Indian River County Purchasing Division
purchasing@indianrivер.gov

ADDENDUM NO. 7

Issue Date:	February 2, 2024
Project Name:	Sandridge Golf Club New Clubhouse
ITB Number:	2024029
ITB Opening Date:	**February 8, 2024, at 2 p.m.**

This addendum is being released to provide answers to questions received to date and to modify the bid documents. The information and documents contained in this addendum are hereby incorporated in the invitation to bid. **This addendum must be acknowledged where indicated on the Bid form, or the bid may be declared non-responsive.**

Questions and Answers

1. Note 17 on the RCP drawings refers to a 2 HR ceiling assembly. I have not been able to find the location of the rated assembly. Furthermore, there are details showing plywood on the underside of the trusses (A411) and others showing GWB (A902). Can we get a clarification as to the extent of the sheathing on the bottom chord (interior of building) and a location for the 2 HR ceiling?
Response: There is no 2 HR ceiling lid on the bottom of the trusses on the project. Sheet A411 keynote 06.05 is revised to 09.06. This an acoustic drywall lid on the bottom of the trusses in the banquette rooms only. The details on A902 reflect this accurately. Plywood is only used on the interior of the building as a backer to attach finished material like t&g to the ceiling. Refer drawings for details.

2. M000 Note #17 Specifies Programable Thermostats (stand Alone)
Response: Note #17 is a generic thermostat spec and has been removed for clarity

3. M000 Note #20 Indicates Fully Integrated Owner/ Building Control System BMS/EMS. With interface gateways. The plans read like a standalone system, There are no control sequence plans.
Response: The building is intended to have a BMS system. Control Plans have been added to Sheet M501.

4. Are you looking for a Trane tracer system with Building automation (BAS) with graphics as this also requires additional Electrical work and LAN Drops.
Response: Yes, the building is intended to have a BMS.

Addendum 7

5. Section 230000 Item 15 calls out controls and wiring.
   Response: Section 23000 was eliminated in addendum # 2. Controls sheet M501 has been added to the drawings.

6. Section 3.11 States see control drawings for control sequence. Where do I find these drawings?
   Response: Controls Sheet M501 has been added to the drawings.

Attachments:

Replacement Sheet A411
Replacement Sheets M000 and new sheet M501

#	DATE	DESCRIPTION
	10/27/2023	BID / PERMIT ISSUE
1	01/05/2024	ADDEDUM #2
2	01/24/2024	ADDEDUM #3

SHEET #	INTERIOR			
I101	FIRST FLOOR KEY PLAN	•		
I110	OVERALL FURNITURE PLAN	•		
I111	ENLARGED FINISH PLAN	•	•	
I112	ENLARGED FINISH PLAN	•	•	
I113	ENLARGED FINISH PLAN	•	•	
I201	INTERIOR ELEVATIONS	•		
I202	INTERIOR ELEVATIONS	•		
I203	INTERIOR ELEVATIONS	•		
I204	INTERIOR ELEVATIONS	•		
I205	INTERIOR ELEVATIONS	•		
I206	INTERIOR ELEVATIONS	•		
I207	INTERIOR ELEVATIONS	•		
I208	INTERIOR ELEVATIONS	•		
I209	INTERIOR ELEVATIONS	•		
I210	INTERIOR ELEVATIONS	•		
I211	INTERIOR ELEVATIONS	•		
I212	INTERIOR ELEVATIONS	•		
I213	INTERIOR ELEVATIONS	•		
I214	INTERIOR ELEVATIONS	•		
I215	INTERIOR ELEVATIONS	•		
I216	INTERIOR ELEVATIONS	•	•	
I217	INTERIOR ELEVATIONS	•	•	
I218	INTERIOR ELEVATIONS	•		
I219	INTERIOR ELEVATIONS	•		
I220	INTERIOR ELEVATIONS	•		
I221	INTERIOR ELEVATIONS	•		
I301	MOVABLE PARTITION DETAILS	•		
I302	ENLARGED PILASTER DETAILS	•		
I303	MISCELLANEOUS DETAILS	•		
I401	BAR DETAILS	•		
I402	BAR DETAILS	•		
I403	RESTROOM VANITY & COPY ROOM CABINET DETAILS	•		
I501	MOLDING DETAILS	•		
I502	ROOM FINISH SCHEDULE FINISH SPECIFICATIONS	•	•	
I503	TRANSITION DETAILS	•		

SHEET #	CIVIL			
C1	CONSTRUCTION NOTES	•		
C2	STORMWATER POLLUTION PREVENTION PLAN	•		
C3	EROSION & SEDIMENT CONTROL NOTES	•		
C4	EXISTING CONDITIONS	•		
C5	SITE PREPARATION / EROSION CONTROL PLAN	•		
C6	POST-SITE PREPARATION PLAN	•		
C7	HORIZONTAL CONTEROL / SIGNAGE STRIPING PLAN	•		
C8	PAVING & GRADING PLAN	•		
C9	GRADING PLAN	•		
C10	DRAINAGE PLAN	•		
C11	DRAINAGE PLAN	•		
C12	UTILITY PLAN	•		
C13	OFFSITE UTILITY PLAN A	•		
C14	OFFSITE UTILITY PLAN B	•		
C15	SEWER PROFILE	•		
C16	CONSTRUCTION DETAILS	•		
C17	CONSTRUCTION DETAILS	•		
C18	UTILITY DETAILS	•		
C19	UTILITY DETAILS	•		
C20	UTILITY DETAILS	•		
C21	LIFT STATION DETAILS	•		

SHEET #	LANDSCAPE			
LA-1	Landscape Plan	•		
LA-2	Zoomed in LA Plan	•		
LA-3	Mitigation Data	•		
LA-4	Mitigation Detail	•		
LA-5	Landscape Details	•		
LA-6	Landscape Specifications	•		

#	DATE	DESCRIPTION
	10/27/2023	BID / PERMIT ISSUE

SHEET #	KITCHEN			
FS100	Overall Floor Plan	•		
FS101	Main Kitchen Plan	•		
FS102	Banquet Kitchen Plan	•		
FS103	Bar Plan	•		
FS104	The Turn Building Plan	•		
FS105	Main Kitchen Plumbing Plan	•		
FS106	Banquet Kitchen Plumbing Plan	•		
FS107	Bar Plumbing Plan	•		
FS108	The Turn Building Plumbing Plan	•		
FS109	Main Kitchen Electrical Plan	•		
FS110	Banquet Kitchen Electrical Plan	•		
FS111	Bar Electrical Plan	•		
FS112	The Turn Building Electrical Plan	•		
FS113	Exhaust Hood Details	•		
FS114	Exhaust Hood Details	•		
FS115	Exhaust Hood Details	•		
FS116	Exhaust Hood Details	•		
FS117	Exhaust Hood Details	•		
FS118	Exhaust Hood Details	•		
FS119	Walk-in Details	•		
FS120	Walk-in Details	•		
FS121	Walk-in Details	•		
FS122	Walk-in Details	•		
FS123	Walk-in Details	•		
FS124	Walk-in Details	•		
FS125	Walk-in Details	•		
FS126	Walk-in Details	•		
FS127	Walk-in Details	•		
FS128	Refrigeration Details	•		
FS129	SS Fabrication Details	•		
FS130	SS Fabrication Details	•		
FS131	SS Fabrication Details	•		
FS132	SS Fabrication Details	•		
FS133	SS Fabrication Details	•		
FS134	SS Fabrication Details	•		
FS135	SS Fabrication Details	•		
FS136	SS Fabrication Details	•		
FS137	SS Fabrication Details	•		
FS138	Bar Details	•		
FS139	Under Floor Conduit	•		

#	DATE	DESCRIPTION
	10/27/2023	BID / PERMIT ISSUE

SHEET #	STRUCTURAL			
S-1	FOUNDATION PLAN	•		
S-2	ROOF FRAMING PLAN	•		
S-3	STRUCTURAL NOTES, SCHEDULES & WIND LOADING	•		
S-4	TYPICAL DETAILS	•		
S-5	SECTIONS	•		
S-6	SECTIONS	•		
S-7	SECTIONS	•		
S-8	SECTIONS	•		

SHEET #	MECHANICAL			
M000	MECHANICAL NOTES, LEGENDS, & SHEET INDEX	•		
M101	MECHANICAL ZONE MAP	•		
M201	MECHANICAL FLOOR PLANS - GROUND LEVEL	•		
M202	MECHANICAL FLOOR PLANS - GROUND LEVEL	•		
M211	MECHANICAL MEZZANINE & ROOF PLAN	•		
M301	MECHANICAL SCHEDULES	•		
M302	MECHANICAL SCHEDULES	•		
M401	MECHANICAL DETAILS	•		

SHEET #	ELECTRICAL			
E000	ELECTRICAL NOTES, LEGENDS & INDEX	•		
E001	ELECTRICAL SITE POWER PLAN	•		
E010	ELECTRICAL SITE LIGHTING CONTROLS PLAN	•		
E101	ELECTRICAL CLUBHOUSE FLOOR PLAN	•		
E102	ELECTRICAL CLUBHOUSE ENLARGED KITCHEN PLAN	•		
E103	ELECTRICAL CLUBHOUSE MEZZANINE FLOOR PLAN	•		
E110	ELECTRICAL CLUBHOUSE LIGHTING PLAN	•		
E111	ELECTRICAL CLUBHOUSE LIGHTING CONTROLS PLAN	•		
E112	ELECTRICAL CLUBHOUSE MEZZANINE LIGHTING PLAN	•		
E200	ELECTRICAL CLUBHOUSE RISER AND SCCHEDULES	•		
E201	ELECTRICAL CLUBHOUSE SCHEDULES	•		
E202	ELECTRICAL CLUBHOUSE SCHEDULE	•		
E300	ELECTRICAL CLUBHOUSE DETAILS	•		
E301	ELECTRICAL CLUBHOUSE DETAILS	•		

