



City of Ocala  
SunTran AMF Renovations


1805 NE 30th Ave. Ocala, Florida 334470

100% CONSTRUCTION DOCUMENTS  
NOVEMBER 11-2022

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E-902	DETAILS - ELECTRICAL	05/13/22		

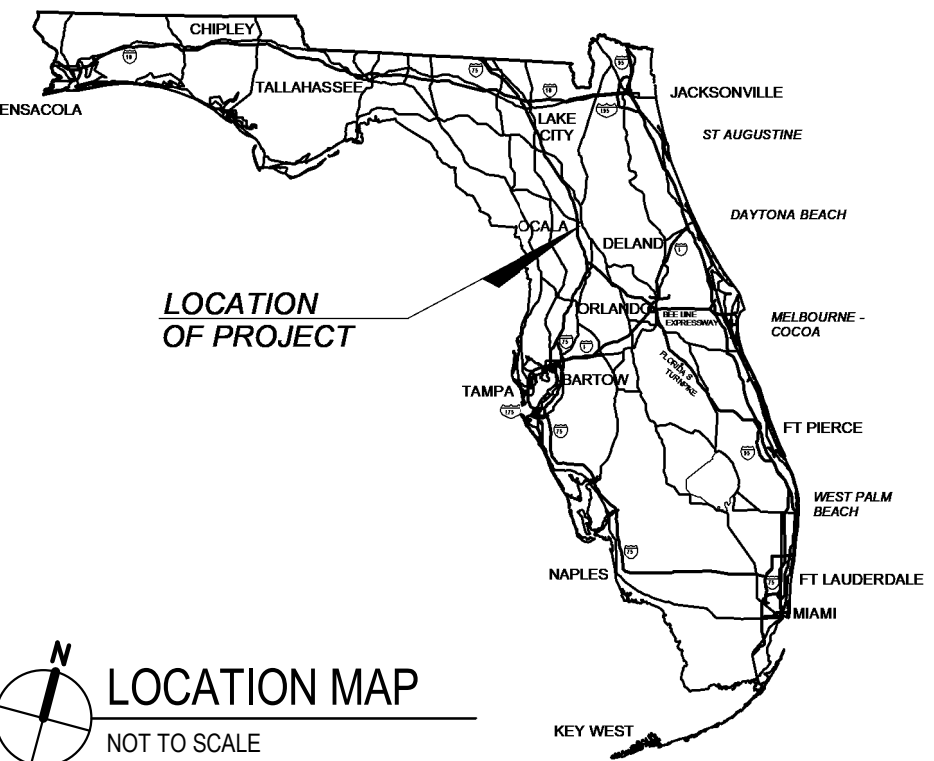
PROJECT OWNER

CLIENT: CITY OF OCALA - SunTran AMF



1805 NE 30th Ave. Ocala, Florida 334470

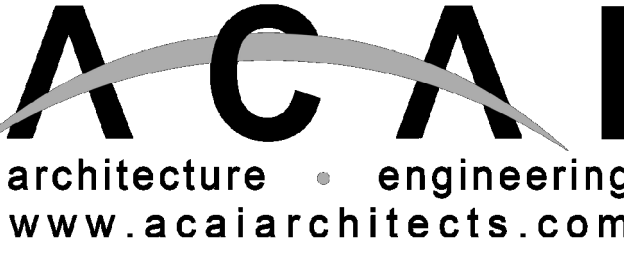
PROJECT LOCATION MAP



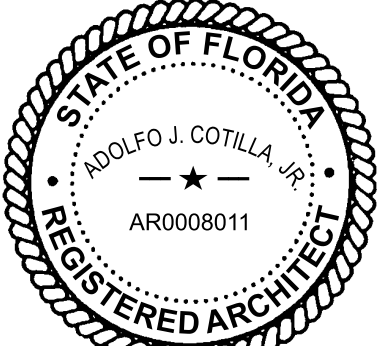
LOCATION MAP  
NOT TO SCALE

PROJECT DESIGN TEAM

PRIME CONSULTANT / ARCHITECT OF RECORD:



architecture • engineering  
www.acaiarchitects.com




11/15/2022  
This form has been electronically signed and sealed by Adolfo J. Cotilla, Jr. on the date adjacent to the seal.  
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PROFESSIONAL IN CHARGE  
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REGISTRATION NUMBER  
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MECHANICAL, ELECTRICAL AND PLUMBING:



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ACAI PROJECT NUMBER: 19-031 P02

B - 1



11/9/2022 14:56 PM BIM 360/19-031 P02 Ocala Suntran AMF Renovation w/ KHA, ARCH R21.rvt

GENERAL CONSTRUCTION NOTES

- A. CUTTING AND PATCHING:**
1. EXAMINE EXISTING CONDITIONS, INCLUDING ELEMENTS SUBJECT TO DAMAGE OR MOVEMENT DURING CUTTING AND PATCHING. AFTER UNCOVERING WORK, ASSESS CONDITIONS AFFECTING PERFORMANCE OF WORK.
  2. EXECUTE WORK BY METHODS TO AVOID DAMAGE TO OTHER WORK, AND WHICH WILL PROVIDE APPROPRIATE SURFACES TO RECEIVE PATCHING AND FINISHING.
  3. RESTORE WORK WITH NEW PRODUCTS IN ACCORDANCE WITH REQUIREMENTS OF CONTRACT DOCUMENTS.
  4. FIT WORK TIGHT TO PIPES, SLEEVES, DUCTS, CONDUIT, AND OTHER PENETRATIONS THROUGH SURFACES.
  5. REFINISH SURFACES TO MATCH ADJACENT FINISHES. FOR CONTINUOUS SURFACES, REFINISH TO NEAREST INTERSECTION; FOR AN ASSEMBLY, REFINISH ENTIRE UNIT.

