201A-A-21/22	2	WIRELESS ACCESS POINT - CEILING MOUNTED	J304	IDF J322	J322-A-24 J322-C-07/08		
K111	IDF M201A	M201A-A-23/24	2	DATA LOCATION	J305	IDF J322	J322-A-25/26	_	
K111	IDF M201A	M201A-A-25	1		J305	IDF J322	J322-A-27/28	_	
K111 K112	IDF M201A	M201A-D-09/10 M201A-A-26/27	2	DATA LOCATION	J305	IDF J322	J322-A-29 J322-C-09/10		
K112	IDF M201A	M201A-A-28/29	2	DATA LOCATION	J307	IDF J322	J322-A-30/31	_	
K112	IDF M201A	M201A-A-30	1		J307	IDF J322	J322-A-32/33	_	
K112 K113	IDF M201A	M201A-D-11/12 M201A-A-31/32	2	DATA LOCATION	J307	IDF J322 IDF J322	J322-A-34 J322-C-11/12		
K115	IDF M201A	M201A-E-03	1	SECURITY CAMERA - CEILING MOUNTED	J309	IDF J322	J322-A-35/36	_	
K207	IDF M201A	M201A-A-33/34	2		J309	IDF J322	J322-A-37/38	_	
K207 K207	IDF M201A	M201A-A-35/30 M201A-A-37	1	ABOVE CEILING DATA LOCATION	J309	IDF J322 IDF J322	J322-A-39 J322-C-13/14		
K207	IDF M201A	M201A-A-38	1	CLOCK LOCATION	J312	IDF J322	J322-A-40/41	_	
K207	IDF M201A	M201A-D-13/14	2	WIRELESS ACCESS POINT - CEILING MOUNTED	J314	IDF J322	J322-A-42/43	_	
K208	IDF M201A	M201A-A-41/42	2	DATA LOCATION -	J314	IDF J322	J322-A-46		
K208	IDF M201A	M201A-A-43	1	ABOVE CEILING DATA LOCATION	J314	IDF J322	J322-C-15/16	_	
K208	IDF M201A	M201A-A-44 M201A-D-15/16	1	CLOCK LOCATION WIRELESS ACCESS POINT - CEILING MOUNTED	J315	IDF J322	J322-A-47/48 J322-B-01/02	_	
K209	IDF M201A	M201A-A-45/46	2	DATA LOCATION	J315	IDF J322	J322-B-03/04	_	
K209	IDF M201A	M201A-A-47/48	2		J315	IDF J322	J322-B-05	_	
K209 K209	IDF M201A IDF M201A	M201A-B-01 M201A-B-02	1	ABOVE CEILING DATA LOCATION	J315 J316	IDF J322 IDF J322	J322-C-17/18 J322-B-06/07	_	
K209	IDF M201A	M201A-D-17/18	2	WIRELESS ACCESS POINT - CEILING MOUNTED	J316	IDF J322	J322-B-08/09	-	
K210	IDF M201A	M201A-B-03/04	2		J316	IDF J322	J322-B-10		
K210 K210	IDF M201A	M201A-B-05/06 M201A-B-07	2	ABOVE CEILING DATA LOCATION	J316 J317	IDF J322 IDF J322	J322-C-19/20 J322-B-11/12	_	
K210	IDF M201A	M201A-B-08	1	CLOCK LOCATION -	J317	IDF J322	J322-B-13/14	_	
K210	IDF M201A	M201A-D-19/20	2	WIRELESS ACCESS POINT - CEILING MOUNTED	J317	IDF J322	J322-B-15/16		
K211	IDF M201A	M201A-B-09/10 M201A-B-11/12	2	DATA LOCATION -	J317 J317	IDF J322 IDF J322	J322-D-17/18 J322-C-21/22	_	
K211	IDF M201A	M201A-B-13	1	ABOVE CEILING DATA LOCATION	J324	IDF J322	J322-B-19/20	_	
K211	IDF M201A	M201A-B-14	1		J3200	IDF J322	J322-B-21/22	_	
K211 K212	IDF M201A	M201A-B-15/16	2	DATA LOCATION	J3200	IDF 3322	J322-C-25/26	_	
K212	IDF M201A	M201A-B-17/18	2	DATA LOCATION	J3200	IDF J322	J322-D-02	_	
K212	IDF M201A	M201A-B-19 M201A-B-20	1	ABOVE CEILING DATA LOCATION	J3200	IDF J322	J322-D-03		
K212	IDF M201A	M201A-D-23/24	2	WIRELESS ACCESS POINT - CEILING MOUNTED	K3000	IDF J322	J322-C-27/28	_	
K1100	IDF M201A	M201A-D-25/26	2	WIRELESS ACCESS POINT - CEILING MOUNTED	К3000	IDF J322	J322-D-04	_	
K1100	IDF M201A	M201A-E-04 M201A-D-27/28	1	SECURITY CAMERA - CEILING MOUNTED	Grand total				
M100	IDF M201A	M201A-B-21	1	CLOCK LOCATION	Ź				
M100	IDF M201A	M201A-D-29/30	2	WIRELESS ACCESS POINT - WALL MOUNTED	)				
M100 M100	IDF M201A	M201A-E-05 M201A-E-06	1	SECURITY CAMERA - WALL MOUNTED	5				
M102	IDF M201A	M201A-B-22/23	2	DATA LOCATION	Ź				
M102	IDF M201A	M201A-B-24/25	2		)				
M102 M200	IDF M201A	M201A-B-26/27 M201A-B-28/29	2	AV FLOOR BOX LOCATION	2				
M200	IDF M201A	M201A-B-30/31	2	AV FLOOR BOX LOCATION	2				
M200	IDF M201A	M201A-E-07	1	SECURITY CAMERA - WALL MOUNTED	)				
M200 M201	IDF M201A	M201A-E-08 M201A-B-32/33	2	DATA LOCATION	2				
M201	IDF M201A	M201A-B-34/35	2	DATA LOCATION -					
M201	IDF M201A	M201A-B-36			)				
M203	IDF M201A	M201A-B-37/38	2	DATA LOCATION	ζ				
M203	IDF M201A	M201A-B-39/40	2	DATA LOCATION	_ }				
M203	IDF M201A	M201A-B-41 M201A-D-33/34	1	ABOVE CEILING DATA LOCATION					
M1000	IDF M201A	M201A-B-42/43	2	DUAL SIDED CLOCK LOCATION	2				
M1000	IDF M201A	M201A-B-44/45	2	DIGITAL SIGNAGE LOCATION					
M1000	IDF M201A	M201A-B-46/47 M201A-D-35/36	2	UIGITAL SIGNAGE LOCATION WIRELESS ACCESS POINT - CEILING MOUNTED	)				
M1000	IDF M201A	M201A-E-09	1	SECURITY CAMERA - CEILING MOUNTED	<u> </u>				
M2000	IDF M201A	M201A-B-48;M201A-C-01	1 2	DUAL SIDED CLOCK LOCATION					
M2000	IDF M201A	M201A-C-02/03 M201A-C-04/05	2	DIGITAL SIGNAGE LOCATION	)				
M2000					5				
M2000 M2000	IDF M201A	M201A-D-37/38	2	WIRELESS ACCESS POINT - CEILING MOUNTED	5				
M2000 M2000 M2000	IDF M201A IDF M201A	M201A-D-37/38 M201A-E-10	2	WIRELESS ACCESS POINT - CEILING MOUNTED SECURITY CAMERA - CEILING MOUNTED					

ACCESS CONTROL SCHEDULE - IDF J322					ACCESS CO	NTROL SCHEDULE - IDF L302	
DOOR NUMBER	PANEL LOCATION	LABEL	DOOR TYPE / DESCRIPTION	DOOR NUMBER	PANEL LOCATION	LABEL	DOOR TYPE / DESCRIPTION
ST301	IDF J322	ST301-CR	EAC DOOR TYPE S2	ELEVATOR	IDF L302	ELEV-CR	EAC READER FOR ELEVATOR CALL BUTTON CONTROL
				L303.2	IDF L302	L303.2-DPS	EAC DOOR TYPE S1
						•	•

DATA PORTS	COMMENTS
1	SECURITY CAMERA - CEILING MOUNTED
2	MONITOR LOCATION
2	DATA LOCATION
2	DATA LOCATION
1	ABOVE CEILING DATA LOCATION
2	WIRELESS ACCESS POINT - CEILING MOUNTED
2	DATA LOCATION
2	DATA LOCATION
1	ABOVE CEILING DATA LOCATION
2	WIRELESS ACCESS POINT - CEILING MOUNTED
2	DATA LOCATION
2	DATA LOCATION
1	ABOVE CEILING DATA LOCATION
2	WIRELESS ACCESS POINT - CEILING MOUNTED
2	DATA LOCATION
2	DATA LOCATION
2	DATA LOCATION
1	DATA LOCATION
2	WIRELESS ACCESS POINT - CEILING MOUNTED
2	DATA LOCATION
2	DATA LOCATION
1	ABOVE CEILING DATA LOCATION
2	WIRELESS ACCESS POINT - CEILING MOUNTED
2	DATA LOCATION
2	DATA LOCATION
1	ABOVE CEILING DATA LOCATION
2	WIRELESS ACCESS POINT - CEILING MOUNTED
2	DATA LOCATION
2	DATA LOCATION
1	ABOVE CEILING DATA LOCATION
2	WIRELESS ACCESS POINT - CEILING MOUNTED
2	DATA LOCATION
2	DATA LOCATION
2	DATA LOCATION
1	ABOVE CEILING DATA LOCATION
2	WIRELESS ACCESS POINT - CEILING MOUNTED
2	MONITOR LOCATION
2	MONITOR LOCATION
2	DATA LOCATION
1	ABOVE CEILING DATA LOCATION
2	WIRELESS ACCESS POINT - CEILING MOUNTED
2	DATA LOCATION
2	DATA LOCATION
1	ABOVE CEILING DATA LOCATION
2	WIRELESS ACCESS POINT - CEILING MOUNTED
2	MONITOR LOCATION
2	MONITOR LOCATION
2	MONITOR LOCATION
2	DATA LOCATION
2	WIRELESS ACCESS POINT - CEILING MOUNTED
2	DATA LOCATION
2	DUAL SIDED CLOCK LOCATION
2	WIRELESS ACCESS POINT - CEILING MOUNTED
2	WIRELESS ACCESS POINT - CEILING MOUNTED
	SECURITY CAMERA - CEILING MOUNTED
1	SECURITY CAMERA - CEILING MOUNTED
4	
	WIRELESS ACCESS POINT - CEILING MOUNTED
4	

NUMBER	TELECOM ROOM	Mark	DATA PORTS	COMMENTS
J315	IDF L302	J322-A-01	1	
J325	IDF L302	L302-A-02/03	2	
J320	IDF L302	L302-A-04/05	2	
J327 K201		L302-A-00/07	2	
K301		L302-A-00/09	2	
K301		L302-A-10/11	2	
K301	IDE L 302	L302-A-12/13	1	
K301	IDE L 302	L302-A-14	1	
K302		L302-A-15	2	
K302	IDE L 302	L302-A-10/17	2	
K302	IDE L 302	L302-A-10/19	1	
K302	IDE L 302	L302-A-20	1	
K302	IDF L 302	1 302-A-27/23	2	
K303	IDF L 302	L302- <u>Α-22/25</u>	2	
K303	IDF L 302	L302-A-24/23	2	
K304	IDE L 302	L302-A-28/20	2	
K304	IDF L 302	L302-A-20/23	2	
K304		L302-A-30/31	1	
K304	IDF L 302	L302-Λ-32 L302-Δ-33	1	
K306	IDE L 302	L302-A-33	2	
K306	IDF   302	1 302-A-36/37	2	
K306	IDE 1 302	1302-A-38	1	
K306	IDF   302	1 302-A-39	1	
K307	IDE L 302	L302-A-39	2	
K307	IDF L 302	L302-Λ-40/41	2	
K307	IDE L 302	L302-A-42/43	1	
K307	IDE L 302	L302-Λ-44	2	
K308	IDE L 302	L302-A-43/40	2	
K308		L302-A-47/40	1	
K308	IDE L 302	L302-D-01	1	
K310		L302-D-02	2	
K310		L302-D-05/04	2	
K310		L302-B-05/00	1	
K310			1	
K3000		L302-D-00	2	
1 201		L302-D-09/10	2	
L301		L302-D-11/12/13/14	4	
L301		L302-D-15/10	2	
L301		L302-D-17	1 2	
13000		L302-D-10/19	2	
M301	IDF L 302	L302-B-20/21	2	
M301	IDE L 302	L302-B-22/25	2	
M301		L302-B-24/23	2	
M301	IDE L 302	L302-B-28/29	2	
M301		L302-D-20/29	2	
M301	IDE 1 302	1 302-B-32/33	2	
M301	IDF 1 302	1 302-D-32/33	1	
Maua		1 302-D-04	і Л	
M202	IDE 1302	L302-D-30/30/37/30	4 1	
M202	IDE 1302	L302-D-33/40/41/42	4	
M302	IDE 1 302	1 302-D-40	1	
IVIJUZ	IDE 1302	L302-D-44	1 2	
K302		1302-0-03/04	2	
K20J		1302-0-05/06	2	
K206		1302-0-03/00	2	
N300		L302-0-07/00	2	
K300		L302-0-09/10	2	
K300		1302 0 12/14	2	
K3000	IDE 1302	L 302-C-15/14	2	
1 204		L302-0-13/10	2	
1 2000		L302-0-17/10	2	
L3000		L302-0-18/20	2	
IVIJU I M202		L302-0-21/22	2	
		1302-0-23/24	2	
		L302-0-23/20	<u>∠</u>	
1 2000		L3UZ-D-UZ	1	
		L302-D-03		
	IDF L302	L3UZ-D-U4	100	SECURITY CAMERA - CEILING MOUNTED
Grand total			122	

![](_page_100_Picture_6.jpeg)

![](_page_100_Picture_7.jpeg)

![](_page_100_Picture_8.jpeg)

T501

## **DOCUMENT 00 12 10 – SUBSTITUTION REQUEST FORM**

TO:	Jeremy Putnam						
Project:	oject: Whiteland Community HS addition and Natatorium						
We here	by submit for your consideration	the following product instead of the specified item for the above project:					
Section	tion Paragraph Specified Item						
07 272	6 2.1A	Prosoco R-Guard Spray Wrap MVP					
Proposed Substitut	Proposed Substitution: Carlisle Barritech VP						
Attach complete technical data including laboratory tests if applicable.							
Include complete information changes to Drawings and/or Specifications which proposed substitution require for proper installation.							
Fill in Blanks Below, use additional sheets if necessary:							
A.	Does the substitution affect dimensions shown on Drawings? NO						
B.	Will the undersigned pay for changes to building design, including engineering and detailing costs caused by substitution, if any? N/A						

- C. What effect does substitution have on other trades? None
- D. Differences between proposed substitution and specified item?

Compariable equal

E. Manufacturer's guarantees of proposed and specified items are:

X Same Different (explain on attachment)

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

Submitted by:

Signature

Firm\_Carlisle Coatings & Waterproofing Address\_7480 Shadeland Station Way

Indianapolis, IN 46256 Telephone 317-253-5248 For use by Design Consultant

Accepted Accepted as Noted Not Accepted Received too Late By Date Remarks

![](_page_102_Picture_1.jpeg)

# AIR & VAPOR BARRIER

# Description

Barritech VP is a fluid-applied membrane made from inherently fireresistant materials. Barritech VP is applied to exterior wall assemblies where it functions as an air barrier and a water-resistive barrier. Barritech VP may be installed down to 20°F. Barritech VP is vapor-permeable moisture vapor can diffuse directly through the membrane. Barritech VP can be applied over concrete block, concrete, exterior gypsum sheathing, plywood, OSB and many other common building materials. The product is fully adhered to the substrate, flexible and rubber-like. Barritech VP is a single-component, air-drying product applied by spray or roller. The flexible, elastic properties enable Barritech VP to bridge cracks and seal around penetrations, which creates a truly continuous, monolithic air and water barrier.

# **Features and Benefits**

- Fire-retardant chemistry permits use in many wall assemblies requiring NFPA 285
- Dries to a distinctive blue color for easy identification (lighter blue color when wet)
- 180-day UV resistance and ability to install below freezing allows flexibility in schedule
- Vapor-permeable feature permits use in wall assemblies where a vapor barrier is not needed
- Greenguard Gold low-emitting material, product-specific EPD
   available Contributes to LEED Points
- Easy, water clean-up of tools & equipment reduces harmful chemicals on the jobsite
- Spray-through standard, one-part equipment provides a simple and quick installation
- Monolithic coverage and self-sealing properties around fasteners enable an air and watertight installation
- Non-asphalt composition permits contact with many window and joint sealants
- Barritech VP is a warranted air barrier system from Carlisle Coatings
   & Waterproofing

![](_page_102_Picture_16.jpeg)

![](_page_102_Picture_17.jpeg)

# **Project Conditions**

Building codes and project specifications require continuity of the air barrier installation. It is the installer's responsibility to understand the extent and sequencing of air barrier installation on the project. Do not proceed with installation until substrate and project conditions conform to requirements specified in this document. Identify any membranes, coatings, sealants, tapes and joint compounds by others which will come into contact with Barritech VP and CCW accessories, and verify compatibility through CCW. All surfaces accepting Barritech VP and CCW accessories shall be clean, dry, frost free and of sound condition. Verify that wall assemblies are dried in, such that water intrusion will not occur from above, behind or around the membrane installation. Gaps and cracks shall be filled with materials and technique approved by CCW. Large gaps such as those commonly found in electrical/mechanical penetrations, structural steel penetrations, columns/beams, expansion/ seismic joints, shelf angles, tie-ins to fenestration and transitions to other building assemblies require extra work and materials to provide suitable surfaces for continuous installation of the air barrier. Please consult CCW's Barritech VP details for guidance.

#### **Carlisle Coatings & Waterproofing**

# AIR & VAPOR BARRIER Barritech VP

## **Substrate Inspection**

#### Concrete

Shall be cured in place 7 days minimum. It shall be smooth, with sharp protrusions such as cold joints ground flush. Honeycomb and holes/ cracks exceeding 1/4" across shall be filled with grout or mortar.