SHEET #	PLUMBING			
P000	COVER SHEET	•		
P100	SANITARY FLOOR PLAN	•		
P101	STORM OVERALL FLOOR PLAN	•		
P200	DOMESTIC WATER FLOOR PLAN	•		
P201	SANITARY WATER AND DOMESTIC WATER ISOMETRIC	•		
P300	DETAILS & SCHEDULES	•		

SHEET #	FIRE PROTECTION			
FA000	FIRE ALARM NOTES, LEGENDS & INDEX	•		
FA100	FIRE ALARM CLUBHOUSE FLOOR PLAN	•		
FA102	FIRE ALARM MEZZANINE PLAN	•		
FA200	FIRE ALARM RISER AND DETAILS	•		
FP-000	FIRE PROTECTION COVER SHEET	•		
FP-001	FIRE PROTECTION OCCUPANCY HAZARD ZONE MAP - CLUBHOUSE	•		
FP-002	FIRE PROTECTION DETAILS & SITE PLAN	•		

#	DATE	DESCRIPTION
	10/27/2023	BID / PERMIT ISSUE
1	01/05/2024	ADDEDUM #2
2	01/24/2024	ADDEDUM #3
3	01/26/2024	ADDEDUM #4
4	02/02/2024	ADDEDUM #7

Sheet #	Architectural				
A 000	COVER SHEET	•			
A 001	SYMBOLS & ABBREVIATIONS	•		•	
A 002	DRAWING MATRIX	•			
A 010	LIFE SAFETY CODE ANALYSIS	•			
A 011	MAIN LEVEL LIFE SAFETY PLAN	•			
A 020	PARTITION SCHEDULE	•			
A 040	ADA CODE REQUIREMENTS	•			
A 060	ARCHITECTURAL SITE PLAN	•			
A 070	DEMOLITION SITE PLAN	•			
A 101	OVERALL FIRST FLOOR PLAN	•			
A 110	OVERALL ROOF PLAN	•			
A 120	OVERALL FIRST FLOOR RCP	•			
A 201	EXTERIOR ELEVATIONS	•			
A 202	EXTERIOR ELEVATIONS	•			
A 203	EXTERIOR ELEVSTIONS	•			
A 301	BUILDING SECTIONS	•			
A 302	BUILDING SECTIONS	•			
A 303	BUILDING SECTIONS	•			
A 401	STAIR DETAILS	•			
A 402	STAIR DETAILS	•			
A 403	STAIR DETAILS	•			
A 404	STAIR DETAILS	•			
A 405	STAIR DETAILS	•			
A 411	WALL SECTIONS	•	•	•	
A 412	WALL SECTIONS	•			
A 413	WALL SECTIONS	•			
A 414	WALL SECTIONS	•			
A 415	WALL SECTIONS	•			
A 416	WALL SECTIONS	•			
A 417	WALL SECTIONS	•			
A 501	ENLARGED FLOOR PLAN	•			
A 502	ENLARGED FLOOR PLAN	•			
A 503	ENLARGED FLOOR PLAN	•	•		
A 504	ENLARGED FLOOR PLAN	•			
A 505	ENLARGED FLOOR PLAN	•	•		
A 506	ENLARGED RESTROOM PLANS	•			
A 507	ENLARGED PLAN - EVENT LAWN	•			
A 508	ENLARGED MEZZANINE PLANS	•			
A 601	ENLARGED MAIN LEVEL RCP	•			
A 602	ENLARGED MAIN LEVEL RCP	•			
A 603	ENLARGED MAIN LEVEL RCP	•			
A 604	ENLARGED MAIN LEVEL RCP	•			
A 605	ENLARGED MAIN LEVEL RCP	•	•		
A 611	ENLARGED MEZZANINE LEVEL RCP	•			
A 701	ROOF DETAILS	•			
A 702	ROOF DETAILS	•			
A 703	ROOF DETAILS	•			
A 704	ROOF DETAILS	•			
A 705	ROOF DETAILS	•	•		
A 706	ROOF DETAILS	•			
A 707	ROOF DETAILS	•			
A 708	ROOF DETAILS	•			
A 709	ROOF DETAILS	•			
A 710	ROOF DETAILS	•			
A 801	DOOR & WINDOW SCHEDULES	•		•	
A 802	DOOR & WINDOW ELEVATIONS	•			
A 803	INTERIOR DOOR & WINDOW DETAILS	•			
A 804	EXTERIOR DOOR & WINDOW DETAILS	•			
A 805	STOREFRONT DETAILS	•	•		
A 901	CEILING DETAILS	•			
A 902	CEILING DETAILS	•			
A 903	MISCELLANEOUS DETAILS	•			

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This item has been electronically signed and sealed by Sean Sukhu, R.A. on the date and/or time stamp shown using a digital signature

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SANDRIDGE GOLF CLUB

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#	DATE	DESCRIPTION
	10/27/2023	BID / PERMIT ISSUE