- B. ALTERATION PROJECT PROCEDURES:**
1. MATCH EXISTING PRODUCTS AND WORK FOR PATCHING AND EXTENDING WORK.
  2. CUT, MOVE, OR REMOVE ITEMS AS NECESSARY FOR ACCESS TO ALTERATIONS OR RENOVATION WORK; REPLACE AND RESTORE AT COMPLETION.
  3. REMOVE UNSUITABLE MATERIAL NOT MARKED FOR SALVAGE, SUCH AS ROTTED WOOD, CORRODED METALS, DETERIORATED MASONRY AND CONCRETE; REPLACE MATERIALS AS SPECIFIED FOR FINISHED WORK.
  4. REMOVE DEBRIS AND ABANDONED ITEMS FROM AREA AND FROM CONCEALED SPACES.
  5. COORDINATE WORK OF ALTERATION AND RENOVATION WORK WITH OWNER FOR ACCESS AND MINIMAL CONFLICT WITH NORMAL OPERATION OF THE FACILITY.

- C. FINISHES:**
1. WHERE NEW WORK ABUTS OR ALIGNS WITH EXISTING, MAKE A SMOOTH AND EVEN TRANSITION. PATCH WORK TO MATCH EXISTING ADJACENT WORK IN TEXTURE AND APPEARANCE.
  2. WHEN FINISHED SURFACES ARE CUT SO THAT A SMOOTH TRANSITION WITH NEW WORK IS NOT POSSIBLE, TERMINATE EXISTING SURFACE ALONG A STRAIGHT LINE AT A NATURAL LINE OF DIVISION AND MAKE RECOMMENDATIONS TO ARCHITECT.
  3. AT COMPLETION OF WORK IN EACH AREA, CLEAN AND RETURN SPACE TO A CONDITION SUITABLE FOR USE BY OWNER.

- D. CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS:**
1. PRIOR TO STARTING WORK, CONTRACTOR SHALL NOTIFY AUTHORITIES AND/OR OWNERS OF EXISTING CONSTRUCTION AND UTILITIES, ON OR ADJACENT TO SITE, THAT MAY BE AFFECTED BY WORK UNDER THIS CONTRACT.
  2. PROTECT SUCH ITEMS AGAINST DAMAGE. CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OF UTILITIES AND CONSTRUCTION MADE NECESSARY BY WORK UNDER THIS CONTRACT, WHETHER TEMPORARY OR PERMANENT.
  3. VENTILATE ENCLOSED AREAS TO PREVENT ACCUMULATION OF DUST, FUMES, VAPORS OR GASSES.

- E. BARRIERS:**
1. PROVIDE BARRIERS TO PREVENT UNAUTHORIZED ENTRY TO CONSTRUCTION AREAS AND TO PROTECT EXISTING FACILITIES AND ADJACENT PROPERTIES FROM DAMAGE.
  2. PROTECT NON-OWNED VEHICULAR TRAFFIC, STORED MATERIALS, SITE AND STRUCTURES FROM DAMAGE.
  3. PROVIDE GATES DOORS WITH SELF-CLOSING HARDWARE AND LOCKS. CLOSERS SHALL NOT BLOCK REQUIRED LEGAL EGRESS ROUTES.

- F. SECURITY:**
1. PROVIDE SECURITY AND FACILITIES TO PROTECT WORK, EXISTING FACILITIES, AND OWNERS OPERATIONS FROM UNAUTHORIZED ENTRY, VANDALISM OR THEFT. COORDINATE WITH OWNERS SECURITY PROGRAM. SHOULD IT BE NECESSARY FOR WORK TO BE CONDUCTED ON WEEKENDS OR "OFF HOURS", THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF THE PREMISES. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER IN ORDER TO OBTAIN KEYS AND ARRANGE FOR THE RETURN OF KEYS.

- G. PROGRESS CLEANING:**
1. MAINTAIN AREAS FREE OF WASTE MATERIALS, DEBRIS, AND RUBBISH. MAINTAIN SITE IN A CLEAN AND ORDERLY CONDITION.
  2. REMOVE DEBRIS AND RUBBISH FROM PIPE CHASES, PLENUMS, CRAWL SPACES, AND OTHER CLOSED OR REMOTE SPACES, PRIOR TO ENCLOSING THE SPACE.
  3. BROOM AND VACUUM CLEAN INTERIOR AREAS PRIOR TO START OF SURFACE FINISHING, AND CONTINUE CLEANING TO ELIMINATE DUST.

- H. TEMPORARY CONTROLS:**
1. NOISE CONTROL: PROVIDE ALL NECESSARY REQUIREMENTS FOR NOISE CONTROL DURING CONSTRUCTION PERIOD. CONFORM WITH APPLICABLE OSHA REQUIREMENTS AND LOCAL ORDINANCES HAVING JURISDICTION.
  2. DUST CONTROL: EXECUTE WORK BY METHODS TO MINIMIZE RAISING DUST FROM CONSTRUCTION OPERATIONS. PROVIDE POSITIVE MEANS TO PREVENT AIRBORNE DUST FROM DISPERSING INTO ATMOSPHERE.
  3. DEBRIS CONTROL: MAINTAIN ALL AREAS FREE OF EXTRANEOUS DEBRIS. PROVIDE CONTAINERS FOR DEPOSIT OF DEBRIS.
  4. POLLUTION CONTROL: PROVIDE METHODS, MEANS, AND FACILITIES TO PREVENT CONTAMINATION OF SOIL, WATER, AND ATMOSPHERE FROM DISCHARGE OF NOXIOUS, TOXIC SUBSTANCES, AND POLLUTANTS PRODUCED BY CONSTRUCTION OPERATIONS.