#### **Concrete Masonry Unit (CMU)**

Mortar joints shall be struck flush or tooled and shall be free of voids. Mortar droppings shall be removed from brick ties and all other surfaces accepting Barritech VP and CCW accessories. Mortar joints shall be allowed to cure 3 days minimum before installation of Barritech VP.

#### **Gypsum Sheathing**

Sheathing boards shall be flush at joints, with gap between boards according to building code and sheathing manufacturer's requirements. Sheathing boards shall also be securely fastened to the structure with proper fastener type, technique and spacing according to building code and sheathing manufacturer's requirements. Sheathing boards shall be repaired or replaced if inspection reveals moisture damage, mechanical damage or if sheathing boards have exceeded the exposure duration or exposure conditions as required by the sheathing manufacturer.

#### **OSB**, Plywood, Lumber, Pressure-Treated Wood

Wood sheathing inspection carries the same protocol given for gypsum sheathing. Also, moisture content, measured with a wood moisture meter in the core of the substrate, shall be below 20%. Do not cover any wooden materials with Barritech VP or CCW accessories if moisture content is 20% or above. Do not encapsulate wood (such as nailers) with membrane, as this will cause premature rot. In most cases fire- and pressure-treated wood must be kiln dried to accommodate the less than 20% moisture content requirement.

#### **Surface Preparation**

Apply CCW contact adhesive to ALL surfaces accepting CCW self-adhered flashings. CCW-702, CCW-702LV, CCW-702 WB, CCW-715, CAV-GRIP<sup>™</sup> and Travel-Tack are all acceptable for this application. Apply SURE-SEAL<sup>®</sup> primers to all surfaces accepting P/S Eastoform. SURE-SEAL EP-95, HP-250 and Low-VOC Primer are all acceptable for this application. Follow the application instructions on the respective contact adhesive/ primer product data sheet.

## Installation

In sheathing over stud construction, sheathing joints shall be detailed with either of the following methods: 1) 2" width x 40 mil thickness ribbon of Barribond\* centered over joint; 2) 4" DCH reinforcing fabric centered over joint and imbedded in Barritech VP. Window openings, inside-outside corners, base of wall, roofline, control joints and other transitions shall be covered with CCW self-adhered flashing, CCW liquid flashing or imbedded reinforcement as shown in Barritech VP details. P/S Elastoform may be used to detail expansion joints and window wall transitions.

Please consult CCW details for guidance.

Apply Barritech VP at the thickness and coverage as specified in the Table of this document. Recommended spray tip sizes for airless spray are GHD 635 for high coverage and GHD 429 for detail coat. Please consult CCW's Spray Equipment Brochure for detailed information. Barritech VP may also be applied with a paint roller. For roller application, apply a minimum of two coats to build the target thickness. For roller application, allow Barritech VP to dry firm between coats.

CCW self-adhered flashing details are best applied to the substrate but can also be applied over cured Barritech VP. All surfaces shall be prepped with CCW Contact Adhesive before installation of CCW self-adhered flashing. Follow application instructions on the CCW Contact Adhesive product data sheet. Installer shall apply CCW Contact Adhesive in a sufficient footprint to extend a minimum of 1" beyond the edges of CCW self-adhered flashing. Neighboring pieces of CCW self-adhered flashing shall lap 2" minimum. Seal terminating edges of CCW self-adhered flashing with a 1" width X 40 mil thickness ribbon of Barribond\* or LM 800 XL.

For installation of LiquiFiber in Barritech VP details, fill all gaps with Barribond\* or LM 800 XL. Apply a base coat of Barritech VP at 30 wet mils thickness. Lay LiquiFiber into Barritech VP and press in place with chip brush or drywall knife. Set the LiquiFiber tight into corners (no bridging), and then smooth over surface. Overlap neighboring pieces of LiquiFiber at least 2" and apply Barritech VP into the laps. Immediately encapsulate the LiquiFiber with a second coat of Barritech VP. Cover all LiquiFiber with Barritech VP the same day of installation. Liquifiber is ideal for detailing window openings as it can be used on inverted surfaces, and it will conform to complex multi-plane details without precise cutting and fitting.

Installation of DCH Reinforcing Fabric is performed like Liquifiber, with the following differences: fill all gaps exceeding ¼" with Barribond\* or LM 800 XL. DCH Reinforcing Fabric is best used over straight-run conditions such as board joints and corners.

# **Cold Temperature Installation:**

For installation below 40°F, store Barritech VP pails, drums and spray equipment in a heated area until use. If applying product over Barribond\* sealant details, apply a scratch coat of Barritech VP (approx 10 mils) over Barribond\*. Allow scratch coat to dry to touch, then apply the remaining product thickness. A 60 mil coat of Barritech VP requires minimum 48 hours

![](_page_104_Picture_0.jpeg)

of dry weather to cure solid at 20°F/50% RH. Persistent shade, thicker coating, higher humidity or substrate dampness will increase drying time.

Barritech VP may be left exposed up to 6 months (180 days). If the membrane is damaged during exposure, repair damaged membrane by removing loosely adhered material, cleaning the surface and coating the damaged area with the target thickness coating of Barritech VP.

## **Clean Up**

Promptly clean uncured Barritech VP from hands, tools, surfaces and spray equipment with tap water. Cured product must be removed mechanically or can be removed with paint stripping chemicals.

## Limitations

- Do not apply Barritech VP onto horizontal surfaces where water is expected to stand, such as window sills, decks, shelf angles and footings.
- Do not allow product in packaging or in spray equipment to freeze.
- Maintain product temperature above 50°F during spray.
- Do not apply at ambient temperature below 20°F or if temperature is expected to fall below 20°F in the next 16 hours.
- Do not apply product in damp conditions or in rain. Do not install if rain is expected during drying time of product.
- Do not use in areas where temperatures exceeding 180°F are anticipated.
- Product is designed to be used as a positive side water barrier and will not function as negative side water barrier.

# Packaging

#### **Barritech VP**

Fluid-applied, fire-resistant air/vapor barrier packaged in 50-gallon drums and 5-gallon pails

#### Other CCW Products:

# CCW Self-Adhered Flashings 705 FR-A (180 day exposure) or CCW-705 (60 day exposure)

36" x 75' roll: (225 ft²/roll) 1 roll/box 24" X 100' roll: (200 ft²/ roll) 1 roll/box 18" X 100' roll: (150 ft²/ roll) 1 roll/box 12" X 100' roll: (100 ft²/ roll) 2 roll/box 9" X 100' roll: (75 ft²/ roll), 2 roll/box 6" X 100' roll: (50 ft²/ roll) 4 roll/box 4" X 100' roll: (33.3 ft²/ roll) roll/box

Self-adhrered flashings are available with standard or low temperature (XLT) adhesive formulas.

CCW SURE-SEAL Pressure-Sensitive Elastoform Flashing (P/S Elastoform) 90 mil malleable, self-adhering EPDM flashing. Provided in 50' rolls of 12", 9" and 6" widths.

#### **Sure-Seal EPDM Primers**

EP-95 Splicing Cement: solvent-based, packaged in 1-gal cans HP-250 Primer: solvent-based, packaged in 2.5-gal pails Low-VOC Primer: OTC Compliant, solvent-based, packaged in 1-gal cans

#### LiquiFiber

Glass matt consisting of randomly oriented strands in soluble binder, packaged in 300' rolls of 6" and 12" widths.

# DCH Reinforcing Fabric

Woven polyester fabric available in 324' rolls of 4", 6", and 12" widths.

#### CCW Contact Adhesives (select any):

#### CAV-GRIP

Aerosol spray contact adhesive packaged in pressurized cylinders containing 30 lb. fill weight of adhesive. Reusable spray gun and 6', 12' or 18' hose are sold separately and are attached to cylinder for dispense.

#### CCW-702

Solvent-based contact adhesive packaged in 1-gal cans and 5-gal pails

#### CCW-702 LV

OTC-compliant, solvent-based contact adhesive packaged in 5-gal pails

#### **CCW-702 WB**

Water-based contact adhesive packaged in 5-gal pails

#### CCW-715 Solvent-based contact adhesive for green concrete, packaged in 5-gal pails

### TRAVEL-TACK™

Aerosol contact adhesive packaged in 12-oz. cans

#### **CCW Detail Sealants:**

#### Barribonds (180 day exposure)

Non-sag grade, high-solids moisture-curing STPE. Packaged in 20 fl-oz sausages; Barribond (blue) – 16 sausages per box; Barribond XL (blue-gray) – 12 sausages per box; Barribond HP (navy blue) – 20 sausages per box

#### LM-800XL (60 day exposure)

Trowel-grade synthetic rubber sealant packaged in 29 fl-oz cartridges, 12/case and in 5-gal pails (Note: maximum UV exposure of 10 days)

#### **CCW Liquid Flashings:**

Barrithane VP roller or brush applied high-solids, moisture-curing STPE. 5-gal pail

Barribonds: As listed above

#### **Storage**

Store Barritech VP and accessory products in a location protected from temperature extremes, precipitation and direct sunlight. Protect Barritech VP from freezing temperatures during delivery, storage and handling. Shelf life of Barritech VP in original, unopened packaging, stored under these conditions, is one year from the date of manufacture.

![](_page_105_Picture_1.jpeg)

# **AIR & VAPOR BARRIER Barritech VP**

# **Typical Properties**

Property	Method	Results	
Color		Un-Cured: Light Blue Cured: Medium Blue	
Application Temperature		Minimum 20°F	
Volume % Solids		66%	
Wet Thickness	Comb Gauge	Minimum 45 mils on gypsum, wood and foam sheathing; Minimum 60 mils on concrete and masonry	
Drying time of 60 mil wet film at 73°F/50% RH*		3 hr until tack-free 48 hr until fully dry	
Coverage (Theoretical)**	Percent solids calculation	26.7 ft <sup>2</sup> /gal (60 wet mils, 40 dry mils) 35.6 ft $^2$ /gal (45 wet mils, 30 dry mils)	
Volatile Organic Content (VOC)	SCAQMD Calculation Method	<48 g/L	
Water Column Test	AATCC 127, modified 60 wet mils on CMU and DensGlass 22 inch (55 cm) column of water	No water leakage through membrane	
Nail Sealability (60 wet mils)	ASTM D1970	Pass	
Water Vapor Permeance (60 wet mils)	ASTM E96 B (Water Method) ASTM E 96 A (Desiccant Method)	14 Perms 0.7 Perm	
Pull-Off Adhesion	ASTM D4541, modified 4" wood puck	<ul> <li>&gt; 30 PSI on CMU and OSB (maximum reading on gauge)</li> <li>&gt; 12 PSI on DensGlass (de-lamination of facer from gypsum core)</li> </ul>	
Elongation at Break, (60 wet mils)	ASTM D412	500%	
Low-Temp Flexibility (60 wet mils)	ASTM D1970, 180° bend over 1" mandrel	No cracking at -20°F	
Aging/ Long-Term Flexibility (60 wet mils)	CGSB 71-GP-24M Aging 70°C [140°F] for 500 h then 180° bend	No cracking	
Low-Temp Crack Bridging (60 wet mils)	ASTM C1305	No cracking after 10 cycles at -15° F	
Mold Resistance	ASTM D5590	No Growth	
Peel Adhesion	ASTM D903	13 lb/in on CMU and DensGlass Gold (facer failure)	
Air Permeance	ASTM E 2178, Cast free film at 45 mils wet	0.000001 L/s*m^2	
Air Permeance on CMU	ASTM E2178 - Mod Single, 60 mil wet coating spray-applied to CMU	= 0.001 L/s*m<sup 2 @ 75 Pa [0.0002 CFM/ft <sup>2</sup> @ 1.57 PSF]	
Wall Assembly Burn Test	NFPA 285	Pass - Various wall assemblies with up to 3 inches of polyiso or XPS insulation. Consult CCW NFPA 285 White Paper for assembly details.	

Property	Method	Results	
Air Barrier Assembly Test	ASTM E2357. Gypsum sheathing, wall assembly with window opening, joints and penetrations. Barritech VP applied at 45 mils wet.	Air leakage after load sequence: 0.00003 CFM/ ft^2 at 1.57 PSF ( 0.0015 L/s*m^2 @ 75 Pa)	
Water Intrusion Resistance on Sheathing Wall Assembly	ASTM E331, tested on same ASTM E2357 wall assembly as above	No leaking observed after 2h at -6.24 PSF( 299 Pa) and 15 minutes at 15 PSF (720 Pa)	
Water Intrusion Resistance on CMU Wall	ASTM E331, Single, 60 mil wet coating spray- applied to CMU	No visible leakage to interior after 15 minutes water spray rack @ 6.24 PSF	
Freeze-Thaw	ASTM E2485/ICC-ES AC212 Sec 4.2	No cracking, crazing or erosion viewed under 5X magnification; no de-lamination	
Water Resistance	ASTM E2247/ICC-ES AC- 212 Sec 4.3	No cracking, checking, crazing or erosion	
Surface Burning	ASTM E84. Product applied @ 60 mils wet, full coverage, to cement board substrate.	Flame spread index 15 Smoke generation index 135	
Measurement of Heat Release by Cone Calorimeter	ASTM E1354. 50 kW/m <sup>2</sup> Heat Flux (applied 60 mils wet on cement board)	Peak Heat Release Rate: 167 kW/m <sup>2</sup> Total Heat Release: 14.7 MJ/m <sup>2</sup> Effective Heat of Combustion: 12.3 MJ/kg	

Drying time varies with ambient temperature, ambient humidity, substrate temperature, substrate dampness, coating thickness, sun and wind. Cool, moist, shady conditions and high coating thickness present the worst case scenario, causing the product to take many days to dry. In cold, damp conditions, CCW recommends Barrithmae IV as an alternative to Barritech VP. Actual coverage varies by substrate and is typically less than theortetical coverage due to substrate roughness and porosity, wind, scrap and installer skill. Measurable dv mil thickness may also be lower than theoretical, due to substrate roughness, porosity and measurement technique. On all substrates, coating shall be visibly continuous with on pinbeles.

continuous, with no pinholes

# **Limited Warranty**

Carlisle Coatings & Waterproofing Incorporated (Carlisle) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any Carlisle materials prove to contain manufacturing defects that substantially affect their performance, Carlisle will, at its option, replace the materials or refund its purchase price. This limited warranty is the only warranty extended by Carlisle with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. Carlisle specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever. The dollar value of Carlisle's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the Carlisle material in question.

## **Carlisle Coatings & Waterproofing**

900 Hensley Lane | Wylie, TX 75098 | 800.527.7092 | www.carlisleccw.com

![](_page_106_Picture_0.jpeg)

REQUIREMENT	REFERENCE	<b>BARRITECH VP</b>	PROSOCO SPRAY
		RESULTS	WRAP MVP
			RESULTS
Chemical Composition		Acrylic polymer water- based emulsion	Synthetic Acrylic
Color		Blue	Pink
% Solids by Volume		66%	63%-69%
Coverage		26.7 ft²/gal (60 wet mils, 40 dry mils) 35.6 ft^2 /gal (45 wet mils, 30 dry mils)	50-100 SQ FT/ Gal @ 10 wet mils on ext sheathing
VOC		48 g/L	18 g/L
Drying Time		<ul><li>@ 73 deg F, 50% RH</li><li>3 hours to touch</li><li>48 hours full cure</li></ul>	<ul><li>@ 75 deg F, 50% RH 12</li><li>hours to touch</li><li>24 hours until firm</li></ul>
Drying Time until Rain Resistant		16 hours at minimum ambient temp of 32 deg F	12 hours at minimum ambient temp of 70 deg F
Application		1 coat by airless spray OR 2 coats by roller	Airless spray OR 2 coats by roller
Clean Up		Water	Water
Maximum outdoor		180 days	Not intended for
exposure		2	permanent exposure
Minimum ambient application temperature		40 deg F	25 deg F
Air Permeance	ASTM E 2178 modified, spray-applied over medium density concrete masonry unit (CMU) wall	40 mils dry film, not more than 0.001 liters per second per square meter of area at 75 Pa pressure differential	ASTM E2178 @ 75 Pa Pass: 0.0024 L / s·m2 at 75 Pa(0.0005 cfm / ft2 at 1.57 psf)
Air Leakage	ASTM E 283	40 mils dry film thickness over CMU: 0.0002 CFM/ft <sup>2</sup> @1.6 PSF pressure differential	ASTM E283, Pass: 0.0028 L / s·m2 at 75 Pa(0.0005 cfm / ft2 at 1.57 psf)
Minimum application thickness required to provide $\leq 0.004$ CFM/ft <sup>2</sup> @ 1.6 PSF pressure differential [0.02 L/s*m <sup>2</sup> @ 75 Pa pressure differential]	MA Energy Code 780 CMR Canadian National Building Code	40 mils dry film thickness (25 SQ FT per GAL coverage)	Exterior Sheathing: Minimum 10 mils (wet),
Fire Rating	NFPA 285	Pass: applied at minimum 60 mils wet to gypsum sheathing over steel stud wall. 2.5" XPS insulation + 2" cavity and brick veneer over membrane.	Complies with NFPA 285 in various wall assemblies

![](_page_107_Picture_0.jpeg)

REQUIREMENT	REFERENCE	BARRITECH VP RESULTS	PROSOCO SPRAY WRAP MVP RESULTS N/A	
Watertightness		ASTM E 331 No visible leakage to interior		
Resistance to gust wind loading		ASTM E 330	N/A	
Resistance to sustained wind loading		No de-lamination of membrane or propagation of air leakage.	N/A	
Tensile Strength	ASTM D 412	Not less than 175 PSI	N/A	
Tensile Elongation	ASTM D 412	Not less than 500 percent	N/A	
Low Temperature Flexibility	ASTM D 1970	No cracking at minus 5 degrees F	Pass	
Low-Temperature Crack Bridging	ASTM C 1305	Pass at 0 degrees F	N/A	
Peel Adhesion on Concrete Peel Adhesion on Concrete Masonry Unit Peel Adhesion on Exterior Grade Gypsum Sheathing	ASTM D 903	Not less than 13 lb per inch of width, Not less than 13 lb per inch of width Substrate failure	Pass	
Water Vapor Permeance	ASTM E 96, Method B	Not less than 12 Perms	11.71 3 perms @ 10mils	
Classification	IECC 2007 Supplement	Not a vapor retarder (exceeds 10 Perms)	Not a vapor retarder (exceeds 10 Perms)	
Mold Resistance	ASTM D 5590	No growth	Pass	
Compatibility with Polystyrene Insulation		No solvents to attack insulation.	No solvents to attack insulation.	
#### **SUBSTITUTION REQUEST FORM**

TO: \_\_\_\_\_

Project: Whiteland High School

We hereby submit for your consideration the following product instead of the specified item for the above project.