SHEET NAME

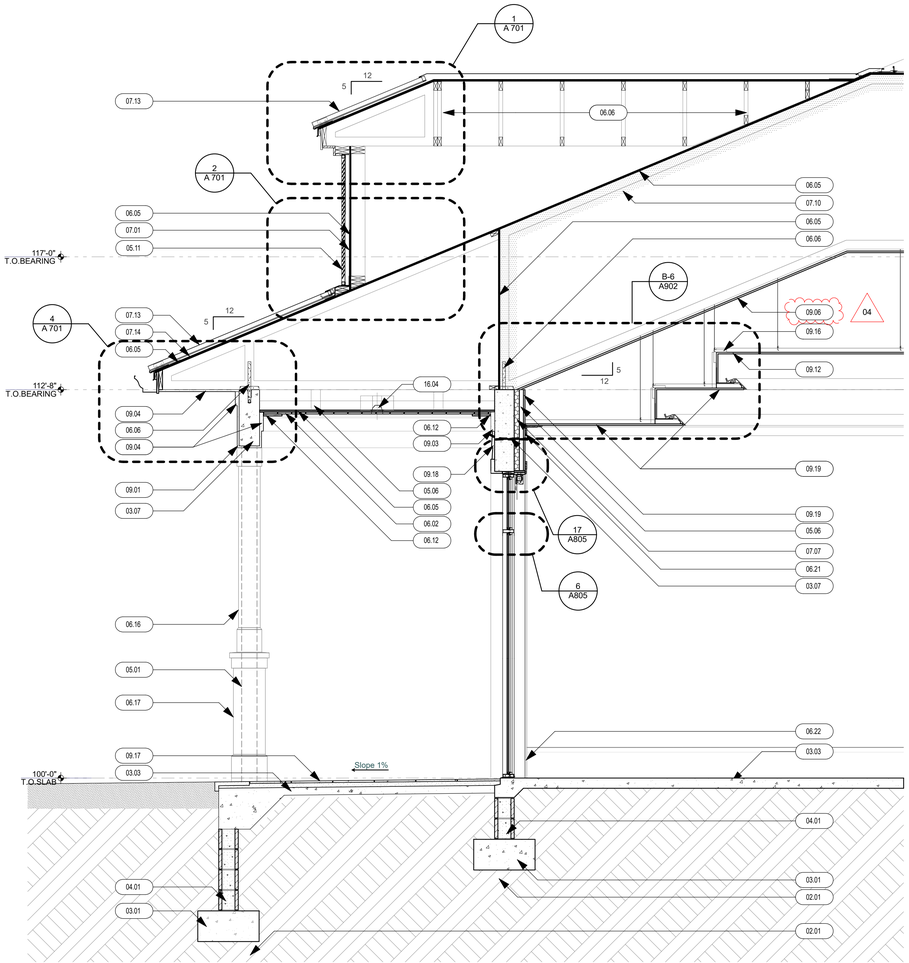
DRAWING MATRIX

Project Number: 2021.159

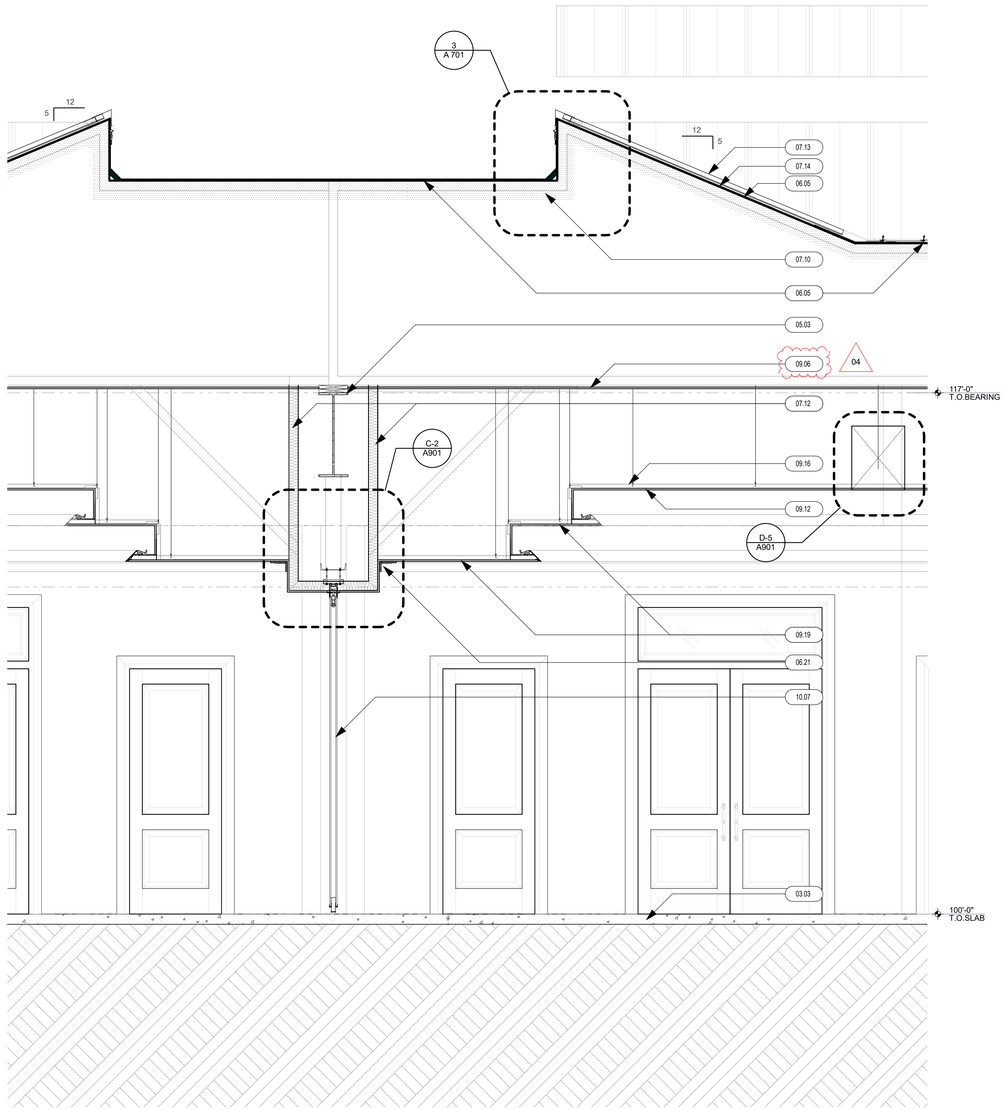
DATE: 2023.10.27

SHEET NUMBER

A 002



01 WALL SECTION
SCALE: 1/2" = 1'-0"



02 WALL SECTION
SCALE: 1/2" = 1'-0"

KEYNOTE - SECTIONS / ELEVATIONS

DIVISION 2 - SITE CONSTRUCTION
02.01 TREATED COMPACTED SOIL
02.03 APPROXIMATE LINE OF FINISH GRADE (RE: CIVIL DOCUMENTS)
02.05 HOT-MIX ASPHALT PAVING (RE: CIVIL DOCUMENTS)
02.07 FOUNDATION DRAINAGE SYSTEMS 6" DIAMETER PERFORATED PIPE(RE: CIVIL DOCUMENTS)
02.09 CEMENT CONCRETE PAVEMENT (RE: CIVIL DOCUMENTS)
02.11 UNIT PAVERS SET ON A 3/4" MORTER BED.
02.13 UNITS PAVERS SET ON 1" SAND BED
02.15 COMPACTED BASE
02.17 CHAIN LINK FENCE
02.19 PORCELAIN PAVERS / TILE SET ON 6" MUD BED
02.21 CONCRETE MASONRY UNIT GRAVITY RETAINING WALL
DIVISION 3 - CONCRETE
03.01 CAST-IN-PLACE CONCRETE FOUNDATION (RE: STRUCTURAL DOCUMENTS)
03.03 CAST-IN-PLACE CONCRETE SLAB (RE: STRUCTURAL DOCUMENTS)
03.05 CAST-IN-PLACE CONCRETE COLUMN (RE: STRUCTURE COLUMNS)
03.06 CAST-IN-PLACE CONCRETE WALL (RE: STRUCTURE COLUMNS)
03.07 CAST-IN-PLACE CONCRETE BEAM (RE: STRUCTURE COLUMNS)
03.08 CAST-IN-PLACE CONCRETE CURB (RE: STRUCTURE COLUMNS)
03.09 CONCRETE TOPPING (RE: STRUCTURE COLUMNS)
DIVISION 4 - MASONRY
04.01 CONCRETE UNIT MASONRY (RE: STRUCTURAL DOCUMENTS)
04.03 PRECAST CONCRETE LINTEL(S) (RE: STRUCTURAL DOCUMENTS)
DIVISION 5 - METALS
05.01 STRUCTURAL STEEL COLUMN (RE: STRUCTUARL DOCUMENTS)
05.03 STRUCTURAL STEEL BEAM (RE: STRUCTURAL DOCUMENTS)
05.04 STRUCTURAL STEEL JOISTS (RE: STRUCTURAL DOCUMENTS)
05.05 COMPOSITE METAL DECK (RE: STRUCTURAL DOCUMENTS)
05.06 "C" SHAPED LIGHT GAUGE STEEL STUDS (RE: STRUCTURAL DOCUMENTS)
05.11 ORNAMENTAL ALUMINUM FABRICATIONS
05.13 ALUMINUM SERVICE LADDER
05.15 PIPE BOLLARDS
05.17 STEEL PIPE AND TUBE HANDRAIL
05.19 STEEL PIPE AND TUBE RAILING SYSTEM
05.21 ORNAMENTAL METAL HANDRAILS
05.23 ORNAMENTAL METAL RAILING SYSTEM
05.25 ALUMINUM GUARDRAIL SYSTEM
DIVISION 6 - WOODS AND PLASTICS
06.01 WOOD BOX BEAM(S)
06.02 6"x3/4" T&G V-GROOVE (RE: INTERIORS DOCUMENTS FOR FINISH DETAILS)
06.03 WOOD NAILER(S)
06.04 WOOD BLOCKING
06.05 5/8" EXTERIOR PLYWOOD SHEATHING (RE: STRUCTURAL DOCUMENTS)
06.06 METAL-PLATE-CONNECTED WOOD TRUSSES (RE: STRUCTURAL DOCUMENTS)
06.07 EXTERIOR CEMENT BOARD FASCIA
06.08 EXTERIOR CEMENT BOARD TRIM
06.09 EXTERIOR CEMENT LAP SIDING
06.10 EXTERIOR CEMENT SHINGLE SIDING
06.11 EXTERIOR PVC RAFTER TAIL
06.12 WOOD TRIM
06.13 EXTERIOR PVC ARCHITECTURAL BRACKET
06.14 EXTERIOR WOOD SOFFIT (1"x6" V GROOVE T&G)
06.15 EXTERIOR WOOD SOFFIT (5/8" EXTERIOR BEAD BOARD PVC)
06.16 EXTERIOR PVC COLUMN WRAP
06.17 EXTERIOR PVC COLUMN PEDESTAL WRAP
06.18 EXTERIOR PVC COLUMN PILASTER WRAP
06.19 EXTERIOR PVC COLUMN PILASTER PEDESTAL WRAP
06.20 EXTERIOR ARCHITECTURAL HIGH DENSITY VIRGIN EPS FOAM MOULDING W/HARDCOAT SYSTEM AND SAND FINISH FOR CEMENT PLASTER (STUCCO)
06.21 WOOD CROWN MOULDIN (RE: INTERIOR DESIGN DOCUMENTS FOR DETAIL)
06.22 WOOD BASE (RE: INTERIOR DESIGN DOCUMENTS)
DIVISION 7 - THERMAL AND MOISTURE PROTECTION
07.01 SHEET WATERPROOFING (BENTONITE)
07.02 WATERPROOFING PROTECTION COURSE / DRAINAGE MAT
07.03 FLUID APPLIED WATERPROOFING
07.04 BITUMINOUS DAMPROOFING
07.05 MODIFIED CEMENT WATERPROOFING
07.06 BUILDING INSULATION (ROOF TAPERED INSULATION R:30)
07.07 BUILDING INSULATION (WALL 2" RIGID R:13 OR 6" BATT / R:19 ROOF 9 1/2" BATT R:30)
07.08 BUILDING INSULATION /2" RIGID FOAM WITH ALUMINUM FACER ON ONE SIDE AND WHITE ACRYLIC-COATED AUUMINUM FACER ON THE OTHER.)
07.09 ROOF INSULATION (9 1/2" R:30)
07.10 ROOF INSULATION (SPRAY-IN-PLACE, LOW DENSITY, OPEN CELL, FLEXIBLE WATERBLOWN POLYURETHANE FOAM INSULATION R:30)
07.11 BUILDING INSULATION (2" THERMAX RIGID INSULATION AS MFGR BY DOW CORNING MOUNTED TO UNDERSIDE OF STRUCTURAL DECK)
07.12 ACOUSTICAL INSULATION
07.13 STANDING SEAM METAL ROOF
07.14 METAL ROOF UNDERLAYMENT
07.15 SBS-MODIFIED BITUMINOUS CAP SHEET BUILT-UP MEMBRANE ROOFING
07.16 FULLY ADHERED THERMOPLASTIC POLYOLEFIN MEMBRANE (60MIL)
07.17 40 MIL SELF ADHERING WATERPROOFING MEMBRANE
07.18 SHEET METAL FLASHING
07.19 ALUMINUM GUTTER(S)
07.20 ALUMINUM DOWNSPOUT(S)
07.21 ROOF EXPANSION ASSEMBLIES
07.22 ROOF ACCESSORIES
07.23 SPRAY FIRE-RESISTIVE MATERIALS
07.24 BOARD FIRE PROTECTION
07.25 JOINT SEALANT(S)
07.26 THERMOPLASTIC POLYOLEFIN ROOFING MEMBRANE
DIVISION 8 - DOORS AND WINDOWS
08.01 STEEL DOOR(S) AND FRAME(S)
08.02 FLUSH WOOD DOOR(S)
08.03 STILE AND RAIL WOOD DOOR(S)
08.04 ALUMINUM WINDOWS
08.05 ALUMINUM STORE FRONT SYSTEM
08.06 GLAZING
08.07 ALUMINUM FOLDING DOOR SYSTEM
DIVISION 9 - FINISHES
09.01 PORTLAND CEMENT PLASTER (STUCCO)
09.02 PORTLAND CEMENT PLASTER (OVER FOAM MOULDING) COLUMN / PILASTER BASE
09.03 PORTLAND CEMENT PLASTER (STUCCO) TRIM
09.04 PORTLAND CEMENT PLASTER (STUCCO) CEILING ON GALVANIZED METAL LATH
09.05 GYPSUM SHEATHING (EXTERIOR)
09.06 GYPSUM BOARD ASSEMBLY (RE: FIRE PROTECTION DETAILS FOR ASSEMBLY DETAILS)
09.07 GYPSUM BOARD SHAFT-WALL ASSEMBLY
09.08 FINISH FLOORING (RE: INTERIOR DESIGN DRAWINGS)
09.09 WALL BASE (RE: INTERIOR DESIGND RAWINGS)
09.10 WALL FINISH (RE: INTERIOR DESIGN DRAWINGS)
09.11 FINISH CEILING (RE: INTERIOR DESIGN DRAWINGS)
09.12 ACOUSTICAL PANEL CEILING (RE: INTERIOR DESIGN DOCUMENTS)
09.13 ACOUSTICAL WALL PANEL(S) (RE: INTERIOR DESIGN DOCUMENTS)
09.14 PAINT (RE: INTERIOR DESIGN DOCUMENTS)
09.15 WALL COVERING(S) (RE: INTERIOR DESIGN DOCUMENTS)
09.16 GYPSUM BOARD CEILING HANGING SYSTEM
09.17 EXTERIOR FINISH FLOOR OVER MUD BED (RE: FINISH SCHEDULE)
09.18 PORTLAND CEMENT PLASTER (LAPSIDING STUCCO)
09.19 5/8" GYPSUM BOARD
DIVISION 10 - SPECIALTIES
10.01 FIXED METAL DECORATIVE SHUTTER
10.02 WALL VENT(S) (BRICK VENTS)
10.03 IMPACT RESISTANT WALL PROTECTION
10.04 SIGN(S)
10.05 METAL LOCKER(S)
10.06 FIRE EXTINGUISHER(S) AND CABINET(S)
10.07 OPPERABLE PANEL PARTITION(S)
10.08 METAL STORAGE SHELVING
10.09 TOILET AND BATH ACCESSORIES (RE: INTERIOR DESIGNDOCUMENTS)
10.10 BIRD CONTROL DEVICE
10.11 ELECTRICAL START CLOCK BY GC
DIVISION 11 - EQUIPMENTS
11.01 FOOD SERVICE EQUIPMENT (RE: FOOD SERVICE AND ENGINEERING DOCUMENTS)
DIVISION 13 - SPECIAL CONSTRUCTION
13.01 FIRE SUPRESSION SPRINKLERS (RE: FIRE PROTECTION DOCUMENTS)
DIVISION 14 - CONVEYING SYSTEMS
14.01 NOT USED
DIVISION 15 - MECHANICAL
15.01 HYDRONIC PIPING (RE: PLUMBING AND MECHANICAL DOCUMENTS)
15.02 PLUMBING PIPING (RE: PLUMBING DOCUMENTS)
15.03 PLUMBING FIXTURE(S) (RE: PLUMBING DOCUMENTS)
15.04 DUCTWORK (RE: MECHIANICAL DOCUMENTS)
15.05 DIFFUSER(S), REGISTER(S) ANDGRILLE(S) (RE: MECHANICALDOCUMENTS)
15.06 AREA DRAIN (RE:PLUMBING DOCUMENTS)
DIVISION 16 - ELECTRICAL
16.01 LIGHTING CONTROL DEVICES (RE: ELECTRICAL DOCUMENTS)
16.02 PANELBOARD(S) (RE: ELECTRICAL DOCUMENTS)
16.03 INTERIOR LIGHTING (RE: ELECTRICAL DOCUMENTS)
16.04 EXTERIOR LIGHTING (RE: ELECTRICAL DOCUMENTS)