- I. REMOVAL OF UTILITIES, FACILITIES AND CONTROLS:**
1. CLEAN AND REPAIR DAMAGE CAUSED BY INSTALLATION OR USE OF TEMPORARY WORK.
  2. RESTORE EXISTING FACILITIES USED DURING CONSTRUCTION TO ORIGINAL CONDITION. RESTORE PERMANENT FACILITIES USED DURING CONSTRUCTION TO SPECIFIED CONDITION.

- J. CONTRACT CLOSEOUT:**
1. SUBMIT WRITTEN CERTIFICATION THAT CONTRACT DOCUMENTS HAVE BEEN REVIEWED, WORK HAS BEEN INSPECTED, AND THE WORK IS COMPLETE IN ACCORDANCE WITH CONTRACT DOCUMENTS AND READY FOR ARCHITECT'S REVIEW.
  2. PROVIDE SUBMITTALS TO ARCHITECT THAT ARE REQUIRED BY GOVERNING OR OTHER AUTHORITIES.
  3. SUBMIT FINAL APPLICATION FOR PAYMENT, IDENTIFYING TOTAL ADJUSTED CONTRACT PRICE, PREVIOUS PAYMENTS, AND AMOUNT OF REMAINING DUE.
  4. ADJUST OPERATING PRODUCTS AND EQUIPMENT TO ENSURE SMOOTH AND UNHINDERED OPERATION.
  5. INSTRUCT OWNER'S PERSONNEL IN OPERATION, ADJUSTMENT, AND MAINTENANCE OF EQUIPMENT AND SYSTEMS, USING THE OPERATION AND MAINTENANCE DATA AS THE BASIS OF INSTRUCTION.
  6. CONDUCT CLEANING AND DISPOSAL OPERATIONS TO COMPLY WITH LOCAL ORDINANCES AND ANTI-POLLUTION LAWS.
    - A. DO NOT DISPOSE OF VOLATILE WASTES SUCH AS MINERAL SPIRITS, OIL OR PAINT THINNER IN STORM OR SANITARY SEWER.
    - B. DO NOT DISPOSE OF WASTES INTO STREAMS OR WATERWAYS. USE MATERIALS WHICH WILL NOT CREATE HAZARDS TO HEALTH OR PROPERTY, AND WHICH WILL NOT DAMAGE SURFACES.
  7. USE ONLY MATERIALS AND METHODS RECOMMENDED BY MANUFACTURER OF MATERIAL BEING CLEANED.
  8. PROVIDE CONTAINERS AND LOCATE ON SITE FOR COLLECTION OF WASTE MATERIALS, RUBBISH AND DEBRIS, WHEN APPLICABLE.
  9. EXECUTE CLEANING TO ENSURE THAT BUILDING, GROUNDS, AND PUBLIC PROPERTIES ARE MAINTAINED FREE FROM ACCUMULATIONS OF WASTE MATERIALS AND RUBBISH.
  10. USE EXPERIENCED WORKMEN, OR PROFESSIONAL CLEANERS FOR FINAL CLEANING.
  11. REMOVE TEMPORARY PROTECTION AND LABELS NOT REQUIRED TO REMAIN.
  12. VACUUM CARPET SURFACES AND POLISH HARD SURFACED FLOOR FINISHES INSTALLED OR AFFECTED BY WORK.
  13. CLEAN PERMANENT FILTERS OF VENTILATING EQUIPMENT AND REPLACE DISPOSABLE FILTERS WHEN UNITS HAVE BEEN OPERATED DURING CONSTRUCTION.
  14. REMOVE WASTE, DEBRIS, AND SURPLUS MATERIALS FROM SITE, CLEAN GROUNDS, REMOVE STAINS, SPILLS, AND FOREIGN SUBSTANCES RESULTING FROM CONSTRUCTION WORK FROM PAVED AREAS, AND SWEEP CLEAN. RAKE OTHER EXTERIOR SURFACES, AS APPLICABLE.