<u>Section</u> 10500	<u>n</u> 0 Solid Plastic Lockers	Paragraph 2.1.A	<u>Specified Item</u> Scranton Products Tufftec Plastic	Lockers	
Proposed Substitution: Columbia Lockers Plastic Lockers					
Attach	complete technical data i	ncluding lab	poratory tests if applicable.		
Includ substit	e complete information, cl ution require for proper in	hanges to Distallation.	rawings and/or Specifications which	h proposed	
Fill in	blanks below, use addition	nal sheets if	necessary:		
A.	Does the substitution affe	ect dimensio	ons shown on drawings?	No	
B. Will the undersigned pay for changes to building design, including engineering and detailing costs caused by substitution, if any?					
С.	What effect does substitu	ition have of	n other trades?	None	
D.	Differences between prop	posed substi	tution and specified item?	None	
Е.	Manufacturer's guarantee	e of propose	d and specified items are:		
	x Same		Different (explain on attachment)		

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

Submitted by: Bob Senseman Signature Bob Senseman Firm Lee Company Inc. Address 27 S. 12<sup>th</sup> Street Terre Haute, IN 47807 Telephone (812) 235-8155 Fax (812) 235-3587

For use by Design Consultant

Accepted Accepted as Noted Not Accepted Received too Late By\_\_\_ 9 Date Remarks

# COLUMBIA LOCKERS A Division of PS SC®

866.337.7286 www.psisc.com



# LOCKER CATALOG



**NEW Recessed Handles for Phenolic Lockers** See Page 27 for More Information

# **ABOUT COLUMBIA LOCKERS**



PSiSC is proud to provide our customers and distributors The Uni-Box® design allows for our lockers to be arranged with the highest quality products made from the most durable and eco-friendly materials on the market.

Columbia Lockers, a division of PSiSC, has been manufacturing Phenolic and PolyLife® HDPE Lockers for over 15 years. Our lockers feature mortise & tenon joints, type 304 stainless steel fasteners & hardware, aluminum & stainless steel hinges, and frameless doors.

into hundreds of configurations and can be mixed and matched to create a truly custom locker facility.

Columbia Lockers can be combined with matching benches, hardware and a variety of optional accessories.



# CONTENTS

- **Locker Materials**
- Locker Configurations
- 12 **Athletic Lockers**
- **Additional Options** 16
- 20 Lock Options

## Innovative Design & Engineering



### Hinges & Door Swing

Most locker designs have a limited opening and door swing, which can inhibit the end user's access to the interior of the locker. Columbia Lockers are designed with 3 additional inches of locker opening space.

Our hinges include the: **Concealed Hinge** for phenolic lockers, made from stainless steel, the **Offset Hinge** for phenolic lockers, made from powder coated stainless steel, and the **Uni-Hinge** for both phenolic lockers (*only available in black*) and PolyLife lockers (*color matched to locker*), made from powder coated aluminum.



#### Mortise & Tenon Joints

Most lockers utilize what is known as a "butt joint," which places the majority of the weight of the locker and its contents solely on the screws. Over time, or with enough weight, the screws will bend, break, or pull away from the material, compromising the strength of the locker.

Columbia Lockers designed a virtually unbreakable joint, which is comprised of a mortise, or groove, cut in the side panel of the locker and a corresponding tenon, or projecting tab. The top, bottom, and shelves of the locker reside inside part of the side panels and are secured by stainless steel screws.



### Frameless Doors & Improved Ventilation

Columbia Lockers incorporate an innovative solution to locker ventilation without unsightly louvers on the face of the locker. Our lockers are designed with an 1/8" opening between the door and the frame of the locker, along with concealed ventilation holes in the tops, bottoms, and shelves of the body.

This creative solution increases the airflow through the locker in a well-ventilated room by 3 to 4 times a standard locker with louvers.



# LOCKER MATERIALS

It's time to raise the bar on our expectations of what a truly high quality locker should look like. Columbia Lockers began by selecting only the most durable, aesthetically pleasing materials on the market: Solid Phenolic and PolyLife HDPE. These solid plastics are not only more durable, but will never rust, dent, or bend (unlike traditional metal lockers.) Take a look at each of our durable materials and the properties that set them above and beyond the rest.

## LOCKER MATERIALS



# POLYLIFE® (HDPE)

Also known as HDPE (High Density Polyethylene), PolyLife is created from 100% recyclable solid plastic material. It is an excellent choice for high-traffic, high-moisture areas and is resistant to damage from graffiti. PolyLife is non-porous and the same color throughout the entire material.

#### **SPECIAL PROPERTIES:**

Contributes to Green Building Certifications • Non-Porous • 25 Year Warranty • Graffiti & Wear Resistant • Never Delaminates or Requires Painting • Antimicrobial Handles

## Antimicrobial PolyLife®

Protected by Columbia Guard, a microbiocidal that kills harmful bacteria on contact. The antimicrobial protection is infused throughout the material, making these lockers safer and more secure. Antimicrobial Lockers defend against MRSA, staph, and other harmful bacteria.

#### **SPECIAL PROPERTIES:**

Microbiocidal • 99.99% Kill Effectiveness on Contact • JIS Z 2801 Test Result of > 4.0 Efficacy • Contributes to LEED Certification • Can Be Cleaned Using Strong Chemicals





## PHENOLIC

A high density material made by applying heat and pressure to layers of kraft paper that has been saturated in a synthetic phenolic resin. A chemical reaction known as polymerization occurs, transforming the materials into a high-pressure, thermosetting plastic. Phenolic is water resistant and highly durable, making it an excellent choice for high traffic areas.

#### **SPECIAL PROPERTIES:**

Contributes to Green Building Certifications • Multiple Thicknesses for Different Applications • Fire Rated Material Options • 20 Year Warranty • Graffiti & Wear Resistant • Never Delaminates or Requires Painting • Engravings available



## TERRA CORE®

A true color-through phenolic, Columbia Terra Core features all of the same properties as standard black core phenolic, with the added aesthetic quality of a single color material. This sought-after material option adds a unique touch to any locker room design.

#### **SPECIAL PROPERTIES:**

Contributes to Green Building Certifications • Fire Rated Material Options • 25 Year Warranty • Graffiti & Wear Resistant • Never Delaminates or Requires Painting



# CONFIGURATIONS

During the design process of a locker room, it's vital to keep in mind the use and functionality of the space. We understand that no two designs are ever the same, which is why we designed our lockers to be individual units.

This modular design allows for you to have the flexibility and variety to fit any layout. The designer has the ability to maximize the amount of openings while leaving room for traffic flow within the locker room. Being able to mix and match locker door units and configurations also allows for the possibility of mixing and matching different combinations of colors, by individual unit or by row.

We pride ourselves on manufacturing the most versatile lockers on the market. If you have a custom project or something a little "different" in mind, our team of experts can accommodate you and help design the perfect lockers for your project.

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Our modular design and extensive selection of custom options can help you create nearly any style of locker room. Incorporate any combination of tiers, colors, openings, door sizes, and more - within a single locker configuration.





## CONFIGURATIONS



## 1-6 & Z-Tier Lockers

Sizes:				
Height	36″	48″	60″	72″
Width	9″	12″	15″	18″
Depth	12″	15″	18″	

A. A		
Material	i nici	knesses.

itorial Thicknoccoc		
iteriai inickiiesses.	Phenolic	PolyLife
Top, Bottom, & Shelves	3/8″	3/8″
Sides & Back	5⁄16″	3⁄8″
Doors	1/2″	1/2″
Renches	3/4″	1″

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# **ATHLETIC LOCKERS**

Looking for a unique storage solution that can be tailored to serve all of your team's unique needs? Columbia Lockers is proud to offer athletic lockers - choose from a full line of custom locker options, accessories, and styles that can be specialized to fit every athlete's needs, no matter what level of play. Select one of our many standard top of the line athletic lockers:

- Collegiate Modular Athletic Lockers
- High School Athletic Lockers

or let us customize a design that is unique to you.

## COLLEGIATE MODULAR ATHLETIC LOCKERS



# HIGH SCHOOL ATHLETIC LOCKERS





# **ADDITIONAL OPTIONS**

When it comes to designing the perfect locker room, having a wide range of accessories and locker options is imperative. Whether you're looking to add LED lighting to a locker interior, or just need benches made of the same material as the lockers, we've got you covered. As the industry's most experienced manufacturer of phenolic and PolyLife HDPE lockers, we welcome the opportunity to create a custom locker that exceeds all expectations in both quality and design.



### Locker Benches

Add phenolic or PolyLife HDPE locker benches to match your Columbia Lockers. Made from 1" PolyLife or 3/4" Phenolic thicknesses with rounded corners and eased edges. Bench tops are secured using thru-bolting or drilled & tapped holes for concealed attachment. Pedestals are connected to the wall or floor with stainless steel fasteners.

Choose between wall mounted (powder coated aluminum) or pedestal benches (powder coated aluminum, stainless steel, powder coated steel). ADA compliant benches are also available.

#### Sizes:

Length 36" 48" 60" 72" 84" 96" 120" Depth 9" 10" 12" 24"



PolyLife Options



## Phenolic Options

## Additional Ventilation

Columbia Lockers understand that customers may desire additional ventilation. We now offer two sets of hole patterns for each of our materials that increases airflow by approximately 17% or 47%. The 1/4" diameter holes are arranged in patterns that are designed to maintain the structural integrity of the locker door.





## **Engravings & Logos**

Looking for a more personalized locker? Add any logo or graphic to your next phenolic locker project. Get all of the durability of solid phenolic with the added aesthetic appeal of a well-designed locker surface. Our design team will convert a mascot, logo, or custom graphic into an etched pattern. Choose any color of our phenolic materials with solid black core.





## **Custom Designs & Solutions**

When it comes to creating the perfect locker, we believe that if you can dream it, we can design & build it. From wiring electronic components to creating custom drawers and cabinets, we have every option to create the perfect locker for your team or organization.



# LOCK OPTIONS

#### **Standard Lock Option:** *Hasp Bar for Padlock*

The hasp bar for padlock is a highly versatile locking The identification plate is supplied for each door and system. It allows the user to bring their own lock to is reverse engraved on the back so the front shows the secure their personal belongings. The interior hasp bar numbers and will not collect dirt. Up to 4 alphanumeric is made of 11 gauge 304 grade stainless steel. This hasp characters are allowed on each plate. bar fits through a slot on the door, offering superior theft resistance.



### **PolyLife Hasp**

An antimicrobial lift-handle is connected to the door to operate the latch and activation bars. A second hasp is connected to the handle which lines up with the interior hasp bar when in the closed position. A standard padlock can then be looped through both hasp bars to secure the locker.

### Phenolic Hasp

The hasp bar is located in the interior of the locker and fits through a slot on the face of the door, which allows any padlock to be locked on the locker. The nylon or stainless steel handle fits nicely with the engraved name plate & makes identifying and opening the locker door easy.



#### **Phenolic Recessed Handles**

Handle and lock are flush with the locker face, perfect for hallways & other areas with a lot of foot traffic.

For more info, see pg. 27

### **MECHANICAL LOCKS**



Brand	MasterLock	MasterLock	MasterLock
Model Number	1652	1670	1690
Latch Style	Springbolt	Deadbolt	Wrap Around
Locker Material	Phenolic	PolyLife	Phenolic
User Access	3-digit Combination	3-digit Combination	3-digit Combination
Supervisor Access	Lock Operation & Combo Changes	Lock Operation & Combo Changes	Lock Operation & Combo Changes
Assigned/Shared	Assigned	Assigned	Assigned
Left/Right Handed	Left/Right Handed	Left/Right Handed	Right Handed
Lock Orientations	Vertical	Vertical	Vertical
ADA Compliancy	ADA Compliant Key	ADA Compliant Key	ADA Compliant Key
<b>Other Features</b>	Preloaded with 5 Combinations	Preloaded with 5     Combinations	Preloaded with 5 Combinations



MasterLock	Ojmar	Zephyr	Kenstan	Zephyr
3670	8001	6510	KL-100	5554
Deadbolt	Rotating Cam	Rotating Cam	Springbolt or Deadbolt	Springbolt or Deadbolt
Phenolic or PolyLife	Phenolic	Phenolic	Phenolic or PolyLife	Phenolic or PolyLife
3-digit Combination	4-digit Combination or Key	User-defined Combination (Clears Upon Opening)	Key	User-defined Combination (Clears Upon Opening)
Lock Operation & Combo Changes	Lock Operation & Combo Changes	Lock Operation & Combo Changes	Lock Operation	Lock Operation & Combo Changes
Shared	Assigned/Shared	Shared	Assigned	Shared
Left/Right Handed	Left/Right Handed	Left/Right Handed (Horizontal Orientation Only)	Left/Right Handed	Left/Right Handed
Vertical	Vertical	Vertical or Horizontal	Vertical	Vertical
N/A	ADA Compliant Key	N/A	N/A	N/A
Retains Combination Until     Reset	• Die-cast Lock body in Matte Chrome Finish	<ul> <li>Manual Turn Knob Operation</li> <li>Zinc Die-cast Lock body</li> </ul>	• Easy to Operate	• Zinc Die-cast Lock body

Important Note: Lock availablility is subject to change, please refer to lock manufacturer's website for more information.

## LOCK OPTIONS

### **ELECTRONIC LOCKS**









Brand	MasterLock	Zephyr	Zephyr	Zephyr
Model Number	3685	2310	2154	2254
Latch Style	Deadbolt	Rotating Cam	Springbolt	Springbolt
Locker Material	Phenolic or PolyLife	Phenolic	Phenolic or PolyLife	Phenolic or PolyLife
User Access	4, 5, or 6-digit Combination or FOB	4 or 6-digit Combination	RFID Card Access	4-digit Combination or RFID Card Access
Supervisor Access	Lock Operation & Combo Changes	Lock Operation & Combo Changes	Lock Operation & Audit Trail	Lock Operation, Combo Changes, & Audit Trail
Assigned/Shared	Assigned/Shared	Assigned/Shared	Assigned/Shared	Assigned/Shared
Left/Right Handed	Right Handed	Right Handed	Left/Right Handed	Left/Right Handed
Lock Orientations	Vertical	Vertical or Horizontal	Horizontal	Horizontal
ADA Compliancy	ADA Compliant Options Available	N/A	ADA Compliant	ADA Compliant
Other Features	<ul> <li>CR123A Lithium Battery w/9V battery backup</li> <li>Display/Sounds provide interactive feedback</li> </ul>	<ul> <li>2 AA Batteries</li> <li>Surface or Recessed Mounting</li> <li>Master Key Override</li> <li>Rubberized knob for better grip</li> </ul>	<ul> <li>4 AA batteries</li> <li>(External battery powered emergency access)</li> <li>Audible low power warning</li> <li>RFID Cards, mini cards, key EORS &amp; wristbands</li> </ul>	<ul> <li>4 AA batteries</li> <li>(External battery powered emergency access)</li> <li>Audible low power warning</li> <li>RFID Cards, mini cards, key EORS &amp; wristbands</li> </ul>

22303C 1 2 3 4 5 6 7 8 9 0 0 % 0 %	Contraction of the second seco			
Zephyr	Zephyr	Zephyr	Ojmar	CompX
6210	5154	5254	OJ-100	Cam: REG-M-V-3 Springbolt: REG-S-L-3
Rotating Cam	Springbolt	Springbolt	Springbolt or Deadbolt	Rotating Cam or Springbolt
Phenolic	Phenolic or PolyLife	Phenolic or PolyLife	Phenolic or PolyLife	Phenolic
Programmable Push Button Combination or FOB	RFID Card, FOB, or Wristband	Programmable Combination or FOB	4, 5, or 6-digit Combination or FOB	4-8-digit Combination
Lock Operation & Combo Changes	Lock Operation & Audit Trail	Lock Operation, Combo Changes, & Audit Trail	Lock Operation, Combo Changes, & Audit Trail	Lock Operation & Combo Changes
Assigned/Shared	Assigned/Shared	Assigned/Shared	Assigned/Shared	Assigned/Shared Use* Cam for Assigned Use Only
Left/Right Handed (Horizontal Orientation Only)	Left/Right Handed	Left/Right Handed	Left/Right Handed	Left/Right Handed
Vertical or Horizontal	Horizontal	HorizontaL	Vertical	Vertical or Horizontal
ADA Compliant Options Available	ADA Compliant	ADA Compliant	ADA Compliant Options Available	N/A
<ul> <li>Zinc Die-Cast Lock Body</li> <li>Wireless Capability with</li> <li>optional Hardwire Capability</li> <li>Audible and LED visual</li> <li>indicators</li> </ul>	• Zinc Die-Cast Lock Body • Audible and Visual LED Indicators • Humidity Resistant	<ul> <li>Zinc Die-Cast Lock Body</li> <li>Audible and Visual LED Indicators</li> <li>Humidity Resistant</li> </ul>	<ul> <li>Black or White Finishes</li> <li>3 Color LED for Lock Status</li> <li>Automatic Open &amp; Time-Delay Open via Software</li> <li>Low Battery Indicator</li> </ul>	<ul> <li>Low Battery Indicator</li> <li>Easy to Clean</li> <li>2 AAA Batteries (Accessible from outside of Locker Body)</li> </ul>

Important Note: Lock availablility is subject to change, please refer to lock manufacturer's website for more information.