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#	DATE	DESCRIPTION
	10/27/2023	BID / PERMIT ISSUE
01	01/05/2024	ADDENDUM #2
04	02/02/2024	ADDENDUM #7

SHEET NAME
WALL SECTIONS

Project Number: 2021.159

DATE: 2023.10.27

SHEET NUMBER
A 411

GENERAL MECHANICAL NOTES

1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE AND OPERABLE SYSTEM IN ACCORDANCE WITH THESE DOCUMENTS, THE APPLICABLE BUILDING CODES AND ALL OTHER APPLICABLE STATE, COUNTY AND LOCAL ORDINANCES AND THE LATEST EDITION OF THE FOLLOWING PUBLICATIONS; FLORIDA BUILDING CODE-MECHANICAL, SMACNA, ASHRAE, NFPA 90A, 90B, 91 & ANSI B-9.1 MECHANICAL REFRIGERATION.
2. THE MECHANICAL PLANS IN GENERAL, ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, PLUMBING, ELECTRICAL AND STRUCTURAL PLANS AND SHALL BE CONSIDERED AS ONE SET OF DOCUMENTS. DUCT AND PIPING OFFSETS, BENDS AND TRANSITIONS WILL BE REQUIRED TO PROVIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. CHANGES IN DUCTWORK SIZE AND ROUTE WILL BE REQUIRED TO AVOID STRUCTURAL, PLUMBING, FIRE SPRINKLER AND ARCHITECTURAL BUILDING FEATURES. DUCTWORK CHANGES MAY BE MADE BY CONTRACTOR USING EQUIVALENT SIZED DUCT. CONTACT ENGINEER IN WRITING IF MECHANICAL SYSTEMS WILL NOT FIT IN AREA ALLOTTED.
3. ALL INSTALLATIONS LOCATED WITHIN 3,000 FT OF THE OCEAN SHALL UTILIZE NON-FERROUS MATERIALS FOR ALL OUTDOOR EXPOSED SUPPORTS, STANDS, FASTENERS, STRAPS, TIE-DOWNS, CABLES, ANCHORS, SCREWS, ETC.
4. THE CONTRACTOR SHALL BE HELD TO HAVE VERIFIED ALL EXISTING CONDITIONS, INCLUDING REVIEW OF AS BUILT DOCUMENTATION IF APPLICABLE, PRIOR TO BIDDING, ORDERING, FABRICATION OR INSTALLATION OF MATERIALS OR EQUIPMENT ON THIS PROJECT.
5. THE CONTRACTOR SHALL PAY ALL COSTS OF PERMIT, INSPECTIONS AND ALL OTHER COSTS INCIDENTAL TO THE COMPLETION AND TESTING OF THIS WORK.
6. THE GENERAL CONTRACTOR AND ALL OTHER SUBCONTRACTORS SHALL BE LICENSED IN THE STATE OF FLORIDA. GENERAL CONTRACTOR SHALL CONSIDER THE PROJECT AS ONE SET OF DOCUMENTS. GENERAL CONTRACTOR SHALL PROVIDE AN ENTIRE SET OF DOCUMENTS SHOWING ALL TRADES TO EACH SUBCONTRACTOR PRIOR TO BIDDING AND CONSTRUCTION. GENERAL CONTRACTOR SHALL COORDINATE WITH ALL OTHER CONTRACTORS TO INFORM ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR POSSIBLE CONFLICTS ON THE DOCUMENTS PRIOR TO SUBMITTING FINAL BID AND COMMENCING ANY WORK. CONTRACTOR SHALL MAKE HIMSELF AVAILABLE FOR REVIEWING DOCUMENTS WITH ARCHITECT/ENGINEER UPON REQUEST.
7. THE CONTRACTOR SHALL VISIT THE SITE AND COORDINATE WORK WITH OTHER TRADES.
8. THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH "AS-BUILT" REDLINE DRAWINGS UPON COMPLETION OF THE PROJECT AND AUTOCAD SHOP DRAWING FILES (IF APPLICABLE).
9. CONTRACTOR SHALL SUBMIT FOR APPROVAL ELECTRONIC PDF COPIES OF MANUFACTURER DRAWINGS FOR EACH PIECE OF EQUIPMENT AND CONTROLS INCLUDED IN CONTRACT. ALL MATERIAL SHALL BE NEW AND OF U.S. MANUFACTURER OF GOOD QUALITY. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY SKILLED TRADESMEN.
10. THE GENERAL CONTRACTOR SHALL PROVIDE IN WRITING AND ON COMPANY LETTERHEAD ALL ITEMS VALUE ENGINEERED OR OMITTED FROM PROJECT BIDS. THIS DOCUMENT SHALL HAVE DETAILED DESCRIPTION AND TRANSPARENCY OF ALL ITEMS IN EACH DISCIPLINE AND FOR EACH TRADE. INFORMATION SHALL BE PROVIDED TO ARCHITECT AND ENGINEER FOR REVIEW PRIOR TO SUBMITTING FINAL BID. CONTRACTOR SHALL MAKE HIMSELF AVAILABLE FOR REVIEWING DOCUMENTS WITH ARCHITECT/ENGINEER/OWNER UPON REQUEST.
11. THE MECHANICAL CONTRACTOR SHALL PROVIDE THE ELECTRICAL CONTRACTOR THE REVIEWED MECHANICAL EQUIPMENT SUBMISSIONS TO ENSURE THAT ALL BREAKER SIZES ARE CORRECT AND MATCH THE SUBMISSIONS. IN THE EVENT THAT ALTERNATE EQUIPMENT IS PROVIDED, THE OWNER SHALL NOT INCUR ANY ADDITIONAL COSTS ASSOCIATED WITH DIFFERENT BREAKER OR CHANGES TO WIRE SIZES.
12. THE CONTRACTOR SHALL PROVIDE ALL DOCUMENTATION TO THE BUILDING OFFICIALS AND OWNERS INCLUDING, BUT NOT LIMITED TO, AHRI CERTIFICATIONS, EQUIPMENT CUT SHEETS, PRODUCT RATINGS, NOA'S, AND WIND LOAD CALCULATIONS FOR ALL EQUIPMENT SPECIFIED.