- K. GENERAL NOTES:**
1. ALL WORK TO COMPLY WITH ALL LOCAL, STATE, NATIONAL AND FEDERAL REGULATIONS HAVING JURISDICTION OVER THIS PROJECT.
  2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH BUILDING REGULATIONS AND IN A QUALITY WORKMANSHIP LIKE MANNER.
  3. BEFORE COMMENCING WORK, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS & EXISTING CONDITIONS IN THE FIELD. ANY DISCREPANCY BETWEEN THE EXISTING CONDITIONS & THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING PRIOR TO THE PREPARATION OF BID AND START OF WORK.
  4. IF FIELD CONDITIONS NECESSITATE ANY CHANGES OR MODIFICATIONS, THE CHANGES OR MODIFICATIONS MUST BE APPROVED BY THE ARCHITECT AND OWNER PRIOR TO PROCEEDING WITH WORK.
  5. ALL EXISTING WORK NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE CAUSED BY THE CONSTRUCTION PROCESS.
  6. THE CONTRACTOR SHALL COORDINATE ALL APPLICABLE WORK WITH ALL ASSOCIATED TRADES.
  7. THE CONTRACTOR SHALL ESTABLISH ALL ITEMS WHICH REQUIRE IMMEDIATE PROCESSING DUE TO LONG LEAD ORDERING TIME. A LIST OF THESE ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND OWNER WITHIN ONE WEEK AFTER THE CONTRACT IS AWARDED.
  8. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE TO THE ARCHITECT AND OWNER WITHIN ONE WEEK AFTER THE AWARD OF THE CONTRACT.
  9. ALL SUBCONTRACTORS SHALL SUBMIT SHOP DRAWINGS THROUGH THE CONTRACTOR, ONCE CHECKED, THE CONTRACTOR SHALL SUBMIT THE SHOP DRAWINGS TO THE ARCHITECT FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION AND INSTALLATION.
  10. MANUFACTURER'S DIRECTIONS FOR APPLICATION, INSTALLATION AND METHODS SHALL BE FOLLOWED AND ARE HEREWITH MADE A PART OF THE CONSTRUCTION DOCUMENTS.
  11. INSURANCE: THE CONTRACTOR AND EACH SUBCONTRACTOR NEEDS WORKMAN'S COMPENSATION AS REQUIRED BY LAW, AND OWNER REQUIREMENTS AND SUFFICIENT PROTECTION FOR CLAIMS FOR PERSONAL INJURY, INCLUDING DEATH, SHOULD THEY ARISE FROM OPERATIONS UNDER CONTRACT.
  12. CONTRACTOR IS TO EXERCISE SPECIAL CARE IN THE HANDLING OF MATERIALS, EQUIPMENT AND RUBBISH TO AVOID INCONVENIENCE AND ANNOYANCE TO ADJACENT BUILDINGS AND TENANT AREAS.
  13. ALL PHASING AND ALTERNATE DAILY ROUTES DURING CONSTRUCTION SHALL BE DEVELOPED BY THE CONTRACTOR AS PART OF THEIR MEANS AND METHODS. COORDINATE ALL PHASING WITH THE OWNER.
  14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF SAFETY BARRIERS TO ENSURE SAFETY DURING THE BUILDING DURING CONSTRUCTION IN AREAS AFFECTED BY THIS CONTRACT.
  15. MEANS OF EGRESS SHALL BE CONTINUOUSLY MAINTAINED FREE OF ALL OBSTRUCTIONS IN CASE OF FIRE OR OTHER EMERGENCY.
  16. ALL PENETRATIONS PASSING THROUGH RATED PARTITION ASSEMBLIES SHALL MAINTAIN THE INTEGRITY OF THE EXISTING AND/OR NEW RATED PARTITION PER F.B.C. 714.4.1.
  17. NO SUBSTITUTIONS ARE TO BE MADE WITHOUT APPROVAL BY THE ARCHITECT AND OWNER. CONTRACTOR TO SUBMIT SUBSTITUTE MATERIAL SPECIFICATIONS FOR APPROVAL IN WRITING TO THE ARCHITECT AND OWNER PRIOR TO COMMENCEMENT OF WORK.
  18. CONTRACTOR SHALL HAVE AN ENGLISH-SPEAKING SUPERVISOR / REPRESENTATIVE ON THE WORK SITE AT ALL TIMES, WHO SHALL BE THOROUGHLY KNOWLEDGEABLE OF ALL PLANS, SPECIFICATIONS, AND OTHER CONTRACT DOCUMENTS AND HAS THE AUTHORITY TO ACT ON THE CONTRACTOR'S BEHALF.
  19. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED.
  20. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK.
  21. ALL FORMS AND APPROVALS USED ARE TO BE AIA FORMS / CONTRACT DOCUMENTS AND REQUIRE THE ARCHITECT TO BE THE ACTIVE PARTICIPANT FOR PROCESSING AND APPROVAL THROUGHOUT THE PROJECT.
  22. PRIOR TO COMMENCING ANY WORK, CONTRACTOR SHALL CAREFULLY INSPECT THE ENTIRE SITE OF ALL OBJECTS, UTILITIES AND STRUCTURES TO BE REMOVED AND/OR PRESERVED TO DETERMINE REQUIREMENTS FOR PROTECTION OR DISCONNECTION AND CAPPING OF WORK IN ACCORDANCE WITH REQUIREMENTS OF THE UTILITY COMPANY, OR GOVERNMENT AGENCIES INVOLVED.
  23. THE CONTRACTOR SHALL RE-ROUTE AND/OR CAP OFF ALL UNUSED UTILITIES COMING INTO THE SPACE AFTER CHECKING WITH THE ARCHITECT. ALL UTILITIES, IF NOT BEING RE-ROUTED SHALL BE CAPPED OFF AS REQUIRED BY CODE IN PARTITIONS, FLOORS AND CEILINGS. ALL ADJACENT AREAS TO REMAIN IN FULL OPERATION.
  24. CONTRACTOR SHALL NOTIFY OWNER SEVEN CALENDAR DAYS PRIOR TO COMMENCEMENT OF DEMOLITION WORK.
  25. ALL EXISTING WALL COVERINGS, LOOSE PAINT OR PLASTER TO BE REMOVED. PATCH EXISTING WALLS AS REQUIRED AND PREPARE WALLS TO RECEIVE NEW WALL TREATMENTS, PAINT ETC. AS SPECIFIED.
  26. PRIOR TO ANY DEMOLITION, THE CONTRACTOR SHALL NOTIFY THE LOCAL ENVIRONMENTAL PROTECTION DIVISION FOR DEMOLITION AND ASBESTOS REMOVAL NOTIFICATION REQUIREMENTS.
  27. CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
  28. PENETRATIONS THRU EXISTING STRUCTURAL COMPONENTS TO BE COORDINATED WITH MEP DRAWINGS PRIOR TO ANY CORING OR CUTTING THROUGH FLOOR SLAB. CONTRACTOR MUST LOCATE EXISTING UTILITIES AND/OR REINFORCING STRUCTURAL ELEMENTS.
  29. CONTRACTOR TO FIELD VERIFY LOCATION OF ALL EXISTING STRUCTURAL COMPONENTS.
  30. ALL EGRESS ROUTES SHALL BE MAINTAINED, UNOBSTRUCTED DURING CONSTRUCTION.
  31. COORDINATE WITH MEPF & STRUCTURAL FOR REQUIRED SLAB AND WALL PENETRATIONS & OPENINGS.
  32. ALL CONSTRUCTION AND DEMOLITION WORK SHALL COMPLY WITH THE LATEST EDITION OF OSHA STANDARDS AND REGULATIONS.
  33. COORDINATE LOCATION OF ANY TEMPORARY PARTITIONS WITH ARCHITECT AND OWNER.
  34. CONTRACTOR TO PROVIDE TEMPORARY FENCING AND LOCKING GATE ENTRANCE TO SECURE THE SITE.