## LOCK OPTIONS

### **ELECTRONIC LOCKS**, Continued









Brand	Digilock Axis	Digilock Cue	Digilock Sola	Digilock Legacy
Model Number	DL-100	DL-535	DL-540	DL-500
Latch Style	Springbolt or Deadbolt	Springbolt or Deadbolt	Rotating Cam	Springbolt or Deadbolt
Locker Material	Phenolic or PolyLife	Phenolic or PolyLife	Phenolic	Phenolic or PolyLife
User Access	4-digit Combination, Key, or Touch RFID	4-digit Combination, Key, or Touch RFID	Programmable Combination	Programmable Combination
Supervisor Access	Lock Operation & Combo Changes	Lock Operation & Combo Changes	Lock Operation & Combo Changes	Lock Operation & Combo Changes
Assigned/Shared	Assigned/Shared	Assigned/Shared	Assigned/Shared	Assigned/Shared
Left/Right Handed	Left/Right Handed	Left/Right Handed	Left/Right Handed	Left/Right Handed
Lock Orientations	Vertical or Horizontal	Vertical	Vertical or Horizontal	Vertical or Horizontal
ADA Compliancy	ADA Compliant Options Available	ADA Compliant Options Available	ADA Compliant Options Available	ADA Compliant Options Available
Other Features	<ul> <li>4 AA batteries</li> <li>2 Models: Standard Keypad or Touch RFID Access</li> <li>Optional Pull Handle</li> <li>2 Body Style Options</li> </ul>	<ul> <li>4 AA batteries</li> <li>2 Models: Standard Keypad or Touch RFID Access</li> <li>Integrated Pull Handle</li> <li>Key or Code Managed Options</li> </ul>	• 2 AAA batteries • Visual & Audible Indicators • Key or Code Managed Operations	<ul> <li>• 4 AA batteries</li> <li>• Optional Pull Handle</li> <li>• 2 Body Style Options</li> </ul>

Important Note: Lock availablility is subject to change, please refer to lock manufacturer's website for more information.

Don't see a lock you're looking for? Ask a member of our team about a specific lock brand or model for your locker projects.

# NEW PHENOLIC RECESSED HANDLES







Solid phenolic is the most durable material for the manufacturing of lockers and is an excellent choice for high-traffic facilities. As a highly versatile and customizable material, it was a surprise to discover an important aspect was missing from the phenolic locker market: a flat locker face.

As the first and only recessed handle on the phenolic locker market, Columbia Lockers is proud to introduce this innovative design option to our entire phenolic locker product line. Recessed handles are a safer option because passerby foot traffic can avoid bumping into or catching on a handle or lock that protrudes from the surface of the lockers.

Recessed Handles are available for any configuration of phenolic Columbia Lockers.



### **SEE OUR SPECIFICATIONS:**









825 Garland Street | Columbia, SC 29201 www.psisc.com Office: 866.337.7286 Fax: 866.337.7291

COLUMBIA LOCKERS®, COLUMBIA PARTITIONS®, COLUMBIA ACCESSORIES®, and features are subject to one or more patent applications and these marks are trademarks of PSiSC®.

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825 Garland Street Columbia, SC 29201







# **POLYLIFE**<sup>®</sup> COLOR CHART

Also known as HDPE (High Density Polyethylene), PolyLife<sup>®</sup> is created from 100% recyclable solid plastic material. It is an excellent option for high-traffic areas and is resistant to scratches and graffiti, along with a non-porous surface. PolyLife<sup>®</sup> is the same color throughout the material.



**ECO-FRIENDLY** 

Contributes to Green Building Certifications



**CLEANER SURFACES** 

Antimicrobial Lockers Available



**SAFER OPTIONS** 

Standard or ASTM E-84 Class A Fire Rating Options



COLUMBIA PARTITIONS COLUMBIA LOCKERS MANUFACTURED BY PSISC® ©2018

# **POLYLIFE**<sup>®</sup>

Made from high density polyethelyne (HDPE), this durable material is recommended for high-traffic facilities. Non-porous & will not delaminate, crack, or break.

#### LOCKER & PARTITION COLOR GUIDE

Color matching is limited by printing process. Actual samples available and recommended prior to color selections.





#### COLUMBIA PARTITIONS MANUFACTURED BY PSISC®



825 Garland Street Columbia, SC 29201

866.337.7286

www.PSiSC.com © PSiSC 2018 5-25-2018



#### Columbia PolyLife® 193PL

#### **Technical Data Sheet**

#### MATERIALS

**General:** Material shall be Columbia PolyLife® Recyclable Plastic HDPE and shall be manufactured of 25% Post Consumer materials. Surface and edges shall be nonporous. Provide material which has been selected for uniform color, surface flatness and even texture. Exposed surfaces which exhibit discolorations, pitting, seam marks, roller marks, stains, telegraphing, or other imperfections on finished units are not acceptable. Locker materials shall contribute LEED® Certification credits for New Construction, Existing Buildings and Schools. MR 4.1, 4.2, 5.1 & 5.2, and EQ 4.

#### **SPECIFICATIONS**

**Locker Doors:** Locker Door shall be the full width of the Locker Body and shall be frameless, allowing access to the entire width of the Locker. Framed Doors are unacceptable. Perimeter ventilation shall provide superior ventilation properties to traditional framed doors. Doors shall be attached to the Hinge with Stainless Steel Theft Proof Torx Head with Pin fasteners.

**Locker Body:** The Locker Body shall be white in color. The Locker Body shall incorporate mortise and tenon construction and shall be mechanically fastened together with Stainless Steel fasteners. Locker Shelves shall be mortised into side walls of the Locker Body at location determined by Architect. The Hinge shall be attached to the Locker Body with Stainless Steel Theft Proof Torx Head with Pin Bolts. Lockers shall arrive at construction site fully assembled

**Locker Hinges:** Provide one (1) Aluminum Uni-Hinge® for each Locker Frame. The Aluminum Uni-Hinge® shall be made of continuous Heavy Duty Extruded 6063-T5 Aluminum. Pivot Pin shall be made of Type 304 Stainless Steel. Pivot Pin shall be .1875" (5 mm) in diameter and shall be made in two parts and shall extend the length of the Locker Body. Uni-Hinge knuckles shall be separated with two steel washers. Hinge leaf that attaches to Locker Body shall be continuous and shall extend the full height of the Locker Body. Single to Six Tier Lockers shall use one Uni-Hinge®. Uni-Hinge® shall be attached to the Locker Body with Stainless Steel Theft Proof Torx Head with Pin Fasteners. Uni-Hinge® shall have a Black or Silver Powder Coated Finish. Knuckles of Uni-Hinge shall be exposed, allowing Door to open 180°.

**Master Lock Mechanical Day Lock (PolyLife®):** Provide One (1) Mechanical Day Lock (Model 3670) as manufactured by Master Lock for each Locker Door. Locks shall have a Brushed Nickel Finish and utilize the Deadbolt Feature. Dead Bolt will engage into the Activation Bar mounted to the back of the Locker Door. Users shall access their Locker with a Self-Selected 3 Digit programmable User Code. Manager Bypass Keys shall be provided.

**Coat Hooks:** Coat Hooks shall be fabricated of 11 Gauge Type 304 Stainless Steel with a Satin Finish. All edges shall be polished and smooth. Coat Hooks shall be attached to the Locker Body with Stainless Steel Theft Proof Torx Head with Pin fasteners or Through Bolts. Provide three (3) Coat Hooks for Single Tier Lockers and four (4) for Double Tier and "Z" Lockers. Three Tier to Six Tier do not receive coat hooks. Plastic and aluminum Coat Hooks are unacceptable.

**Number Plates:** Provide a Number Plate for each Door or opening, in the sequence as indicated on the drawings. Number Plate shall be engraved from the back side to prevent the accumulation of dirt and grime.

Locker Legs: Provide Locker Legs for all Lockers except recessed and base mounted Lockers. Locker Leg assembly shall be structural and shall be fully adjustable to provide for leveling and plumbing of Locker Body.

The manufacturer reserves the right, without formal notification, to implement changes to the design and dimensions. Edition: Columbia PolyLife® 193PL/20238



9031 Farrow Rd, Columbia, SC 29203 Phone: 1-866-337-7286 Fax: 1-866-337-7291 Website: http://www.columbialockers.com

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# COLUMBIA LOCKERS® MANUFACTURED BY PSISC®

### Columbia PolyLife® 193PL

#### **Technical Data Sheet**

Provide Toe Kick Plates with all necessary hardware for attaching to the Locker Leg.

#### INSTALLATION

- 1. Comply with manufacturer's written installation instructions. Install Lockers rigid, straight, plumb and level.
- 2. Through Bolt Locker Boxes together with Stainless Steel Theft Proof Torx Head with Pin, Through Bolts.
- 3. Anchor Locker Boxes to the wall with provided anchor devices.
- 4. Install Slope Tops, End Panels, Filler Strips and accessories in accordance with written instructions.

#### QUALITY STANDARDS

**Flame Spread:** When tested in accordance with ASTM E84, Lockers, Athletic Lockers, Wardrobe Cabinets, School Cubbies and Locker Bench materials shall meet or exceed all requirements for Class B Flame Spread Rating and Smoke Developed and shall carry a Class B Fire Rating Certification in accordance with the requirements of NFPA and ICC. Class B Fire Rating Certification shall be in the name of the Locker Manufacturer and shall be less than six (6) months old.

- 1. Flame Spread shall not exceed 75.
- 2. Smoke Developed shall not exceed 450.

**LEED® Contribution Requirements:** Locker materials shall contribute LEED® Certification credits for New Construction, Existing Buildings and Schools. MR 4.1, 4.2, 5.1 & 5.2, and EQ 4.

#### FABRICATION

**General:** Provide factory pre-assembled Locker units. Lockers shall be complete with all hardware and accessories listed above. Knock down units are unacceptable.

**Slope Tops and End Panels:** Provide Slope Tops and End Panels as required to complete the installation of the Lockers.

The manufacturer reserves the right, without formal notification, to implement changes to the design and dimensions. Edition: Columbia PolyLife® 193PL/20238



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#### **DOCUMENT 00 12 10 – SUBSTITUTION REQUEST FORM**

TO: Misha Belyayev, Lancer Associates

#### Project: Whiteland Community High School Additions

We hereby submit for your consideration the following product instead of the specified item for the above project:

Section	Paragraph	Specified Item	
12530	0 2.01	Acceptable Science Casework Manufacturer	S
Proposed Substitut Attach co	d tion: <u>Case Systems</u> omplete technical data inclue	Science Casework and Latitude Student Table	
Include of proper in	complete information change istallation.	es to Drawings and/or Specifications which proposed substitution require for	
Fill in Bl	lanks Below, use additional s	sheets if necessary:	
А.	Does the substitution affect No	dimensions shown on Drawings?	
B.	Will the undersigned pay fo by substitution, if any? Yes, but no cha	or changes to building design, including engineering and detailing costs caused	
C.	What effect does substitutio	on have on other trades?	
	None		
D.	Differences between propos Slight change in intent and fund	ed substitution and specified item? n general appearance of the Student Tables, k ctionality remain intact	out design
E.	Manufacturer's guarantees of	of proposed and specified items are:	
	XSame	Different (explain on attachment)	
The unde	ersigned states that the function	ion, appearance and quality are equivalent or superior to the specified item.	
Submitte	ed by:		
Ian Ar	mstrong - Divisiona	al_Manager For use by Design Consultant	

Signature 14	
E Att	Accepted Accepted as Noted
Firm Stonecreek Interior Systems,	LLC Not Accepted // Received too Late
Address 1642 Broadway Ave NW	By Alwart
Grand Rapids, MI 49504	Date 08-29-23
	Remarks
Telephone 616-344-8164	



# **Design Your Work**



# "Quality in all its forms, draws people to it." Alden B Dow

Asian Sand | Wilsonart 7952


## The Case Systems Experience Your Vision. Your Creativity. Our Promise.

A quiet, comfortable recovery room. A bright and clean play area for a classroom. A functional and professional meeting space. Your work may begin with precise measurements, agonizing hardware choices, and long nights considering finish options...but with Case Systems' line of casework solutions, you can focus on your real job – the creation of spaces that celebrate humanity, and its many seasons.

#### 4 L Design Your Work T Case Systems, Inc.

## Trusted Performance Quality delivered. On time. Every time.

Your work. Your space. Our "design your work" approach is our commitment to ensuring that we develop elegant, practical, and flexible furniture & casegood solutions that meet your unique needs. We deliver on time; complete and accurate—every time.

Our commitment to you goes well beyond the box. We'll work with you and support your creativity with our deep understanding of high quality casework that comes from decades of engineering and manufacturing experience. Together we will build unforgettable spaces and create environments that bring your vision to life!

From a small, regional supplier in Midland, Michigan, to a nationally recognized casework producer and market leader; we've been delivering value, quality, and the best customer-focused experience since 1948!

LA Tech University, Women's Basketball Ruston, LA



Lime Grasscloth | Formica 6323-58

Michigan based – Serving Nationwide.

## **Strong in Your Region**

Case Systems offers you local expertise and support. We know that each area of the United States works just a little bit differently and our dealers are the experts you can rely on for your next project. Your project demands a lot of you – take advantage of any help you can get: Case Systems and our extensive dealer network are here to assist you.

Visit casesystems.com to find detailed contact information for your Case Systems dealer.



## Solutions for Every Market Versatility is Our Speciality

Case Systems started out in the K-12 market, but we have always looked for new opportunities and taken on new challenges with much success. In the meantime, we are experts in many areas: Education, Healthcare, Laboratory Solutions and more! We think beyond the box and together with our customers and dealers find creative solutions for new casework applications.

While we are known for our excellence in building a wide array of standard architectural casework products - we also create wonderfully personalized custom projects. We love a challenge!

















Healthcare

Mobile

Commercial

Athletic

**Higher Education** 

Music

Laboratory









Central Park STEM Elementary School Midland, MI

## Case Systems The Quality is Built in

## Not all casework is created equal.

The design process, materials used, finishes and manufacturing standards all affect the final product. Every decision is vital to getting the most value for your investment. You deserve furniture and storage that meets your demands for quality and durability and will enhance your working environment for years to come. At Case Systems, we're committed to working with you to find the right materials—and the right solution for your space and budget.

## **Competitive Pricing**

In an era of tight budgets, we offer a wide range of products and will work closely with you to meet your project needs, while ensuring that you remain within your budget. With laminate casework you can create stunning designs without breaking the bank.

## **Certifications & Accreditations**

There is a peace-of-mind that comes when the choice of quality is made. Our custommade casework is extremely durable and designed to withstand a variety of uses while sustaining a high level of performance. Case Systems has been certified under the Ouality Certification Program (OCP) of the Architectural Woodworking Institute (AWI) to produce custom and premium grade, the highest quality casework. We offer optional SEEA 8 Certified casework construction methods. We are pushing ourselves to go beyond what is required to deliver sustainable products and practices. In fact, many of our products contribute to a building's Leadership in Energy and Environmental Design (LEED®) certification. If your project calls for chain of custody, we have Forest Stewardship Council® (FSC®) products available upon request.

## **Customer Focus and Creative Solutions**

As a high-volume Division 12 casework manufacturer you expect from us efficient, high-quality solutions that are repeatable over many projects. What you might not expect are creative solutions that are designed for your specific application. But this is exactly the flexibility and customer focus that sets us apart. We listen to your needs and put our decades of experience to work – for you!

#### **Continuous Education**

Case Systems is the expert in laminate casework and we are a provider in the AIA CES program. We offer Lunch&Learn sessions throughout the country and would love to treat your team to an educational luncheon.









The mark of responsible forestr



#### Peace of Mind: Warranty

With decades of experience in manufacturing the finest and most durable line of casework products, we know how carefully it is engineered and how well it holds up in daily life. This is why we confidently back our cabinets up with a 5-year Guarantee and Limited Warranty.

#### Upgrade to Laminate

When we say upgrade to laminate we mean it! Laminate cabinets are versatile, durable and beautiful. With a huge selection of colors, wood grain, and other patterns, there is a perfect choice for everyone. When designing an environment, you want a material that doesn't limit your creativity and gives you lots of choices. Choose plastic laminate: BOLD. BEAUTIFUL. STRONG!



## **SEFA Chemical Test Comparison**

In testing against Scientific Equipment and Furniture Association (SEFA) standards, both high-pressure laminate and thermally fused melamine outperformed laboratory-grade painted steel or wood.

#### 10 | Design Your Work | Case Systems, Inc.



- 1. M2 engineered board: Meeting ANSI A 208.1-2016 standards.
- 2. Built-in strength: A ½-inch back panel adds durability, while the ¾-inch back stretcher resists racking.
- **3. Choice of colors:** Countless HPL and edge colors, for aesthetically appealing casework to enhance your decor.
- 4. Robust drawer construction: Our full 4-sided drawer design includes ½-inchthick side members, hardwood dowel joinery and a full ½-inch-thick, nonracking, non-deflecting platform bottom that is screwed into place.
- **5. Heavy-load drawer slides:** 100-pound rated, full-extention, minimum Grade 1 per ANSI/BHMAA156.9.
- 6. Anti-tip shelf supports: Adjustable anti-tilt twin pin polypropylene shelf

clips are seismic-rated and lock in place to provide a dispersed shelf load. No tipping!

- 7. Best-in-class construction: Our 32mm construction method assures consistent quality and conformity while reducing manufacturing costs. It also allows for better interchangeability and easier hardware placement.
- Edges that stay in place: Our 3mm PVC edges offer superior impact resistance. Hot-melt adhesive chemically bonds the edges to the engineered board, improving bonding strength.
- Easy to clean interiors: Thermally fused melamine, not low-pressure or topcoated – for an abrasion resistant, clean and easily maintained interior look.
- **10. Separate recessed bases:** On the base and tall cabinets, improving cabinet

Golisano Children's Hospital Fort Myers, FL support and stopping capillary action from wet floors. Separate toe bases also make for an easier installation.

## 11. The AWI premium-grade joinery:

Passes California seismic load testing. Components are machined to aerospace tolerances. Fully concealed interlocking mechanical fasteners allow cabinets to be disassembled in the field for changes or repair without damage.





## Proudly Built in the U.S.A. **Experience & Technology Set Us Apart**

At Case Systems, our staff stays with us for a very long time. They are true experts in managing and completing large and complex orders on time. Many of our employees bring decades of experience to your project. Our team of dedicated professionals knows what it takes to finish your project on time in the heat of the busy construction summer. They will always come through for you.



## Quality You can Build on

A continuous improvement manufacturing program ensures that we use our resources wisely, inspect the quality of our product, and control the timeliness of our delivery. There is peace of mind that comes with the Case Systems name.

## Win the Race Against Time

In the construction business we all race against time. It's good to know that your casework partner has the capacity to build fast and in the right, consistent quality.



In our 170,000 sqft facility we have the capacity to build up to 750 cabinets a day. This is performance you can rely on when the clock is ticking.