DUCTWORK:

13. ALL OUTSIDE AIR DUCT INTAKES SHALL BE LOCATED BEYOND 10'-0" OF ANY VENTILATION OUTLET OR SANITARY VENT PIPE AND SHALL BE SCREENED WITH A CORROSION RESISTANT MATERIAL NOT LARGER THAN 1/2" MESH PER 2020 FBC MECHANICAL, SEC. 401.4 AND 401.5. ALL OUTSIDE AIR INTAKES SHALL BE MARKED WITH A PERMANENT PLATE TITLED "INTAKE FOR UNIT NUMBER(#)" (E.G. "INTAKE FOR AHU-1", "INTAKE FOR FCU-1-1", ETC.)
14. ALL EXHAUST AIR FANS AND VENTS SHALL BE LOCATED BEYOND 10'-0" OF ANY OUTSIDE AIR INTAKE OR FAN. ALL EXHAUST AIR FANS SHALL BE MARKED WITH A PERMANENT PLATE TITLED "EXHAUST FAN FOR UNIT NUMBER(#) OR AREA". (E.G. "EF-1 FOR LOCKER ROOM", "EF-1-1 FOR GRD FL TOILET", ETC.)
15. ALL AIR DEVICES (E.G., DIFFUSERS, REGISTERS AND GRILLES) SHALL BE ALL ALUMINUM CONSTRUCTION WITH EXPOSED SURFACE OFF WHITE BAKED ENAMEL FINISH OR AS SPECIFIED BY ARCHITECT. PROVIDE STEEL GRILLES FOR FIRE RATED CEILINGS. PROVIDE OPPOSED BLADE DAMPERS AT ALL DIFFUSERS AND REGISTERS. PROVIDE MANUAL VOLUME DAMPERS WITH EXTRACTOR AT ALL FLEX TAKE-OFFS. PROVIDE REMOTE CABLE OPERATED VOLUME DAMPERS IN INACCESSIBLE AND HARD CEILING AREAS, "YOUNG REGULATOR" OR EQUAL. COMPLY WITH 2020 FBC MECHANICAL, SEC. 601.6 AND 603.18 FOR BALANCED AIR FLOW.
16. PROVIDE OPTIONAL MOLDED INSULATION BLANKET WITH R-6 RATING ON ALL LAY-IN STYLE DIFFUSERS. MOUNTING FRAMES SHALL BE PROVIDED FOR ALL STANDARD 24" X 24" LAY-IN STYLE DIFFUSERS LOCATED IN HARD CEILINGS, & FOR **ALL** 12" X 12" LAY-IN STYLE DIFFUSERS - REGARDLESS OF THE LOCATION. FAILURE TO INCLUDE THESE ITEMS DURING PRICING SHALL NOT INCUR ANY ADDITIONAL COSTS TO THE OWNER AND/OR DESIGN ENGINEER.