SYMBOL LEGEND

**SYMBOL** **DESCRIPTION**

INDICATES DIRECTION OF TRUE NORTH

**VIEW TITLE** **VIEW NUMBER, TITLE, & SCALE**

1/8" = 1'-0"

**BUILDING SECTION TAG**

VIEW # ON SHEET

**WALL / PARTIAL SECTION TAG**

VIEW # ON SHEET

**ELEVATION TAGS**

VIEW # ON SHEET

**CALLOUT TAGS**

VIEW # ON SHEET

**COLUMN GRID DESIGNATIONS**

**ELEVATION TAG**

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
ROOM NAME	ROOM NAME	AREA NAME	AREA NAME
EQUIPMENT TAG	EQUIPMENT TAG	REVISION TAG	REVISION TAG
FINISH TAG	FINISH TAG	DEMO KEYNOTE TAG	DEMO KEYNOTE TAG
CATEGORY KEYNOTE TAG	CATEGORY KEYNOTE TAG	NEW KEYNOTE TAG	NEW KEYNOTE TAG
DOOR TAG	DOOR TAG	WALL TAG	WALL TAG
LOUVER TAG	LOUVER TAG	WINDOW TAG	WINDOW TAG
SPOT ELEVATION	SPOT ELEVATION	BREAK LINE	BREAK LINE
SLOPE ARROW	SLOPE ARROW	MATCHLINE	MATCHLINE
PROJECT LIMIT LINE	PROJECT LIMIT LINE	MATCHLINE	MATCHLINE

TYPICAL MATERIALS			
	CONCRETE		MASONRY
	CONCRETE		PLYWOOD
	GYPSUM		WOOD
	STUCCO		STEEL
	INSULATION		ALUMINUM
	TILE / STONE		

ABBREVIATIONS

AC	ACOUSTICAL	FIN	FINISH
ADJ	ADJUSTABLE	FL	FLOOR
AFF	ABOVE FINISH FLOOR	FLASH	FLASHING
AC	AIR CONDITIONING UNIT	FP	FIRE PROOFING
AHU	AIR HANDLING UNIT	FT	FEET / FOOT
ALUM	ALUMINUM	GALV.	GALVANIZED
APPROX	APPROXIMATELY	GL	GLASS
BD.	BOARD	GSB	GLASS WALL BOARD
BLDG.	BUILDING	HDWR	HARDWARE
BLK	BLOCK	HM	HOLLOW METAL
BLKG.	BLOCKING	HORIZ	HORIZONTAL
BUR	BUILT UP ROOF	HP	HIGH POINT
CAB.	CABINET	HVAC	HEATING, VENTILATION & A/C
CB	CATCH B ASIN	IN.	INCH / INCHES
CEM.	CEMENT	INSUL	INSULATION
CT	CERAMIC TILE	LT. WT.	LIGHT WEIGHT
CJ	CONTROL JOINT	MAX	MAXIMUM
CLKG	CAULKING	MECH	MECHANICAL
CLNG	CEILING	MEP	MECH. ELEC. PLUMBING
CLR.	CLEAR	MFG.	MANUFACTURING
CLO.	CLOSET	MIN.	MINIMUM
CMU	CONCRETE MASONRY UNIT	MISC.	MISCELLANEOUS
C.O.	CLEAN OUT	MO.	MASONRY OPENING
COL.	COLUMN	MTL.	METAL
CONC.	CONCRETE	NIC	NOT IN CONTRACT
CONST.	CONSTRUCTION	NTS	NOT TO SCALE
CONT.	CONTINUOUS	ON CENTER	ON CENTER
CL	CENTER LINE	OVHD.	OVERHEAD
DTL	DETAIL	SCHED.	SCHEDULE
DF	DRINKING FOUNTAIN	SHT.	SHEET
DIA.	DIAMETER	SIM.	SIMILAR
DIM.	DIMENSION	SPEC.	SPECIFICATIONS
DN	DOWN	S.S.	STAINLESS STEEL
D.O.	DOOR OPENING	STD.	STANDARD
DWG.	DRAWING	STL.	STEEL
EA.	EACH	STOR.	STORAGE
EAF	EXHAUST FAN	STRUCT.	STRUCTURAL
EJ.	EXPANSION JOINT	SUSP.	SUSPENDED
ELEC.	ELECTRICAL	TEL.	TELEPHONE
ELEV.	ELEVATOR	TYP.	TYPICAL
EQ.	EQUAL	U.L.	UNDERWRITERS LAB.
EXIST.	EXISTING	U.O.N.	UNLESS OTHERWISE NOTED
FD	FLOOR DRAIN	VCT	VINYL COMPOSITE TILE
FE	FIRE EXTINGUISHER	VIF	VERIFY IN FIELD
FF.	FINISH FLOOR	WI	W/INT
		W.C.	WATER CLOSET
		W.P.	WATERPROOFING
		PTD.	PAINTED
		QTY.	QUANTITY
		R.D.	ROOF DRAIN
		REQD.	REQUIRED

PROJECT DESCRIPTION

INTERIOR & EXTERIOR. RENOVATION OF THE EXISTING ONE STORY ADMINISTRATION - MAINTENANCE BUILDING INCLUDING BUT NOT LIMITED TO:

- THE REMOVAL & REPLACEMENT OF EXISTING FLOOR & WALL FINISHES
- THE REMOVAL & REPLACEMENT OF CEILINGS (IN LIMITED LOCATIONS ONLY)
- THE REMOVAL & REPLACEMENT OF EXISTING CABINETS
- THE INSTALLATION OF NEW CABINETS
- THE REMOVAL AND REPLACEMENT OF EXISTING LIGHTS, PLUMBING FIXTURES & A/C EQUIPMENT
- REPAINTING EXTERIOR & INTERIOR WALLS AND TRIM

LEVEL 2 RENOVATION

- THE INSTALLATION OF (1) NEW INTERIOR WALL & DOOR

-RESEAL & RESTRIPE EXISTING VEHICULAR USE AREAS

CODE ANALYSIS

APPLICABLE CODES

THE FOLLOWING IS A LIST OF APPLICABLE CODES FOR THE PROJECT. WHERE DIFFERENT REQUIREMENTS ARE SPECIFIED BY THE FLORIDA FIRE PREVENTION CODE AND THE FLORIDA BUILDING CODE, THE MOST STRINGENT AND RESTRICTIVE REQUIREMENTS ARE APPLICABLE AND ARE NOTED IN THIS OUTLINE.

A. FLORIDA BUILDING CODE (FBC) 2020, BUILDING - 7TH EDITION (WITH SUPPLEMENTS)

B. FLORIDA BUILDING CODE (FBC) 2020, ACCESSIBILITY, 7TH EDITION

C. FLORIDA BUILDING CODE (FBC) 2020, - 7TH EDITION - MECHANICAL, ENERGY CONSERVATION, FUEL GAS, PLUMBING

D. FLORIDA FIRE PREVENTION CODE (FFPC) 2020, 7TH EDITION

E. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 101), LIFE SAFETY CODE 2018 EDITION

F. NFPA 1, FIRE CODE, 2018

BUILDING/ZONING: CITY OF OCALA, FLORIDA

FIRE JURISDICTION: CITY OF OCALA, FLORIDA

BUILDING DATA

OCCUPANCY CLASSIFICATION AND USE DESIGNATION (FBC CHAPTER 3) (NFPA 101 CHAPTER 40)

MULTIPLE OCCUPANCY:

- STORAGE (APPARATUS BAY AND SUPPORT ROOMS) - GROUP S-1; FBC 311.2
- BUSINESS (OFFICES) - GROUP B; FBC 304.1

TYPE OF CONSTRUCTION (FBC CHAPTER 6 - SECTION 601)

CONSTRUCTION TYPE: II-B (FULLY SPRINKLERED)

ALLOWABLE BUILDING HEIGHT & AREA (FBC CHAPTER 5) (TYPE IIB - FULLY SPRINKLERED)

TOTAL BUILDING AREA: 14,373 SF (EXISTING)- 92,000 S.F. (ALLOWED)

SEPARATION OF OCCUPANCIES (FBC TABLE 508.4 & NFPA 101 - TABLE 6.1.14.4.1) (USING MOST STRINGENT)

REQUIRED SEPARATION FOR BUSINESS-STORAGE (S1)= 2HR

MEANS OF EGRESS (FBC CHAPTER 10)

OCCUPANT LOAD (FBC TABLE 1004.5) (NFPA 101 TABLE 7.3.1.2)

FIRST FLOOR:

-S-1 STORAGE

CALCULATION: 6,283 SF / 300 GROSS = 21 OCC.

-BUSINESS

CALCULATION: 2,711 SF / 150 GROSS = 19 OCC.

FIRST FLOOR TOTAL OCCUPANT LOAD = 40 OCC.

ALL EXISTING EXIT TO REMAIN - NO CHANGES

EXIT ACCESS (SPRINKLERED BUILDING) (FBC 1006) (USING MOST STRINGENT OF S1 & B:

COMMON PATH OF TRAVEL (FBC 1006.2.1)	100' MAX	36' - 0"
TRAVEL DISTANCE	300' MAX	160' - 0"

**SUBMITTALS:**

PHASE	DATE
100% CDs	11/11/2022

**REVISIONS:**

NO.	DESCRIPTION	DATE

**PROJECT TEAM**

**PROFESSIONAL IN CHARGE**

**ADOLFO J. COTILLA, JR., AIA**

**REGISTRATION NUMBER** AR-0008011

**APPROVED BY** AIC

**DESIGNED BY** DMW/DM

**DRAWN BY** DM

**CHECKED BY** DMW

**11/15/2022**

This form has been electronically signed and sealed by Adolfo J. Cotilla, Jr. on the date adjacent to his seal.

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**DESIGN CONSULTANT**

**SunTran AMF Renovations**

**1805 NE 30th Ave. Ocala, Florida 34470**

**PROJECT DESCRIPTION, GENERAL NOTES, CODE ANALYSIS, SYMBOL LEGEND**

**SHEET TITLE**

**ACAI**

associates, inc.  
architecture engineering  
roofing consulting  
construction management

AAC001323-EB0004379- CGC010769  
2937 W. Cypress Creek Rd., Suite 200  
Fort Lauderdale, Florida 33309  
Tel: 954.484.4000 - Fax: 954.484.5588  
www.acaiarchitects.com  
ARCHITECT OF RECORD