#### Beyond the Box: Customization

Everywhere we look, the world demands custom applications, and casework is no exception. Case Systems can answer your need for customization and volume in a competitive way. We have invested in the latest technology and feature woodCAD|-CAM software offering us a high level of design and engineering flexibility. Enjoy the responsiveness combined with the consistent quality of casework made by Case Systems.

#### Laminate & Metal go Hand in Hand

We are not your average casework or millwork shop. Case Systems has the unique capability of combining laminate casework with full metal fabrication. Our sister brand BOSTONtec uses over 1.8 million pounds of steel a year in the production of height adjustable workstations. We know how to bend, laser, weld, paint and assemble metal, just as well as we know how to build high quality laminate cabinets.





## The Case Systems Family Powering Education, Research and Fulfillment

With more than 20 years of design and manufacturing experience, BOSTONtec is a leader in ergonomic, modular workstations and custom solutions. We focus on affordable yet customizable designs that increase productivity through ergonomics and improve operator safety & satisfaction.

## **BOSTONtec: Through The Years**

Established in 1993 as Boston Technical Furniture, our product line was developed based on ergonomics and product flexibility with an emphasis on sit-stand operation through electric height adjustability.

Case Systems purchased the company in 2003, changed the name to BOSTONtec and moved manufacturing operations to Midland, Michigan.

Today BOSTONtec continues to grow and expand our offering to meet and exceed customer needs. We maintain our commitment to providing workstations that increase productivity and improve quality of work life.







Case Systems, Inc.

2700 James Savage Rd, Midland, MI 48642

Phone: 989.496.9510 | Follow Us: 👎 У in ۷





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## **LATITUDE** By Case Systems Gain More. Teaching & Exploring Together.



Introducing **LATITUDE** – functionality and ease combined. Experience the convenience of a typical lab workstation and the ease of a height adjustable desk all-in-one. If you are tired of shuffling around resources (and students,) from lecture spaces to work zones, this is your solution.

Table Highlights:

- ① Supporting the modern science curriculum; switch effortlessly from lecturing to lab with fixed or electric height adjustable options. Go from 30" to 36" in seconds, saving valuable time and keeping order in the classroom.
- ② Save time and optimize flow by offering sinks at each student table. (Configurations without sink also available.)
- ③ The Latitude table offers integrated services like gas, water & power; making experiments safe, and connections convenient.
- ④ Industry standard work surfaces offered in epoxy or phenolic resin options. (Alternate surfaces available upon request.)
- (5) Create inspiring and robust environments that support and withstand student curiosity. Match new or preexisting designs, by choosing metal or plastic laminate base pedestal enclosure panels available in a variety of colors and patterns.
- Fulfill your ADA sink requirements in your classroom by adding a sink to your configuration.
  (Sink arrangement is ADA compliant with a height of 34 inches.)
- ⑦ Comfortably seat groups of 4 students in a collaborative learning environment.

Contact your Case Systems representative today to learn more about the new **LATITUDE lab table! Visit CaseSystems.com to find your Case Systems dealer.** 



## **LATITUDE** By Case Systems Gain More. Teaching & Exploring Together.



Visit CaseSystems.com to find your Case Systems dealer, order samples, or download our 3-part specification.

CASE SYSTEMS

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CASE SYSTEMS, INC.

P.O. No. 71

Date: November 14, 2016

4700 Broadmoor SE, Suite 200 Kentwood, MI 49512

Telephone: 616-656-7401 Facsimile: 616-656-2022 www.intertek-etlsemko.com

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Inci ick



**Test Report For:** 

CASE SYSTEMS, INC.

AWS-2014 ARCHITECTURAL WOODWORK STANDARDS with references to SEFA 8-1999 SCIENTIFIC EQUIPMENT AND FIXTURE ASSOCIATION

BASE CABINET B3000 CC & WALL CABINET WO100 DA





Intertek









Intertek



Engineer's Name Project Manager

man Balalu

Andrew Barber Reviewer

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Attention: Tom Bauer Case Systems, Inc. 2700 James Street Midland, MI 48641 USA Phone: (989) 496-0813 E-mail: tom.bauer@casesystems.com

DATE RECEIVED:	October 16, 2016
DATES TESTED:	October 18 – November 11, 2016

## **DESCRIPTION OF SAMPLES:**

Sample ID Martin	Model Number	Description of Sample
1	B3000_CC	Base Cabinet
2	WO100_DA	Wall Cabinet

## WORK REQUESTED/APPLICABLE DOCUMENTS:

To test the submitted samples per the Architectural Woodwork Standards Casework Integrity Testing with references to SEFA 8-1999 methods of testing for the following tests:

SEFA 8 Test No.	Test Description
4.2	Cabinet Load Test
4.3	Cabinet Concentrated Load Test
4.4	Cabinet Torsion Test
4.5	Cabinet Submersion Test
5.1	Door and Door Hinge Durability Test
5.2	Cabinet Door Impact Test
6.1	Drawer Support Test
6.2	Drawer & Door Pull Test
6.3	Drawer Bottom Impact Test
6.4	Drawer Rolling Load Test
7.1	Shelf Load Test
9.2	Wall Mounted Cabinet Load Test

CASE SYSTEMS, INC. Date: November 14, 2016 P.O. No. 71 Report No.:102733878GRR-001B Quote No.: 718316 Page 3 of 33

## **CONCLUSION:**

SEFA 8 Test No.	Results	Notation	
SEFA 8-1999#4.2	Compliant	No loss of serviceability	
Cabinet Load Test	compliant		
SEFA 8-1999#4.3		No loss of serviceability.	
Cabinet Concentrated Load	Compliant		
Test			
SEFA 8-1999#4.4	Compliant	No loss of serviceability	
Cabinet Torsion Test	Compliant		
SEFA 8-1999#4.5	Compliant	No loss of serviceability	
Cabinet Submersion Test	Compliant		
SEFA 8-1999#5.1		No loss of serviceability.	
Door and Door Hinge	Compliant		
Durability Test			
SEFA 8-1999#5.2	Compliant	No loss of conviceability	
Cabinet Door Impact Test	Compliant	NO IOSS OF SERVICE ability.	
SEFA 8 – 1999 #6.1	Compliant	No loss of convisoability	
Drawer Support Test	Compliant	NO IOSS OF SERVICE ability.	
SEFA 8-1999#6.2	Compliant	No loss of sonvisorability	
Drawer & Door Pull Test	Compliant	NO IOSS OF Serviceability.	
SEFA 8-1999#6.3	Compliant	No loss of convise shility	
Drawer Bottom Impact Test	Compliant	No loss of serviceability.	
SEFA 8-1999#6.4	Compliant	No loss of convise shility	
Drawer Rolling Load Test	Compliant	No loss of serviceability.	
SEFA 8-1999#7.1	Compliant	No loss of convisionshilling	
Shelf Load Test	Compliant	no loss of serviceability.	
SEFA 8-1999#9.2			
Wall Mounted Cabinet Load	Compliant	No loss of serviceability.	
Test	-	-	

## TEST EQUIPMENT USED:

Asset #	Description	Last Cal	Next Due
138012	Scale/0-1,000#	10/18/2016	10/18/2017
138112	Graduated Rule 36"	VBU	VBU
138279	FORCE GAUGE	3/4/2016	3/4/2017
138296.141	STEEL BAR	01/04/2016	01/04/2017
138375	DIGITAL CALIPER	1/18/2016	1/18/2017
138402	SCIENTIFIC STOPWATCH	4/26/2016	4/26/2017
138403	SCIENTIFIC STOPWATCH	4/26/2016	4/26/2017



## FIVE-YEAR GUARANTEE & LIMITED WARRANTY

All standard products manufactured by Case Systems carry a five (5) year guarantee and Limited Warranty to the original owner against defective material and workmanship. This is a warranty of replacement and repair only, whereby Case Systems will correct defects in material and/or workmanship without charge.

Case Systems specifically does not warrant any product or hardware which has been incorrectly installed, exposed to excessive loads, abused, or was not manufactured by Case Systems, Inc. Bostontec, Inc. products (such as Height-Adjustable Tables) are covered under a separate warranty.

To enforce your rights under this warranty, you must give written notice to Case Systems within thirty (30) days of the date of discovery of the defect. The address of Case Systems for receipt of notices is as follows:

Case Systems, Inc. 2700 James Savage Midland, Michigan 48642 (989) 496-9927 (FAX)

IN NO EVENT SHALL CASE SYSTEMS BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM THE USE, INSTALLATION, PERFORMANCE OR FAILURE OF ITS PRODUCTS OR OF ANY OF THE HARDWARE CONTAINED IN OR ON ITS PRODUCTS.

THIS EXPRESS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES OF CASE SYSTEMS WITH RESPECT TO THE REPLACEMENT AND/OR REPAIR OF ANY CASEWORK OR HARDWARE.

ALL WARRANTIES IMPLIED BY LAW, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY WAIVED AND DISCLAIMED. **SCS Global Services** does hereby certify that an independent audit has been completed and conformity to the applicable standard(s) has been confirmed for:

# **Case Systems, Inc.**

2700 James Savage Road, Midland, MI 48642, United States

## This single site certificate covers the manufacturing of plastic laminate casework and countertops using the percentage system.

The facility(s) are hereby Chain of Custody certified to sell products as:

## FSC Mix

The assessment has been conducted by SCS Global Services in accordance with the protocols of the Forest Stewardship Council® A.C. (FSC®).

FSC Standard: FSC-STD-40-004 V3-0; FSC-STD-50-001 V2-0

## Certificate Code: SCS-COC-002050 Trademark License Code: FSC-C004892

## Valid from: 20 May 2019 Expiry date: 19 May 2024

This certificate itself does not constitute evidence that a particular product supplied by the certificate holder is FSC-certified (or FSC Controlled Wood where applicable). Products offered, shipped or sold by the certificate holder can only be considered covered by the scope of this certificate when the required FSC claim is clearly stated on sales and delivery documents. The scope of this certificate is considered accurate on the date of issuance. The current validity and scope, including the full list of products, shall be verified on http://info.fsc.org. The certificate shall remain the property of SCS, and this certificate and all copies or reproductions of this certificate shall be returned to SCS immediately upon request. Where a certificate covers more than one site, the covered products and processes/ activities are performed by the network of Participating Sites, and not necessarily by each of them.



The mark of responsible forestry





Sarah Harris, Managing Director SCS Global Services 2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA



## 2023 Membership

## **Case Systems**

IS A MEMBER IN GOOD STANDING IN THE ARCHITECTURAL WOODWORK INSTITUTE (AWI). ALL AWI MEMBERS SHALL AGREE TO HONOR AND ABIDE BY THE CURRENT PLEDGE OF ETHICS.

## AWI PLEDGE OF ETHICS

- WE SUPPORT THE ARCHITECTURAL WOODWORK INDUSTRY AND AWI;
  - WE AGREE TO ABIDE BY THE AWI BYLAWS AND POLICIES AND THE AWI STANDARDS, CURRENT EDITION; AND
- WE WILL CONDUCT OURSELVES TO REFLECT CREDIT ON OUR INDUSTRY, INSTITUTE, AND MEMBERSHIP.

Membership Type: Manufacturer Member Since: 9/5/1996 Membership Through: 12/31/2023

Dustin Giffin 2023 AWI Chair

Doug Hague CEO

Architectural Woodwork Institute | 46179 Westlake Drive, Suite 120 Potomac Falls, VA 20165 | Phone 571.323.3636 | Fax 571.323.3630 | www.awinet.org

# 2023

# LICENSE

THIS IS TO CERTIFY THAT:

CASE SYSTEMS

2700 James Savage Road Midland, MI 48642 United States

IS DULY LICENSED AND ENTITLED TO LABEL FOR COMPLIANCE UNTIL DECEMBER 31, 2023, WHEN THIS LICENSE EXPIRES.

**QUALITY STANDARDS GRADE:** 

LICENSE SCOPE: PREMIUM

P10.3, P11.1, P11.2, P11.3, P11.4, P11.5

NUMBER:

213

WITNESS OUR HAND AND SEAL OF THE ASSOCIATION DATED, POTOMAC FALLS, VIRGINIA, THIS FIRST DAY OF JANUARY, 2023. THIS LICENSE IS NON-TRANSFERABLE.

THIS CERTIFICATE IS NON-TRANSFERABLE. IT IS NOT VALID FOR PROJECT CERTIFICATION

Greg Parham Vice President of Compliance

THIS LICENSE IS NON-TRANSFERABLE. IT IS NOT VALID FOR PROJECT CERTIFICATION. 751L509-C



QUALITY CERTIFICATION PROGRAM

46179 Westlake Drive, Suite 120 Potomac Falls, Virginia 20165 Phone (855) 345-0991 awigcp.org



<u>NOTE:</u> Several items are in bold that show options that are available. These and other choices will be selected based on the specific project specifications.

Design Your Work

## PART 1 – GENERAL 1.1 SUMMARY

- A. Related Documents:
  - 1. Drawings and provisions of the contract including General Conditions Supplementary Conditions and Division 1, apply to this section.
- B. Section Includes:
  - 1. Furnish and install plastic laminate casework and accessories as shown and listed on drawings and specified herein. Includes all countertops, sink cutouts, splashes, supports, shelving, and filler panels necessary for a complete casework installation.
- C. Related Requirements to be Performed by Others:
  - 1. Division 06 Section: "Rough Carpentry" for blocking within walls to adequately support casework.
  - 2. Division 06 Section: "Finish Carpentry"/Millwork.
  - 3. Division 07 Section: "Preformed Joint Seals" for caulking of casework and/or countertops to abutting walls.
  - 4. Division 08 Section: "Finish Hardware" for cabinet locks keyed or master keyed to building locks.
  - 5. Division 09 Section: "Resilient Base and Accessories" for resilient base applied to manufactured casework.
  - 6. Division 22 Section: "Plumbing" for furnishing, installation, and hook-up of sinks, fixtures, outlets, strainers, tailpieces, traps, vacuum breakers, and stops shall be performed by the plumbing contractor to state and local codes. In all cases, sink cutouts shall be by the casework contractor.
  - 7. Division 23 Section: "Heating, Ventilating, and Air-Conditioning" for furnishings, installation, and final connections of all ductwork to range hoods and spray booths shall be by the HVAC contractor.
  - 8. Division 26 Section: "Electrical" for the electrical contractor to state and local codes shall perform electrical furnishing, installation, and final connections of wiring, conduit, and/or electrical items within casework.

## **1.2 REFERENCES**

- A. ANSI-A135: for all hardboard.
- B. ANSI-A161.2-1998: for performance of fabricated high-pressure decorative laminate countertops.
- C. ANSI-A208.1-2009: for grade M-3 mat-formed wood particleboard.
- D. BHMA A156.9: for grade-1 hinge requirements.
- E. NEMA 3 LD-2005: for performance requirements of high pressure laminates.
- F. SEFA 8PL Recommended Practices: for cabinet construction.

## **1.3 DEFINITIONS**

A. Exposed:



- 1. In casework, surfaces visible when drawers and opaque doors (if any) are closed; behind clear glass doors; bottoms of cabinets 42" or more above finished floor; and tops of cabinets less than 78" above finished floor.
- B. Semi-Exposed:
  - 1. In casework, surfaces that become visible when opaque doors are open or drawers are extended; bottoms of cabinets more than 30" or tops of cabinets less than 42" above finished floor.

## **1.4 SUBMITTALS**

- A. Shop Drawings:
  - 1. Comply with Division 1.
  - 2. Include catalog numbers and specifications of Case Systems, Midland, Michigan.
  - 3. Submit three sets of laser quality, 11 x 17 shop drawings consisting of:
    - a. Finish, hardware, construction options selection sheet.
    - b. Small scale floor plan showing casework in relation to the building.
    - c. Large scale elevations and plan views.
    - d. Cross-sections; service runs; locations of blocking within walls (blocking is done by others); rough-in requirements and, sink centerlines
  - 4. Approved shop drawings to be returned to manufacturer at least 60 days before production.
  - 5. Project Architect and Construction Manager must approve all items prior to fabrication and delivery of casework.
  - 6. Manufacturer and/or Manufacturer's rep verifies all critical building dimensions prior to fabrication.
- B. Samples:
  - 1. Submit one set of laminate color brochures from standard laminate manufacturers Wilsonart, Formica, Pionite, and Nevamar.
  - 2. Submit one edge color sample chain.
  - 3. Submit one set of interior colors samples.
  - 4. Submit catalog showing construction details, material specifications and hardware specifications of all items used.
- C. LEED Submittals:
  - 1. Provide EPP certificates of core for Credit MR 4.1 and **[MR 4.2]**: for casework core having recycled content.
  - 2. Provide FSC certificate for Credit MR 7: for products having chain-of-custody certificate certifying that the wood used in the casework complies with FSC requirements.
  - 3. Provide product data for IEQ 4.4: for casework core being manufactured without the use of urea formaldehyde.
- D. Warranty:
  - 1. Provide sample warranty document stating specified terms as referenced in 1.8.

## **1.5 QUALITY ASSURANCE**



- A. Manufacturer Qualifications: Must be certified for chain of custody by a third party certification group approved by FSC.
- B. Unless otherwise indicated, comply with AWI, for grades of interior architectural woodwork, construction, finishes and other requirements:
  - 1. Provide AWI Quality Certification Program [Labels] [Certificates] indicating that the woodwork, [including installation], complies with requirements of grades specified. This project has been registered as AWI/QCP project number \_\_\_\_\_\_. OR, Case Systems, upon award of work, shall register the work under this section with the AWI Quality Certification Program (800-449-8811).
- C. Manufacturer to provide SEFA 8 laboratory furniture certificate of performance on construction method. **{When SEFA 8 is a requirement, [Standard: Particleboard] must be specified}.**

## **1.6 DELIVERY, STORAGE, AND HANDLING**

- A. Delivery and Acceptance Requirements:
  - 1. Deliver casework once painting, and similar requirements have been completed that will not damage casework. This includes ensuring spaces are enclosed and weather tight.
  - 2. All casework shall be blanket wrapped for protection during shipping.
- B. Storage and Handling:
  - 1. Casework must be protected from dust, dirt and/or other trades.
  - 2. Countertops are stacked, properly supported and spaced evenly to avoid warping. Large pieces are stacked first on the pallets with shorter pieces stacked on top.