THERMOSTATS/CONTROLS: ADD#7

17. CONTRACTOR SHALL PROVIDE A FULLY INTEGRATED BUILDING CONTROL SYSTEM TO CONTROL HVAC SYSTEM AND ALL OTHER SYSTEMS SHOWN ON CONTROL PLANS. PROVIDE BMS/EMS SYSTEMS AND/OR INTERFACES/GATEWAYS FOR ALL HVAC EQUIPMENT (WHERE APPLICABLE) TO BE CONNECTED TO CONTROL SYSTEMS. SYSTEM SHALL BE SIZED TO PROVIDE FUTURE EXPANSION AND ADDITIONAL CONTROL POINTS. MECHANICAL CONTRACTOR SHALL COORDINATE WITH CONTROL CONTRACTOR AND ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL CONTROL REQUIREMENTS FOR SYSTEM. (E.G. POWER SERVICE, PANELS, POWER WIRING, CONTROL WIRING, CONDUITS, TESTING, ETC.) CONTRACTOR SHALL SUBMIT CONTROL DRAWINGS AND SPECIFICATIONS FOR ENGINEERS APPROVAL PRIOR TO INSTALLATION. PROVIDE FINALIZED CONTROL PLANS AND SYSTEM TRAINING TO OWNER/OPERATOR PRIOR TO OWNER ACCEPTANCE.
18. CONTRACTOR SHALL PROVIDE OWNER/BUILDING MANAGER/BUILDING ENGINEER WITH 4 HOURS OF ONSITE AND/OR OFF SITE TRAINING IN THE CONTROL AND OPERATION OF THE HVAC SYSTEM. TIME AND LOCATION TO BE DETERMINED BY CLIENT.
19. PROVIDE NEW REFRIGERANT LINE SETS FOR EQUIPMENT UNLESS OTHERWISE NOTED. REFRIGERANT LINES SHALL BE COPPER, TYPE "ACR" HARD DRAWN WITH WROUGHT COPPER SOLDER-JOINT TYPE FITTINGS, USE 95/5 SOLDER. REFRIGERANT LINES SHALL BE SIZED AS PER MANUFACTURER RECOMMENDATIONS. ALL EXPOSED INSULATION SHALL BE PROTECTED FROM U.V. LIGHT WITH U.V. RESISTANT PAINT OR ALUMINUM SHIELDING.
20. SUCTION LINES SHALL BE INSULATED WITH 3/4" WALL CLOSED CELL NEOPRENE INSULATION ARMSTRONG "ARMAFLEX OR ARMACELL" OR EQUAL.
21. FILTER/DRYER AND SITE GLASS SHALL BE PROVIDED ON LIQUID LINES.
22. PROVIDE NEW FILTERS FOR ALL AIR CONDITIONING EQUIPMENT BEFORE STARTING THEM. PROVIDE ONE FOR CONSTRUCTION, ONE FOR TEST & BALANCE, ONE FOR FINAL ACCEPTANCE BY OWNER, AND ONE SPARE. REPLACE THEM PRIOR TO FINAL ACCEPTANCE BY OWNER.
23. PROVIDE PHOTO ELECTRIC TWIST IN TYPE SMOKE DETECTORS WITH ACCESS DOORS IN ALL FANS AND AHU'S SERVING A COMMON PLENUM OF 2000 CFM OR ABOVE. ALL SMOKE DETECTORS SHALL BE BY ONE MANUFACTURER, AND SHALL COMPLY WITH UL 268A LOCATE THE SMOKE DETECTORS IN THE SUPPLY AND RETURN AIR DUCTS FOR INSTALLATIONS IN COMPLIANCE WITH THE THE FLORIDA BUILDING CODE & NFPA 72. THE DETECTORS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR & INSTALL IN THE DUCT BY THE MECHANICAL CONTRACTOR. PROVIDE REMOTE TEST STATION. ELECTRICAL CONNECTION SHALL BE BY ELECTRICAL CONTRACTOR. UPON SMOKE DETECTION ALL ASSOCIATED AIR MOVING EQUIPMENT SERVING A COMMON PLENUM WILL BE SHUT DOWN. TIE FIRE ALARM DEVICES INTO EXISTING FIRE ALARM SYSTEM (IF APPLICABLE).
24. PROVIDE TYPE "B" DYNAMIC FIRE DAMPERS IN ALL DUCTS OR OPENINGS PENETRATING FIRE RATED ASSEMBLIES. PROVIDE RADIATION DAMPERS IN DIFFUSERS OF RATED CEILINGS.
25. ALL CONDENSATE DRAIN PIPING SHALL BE TYPE "L" HARD COPPER WITH 1/2" THICK ARMAFLEX INSULATION. PVC PIPING SHALL NOT BE ALLOWED. SEE PLUMBING SHEETS FOR SIZE AND LOCATION OF PIPING. FINAL CONNECTION AND P-TRAP BY MECHANICAL CONTRACTOR - ALL OTHER CONDENSATE PIPING BY PLUMBING CONTRACTOR.
26. PROVIDE INSULATED PRIMARY CONDENSATE DRAIN FROM ALL AIR HANDLERS. PROVIDE SECONDARY PAN DRAIN FROM ALL AIR HANDLERS DISCHARGING OVER NEAREST WINDOW OR DOOR. A AQUA GUARD MODEL AG-2550E FLOAT SWITCH MAY BE USED IN LIEU OF THE SECONDARY DRAIN. SEE PLANS FOR DESIGN.
27. PROVIDE HARD-WIRED CONDENSATE PUMP FOR AIR HANDLING UNITS WHERE FIELD CONDITIONS DO NOT ALLOW FOR LINES TO GRAVITY DRAIN. CONDENSATE PUMP SHALL BE EQUAL TO LITTLE GIANT VCMX-20ULS-C CONDENSATE PUMP (115V, 1.5A) WITH ANTI-SWEAT SLEEVE AND OVERFLOW SAFETY SWITCH OPTIONS, EXCEPT IN RETURN AIR PLENUMS. CONDENSATE PUMPS IN RETURN AIR PLENUMS SHALL BE EQUAL TO HARTELL A2-X-1965 PLENUM-RATED CONDENSATE PUMP (115/230V, 3.5/1.7A). CONTRACTOR SHALL CONFIRM SIZE OF PUMP WITH MANUFACTURES RECOMMENDATIONS. PLUG-IN PUMPS ARE NOT ACCEPTED.
28. FOR ELECTRICAL OR CONTROL PANELS PROVIDE A MINIMUM OF 3'0" CLEARANCE IN FRONT OF ALL 120-240 VOLT PANELS AND 4'0" CLEARANCE IN FRONT OF ANY 480 VOLT PANEL. PROVIDE ADEQUATE SIDE CLEARANCE PER NEC. DUCTS, PIPES, AND OTHER EQUIPMENT ARE NOT ALLOWED TO RUN OVER PANELS PER NEC.
29. THE GENERAL CONTRACTOR SHALL TEST AND BALANCE THE AIR SIDE SYSTEM UPON COMPLETION. THE FINAL TEST AND BALANCE MUST BE PERFORMED BY AN INDEPENDENT FIRM CONTRACTED BY THE GENERAL CONTRACTOR AND NOT THE MECHANICAL CONTRACTOR. THE TEST AND BALANCE FIRM SHALL HOLD A CURRENT CERTIFICATION FROM AABC OR NEBB. THE TEST AND BALANCE OPERATION SHALL INCLUDE ALL AIR SIDE SYSTEMS REGARDLESS OF SIZE OF EQUIPMENT AND A TEST TO CONFIRM BUILDING IS NEUTRAL OR POSITIVELY PRESSURIZED. THE T & B FIRM SHALL PROVIDE A WRITTEN REPORT TO THE ARCHITECT AND THE ENGINEER UPON COMPLETION. 2020 FBC ENERGY CONSERVATION CODE, SECTION C408.2.2.
30. THE MECHANICAL CONTRACTOR SHALL VERIFY THAT THE AIR CONDITIONED SPACE IS SEALED WITH AN APPROVED AIR BARRIER IN ACCORDANCE WITH CHAPTER 4 OF THE 2020 FBC ENERGY CONSERVATION CODE. (REF SECTION C402.5.9 BUILDING CAVITIES). THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND ARCHITECT IN WRITING OF ANY DISCREPANCIES PRIOR TO INSTALLATION OF ANY EQUIPMENT.
31. ALL OPERATIONS / MAINTENANCE MANUALS FOR EQUIPMENT SPECIFIED SHALL BE PROVIDED TO OWNER UPON COMPLETION OF PROJECT.
32. ALL ROOF CURBS SHALL BE A MIN OF 8" ABOVE FINISHED ROOFING SURFACE UNLESS OTHERWISE SPECIFIED ON DRAWINGS. MECHANICAL EQUIPMENT ON ELEVATED STRUCTURES OR ROOFS SHALL COMPLY WITH 2020 FBC MECHANICAL, SEC. 306.5 IF INSTALLED HIGHER THAN 16 FEET AFF. ROOF MOUNTED MECHANICAL EQUIPMENT INSTALLED WITHIN 10'-0" OF A ROOF EDGE OR OPEN SIDE OF A WALKING SURFACE 30" AFF SHALL BE PROVIDED WITH A GUARD COMPLYING WITH 2020 FBC MECHANICAL, SEC. 304.11. MECHANICAL EQUIPMENT INSTALLED IN ATTICS SHALL MEET THE REQUIREMENTS OF 2020 FBC MECHANICAL, SEC. 306.3 IF THE EQUIPMENT CAN NOT BE SERVICED/REMOVED THROUGH REQUIRED OPENING. MECHANICAL EQUIPMENT SHALL BE PROTECTED WITH MECHANICAL BARRIERS IF EXPOSED TO MECH. DAMAGE. ALL EQUIPMENT AT GRADE LEVEL SHALL BE INSTALLED ON 6" AFG CONCRETE PAD OR ON RAILS.
33. ALL WIND LOAD AND OTHER COMPLIANCE CALCULATIONS AND/OR INSTALLATION DETAILS FOR ROOF MOUNTED EQUIPMENT REQUIRED BY 2020 FBC BUILDING, SEC. 1609, 1622 AND CHAPTER 16 SHALL BE PROVIDED BY STRUCTURAL ENGINEER, ARCHITECT, OR EQUIPMENT MANUFACTURER'S ENGINEER.
34. MECHANICAL CONTRACTOR TO COORDINATE REQUIREMENTS OF 2020 FBC MECHANICAL, SEC. 306.3 FOR ATTIC ACCESS OPENINGS AND PASSAGEWAYS WITH GENERAL CONTRACTOR. GENERAL CONTRACTOR TO PROVIDE CONTINUOUS SOLID FLOORING FOR SAME. THE NOTE FOR PLACEMENT INSIDE ELECTRICAL PANEL WILL BE COORDINATED WITH ELECTRICAL CONTRACTOR.
35. ACCESS TO EQUIPMENT THAT UTILIZE ENERGY SHALL BE ACCESSIBLE FOR INSPECTION, SERVICE, REPAIR AND REPLACEMENT WITHOUT DISTURBING THE AREA AROUND THE EQUIPMENT. A LEVEL WORKING SPACE OF AT LEAST 30 INCH BY 30 INCH IN FRONT OF THE CONTROL SIDE IS REQUIRED PER 2020 FBC MECHANICAL, SEC. 306.1.

MECHANICAL SYMBOL LEGEND

- NEW RIGID DUCT METAL OR FIBER (REF. KEY NOTES)
- SUPPLY DUCT VERTICAL TAPS
- NEW RETURN DUCT
- NEW FLEXIBLE DUCT
- 12x12 OA — TYPICAL OA DUCT
  - SUPPLY / OA DUCT TURN UP
  - DUCT SIZE / SYSTEM
  - SUPPLY / OA DUCT TURN DOWN
- 12x12 EXH — TYPICAL EXHAUST DUCT
- 12x12 RA — TYPICAL RETURN DUCT
- CWR — CHILLED WATER RETURN - BLACK STEEL/COPPER
- CWS — CHILLED WATER SUPPLY - BLACK STEEL/COPPER
- CDR — CONDENSER WATER RETURN - BLACK STEEL/COPPER
- CDS — CONDENSER WATER SUPPLY - BLACK STEEL/COPPER
- REF — REFRIGERANT LINE - COPPER
- C — CONDENSATE LINE
- VD — MANUAL VOLUME DAMPER
- MVD — MOTORIZED VOLUME DAMPER
- FD — FIRE DAMPER
- BD — BACK DRAFT DAMPER
- F/SD — FIRE SMOKE DAMPER
- SD — SMOKE DAMPER
- SUPPLY DIFFUSER, SEE GRILL REGISTER AND DIFFUSER SCHEDULE FOR DESCRIPTION.
- T-BAR DROP IN SUPPLY DIFFUSER, SEE GRILL REGISTER AND DIFFUSER SCHEDULE FOR DESCRIPTION.
- RETURN GRILLE, SEE GRILLE REGISTER AND DIFFUSER SCHEDULE FOR DESCRIPTION.
- T — THERMOSTAT
- EXHAUST FAN
- ACCESS: AHU# — AIR HANDLER UNIT
- CONDENSING UNIT
- SD — SMOKE DETECTOR/ CUTOFF
- SD-X / 500 — DIFFUSER/GRILLE SYMBOL
- CONNECT TO EXISTING
- AHU-X-X — EQUIPMENT TAG
  - EQUIPMENT NUMBER
  - EQUIPMENT FLOOR/LOCATION
- ACCESS PANEL
- SUPPLY AIR
- RETURN AIR
- WALL MOUNTED - AIR HANDLER UNIT
- SIDEWALL SUPPLY GRILLE
- MINI-SPLIT CONDENSING UNIT

NOTE: NOT ALL SYMBOLS MAY APPLY TO PLANS

MECHANICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	NTS	NOT TO SCALE
AFG	ABOVE FINISHED GRADE	OA	OUTSIDE AIR
AHU	AIR HANDLING UNIT	RA	RETURN AIR
BD	BACK DRAFT DAMPER	RD	RELIEF DAMPER
EDH	ELECTRIC DUCT HEATER	REF	REFERENCE
E/A	EXHAUST AIR	REF	REFRIGERANT
EF	EXHAUST FAN	RG	RETURN GRILLE
EG	EXHAUST GRILLE	SD	SUPPLY DIFFUSER
EXH	EXHAUST	SA	SUPPLY AIR
MAU	MAKE UP AIR UNIT	SF	SUPPLY FAN

NOTE: NOT ALL ABBREVATIONS MAY APPLY TO PLANS

HVAC DESIGN CONDITIONS

	DB °F	WB °F	GR/#	COMMENTS
OUTDOOR	92.3	79.2	129.9	FROM ASHRAE STANDARD 183
INDOOR	75	62	65	
GLASS TYPE	REF ARCH DRAWINGS			U = 0.23 SC = 0.73
ROOF TYPE	WOOD TRUSS			
TOTAL ROOF "R" VALUE	R = 30			U = 0.03
WALL TYPE	REF ARCH DRAWINGS			
TOTAL WALL "R" VALUE	R = 13			U = 0.06

NOTES:
1. THIS SPACE SHALL NOT OPERATE BELOW 75°F.
2. ALL CONSTRUCTION ASSEMBLIES AND R-VALUES PROVIDED BY ARCHITECT. SEE ARCHITECT PLANS FOR DETAILS.