**19-031 P02**

**PROJECT NUMBER**

**GN-001**

**SHEET NUMBER**

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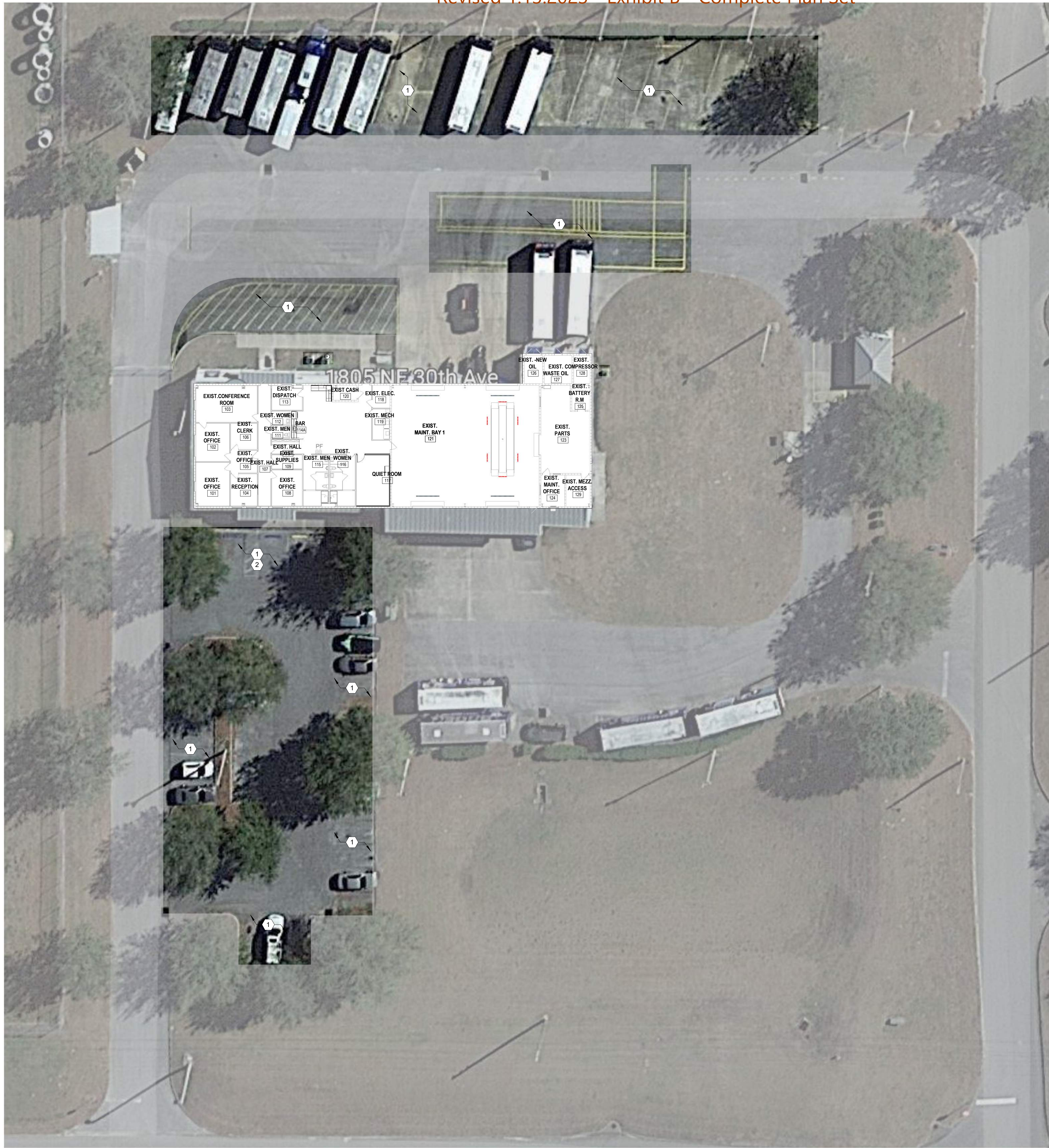
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BIM 360//19-031 P02 Ocala Suntran AMF Renovation w-KHA/19-031-P2\_OCALA SUNTRAN AMF RENOVATION w KHA\_ARCH R21.rvt

11/5/2022



SITE PLAN KEY NOTES	
1	CLEAN, PREPARE, RESEAL AND RESTRIPE THE EXISTING VEHICULAR USE AREAS ON THE EXISTING SITE. ALL DEMARCATIONS INCLUDING EXISTING PARKING SPACES TO MATCH EXISTING.
2	PROVIDE STANDARD ADA PARKING DEMARCATIONS AT ACCESSIBLE PARKING SPACES

SUBMITTALS	
PHASE	DATE
100% CDs	11/11/2022

REVISIONS		
NO.	DESCRIPTION	DATE

PROJECT TEAM  
PROFESSIONAL IN CHARGE

ADOLFO J. COTILLA, JR., AIA

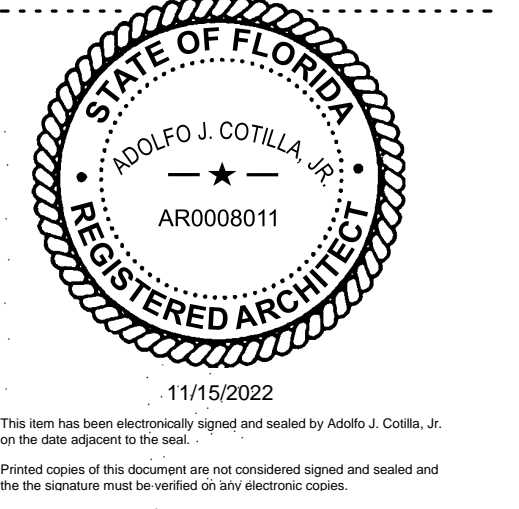
REGISTRATION NUMBER AR-0008011

APPROVED BY AJC

DESIGNED BY DMW/DM

DRAWN BY DM

CHECKED BY DMW



DESIGN CONSULTANT

SunTran AMF Renovations

1805 NE 30th Ave, Ocala, Florida 34470

EXISTING SITE PLAN

SHEET TITLE

**ACAI**  
associates, inc.  
architecture engineering  
roofing consulting  
construction management

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19-031 P02

PROJECT NUMBER

**SP-101**

SHEET NUMBER

TO THE BEST OF MY KNOWLEDGE AND ABILITY THESE PLANS ARE COMPLETE AND COMPLY WITH THE APPLICABLE BUILDING CODES

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1 EXISTING SITE PLAN

1" = 20'-0"