## **1.7 SITE CONDITIONS**

- A. Ambient Conditions:
  - Do not deliver or install the casework until concrete, masonry, and drywall/plaster work is dry; ambient relative humidity is maintained between 25 – 55% prior to delivery and throughout the life of installation; and the temperature is controlled above 55°F.
  - 2. Casework shall not be stored or installed in non-climate controlled conditions.
  - 3. If ambient conditions are not met at the time of requested delivery, the general contractor or owner must provide Case Systems a letter releasing manufacturer from any liability and responsibility from any warranty or damage resulting from not complying with required ambient conditions.

## **1.8 WARRANTY**

- A. Case Systems shall offer a **[One-Year]** or **[Three-Year]** or **[Five-Year]** or **[Limited Lifetime]** warranty to the original owner against defective material and workmanship.
  - 1. The warranty specifically does not cover any product or hardware, which has been incorrectly installed, including poor climate conditions, exposed to excessive loads or abuse.



2. All non-casework items supplied, but not manufactured at Case Systems including, but not limited to sinks, fixtures, apparatus, fume hoods, keyboard trays, spray booths, lights, power outlets, and power strips shall be covered under the original manufacturers' warranty.

## PART 2– PRODUCTS 2.1 MANUFACTURERS

- A. Basis-of-Design Product: **Case Systems**, 2700 James Savage Road, Midland, Michigan 48642 (989) 496-9510 and/or approved dealers.
- B. Substitution Limitations:
  - 1. Substitutions will be considered only when other manufacturers submit substitution requests in accordance with procurement substitution and/or substitution procedures, or provide a comparable product with the following support information detailed below:
    - a. Written documentation stating specification compliance regarding construction, materials, and standard of quality and manufacturing techniques.
    - b. Note all deviations to the drawings and/or specifications in writing.
    - C. Provide the Architect with a full-scale base cabinet not less than ten days prior to bid date. The sample shall represent typical construction and materials for the product the casework manufacturer proposes, meeting the quality standards set forth by this specification. The sample may be impounded by the owner and retained until completion of the casework installation.
    - d. The owner, or its designated representative, reserves the right to reject any proposal that in his opinion fails to meet the criteria established by this specification. Such a decision shall be final.

## 2.2 MATERIALS

- A. Provide Plastic Laminate Faced Cabinets Manufactured with:
  - 1. Particleboard Core:
    - a. All particleboard shall be Grade M-3 and shall meet or exceed all requirements as set by ANSI A208.1-2009.

Density	40-50 lbs/cu.ft
Moisture Content	10% Max
Modulus of Rupture	2393 psi
Modulus of Elasticity	398,900 psi
Internal Bond	80 psi
Hardness	500 pounds Min
Linear Expansion	0.35%
Thickness Tolerance	+/- 0.008"
Face Screw Holding	247 pounds Min

- 2. MR (Moisture Resistant)/FSC Core shall be:
  - a. Interior-Grade moisture resistant particleboard.
  - b. Meet or exceed M-3 Grade, according ANSI-A208.1-2009.
- 3. Low Emitting Core shall be:

- a. NAUF/FSC (No added Urea Formaldehyde) M-2 Particleboard:
  - i. For casework core having recycled content.
  - ii. For casework core being manufactured without the use of urea formaldehyde.
  - iii. For products having chain-of-custody certificates certifying that the wood used in the casework complies with FSC requirements.
- b. NAUF/FSC (No added Urea Formaldehyde) Plywood:
  - i. Plywood that meets or exceeds the standards set forth by the APA for structural use panels.
  - ii. For casework core being manufactured without the use of urea formaldehyde.
  - iii. For products having chain-of-custody certificates certifying that the wood used in the casework complies with FSC requirements.
- C. FSC M-3 Particleboard:
  - i. For products having chain-of-custody certificates certifying that the wood used in the casework complies with FSC requirements.
- d. FSC Plywood:
  - i. For products having chain-of-custody certificates certifying that the wood used in the casework complies with FSC requirements.
- B. Joinery:
  - 1. Mechanical Joinery:
    - a. All cabinet body components shall be secured utilizing concealed interlocking mechanical fasteners as approved by the AWI Quality Standards 8th Edition -2003 Sections 400A-T-12, 400B-T10 and 1600-T-11.
- C. Surface Material:
  - 1. Acceptable laminate color, pattern, and finish as either scheduled or otherwise indicated on drawings or as selected by Architect from manufacturer's standards types and nominal thickness including:
    - a. Vertical surface decorative grade VGS: .028" thick
    - b. General purpose decorative grade HGS: .048" thick
    - C. Cabinet decorative liner grade CLS: .020" thick
    - d. Non-decorative backer grade BKH: .028" thick
    - e. Thermally fused melamine laminate
    - f. Chemical resistant decorative laminate
- D. Edge banding:
  - 1. PVC
    - a. Shall be applied utilizing hot melt adhesive and radiused by automatic trimmers. Edging shall be available in a variety of color options.
- E. Adhesives:
  - 1. PVA
    - a. Adhesive shall be mechanically applied.
    - b. NAUF, no VOC
  - 2. EVA
    - a. Adhesive shall be mechanically applied.
- F. Protective coating option:



1. All surfaces, including: pulls, hinges, countertops and edge banding be coated with OEM-treated, quat-silane antimicrobial AEM 5772 from AEGIS Environments.

## 2.3 FABRICATION

- A. General Cabinet Body Construction:
  - 1. Cabinet Box Style shall be [Standard: Reveal Overlay] or [Flush Inset Fronts].
  - 2. Cabinet Box Core shall be [Standard: Particleboard] or [NAUF/FSC Plywood] or [MR/FSC Board] or [NAUF/FSC Particleboard] or [FSC Particleboard] or [FSC Plywood]. {When SEFA 8 is a requirement, [Standard: Particleboard] must be specified for complete cabinet construction}.
  - 3. Bottoms and ends of cabinets, and tops of tall cabinets and tops and bottoms of wall cabinets (all structural components) shall be 3/4" thick.
  - 4. All panels shall be manufactured with balanced construction.
  - 5. Fixed interior components such as fixed shelves, dividers, and cubicle compartments shall be full 3/4" thick and attached with concealed interlocking mechanical fasteners.
  - 6. Cabinet body exterior surfaces shall be: [Standard: VGS] or [Thermally Fused] or [Decorative Thermally Fused] or [HGS] or [Chemical Resistant Laminate].
  - 7. Cabinet finished interior options shall be: [Standard: None] or [Finished at All] or [Finished Where Noted] or [Finished At Opens].
  - 8. Cabinet body interior surfaces shall be: [Standard: Thermally Fused] or [Decorative Thermally Fused] or [Cabinet Liner Grade CLS] or [VGS] or [HGS] or [Chemical Resistant Laminate].
  - 9. Cabinet body front edge shall be: [Standard: .020" PVC] or [3mm PVC] or [.020" ABS] or [3mm ABS] or [Self Edge].
  - 10. Mounting stretchers are 3/4" thick structural components fastened to end panels and back by mechanical fasteners, and are concealed by the cabinet back.
  - 11. When the rear of a cabinet is exposed, a separate finished 3/4" thick decorative laminate back panel may be specified.
  - 12. Backs of cabinets are 1/2" thick surfaced both sides for balanced construction and fully captured on both sides and bottom.
  - 13. A 5mm diameter row hole pattern 32mm (1-1/4") on center shall be bored in cabinet ends for adjustable shelves. This row hole pattern shall also serve for hardware mounting and replacement and/or relocation of cabinet components.
  - 14. An upper 3/4" thick stretcher shall be located behind the back panel and attached between the end panels with mechanical fasteners. This stretcher is also fastened to the full sub-top thus capturing the back panel.
  - 15. [Protective coating option: All surfaces, including: pulls, hinges, countertops and edge banding be coated with OEM-treated, quat-silane antimicrobial AEM 5772 from AEGIS Environments.]
- B. Base Cabinet Construction:
  - 1. All base cabinets, except sink cabinets, shall have a solid 3/4" thick sub-top of core (as specified above), fastened between the ends with interlocking mechanical fasteners.
  - 2. Sink cabinets with a split removable back panel shall have a formed metal front brace, and steel corner gussets shall be utilized to support and securely fasten top in all four corners. Front brace shall be powder coated black.



- C. Tall Cabinet Construction:
  - 1. All tall cabinets shall be provided with an intermediate fixed shelf to maintain internal dimensional stability under heavy loading conditions as well as an intermediate 3/4" thick stretcher located behind the back panel and be secured between the cabinet ends with mechanical fasteners. The stretcher shall be secured to the shelf through the back with #8 x 2" plated flat head screws.
- D. Wall Cabinet Construction:
  - 1. All wall cabinet bottoms shall be <sup>3</sup>/<sub>4</sub>-" thick core (type specified above), mechanically fastened between end panels and secured to the bottom back stretcher. A lower 3/4" thick stretcher shall be located behind the back panel and attached between the end panels with mechanical fasteners. The stretcher is also secured through the back and into the cabinet bottom.
  - 2. All wall cabinet exterior bottoms shall be: [Standard: Match Standard Interior] or [Match Exterior Surface].
  - 3. All wall cabinet tops shall be <sup>3</sup>/<sub>4</sub>" thick.
- E. Tall and Wall Cabinet Top Edges shall be: [Standard: Raw] or [.020" PVC at Top of End Panels, Stretchers & Back] or [.020" PVC at Top of End Panels].
- F. Tall, Wall and Hutch Tops shall be: [CLS to Match Standard Interior] or [HPL to Match Exterior Surface] or [Material Match Standard Interior].
- G. Tall, Wall and Hutch Upper Door Reveal shall be: [Standard: 15mm Reveal] or [3mm (1/8") Reveal].
- H. Toe Base of Cabinet:
  - 1. Individual bases shall be constructed of: [Standard: Particleboard] or [MR/FSC Board] or [NAUF/FSC Particleboard] or [FSC Particleboard] or [NAUF/FSC Plywood] or [Pressure Treated Plywood] or [Raw Exterior Glue Plywood] or [FSC Pressure Treated Plywood] or [FSC Raw Exterior Glue Plywood] factory applied to base and tall cabinets and shall support and carry the load of the end panels, and the cabinet bottom, directly to the floor. The base shall be let in from the sides and back of the cabinet to allow cabinets to be installed tightly together and tight against a wall, also to conceal the top edge of applied vinyl base molding (not supplied by casework manufacturer). There shall be a front to back center support for all bases over 30" wide.
  - 2. Toe Base Height [Standard: 96mm] or [102mm] or [152mm] or [Other: As Specified].
  - 3. Toe Base Options [Standard: Attached] or [3/4" Raw Loose Base Strips] or [No Base].
- I. Drawer Fronts and Solid Doors:
  - 1. All drawer fronts and solid door components shall be: [Standard: Particleboard] or [NAUF/FSC Plywood] or [MR/FSC Board] or [NAUF/FSC Particleboard] or [FSC Particleboard] or [FSC Plywood] surfaced both sides for balanced construction.
  - Options shall be: [Standard: HPL Door and Drawer Front Exterior and Grade CLS on Interior] or [HPL Door Interior and Exterior (both sides match front surface color)] or [HPL Door Interior and Exterior (inside surface match interior color)] or [HPL Door and Drawer Interior and Exterior (both sides match front surface color)] or [Corkboard Doors] or [True <sup>3</sup>/<sub>4</sub>" Core] or [Post Form Doors and Drawers].

- 3. Surfaces shall be: [Standard: HPL Grade VGS] or [HPL Grade HGS] or [Thermally Fused] or [Decorative Thermally Fused] or [Chemical Resistant].
- 4. Door and drawer front edge shall be: [Standard: 3mm PVC] or [.020" PVC] or [.020" ABS] or [3mm ABS] or [Self Edge].
- J. Drawer Boxes:
  - Drawer box constructed with a full 1/2" thick core shall be: [Standard: Particleboard] or [NAUF/FSC Plywood] or [MR/FSC Board] or [NAUF/FSC Particleboard] or [FSC Particleboard] or [FSC Plywood] or [Pre-finished Hardwood Veneer Plywood] non-racking, non-deflecting platform bottom that is carried directly by "L" shaped, bottom mount drawer glides.
  - 2. Drawer box at finished interiors shall be: [Standard: Surface to Match Standard Interior] or [Surface to Match Finished Interior] or [Hardwood Veneer Plywood] or [Cabinet Liner Surface to Match Standard Interior].
  - 3. [Standard: Slides are secured with 1-1/4" long screws driven through the platform and into the sides. Drawer box sides, backs, sub-front, and bottom shall be 1/2". The top edge shall be nominal 1mm (.020") PVC matching the drawer color. Drawer box corners shall be joined with fluted hardwood dowels and glue spaced at a minimum of 32mm on center. Drawer box fronts shall be removable and attached to drawer box sub-front with screws from inside of drawer. Horizontal parting rails between drawers shall be 3/4" thick core, with balanced surfaces, secured to and further reinforcing cabinet ends. File drawer box shall have full-height sides and back on all drawer boxes] or [Pre-finished dovetail drawer boxes if selecting this drawer box construction, drawer box core must be pre-finished hardwood veneer plywood].
- K. Doors:
  - 1. Solid Doors shall be: [Standard: <sup>3</sup>/<sub>4</sub>" thick core] or [1" thick core].
  - 2. Glazed Doors, Framed shall be:
    - Hinged or sliding 3/4" thick, framed doors shall be: [None] or [Standard: Clear Acrylic Panels] or [Safety Glass Panels] or [Smoked Safety Glass Panels] or [Tempered Glass Panels] or [Smoked Tempered Glass Panels]. Panels must be a minimum of ¼" thick. Glazing panel shall be set into the doorframe without the use of a separate molding. Glazing shall be held in place with removable stops.
  - 3. Glazed Doors, Frameless shall be:
    - a. Sliding, minimum of 1/4" thick tempered glass panels. All edges to be radius ground and polished.
  - 4. Sliding Doors shall be:
    - a. Extruded aluminum upper track with anodized finish. All tall cabinets shall receive two hanging brackets per door with two rollers per bracket. All other cabinets shall receive two hanging brackets per door with one roller per bracket. The bottom of door shall be captured in a retainer to prevent doors from swinging in or out.
  - 5. Pocket Doors shall be:
    - a. Zinc plated, self-closing, three-way adjustable geometric door hinge with precision steel ball bearing slides.
  - 6. Grille Doors shall be:

- a. Powder coated platinum finish, grille doors where shown or noted with model number shall have individual lock hasps and number plates.
- b. Single wide grille doors where shown or noted shall have individual, zinc plated stay-close wire door latches. The wire door latch is a robust, door/side-mounted design made of 13-gauge cold rolled steel. A self-latching lever smoothly travels over the hasp and falls into a positive latched, stay-close position. For security, the door can be locked with a padlock. This option is not available on cabinets with double door configurations.

## L. Shelves:

- 1. Adjustable:
  - Adjustable shelves shall be: [Standard: Particleboard] or [NAUF/FSC Plywood] or [MR/FSC Board] or [NAUF/FSC Particleboard] or [FSC Particleboard] or [FSC Plywood] core, with balanced surfaces.
  - Adjustable shelves in closed cabinets shall be: [Standard: <sup>3</sup>/<sub>4</sub>" Shelves, 1" for Shelves Over 36" Wide and Open Cabinets] or [<sup>3</sup>/<sub>4</sub>" Shelves, 1" for Shelves Over 33" Wide] or [<sup>3</sup>/<sub>4</sub>" Shelves, 1" for Shelves Over 30" Wide] or [<sup>3</sup>/<sub>4</sub>" Shelves, 1" for Shelves Over 27" Wide] or [<sup>3</sup>/<sub>4</sub>" Shelves, 1" for Shelves Over 24" Wide] or [1" for All Shelves].
  - C. All adjustable shelves in open cabinets shall be: 1" thick, except for special use cabinets such as mail, cubical, instrument or locker type units.
  - d. Adjustable shelf edge on open cabinets shall be: [Standard: .020" Match Edge at Front] or [.020" PVC at Front Edge] or [.020" PVC at Front and Back Edges] or [.020" PVC on All Four Edges] or [3mm PVC on Front Edge] or [3mm on Front and Back Edges] or [3mm on Front and Back Edges, .020" on Sides] or [3mm on Front, .020" on Back and Sides] or [3mm on All Four Edges] or [Self Edge].
  - e. Adjustable shelf edge on closed cabinets shall be: [Standard: .020" Match Edge at Front] or [.020" PVC at Front Edge] or [.020" PVC at Front and Back Edges] or [.020" PVC on All Four Edges] or [3mm PVC on Front Edge] or [3mm on Front and Back Edges] or [3mm on Front and Back Edges, .020" on Sides] or [3mm on Front, .020" on Back and Sides] or [3mm on All Four Edges] or [Self Edge].
  - f. Adjustable shelf shall be set back [Standard: 15mm from the front] or [23mm setback option when locks are used].
- 2. Fixed:
  - a. Fixed shelves shall be: [Standard: Particleboard] or [NAUF/FSC Plywood] or [MR/FSC Board] or [NAUF/FSC Particleboard] or [FSC Particleboard] or [FSC Plywood].
  - b. Fixed shelves shall be: [Standard: <sup>3</sup>/<sub>4</sub>" Shelves, 1" at Opens] or [<sup>3</sup>/<sub>4</sub>" Shelves, 1" for Shelves Over 36" Wide and Open Cabinets] or [<sup>3</sup>/<sub>4</sub>" Shelves, 1" for Shelves Over 33" Wide] or [<sup>3</sup>/<sub>4</sub>" Shelves, 1" for Shelves Over 30" Wide] or [<sup>3</sup>/<sub>4</sub>" Shelves, 1" for Shelves, 1" for Shelves, 1" for Shelves Over 27" Wide] or [<sup>3</sup>/<sub>4</sub>" Shelves, 1" for Shelves Over 24" Wide] or [1" for All Shelves].
  - C. Fixed shelf surfaces on closed cabinets shall be: [Standard: Match Interior Selections] or [Grade CLS on Both Sides] or [VGS HPL on Both Sides] or [HGS on Both Sides] or [Chemical Resistant Laminate].