MECHANICAL SHEET INDEX

M000	MECHANICAL NOTES, LEGENDS, & SHEET INDEX
M101	MECHANICAL ZONE MAP
M201	MECHANICAL FLOOR PLANS - GROUND LEVEL
M202	MECHANICAL FLOOR PLANS - GROUND LEVEL
M211	MECHANICAL MEZZANINE & ROOF PLAN
M301	MECHANICAL SCHEDULES
M302	MECHANICAL SCHEDULES
M401	MECHANICAL DETAILS ADD#7
M402	MECHANICAL DETAILS
M501	MECHANICAL CONTROLS

APPLICABLE BUILDING CODES

FLORIDA BUILDING CODE, 7TH EDITION (2020)
FLORIDA BUILDING CODE MECHANICAL, 7TH EDITION (2020)
FLORIDA BUILDING CODE PLUMBING, 7TH EDITION (2020)
FLORIDA FIRE PREVENTION CODE, 7TH EDITION (2020)
FLORIDA ENERGY CONSERVATION CODE, 7TH EDITION (2020)
NFPA 96, 2017 EDITION
ANSI/ASHRAE 15, 2019 MECHANICAL REFRIGERATION
ASHRAE 62.1, 2016 EDITION

MATERIALS AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES IN THEIR LATEST REVISIONS.

CONTRACTOR TO COORDINATE SPECIFIC REQUIREMENTS OF EQUIPMENT WITH MANUFACTURERS' SHOP DRAWINGS.

ALL EQUIPMENT SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS.

FLEX DUCT SIZING CHART

CFM VALUE	FLEX DUCT SIZE
0 - 30	4" ø
31 - 90	6" ø
91 - 175	8" ø
176 - 300	10" ø
301 - 420	12" ø
421 - 620	14" ø
621 - 940	16" ø

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BID/PERMIT SET

PROJECT ISSUE DATES:

ADD#7 02/02/2024 ADDENDUM#7

SHEET NAME

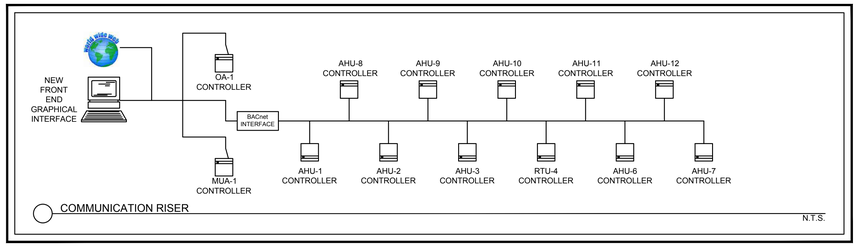
MECHANICAL NOTES, LEGENDS, & SHEET INDEX

Project Number: 2021.159

DATE: 2023.10.27

SHEET NUMBER

M000



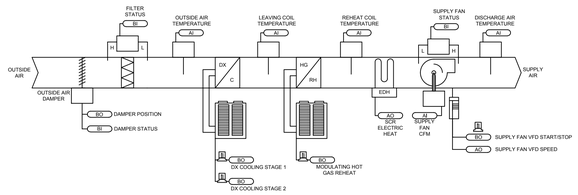
CONTROLS GENERAL NOTES:

APPROVED VENDORS: TRANE COMPANY

1. THE CONTROLS PORTION OF THIS PROJECT CONSISTS OF A HVAC DIGITAL CONTROL SYSTEM AS INDICATED ON THE CONSTRUCTION DOCUMENTS AND THE WRITTEN SPECIFICATIONS.
2. THE CONTRACTOR SHALL PROVIDE CONNECTIVITY TO THE CONTROL SYSTEM. CONTRACTOR TO PROVIDE CONDUIT & CABLING REQUIRED.
3. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH DIGITAL COPIES (PDF) OF SUBMITTALS FOR THIS SYSTEM, INCLUDING OPERATIONAL MANUALS PRIOR TO PURCHASE OF THE EQUIPMENT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL PROGRAMMING FOR THE SYSTEM IN ACCORDANCE WITH THE DESIRED OPERATIONAL SCHEDULE AS PROVIDED BY THE OWNER.
5. THE CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL AND ELECTRICAL TRADES AS REQUIRED TO MAKE SURE THAT ALL COMPONENTS OF THE SYSTEM ARE PROPERLY INTERFACED TO THE BUILDING SYSTEM.
6. THE CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF ALL HARDWARE, INCLUDING THE INTERCONNECT WIRING AND PROGRAMMING
7. WIRELESS TECHNOLOGY MAY USED IN CASES WHERE SPACE CONSTRAINTS OF EXISTING INSTALLATIONS EXIST. THIS MAY BE DONE ON A CASE BY CASE BASIS AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
8. ALL SYSTEMS SHALL BE INTERFACED WITH THE BUILDING FIRE ALARM SYSTEM AS REQUIRED.
9. THE CONTROLS CONTRACTOR SHALL COMPLY WITH THE SCHEMATICS ON THESE DRAWINGS AND THE SEQUENCE OF OPERATIONS.

CONTROLS SCOPE OF WORK:

1. A COMPLETE DIRECT DIGITAL ENERGY MANAGEMENT SHALL BE PROVIDED.
2. THE SYSTEM SHALL INCLUDE ALL DX EQUIPMENT.
3. THE CONTROLS CONTRACTOR SHALL PROVIDE ALL SENSORS IN ACCORDANCE TO THE CONTROLS BLOCK DIAGRAMS.



100% OUTSIDE AIR UNIT - DISCHARGE AIR TEMP

RUN CONDITIONS - SCHEDULED:
THE UNIT SHALL RUN BASED UPON AN OPERATOR ADJUSTABLE SCHEDULE.

OUTSIDE AIR DAMPER:
THE OUTSIDE AIR DAMPER SHALL OPEN ANYTIME THE UNIT RUNS AND SHALL CLOSE ANYTIME THE UNIT STOPS. THE SUPPLY FAN SHALL START ONLY AFTER THE DAMPER STATUS HAS PROVEN THE DAMPER IS OPEN. THE OUTSIDE AIR DAMPER SHALL CLOSE 4SEC (ADJ.) AFTER THE SUPPLY FAN STOPS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
OUTSIDE AIR DAMPER FAILURE: COMMANDED OPEN, BUT THE STATUS IS CLOSED.
OUTSIDE AIR DAMPER IN HAND: COMMANDED CLOSED, BUT THE STATUS IS OPEN.

SUPPLY FAN:
THE SUPPLY FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN. TO PREVENT SHORT CYCLING, THE SUPPLY FAN SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME, UNLESS SHUTDOWN ON SAFETIES.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
SUPPLY FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
SUPPLY FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
SUPPLY FAN RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

SUPPLY AIR TEMPERATURE SETPOINT - FIXED:
THE CONTROLLER SHALL MONITOR THE SUPPLY AIR TEMPERATURE AND SHALL MAINTAIN A FIXED SUPPLY AIR TEMPERATURE SETPOINT OF 55°F (ADJ.).

COOLING STAGES:
THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND STAGE THE COOLING TO MAINTAIN ITS COOLING SETPOINT. TO PREVENT SHORT CYCLING, THERE SHALL BE A USER DEFINABLE (ADJ.) DELAY BETWEEN STAGES, AND EACH STAGE SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

THE COOLING SHALL BE ENABLED WHENEVER:
OUTSIDE AIR TEMPERATURE IS GREATER THAN 60°F (ADJ.).
AND THE SUPPLY AIR TEMPERATURE IS ABOVE COOLING SETPOINT.
AND THE FAN STATUS IS ON.

MODULATING HOT GAS REHEAT:
HOT GAS REHEAT COIL SHALL MODULATE IN COOLING MODE TO MAINTAIN DISCHARGE TEMPERATURE OF 72°F (ADJ.).

ELECTRIC HEATING STAGES:
THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND STAGE THE HEATING TO MAINTAIN ITS HEATING SETPOINT. TO PREVENT SHORT CYCLING, THERE SHALL BE A USER DEFINABLE (ADJ.) DELAY BETWEEN STAGES, AND EACH STAGE SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

THE HEATING SHALL BE ENABLED WHENEVER:
OUTSIDE AIR TEMPERATURE IS LESS THAN 65°F (ADJ.).
AND THE SUPPLY AIR TEMPERATURE IS BELOW HEATING SETPOINT.
AND THE FAN STATUS IS ON.