- d. Fixed shelf surfaces on open cabinets shall be: [Standard: Match Interior Selections] or [Grade CLS on Both Sides] or [VGS on Both Sides] or [HGS on Both Sides] or [Chemical Resistant Laminate].
- 3. Wall shelving selections for model numbers R204, R205, R206 only shall be:
  - a. [Standard: .020" PVC] or [3mm PVC] or [.020" ABS] or [3mm ABS] or [Self Edge].
  - b. [Standard: Particleboard] or [NAUF/FSC Plywood] or [MR/FSC Board] or [NAUF/FSC Particleboard] or [FSC Particleboard] or [FSC Plywood].
  - C. [Standard: Thermally Fused] or [Decorative Thermally Fused] or [Grade VGS] or [Grade HGS] or [Chemical Resistant Laminate].
- 4. Wire Shelves shall be white, plastic coated.
- 5. Hardboard Shelves shall be ¼" thick tempered hardboard. All hardboard shall have a "S2S" surface finish.
- M. Specialty Products:
  - 1. Rail Mounted Cabinets:
    - a. Wall mounted continuous support rail and cabinet mounted interface hooks shall be an anodized finished extruded aluminum.
    - b. Wall mount support shall come factory pre-drilled 8" on center for mounting to 16" or 24" on center studs and in-wall blocking. Blocking is required per manufacturers' recommendations and is supplied and installed by other specified trade.
    - Cabinet interface hooks shall be pre-mounted at the factory with deep thread 7mm x 70mm specialty screws. Screws shall not be visible in cabinet interior. Hook styles shall be available for single, and triple height adjustment based on the cabinet model number.
    - d. Cabinet lower leveling bar shall be adjustable from cabinet interior and shall allow for plus or minus 3/8" plumb adjustment without additional materials.
    - e. Recommended maximum load capacity for base cabinets with a 1-1/8" standard laminate countertop, wall cabinets and tall cabinets shall be 100 lbs per linear foot.
    - f. Rail mounted casework shall be vertically (dependent on model #) and horizontally adjustable.
    - g. Core material only available in grade M3 particleboard core.
    - h. [Optional Leg Supports shall be Available to Accommodate Heavier Loads for Tall and Base Rail Cabinets].
  - 2. Music Cabinets:
    - a. Shelves:
      - i. Core shall be: [Standard: Particleboard] or [Plywood] or [MR/FSC Board] or [NAUF/FSC Particleboard] or [NAUF/FSC Plywood] or [FSC Particleboard] or [FSC Plywood].
      - Surface shall be: [Heavy-Duty Shelves shall be core (specified above) with tempered hardboard top and bottom sandwich type construction. Front edge of shelves and cabinet end panels shall be: high impact radiuses 3mm PVC] or [Top Surface Thermoplastic Shelves shall be core (specified above) heavy-duty continuous thermoplastic, permanently bonded to core and tight fitting to cabinet back and end panels. Front edge of shelves and cabinet

end panels shall be high impact radiused 3mm PVC] or ["Caseliner™" Shelf shall be melamine faced, charcoal grey and ¾" thick core (specified above). Shelf top shall have drainage grooves running from back to front with a radiused top front edge. Top surface of shelf and front shall be coated with a Polyurethane/Polyurea Elastomer coating to provide superior impact resistance and to allow top and front surface of shelf to be waterproof].

- b. Doors:
  - In [Grille doors shall have individual lock hasps, number plates and be powder coated with a platinum finish] or [Grille doors where shown or noted shall have individual stay-close wire door latches. This wire door latch is a robust, door/side-mounted design made of 13-gauge cold rolled steel in a zinc finish. A self-latching lever smoothly travels over the hasp and falls into a positive latched, stay-close position. For security, the door can be locked with a padlock. This option is not available on cabinets with double door configurations] or [Grille doors shall be powder coated with a platinum finish and shall be attached to cabinet end panels by means of thru bolting].
  - ii. ¾" thick Solid Core Door shall be: [Standard: Particleboard] or [Plywood] or [MR/FSC Board] or [NAUF/FSC Particleboard] or [NAUF/FSC Plywood] or [FSC Particleboard] or [FSC Plywood], with HPL front and CLS liner back used for balanced construction. Doors shall be provided with individual lock hasps.
    - [Optional: Sliding latch on Solid Core Door Only]
- C. Instrument Cabinet Interior Surface shall be: [Standard: Match Standard Interior] or [Match Finished Interior].
- 3. Mobiles:
  - a. Mobile top shall have 3mm edging and shall have an overhang at front, sides and rear to act as a bumper. Mobile top shall be available in a variety of colors. Mobile unit shall be constructed of a 3/4" thick core, as specified, and platform with 3mm edging. Sides, back and casters will be securely fastened using mechanical fasteners.
  - b. Mobile units shall be available with either 4" or 6" nominal height casters.
  - C. Mobile back shall be 1" thick specified core.
  - d. Mobile unit shall have a maximum load rating of 500 pounds.
  - e. Mobiles will have a <sup>3</sup>/<sub>4</sub>" thick finished top with material as specified below.

## i. [Standard: VGS laminate] or [No Top] or [HGS laminate] or [Chemical Resistant Laminate].

- 4. Sloped Tops shall be a separate unit from the cabinet and set at a 30° angle.
- 5. Locker construction shall match general casework section with the exception that all fixed shelves are  $\frac{3}{4}$ " thick.
  - a. Locker top finish shall be: [Standard: Unfinished] or [Finished Edge and Surface].
- 6. Octaped Science Island:
  - a. Main unit comprising of eight equal 30" dimension work areas with 19" of knee clearance depth under each work area.

- i. Unit available in nominal work surface heights of 30, 34 & 36".
- ii. Nominal top size of 72" x 72" with a steel 1" x 2" 14-gauge tube frame support under-structure.
- iii. Nominal pedestal size of 34" x 34". Unit constructed using (8) 11 gauge support columns tied to the top structure and base via thru-bolt construction. Pedestal to be covered with <sup>3</sup>/<sub>4</sub>" thick laminate panels on all sides with two of the panels being removable for service access. Corner intersections of panels to be joined and covered with plastic corner guards.
- iv. Base structure constructed from 1-1/8" thick particleboard with steel angle brackets for floor attachment.
- b. Riser unit comprising of eight equal sides and mounts to top of work surface to provide locations for electrical and gas services.
  - i. Nominal riser size of 7" high x 25" x 25".
  - ii. Unit constructed using <sup>3</sup>/<sub>4</sub>" thick laminate panels on all sides. Corner intersections of panels to be joined and covered with plastic corner guards to match pedestal unit.
- C. Bridge units comprising of a connector unit available in three heights that joins two main units together and allows for the addition of a sink unit in the center.
  - i. Heights for the bridge section are 5" for ADA compliance, 17" to allow clear floor space under the unit, and a full height version running from work surface to floor.
  - ii. Options for single and double sink bowls are available.
  - iii. Bridge constructed using ¾" thick laminate panels and a 1" x 2" –14 gauge steel tube frame. The steel frame is bolted to the main unit top steel frame at both ends. Corner treatment of the laminate panel intersections to match the plastic corner guards used on the main unit and riser. One side of the bridge section to be removable from the outside for service access.
  - iv. Bridge options also include top work surface heights to match the main unit, rise up 2.5" from the main unit and drop down 2.5" from the main unit. This allows varying heights of main units and bridge sections.
- 7. Library Furniture shall be:
  - a. Fully modular and moveable construction.
  - b. All uprights and shelves shall be: 1" thick components.
  - C. Laminated shelves shall have 3mm PVC radiused edges.
  - d. Hinges shall be: 3-knuckle.
  - **e.** Drawer boxes shall be: non-racking, non-deflecting platform drawer box with  $\frac{1}{2}$ " thick bottoms.
  - f. <sup>1</sup>/<sub>2</sub>" thick inset and finished backs.
  - g. Thermally Fused laminate, which exceeds ANSI/NEMA LD3- 2005 for GP-28 performance.
  - h. 1" thick work surfaces with high-pressure finish.
  - i. Materials:
    - i. Finish of surfaces:

- All interior and exterior surfaces shall be: laminated with [Standard: Decorative Thermally Fused Melamine] or [All VGS] which meets the performance standards of ANSI/NEMA LD3-2005 for GP-28. All panels shall be balanced construction.
- ii. Edges:
  - All leading edges shall be 3mm PVC. The PVC shall be machine applied utilizing hot melt adhesive and radiused by automatic trimmers. All four-end panel edges shall be edged for true modularity.
  - Other edges utilizing PVC shall be machine applied with EVA adhesive and .020" PVC.
- j. Construction:
  - i. All bookshelves shall be of starter/adder design. Units shall be easily assembled and disassembled for ease of modularity. All bookshelves shall be constructed with finished backs and end panels for use as free standing or wall mounted. Modular construction shall allow Owner to move or reuse for either location.
  - ii. Bookshelf body panels to be assembled using thru-bolt design.
  - iii. All bookshelf end panels shall be 1" thick. All work surfaces shall be 1" thick.
  - iv. All back panels shall be  $\frac{1}{2}$ " thick particleboard, finished both sides.
  - V. Shelves shall be adjustable 32mm (1-1/4") on center utilizing nickel plated shelf clips or optional anti-tilt, twin pin locking clips.
  - vi. Shelving shall not deflect in excess of ¼", when loaded at 40 lbs/sq. ft., maintaining a maximum cabinet width of 36".
  - VII. Drawer boxes shall be constructed with full ½" thick non-racking, nondeflecting platform bottom which is carried directly by "L" shaped, self closing, bottom mounted drawer glides with life time warranty by the slide manufacturer.
  - viii. Table frames shall be furniture construction type with solid oak legs with adjustable feet.
  - ix. Circulation desk shall be fully modular for owner's ease of re-design.
  - X. All library shelving units shall ship knockdown.
- 8. Countertops:
  - High-pressure decorative laminate, nominal [1-1/8" thick solid core] or [1" thick solid core] or [3/4" thick solid core] or [1-1/2" thick buildup], conforming to NEMA Standard LD3-2005 and ANSI A161.2-1998.
    - i. General Purpose [Standard: HGS] or [Chemical Resistant Laminate] on horizontal surface.
    - Laminate bonded to M-2 [Standard: Particleboard] or [NAUF Plywood] [MR/FSC Board] or [NAUF/FSC Particleboard] or [FSC Particleboard] or [FSC Plywood] core with PVA rigid adhesives. Core shall be balanced with backing Grade BKL.
    - iii. All joints shall be secured with biscuts for alignment and tight joint fasteners.
- iv. Provide 4" high back splashes with thickness matching countertop thickness where shown and at all ends abutting walls and adjacent cabinets.
- V. Provide edges [Standard: 3mm] or [Self edge of the same material as top].
- vi. The maximum lengths of HPL buildup particleboard tops is 12' and the maximum lengths of HPL buildup plywood tops is 8'.
- b. Epoxy Resin:
  - i. Top shall be 1" thick with 1/32" chamfer on finished Epoxy edges and shall be provided with drip grooves on under side of finished top at exposed edges.
- C. Phenolic Resin:
  - i. Shall be: [<sup>3</sup>/<sub>4</sub>"] or [1"] thickness with 1/8" radius edge and drip groove on underside of top.
  - ii. Shall be made of thermosetting resins, homogeneously reinforced with wood based fibers, manufactured under high heat and high pressure.
  - iii. Non-porous, water resistant with anti-microbial properties without the use of coatings or additives.
- d. Post Form:
  - i. Top shall be 1-1/2" ((2) <sup>3</sup>/<sub>4</sub>" thick build up) thick M-2 engineered board core.
  - ii. Tops shall be: [25"] or [30"] or [36"] depths with waterfall front edge.
  - iii. [Optional: "ESD" solid 1-1/8" core tops shall be made available (1-1/4" finished thickness)].
  - The maximum lengths of post formed HPL buildup particleboard tops is 12' and the maximum lengths of post formed HPL buildup plywood tops is 8'.
  - V. Countertops shall conform to ANSI A161.2-1998 and AWI-400C performance for fabricated high-pressure decorative laminate countertops.

## 2.4 FINISHES

- A. Plastic Laminate Casework Colors:
  - 1. High Pressure Laminate is available in non-premium, non-specialty and manufacturers' standard suede finishes from our select laminate manufacturers, including:
    - a. [Standard: Wilsonart® in a "60" or "38" matte finish] and [Standard: Nevamar® in a "T" textured finish] and [Standard: Formica in a "58" finish] and [Standard: Pionite in an "N" finish].
    - b. Color: Specialty and other manufacturer finishes are available with additional cost and longer lead times.
  - 2. Thermally Fused Melamine Laminate that meets performance requirements of ANSI/NEMA 3 LD 2005 for GP-28.
    - a. [Standard: Natural Almond (Wilsonart D30)] or [Standard: Fashion Grey (Wilsonart D381)] or [Standard: Frosty White (Wilsonart 1573)].

- 3. Thermally Fused Melamine Decorative Laminate available, but will result in additional cost when used for casework.
  - a. [Fusion Maple (Wilsonart 7909)] or [Wild Cherry (Wilsonart 7054)] or [Golden Oak (Wilsonart 7888)].
- Cabinet Liner .020" thick, high-pressure cabinet liner conforming to ANSI/NEMA 3 LD – 2005, Grade CLS. Surface texture shall be similar to exterior finish. Color shall match interior.

#### a. [Standard: Almond] or [Standard: Grey] or [Standard: White].

- B. Music Shelves:
  - 1. Heavy-Duty Shelves:
    - a. [Select an edge from our 48 standard colors].
  - 2. Thermoplastic Shelves:
    - a. Select a top surface standard color [Grey] or [White] or [Almond].
    - b. [Select an edge from our 48 standard colors].
  - 3. Caseliner Shelves:
    - a. Charcoal grey
- C. Octaped Plastic Cover Guards:
  - 1. [Standard: Grey] or [Standard: Black] or [Standard: White] or [Standard: Almond].
- D. Decorative laminate Library furniture shall feature:
  - 1. Finish of surfaces standard in: [Fusion Maple (Wilsonart 7909)] or [Wild Cherry (Wilsonart 7054)] or [Golden Oak (Wilsonart 7888)].
  - 2. Edges:
    - a. [Select color from 48 standard color options].
- E. Plastic Laminate Countertop Colors:
  - [Standard: Wilsonart<sup>®</sup> in a "60" matte finish] or [Standard: Nevamar<sup>®</sup> in a "T" textured finish] or [Standard: Formica in a "58" finish] or [Standard: Pionite in an "N" finish].
  - b. Color: Specialty and other manufacturer finishes are available with additional cost and longer lead times.
- F. Epoxy Resin Countertops shall be: [Standard: Black].
- G. Phenolic Resin Countertop shall be: [Standard: Black].
- H. Post Form Countertop shall be: [Standard: Grey].
- I. Accessories:
  - 1. Fixtures
    - a. All laboratory service fixtures (except fitting inside fume hoods) and safety equipment shall be:
      - i. Colored epoxy finish: fixtures shall be furnished with epoxy/polyester hybrid powder coated finish in **[White]** or **[Tan]** or **[Gray]**.
      - ii. Polished chrome plated with clear epoxy coating: fixtures shall be furnished with a polished chrome plated finish with clear epoxy coating.
      - iii. Satin Chrome Plated with Clear epoxy coating: fixtures shall be furnished with a satin chrome plated finish with clear epoxy coating.
  - 2. Hinges:

- a. 5-Knuckle Hinge / Reveal Overlay: Three finishes are available as standard in epoxy powder coat: [Black] or [Almond] or [Platinum] and at an additional charge for [Brushed Chrome] or [Stainless].
- b. Inset 5-Knuckle Hinge: Three finishes are available as standard in: **[Black]** or **[Almond]** or **[Platinum]**.
- 3. Pulls:
  - a. [Aluminum Wire]
  - b. [96mm Stainless Steel]
  - C. Plastic Bow Pull shall be available as standard in: [Almond] or [Greystone] or [Slate Grey] or [Black].
  - d. Brass Core Wire Pull shall be available as standard in: [Dull Chrome] or [Polished Chrome] or [Dull Brass] or [Polished Brass].
  - e. Plastic Contour Pulls shall be available as standard in: [Almond] or [Greystone] or [Black].
  - f. Epoxy Coated Wire Pulls shall be available as standard in: [Almond] or [Platinum] or [Black].
  - g. ABS Semi Recessed Pulls shall be available as standard in: [Black] or [Almond] or [Greystone].
  - h. Semi Recessed, Oversized Pulls shall be available as standard in: [Black] or [Almond] or [Grey].
  - i. [Custom Pull: Must Specify Brand and Model Number].
- J. Glazed Door Trim shall be one of our standard colors: [Black] or [White] or [Almond] or [Grey].
- K. Countertop Supports shall be in one of our standard colors: [Light Grey] or [Light Neutral] or [Black] or [White].
- L. Round Grommet shall be in one of our standard colors: [Black] or [Almond] or [Grey] or [White].
- M. Round Grommets shall be in one of our standard colors: [Black] or [Almond] or [Grey] or [White].

## **2.5 ACCESSORIES**

- A. Hardware:
  - 1. Hinges:
    - [5-Knuckle Hinges / Reveal Overlay: Standard: Hinges shall be: .095" thick steel five-knuckle hospital-tip, institutional Grade (Grade 1 per ANSI/BHMA A156.9) quality with .187" diameter tight pin. Each hinge shall be secured with a minimum of nine No. 8 screws. Hinge shall permit door to swing 270 degrees without binding. Doors less than 48" in height shall have two hinges. Doors over 48" in height shall have three hinges] or [Concealed Hinges: Hinges shall be: fully concealed, nickel-plated, self-closing, 170 degree swing European style with six way adjustment. Hinge shall be: a minimum of Grade 2 per ANSI/BHMA A156.9. Hinge shall permit door to swing 170 degrees without binding. Doors under 36" high shall have two hinges; 36"-72" high shall have three hinges; over 72" high shall have four hinges] or [3 Knuckle Hinges: Hinges shall be:



nickel-plated semi-concealed, self-closing, 270-degree swing, 3-knuckle style with four-way adjustment. Hinge shall be: a minimum of Grade 1 per ANSI/BHMA A156.9. Hinge shall permit door to swing 270 degrees without binding. Doors under 36" high shall have two hinges; 36"-72" high shall have three hinges; over 72" high shall have four hinges] or [Flush Inset 5 Knuckle Hinge: Hinges shall be: .083" thick steel, fiveknuckle hospital-tip institutional Grade (Grade 1 per ANSI/BHMA A156.9) quality with .187" diameter tight pin. Each hinge shall be: secured with a minimum of eight No. 8 screws. Hinge shall permit door to swing 270 degrees without binding. Doors less than 48" in height shall have two hinges. Doors over 48" in height shall have three hinges].

- 2. Pulls: a.
  - One pull shall be: located at the centerline of the drawer, regardless of width, to ensure ease of operation and maximize drawer slide life.
    - [Standard: Plastic bow pull, 10mm diameter with 96mm O.C. mounting holes] or [Standard: Anodized aluminum wire pull, 8mm diameter with 96mm O.C. mounting holes] or [Standard: Plastic contour pull, surface mounted, 35mm x 116 mm overall size with 96mm O.C. mounting holes] or [Epoxy coated wire pull, 8mm diameter with 96mm O.C. mounting holes] or [Brass core wire pull, 8mm diameter with 96mm O.C. mounting holes] or [Stainless steel wire pull, 8mm diameter with 96mm O.C. mounting holes] or [Stainless steel wire pull, 8mm diameter with 96mm O.C. mounting holes] or [Semi recessed, 110mm x 32mm with 96mm O.C. mounting holes] or [Semi recessed, oversized, 134mm x 43mm with 117.5mm O.C. mounting holes] or [No Drill/No Pull] or [Drill/No Pull] or [Custom Pull: As Specified].
- 3. Drawer Slides:
  - a. [Standard drawer: Self-closing, bottom mount epoxy coated with captive roller and positive in stop. Slide shall have 100 lb. load rating, must be: self-closing and must prevent drawer fronts from contacting the cabinet body. Drawer slides must meet or exceed Grade 1 requirements per ANSI A156.9/BHMA with full extension slides on file and paper storage] or [Full extension Bottom Mount Slides on All] or [KV8400 at Standard Drawers, KV8500 at six increment Drawers and Deeper] or [KV8400 at All Drawers] or [KV8400 at Standard Drawers and KV8500 at File Drawers] or [Accuride 3832 at Standard Drawers] or [Accuride 3832 at Standard Drawers].
  - b. File drawer: Full extension, bottom mount epoxy coated with captive roller and positive in stop. Slide shall have 100lb. load rating, must be: full extension, and prevent drawer fronts from contacting the cabinet body. Drawer slides must meet or exceed Grade 1 requirements per ANSI/BHMA.
- 4. Wall Shelving Hardware:
  - a. [Standard duty wall shelving hardware, including standards and brackets, are available in an anochrome finish] or [Heavy-duty wall shelving hardware, including standards and brackets, are available in an anochrome finish].

- b. Bracket Mounted Shelf Core shall be: [Standard: Particleboard] or [MR/FSC Board] or [NAUF/FSC Particleboard] or [NAUF/FSC Plywood] or [FSC Particleboard] or [FSC Plywood].
- C. Bracket Mounted Shelf Edge shall be: [020"] or [3mm].
- d. Bracket Mounted Shelf Surface shall be: [VGS laminate] or [HGS laminate] or [Chemical Resistant Laminate] or [Decorative Thermally Fused] or [Thermally Fused].
- 5. Shelf Clips:
  - a. [Standard: Plastic]
    - i. Shelf clips shall be injected molded clear plastic, with a double pin engagement 32mm on center and shall have 3/4" and 1" anti-tip locking tabs as approved in AWI 400B-T-9 for premium Grade. Shelf clips shall be: single pin plastic shelf clip with anti-tip locking tabs, used for all 1/4" hardboard shelves.
- 6. Coat Hooks shall be Zinc plated, single prong and double prong.
- 7. Closet Rods shall be Zinc plated rod, 1" diameter with captive sockets.
- 8. Mirrors:
  - a. Teacher wardrobe mirrors to be 8" x 10".
- 9. Label Holders shall be on [Standard: None] or [All Drawers] or [All Doors] or [All Doors and All Drawers] or [File Drawers Only] or [Left Door Only] or [Right Door Only] or [Standard Drawers Only].
- 10. Locks (where shown or noted only):
  - a. Lock Locations:
    - i. [Standard: No Locks] or [Selected Cabinets Shown on Drawings] or [Locks at All] or [Lock Bottom Drawers Only] or [Locks at Doors Only] or [Locks at All Drawers Only] or [Locks at File Drawers Only] or [Locks on Top Drawers Only].
  - b. Lock Type:
    - [Standard Lock National: Five disc tumbler cam locks, chrome plated steel faceplate. All locks keyed alike or keyed differently by room and master keyed. Shall permit a minimum of 50 keying options. Lock core is removable permitting owner to easily change lock arrangements. Inactive door of base and wall cabinets shall be: secured by using an elbow catch, or a chain pull for tall cabinets] or [National Comp X: four or five pin versions available, pin tumbler, trim ring provided, special cams required] or [Best 5L: dead bolt style, not available for use on 3-inch increment drawers, trim ring not available] or [Best 5E] or [Olympus #100DR for Doors and Olympus #200DW for Drawers: Not available for use on 3-inch increment drawers].
- 11. Casters:
  - a. Shall be available in both 4" (3" diameter wheel) and 6" (5" diameter wheel) nominal heights. 4" casters must have a minimum load rating of 165 lbs per caster and the 6" casters must have a minimum load rating of 200 lbs per caster. Shall be ball bearing with 360° swivel. Shall have non-marring wheels available in both locking and non-locking.
- 12. Catches:

- a. Chain Pulls shall be zinc plated, spring loaded door catch used to hold door securely shut.
- b. Chain Stops shall be zinc plated, looped chain used to limit door swing as specified, mounting plate at each end of chain shall use (4) #7 x 5/8" screws to secure to cabinet door and end panel. They shall be on cabinets at adjoining walls and where casework and countertops can interfere with the door swing of the tall cabinet.
- C. Elbow Catch shall be chrome plated, spring loaded, used to hold non-locking door securely shut.
- d. Roller Catch, (not used with self-closing hinges) shall have: heavy-duty, spring-loaded roller, with molded plastic bumper mounted at door top to keep door securely shut.
- e. Magnetic Catch, (not used with self-closing hinges) shall have: white plastic housing with two 32mm spaced, elongated holes for screw-attachment to allow adjustability.
- f. Catches shall be: [Standard: Magnetic at Base and Wall, 1 Roller at Tall] or [1 Roller at All] or [Magnetic at Base and Wall, 2 Roller at Tall] or [1 Roller at All, 2 Rollers at Talls] or [Standard: None for 3 Knuckle or Concealed Hinges].
- 13. Tote Tray shall be white, high impact resistant polystyrene, with label holder permanently attached to face of tray. Supported by individual polycarbonate channels mounted to cabinet ends and partitions with two integral 5mm diameter pins and secured with one-euro style screw. Height adjustable on 32mm (1-1/4") centers.
- 14. Countertop Supports:
  - a. Powder coated, formed metal supports. Must provide attachment points between countertop and wall.

## 2.6 SOURCE QUALITY TESTING

- A. Cabinet Joinery:
  - 1. Base Cabinet:
    - a. Base cabinet testing shall be: done in accordance with SEFA 8PL Recommended Practices Paragraph 4.0 Base Cabinets. All testing shall be performed by SEFA certified independent testing facilities. The following tests shall be performed: The SEFA 8 test procedures are accessible on-line at www.sefalabs.com. The ANSI/NEMA 3 LD - 2005 test procedures are available on-line at www.global.ihs.com Test Paragraph Cabinet Load 4.2 Cabinet Concentrated Load 4.3 Cabinet Torsion 4.4 Cabinet Submersion 4.5
  - 2. Doors:
    - a. Door testing shall be: done in accordance with SEFA 8PL Recommended Practices Paragraph 5.0 Doors. The following tests shall be performed: <u>Test</u> <u>Paragraph</u>

Door Hinge Test	5.1
Door Cycle Test	5.2

- 3. Drawers:
  - Drawer testing shall be: done in accordance with SEFA 8PL Recommended Practices Paragraph 6.0 Drawers. The following tests shall be performed: <u>Test</u> Drawer Static Test
    Paragraph 6.1
    - Drawer Static Test0.1Drawer Impact Test6.2Drawer Internal Rolling Test6.3Drawer Cycle Test6.4
- 4. Cabinet Surface Finish:
  - Cabinet surface finish tests shall be: done in accordance with SEFA 8PL Recommended Practices Paragraph 8.0, Cabinet Surface Finish Tests. The following testing shall be performed: <u>Test</u> Chemical Spot Test Boiling Water Posistance Test

	0.1
Boiling Water Resistance Test	8.2
(ANSI/NEMA LD 3 -2005 Paragraph 3.5)	
Ball Impact Resistance Test	8.3
(ANSI/NEMA LD 3 -2005 Paragraph 3.8)	
Dart Impact resistance Test	8.4
(ANSI/NEMA LD 3 – 2005 Paragraph 3.9)	

- 5. Edge Delaminating Test:
  - a. Edge delaminating tests shall be: done in accordance with SEFA 8PL Recommended Practices Paragraph 8.5, Edge Delaminating Test.
- 6. Wall, Counter Mounted, and Tall Cabinets Load Test:
  - a. The wall mounted cabinet load test shall be: done in accordance with SEFA 8PL Recommended Practices Paragraph 9.0.

# PART 3 – EXECUTION 3.1 INSTALLERS

A. Installation shall be: by casework manufacturer's authorized representative.

## **3.2 INSTALLATION**

- A. Casework shall not be: installed until concrete, masonry, and drywall/plaster work is dry.
  - 1. If ambient conditions are not met at the time of requested delivery, the general contractor or owner must provide Case Systems a letter that releases manufacturer from any liability and responsibility from any warranty or damage resulting from not complying with required ambient conditions.
- B. Casework shall be: installed plumb and true and is to be securely anchored in place.
- C. The casework contractor shall verify all critical building dimensions prior to fabrication of casework.



- D. Provide all labor for unloading, distribution, and installation of casework and related items as specified.
- E. All casework shall be: securely anchored to horizontal wall blocking, not to plaster lathe or wall board.
- F. The casework manufacturer shall re-configure the casework arrangements to dimensions requiring 2-1/2" or less of filler at each end of wall-to-wall elevations, and to ensure a complete and satisfactory installation.
- G. The casework installer shall remove all debris, sawdust, scraps, and leave casework spaces clean.
- H. All casework must be installed by casework installer plumb and level, adjust all doors, drawers and hardware to comply with manufacturers specifications and operate properly.

## -END OF SECTION-

#### **GENERAL SPECIFICATION – LATITUDE SCIENCE TABLE**

#### PART 1 GENERAL

- 1.1 ADMINISTRATIVE REQUIREMENTS
  - A. **Pre-Installation Conference**:
    - Attendance: [Architect,] [Owner,] [Contractor,] [Construction Manager,] [Design/Builder] installer, and related trades.
    - 2. Review: Project conditions, manufacturer requirements, delivery, and storage, staging and sequencing, and protection of completed work.

#### 1.2 SUBMITTALS

- A. Action Submittals:
  - 1. Shop Drawings: Illustrate products, installation, and relationship to adjacent construction.
  - 2. Product Data: Manufacturer's descriptive data and product attributes.
  - 3. Samples:
    - a. [Selection samples.] [Verification samples.]
- B. Closeout Submittals:
  - 1. Operation and Maintenance Data.
- C. Quality Control Submittals:
  - 1. Manufacturer qualification statement.
  - 2. Comprehensive quality assurance statement.

#### 1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
  - 1. Manufacturer has a minimum of 5 years of experience of manufacturing science tables for similar projects and can show evidence of long-lasting financial stability.
  - 2. Certified for chain of custody by third party group approved by Forest Stewardship Council (FSC).
  - 3. Licensed under Architectural Woodwork Institute (AWI) Quality Certification Program (QCP).
- B. nstaller Qualifications: Minimum [2] [\_\_] years' experience in work of this Section.
- C. Mockups:
  - Full-size science table.
  - 2. Approved mockups [may] [may not] remain as part of the Work.

#### 1.4 WARRANTIES

A. Manufacturer's [1 year] [3 year] [5 year] [limited lifetime] warranty against defects in materials and workmanship, including non-casework accessories.

#### PART 2 PRODUCTS

- 2.1 MANUFACTURERS
  - A. Contract Documents are based on products by Case Systems, Inc., <u>www.casesystems.com</u>.
  - B. Substitutions: [Refer to Division 01.] [Not permitted.]

#### 2.2 MATERIALS

- A. Base and Top Deck Structure:
  - 1. Sheet Steel: High quality cold rolled mill steel meeting the requirements of ASTM A1008CS Type B in 18 ga and 14 ga U.S. standard. High quality hot rolled pickled and oiled steel meeting the requirements of ASTM A1011CS Type B in 11 ga and 7 ga U.S. standard.
  - 2. Tube steel: High quality square tube meeting the requirements of ASTM A500 for 1.5" square with various thicknesses.
- B. Base Enclosure Panels:
  - 1. Plastic Laminate Panels:
    - a. Core:

[Particleboard, ANSI A208.1, Grade M-2 or higher.]

[ Moisture resistant particleboard, ANSI A208.1, interior grade moisture resistant, MR/FSC.]

\*\*\* OR \*\*\*

[Recycled content, FSC Certified particleboard, ANSI A208.1, ULEF/FSC, M-2, containing recycled content, no added urea formaldehyde.] \*\*\* OR \*\*\*

[Recycled content, FSC Certified plywood, ULEF/FSC, no added urea formaldehyde.] \*\*\* OR \*\*\*

- [FSC Certified plywood.]
- b. Finish:

High Pressure Laminate grade VGS [Formica in a '58' finish] [Nevamar in a T finish] [Pionite in an'SD' finish] [Wilsonart in a '60' matte finish]

- 2. Painted Steel panels: 18ga cold rolled steel with an electrostatically applied powder coating finish. Color is [gray] [light neutral] [black] [white].
- C. Edge Banding:
  - 1. PVC, applied utilizing hot melt adhesive and radiused by automatic trimmer.
  - 2. Adhesive: PVA type, mechanically applied, ULEF, free from VOC's.

## 2.3 FABRICATION

A.General Base and Top Deck Construction:

- 1. Main base structure: Main base structure consists of formed sheet steel with mig-welded and bolted construction making a rigid frame structure to support the adjustable and fixed portions of the final unit. The base structure is enclosed with removable panels to allow access to plumbing and electrical services.
- 2. Sink main structure consists of formed sheet steel with mig-welded and bolted construction making a rigid frame structure to support the sink and sink worksurface. Knee space clearances are designed to be wheelchair accessible for the sink. The front and vertical panels of the sink section are removable for access to plumbing and electrical connections.
- 3. Top deck structure is constructed of 1.5"-11ga square tubing and sheet steel mig-welded to form a rigid structure.
- 4. Table Lift System
  - a. The adjustable table height range is a nominal 31" to 37" including a 1" countertop thickness
  - b. Linear actuator Two Units mounted inside of the table base for the adjustable tabletop.
    - i. Model #LA31 series linear actuator.
    - ii. 24-V DC permanent magnet motor.
    - iii. Thrust up to 6000 N in push and up to 4000 N in pull

- iv. Synchronization feature on each actuator for accurate control of height range and balance between both actuators.
- v. Travel length of 150mm (5.91").
- vi. Built-in brake to hold position.
- vii. Noise level of 48 dB (A); measuring method DSIEN ISO 3746, actuator not loaded.
- viii. Duty cycle Max 10% or 2 minutes continuous use followed by 18 minutes not in use.
- ix. Built in limit switches (non-adjustable).
- x. Color is black.
- Desk Panel (up/down switch)
- i. Model number #DP1E.
- ii. Two button plastic housed switch with imprinted arrows indicating the up and down directions.
- iii. Color is black.
  - Power Transformer/ control box
  - i. Model #CBD6S.
  - ii. Input voltage of 120v and output voltage of 24v.
  - iii. Maximum amperage draw is 2.7amps.
  - iv. Color is black.
- 2. Load rating:

c.

d.

- a. Overall table load rating with an epoxy worksurface and sink is 300 lbs maximum of evenly distributed load.
- 3. Countertops:
  - a. Epoxy Resin:
    - i. Top 1" thick with 1/32" chamfer on finished Epoxy edges and provided with 1/8" radius edge and all corners. Color is black.
      - Optional molded dished (marine edge) worksurface.
  - b. Phenolic Resin:
    - i. [<sup>3</sup>/<sub>4</sub>"] or [1"] thickness with 1/8" radius edge and all corners. Color is black.
      - ii. Shall be made of thermosetting resins, homogeneously reinforced with woodbased fibers, manufactured under high heat and high pressure.
      - iii. Non-porous, water resistant with anti-microbial properties without the use of coatings or additives.

#### 2.4 ACCESSORIES

- A. Sink:
  - 1. Epoxy sink for ADA requirements, Durcon model A55 drop-in style, corner outlet, 25" w x 15" I x 4.8"d. Standard Ducron polypropylene sink outlet and sink strainer cap are included. Color is black.
- B. Water and Gas Fixtures:
  - 1. Laboratory grade service fixture by Watersaver, Vandal-resistant combination fixture, hot/cold and gas. Watersaver VR5800WSA for standard model & VR5800-110WSA for model with in-line vacuum breaker on water inlet.
    - a. Laboratory style ball valves for gas fixtures
- C. Electrical fixtures:
  - 1. Outlet fixtures and covers in Apron Assembly:
    - a. Electrical duplex outlets are a Leviton #G5262 series 15amp 125v rated, GFCI industrial grade receptacle.
    - b. USB outlets are a Leviton #USB4P series 4.2A-125v rated total output with (4) ports.
    - c. Covers are Leviton standard configurations to fit the application and quad box size.
  - 2. Power Outlet Strip mounting under Top Deck Structure

- a. Six outlet power strip, 15A rated, lighted on/off switch.
- b. Power cord is 15' length with NEMA 5-15 plug.
- D. Apparatus Rods:
  - 1. Rods and fittings are manufactured from machined aluminum.
  - 2. Rod socket is a taper fit design.
  - 3. Rod diameter is <sup>3</sup>/<sub>4</sub>" and available in various lengths.
- E. Wire grommets:
  - 1. 60mm diameter surface mount with snap on cover. Available in several colors.
- F. Plumbing P-trap ADA cover. Trubro soft mold vinyl P-trap cover with internal fasteners.

#### PART 3 EXECUTION

3.1 INSTALLATION

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A. Install in accordance with manufacturer's instructions and approved Shop Drawings.

END OF SECTION