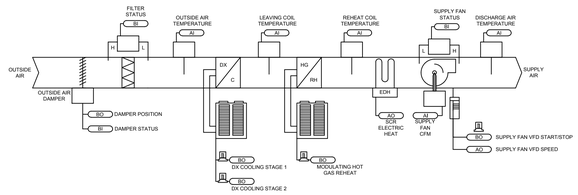
PREFILTER DIFFERENTIAL PRESSURE MONITOR:
THE CONTROLLER SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE PREFILTER.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
PREFILTER CHANGE REQUIRED: PREFILTER DIFFERENTIAL PRESSURE EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

SUPPLY AIR TEMPERATURE:
THE CONTROLLER SHALL MONITOR THE SUPPLY AIR TEMPERATURE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS GREATER THAN 120°F (ADJ.).
LOW SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS LESS THAN 45°F (ADJ.).

1 OA-1 - 100% OUTSIDE AIR UNIT
N.T.S



100% OUTSIDE AIR UNIT - DISCHARGE AIR TEMP

RUN CONDITIONS - SCHEDULED:
THE UNIT SHALL BE INTERLOCKED WITH THE KITCHEN EXHAUST HOOD AND RUN ALONGSIDE THE HOOD EXHAUST FAN.

OUTSIDE AIR DAMPER:
THE OUTSIDE AIR DAMPER SHALL OPEN ANYTIME THE UNIT RUNS AND SHALL CLOSE ANYTIME THE UNIT STOPS. THE SUPPLY FAN SHALL START ONLY AFTER THE DAMPER STATUS HAS PROVEN THE DAMPER IS OPEN. THE OUTSIDE AIR DAMPER SHALL CLOSE 4SEC (ADJ.) AFTER THE SUPPLY FAN STOPS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
OUTSIDE AIR DAMPER FAILURE: COMMANDED OPEN, BUT THE STATUS IS CLOSED.
OUTSIDE AIR DAMPER IN HAND: COMMANDED CLOSED, BUT THE STATUS IS OPEN.

SUPPLY FAN:
THE SUPPLY FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN. TO PREVENT SHORT CYCLING, THE SUPPLY FAN SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME, UNLESS SHUTDOWN ON SAFETIES.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
SUPPLY FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
SUPPLY FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
SUPPLY FAN RUNTIME EXCEEDED: STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

SUPPLY AIR TEMPERATURE SETPOINT - FIXED:
THE CONTROLLER SHALL MONITOR THE SUPPLY AIR TEMPERATURE AND SHALL MAINTAIN A FIXED SUPPLY AIR TEMPERATURE SETPOINT OF 55°F (ADJ.).

COOLING STAGES:
THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND STAGE THE COOLING TO MAINTAIN ITS COOLING SETPOINT. TO PREVENT SHORT CYCLING, THERE SHALL BE A USER DEFINABLE (ADJ.) DELAY BETWEEN STAGES, AND EACH STAGE SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

THE COOLING SHALL BE ENABLED WHENEVER:
OUTSIDE AIR TEMPERATURE IS GREATER THAN 60°F (ADJ.).
AND THE SUPPLY AIR TEMPERATURE IS ABOVE COOLING SETPOINT.
AND THE FAN STATUS IS ON.

MODULATING HOT GAS REHEAT:
HOT GAS REHEAT COIL SHALL MODULATE IN COOLING MODE TO MAINTAIN DISCHARGE TEMPERATURE OF 72°F (ADJ.).

ELECTRIC HEATING STAGES:
THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND STAGE THE HEATING TO MAINTAIN ITS HEATING SETPOINT. TO PREVENT SHORT CYCLING, THERE SHALL BE A USER DEFINABLE (ADJ.) DELAY BETWEEN STAGES, AND EACH STAGE SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

THE HEATING SHALL BE ENABLED WHENEVER:
OUTSIDE AIR TEMPERATURE IS LESS THAN 65°F (ADJ.).
AND THE SUPPLY AIR TEMPERATURE IS BELOW HEATING SETPOINT.
AND THE FAN STATUS IS ON.

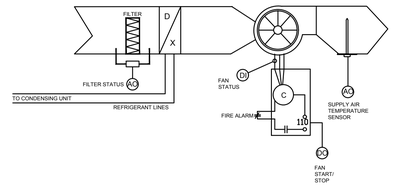
PREFILTER DIFFERENTIAL PRESSURE MONITOR:
THE CONTROLLER SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE PREFILTER.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
PREFILTER CHANGE REQUIRED: PREFILTER DIFFERENTIAL PRESSURE EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

SUPPLY AIR TEMPERATURE:
THE CONTROLLER SHALL MONITOR THE SUPPLY AIR TEMPERATURE.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS GREATER THAN 120°F (ADJ.).
LOW SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS LESS THAN 45°F (ADJ.).

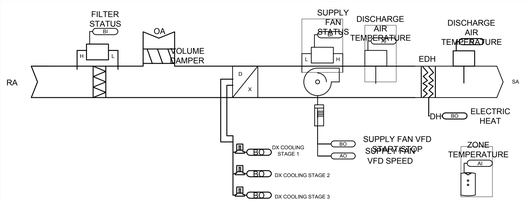
2 MUA-1 - 100% OUTSIDE AIR UNIT
N.T.S



SEQUENCE OF OPERATIONS - DX SPLIT SYSTEMS

1. FAN OPERATION: THE INDOOR UNIT FAN RECEIVES THE SIGNAL TO RUN CONTINUOUS DURING OCCUPIED PERIODS IN ORDER TO MAINTAIN OUTSIDE AIR VENTILATION REQUIREMENTS. DURING UNOCCUPIED PERIODS THE FAN SHALL CYCLE ON WHEN THE CONTROLLER RECEIVES THE SIGNAL FROM THE BAS TO MAINTAIN THE UNOCCUPIED SETPOINT THE FAN WILL CYCLE OFF WHEN THE SETPOINT IS OBTAINED.
2. FIRE ALARM: INTERFACE SYSTEM WITH THE FIRE ALARM CONTROLS. WHEN THE FIRE ALARM CONTROL INITIATES A FIRE ALARM, SHUT DOWN THE SUPPLY FAN BY A HARDWIRED CONTACT. ONCE RESET, THE UNIT WILL RESUME THE CURRENT MODE OF OPERATION.
3. COOLING MODE ENABLE: WHEN THE SPACE TEMPERATURE RISES ABOVE THE ADJUSTABLE SETPOINT THE BAS GENERATES A CALL FOR COOLING, ENABLE THE UNIT'S COMPRESSOR. ALLOW THE UNIT'S CONTROLS TO CYCLE THE COMPRESSOR TO SUPPLY THE NEEDED AIR TEMPERATURE. THE UNIT'S INTERNAL CONTROLS PROTECT THE EQUIPMENT FROM EXCESSIVE OPERATING CONDITIONS INCLUDING LOW OIL PRESSURE, HIGH DISCHARGE PRESSURE, LOW SUCTION PRESSURE, EXCESSIVE CYCLING (MORE THAN ONE EVERY 5 MINUTES OR 6 CYCLES/HOUR), LOW REFRIGERANT CHARGE, HIGH AND LOW REFRIGERANT TEMPERATURES, ETC.
4. HEATING MODE ENABLE: WHEN THE SPACE TEMPERATURE FALLS BELOW THE ADJUSTABLE SETPOINT THE BAS GENERATES A CALL FOR HEATING, ENABLE THE UNIT'S HEAT STRIP.

3 AHU CONTROLS BLOCK DIAGRAM
N.T.S.



SEQUENCE OF OPERATIONS - DX PACKAGED ROOFTOP UNIT

1. FAN OPERATION: THE INDOOR UNIT FAN RECEIVES THE SIGNAL TO MODULATE BASED ON TEMPERATURE FEEDBACK FROM SPACE DURING OCCUPIED PERIODS.(THE OA UNIT SHALL BE COMMANDED ON DURING OCCUPIED HOURS).

   DURING UNOCCUPIED PERIODS THE FAN SHALL CYCLE ON WHEN THE CONTROLLER RECEIVES THE SIGNAL FROM THE BAS TO MAINTAIN THE UNOCCUPIED SETPOINT THE FAN WILL CYCLE OFF WHEN THE SETPOINT IS OBTAINED .
2. FIRE ALARM: INTERFACE SYSTEM WITH THE FIRE ALARM CONTROLS. WHEN THE FIRE ALARM CONTROL INITIATES A FIRE ALARM, SHUT DOWN THE SUPPLY FAN BY A HARDWIRED CONTACT. ONCE RESET, THE UNIT WILL RESUME THE CURRENT MODE OF OPERATION.
3. COOLING MODE ENABLE: WHEN THE SPACE TEMPERATURE RISES ABOVE THE ADJUSTABLE SETPOINT THE BAS GENERATES A CALL FOR COOLING, THE UNIT SHALL MAINTAIN SPACE TEMPERATURE CONTROL.
4. HEATING MODE ENABLE: WHEN THE SPACE TEMPERATURE FALLS BELOW THE ADJUSTABLE SETPOINT THE BAS GENERATES A CALL FOR HEATING, ENABLE THE UNIT'S HEAT STRIP.

4 DX PACKAGED ROOFTOP UNITS - SEQUENCE OF OPERATION AND CONTROLS BLOCK DIAGRAM
APPLICABLE UNITS: RTU-4
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PROJECT ISSUE DATES:

ADD#7	02/02/2024	ADDENDUM#7

SHEET NAME

MECHANICAL CONTROLS

Project Number: 2021.159

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