DEMOLITION GENERAL NOTES

- CONTRACTOR TO REMOVE AND DEACTIVATE ALL ELECTRICAL OUTLETS IN PARTITIONS TO BE DEMOLISHED.
- CONTRACTOR SHALL PROTECT EXISTING ADJACENT CONSTRUCTION AND OPERATIONS PRIOR TO STARTING DEMO WORK.
- DEMOLITION SERVICES AND TEMPORARY WORK PLANNED BY CONTRACTOR SHALL NOT IN ANY WAY INTERFERE WITH DAY-TO-DAY OPERATIONS WITHIN THE AFFECTED AND/OR ADJACENT AREAS. COORDINATE WORK WITH ALL TRADES.
- CONTRACTOR SHALL COORDINATE ALL DEMOLITION AND TEMPORARY WORK WITH THE BUILDING OWNER AND OCCUPANTS, AND SHALL MAKE ARRANGEMENTS FOR REMOVAL OF DEBRIS REMOVAL AND CLEANUP FROM PREMISES WITH A MIN. OF DISTURBANCE ON A DAILY BASIS.
- THE DRAWINGS DO NOT INTEND TO SHOW ALL OBJECTS EXISTING AT THE SITE. THE CONTRACTOR MUST VERIFY, VISIT THE SITE AND ALL OBJECTS TO BE PRESERVED AND REPORT TO ARCHITECT IN WRITING ANY DISCREPANCIES OR QUESTIONABLE ITEMS.
- USE ALL MEASURES NECESSARY TO PROTECT EXISTING OBJECTS DESIGNATED TO REMAIN, AND IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO MEET THE APPROVAL OF THE ARCHITECT AND BUILDING OWNER AT NO ADDITIONAL COST.
- PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL CAREFULLY INSPECT THE ENTIRE SITE OF ALL OBJECTS, UTILITIES AND STRUCTURES TO BE REMOVED AND/OR PRESERVED TO DETERMINE REQUIREMENTS FOR PROTECTION OR DISCONNECTION AND CAPPING OF WORK IN ACCORDANCE WITH REQUIREMENTS OF THE UTILITY COMPANY, OR GOVERNMENT AGENCIES INVOLVED.
- THE CONTRACTOR SHALL RE-ROUTE AND/OR CAP OFF ALL UNUSED UTILITIES COMING INTO THE SPACE AFTER CHECKING WITH THE ARCHITECT. ALL UTILITIES, IF NOT BEING RE-ROUTED SHALL BE CAPPED OFF AS REQUIRED BY CODE AND/OR AS REQUIRED ON THE MEP PLANS IN PARTITIONS, FLOORS AND CEILINGS. ALL ADJACENT AREAS TO REMAIN IN FULL OPERATION.
- CONTRACTOR SHALL NOTIFY BUILDING OWNER SEVEN CALENDAR DAYS PRIOR TO COMMENCEMENT OF DEMOLITION WORK.
- ALL EXISTING WALL COVERINGS, LOOSE PAINT OR PLASTER TO BE REMOVED. PATCH EXISTING WALLS AS REQUIRED AND PREPARE WALLS TO RECEIVE NEW WALL TREATMENTS, PAINT ETC. AS SPECIFIED.
- PRIOR TO ANY DEMOLITION, THE CONTRACTOR SHALL NOTIFY THE LOCAL ENVIRONMENTAL PROTECTION DIVISION FOR DEMOLITION AND ASBESTOS REMOVAL NOTIFICATION REQUIREMENTS.
- CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL EXISTING UTILITIES. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- PENETRATIONS THROUGH EXISTING STRUCTURAL COMPONENTS TO BE COORDINATED WITH MEP DRAWINGS PRIOR TO ANY CORING OR CUTTING. CONTRACTOR MUST LOCATE EXISTING UTILITIES AND/OR REINFORCING STRUCTURAL ELEMENTS AND NOTIFY THE ARCHITECT AND ENGINEERS IF ANY CONFLICTS WITH THE LOCATION OF NEW UTILITIES SHOWN ON THE DRAWINGS.
- COORDINATE WITH MEP & STRUCTURAL FOR ANY REQUIRED NEW FLOOR SLAB OR WALL NOT IDENTIFIED ON THE DRAWINGS PENETRATIONS & OPENINGS.
- CONTRACTOR TO FIELD VERIFY LOCATION OF ALL EXISTING STRUCTURAL COMPONENTS AND AVOID CUTTING UNLESS SHOWN ON THE DRAWINGS.
- ALL EGRESS ROUTES SHALL BE MAINTAINED, UNOBSTRUCTED DURING CONSTRUCTION.
- ALL CONSTRUCTION AND DEMOLITION WORK SHALL COMPLY WITH THE LATEST EDITION OF OSHA STANDARDS AND REGULATIONS.

DEMOLITION KEY NOTES

- REMOVE EXISTING CARPET AND/OR VINYL TILE FLOORING AT ALL ADMINISTRATION AREAS EXCEPT WHERE NOTED.
- STRIP EXISTING CONCRETE FLOOR & PREPARE FOR NEW FINISHES
- PREPARE INTERIOR WALLS TO RECEIVE NEW PAINT U.O.N.
- REMOVE EXISTING KITCHEN CABINETS AND COUNTERTOP
- REMOVE EXISTING DRYWALL FINISH
- REMOVE EXISTING SINK, COORDINATE REMOVAL OF EXIST PLUMBING WITH MEP PLANS
- REMOVE EXISTING REFRIGERATOR AND GRID AS NEED TO BE RE-USED.
- REMOVE EXISTING CEILING TILE AND GRID AS NEEDED TO COMPLETE THE WORK IN THE NEW KITCHEN AREA. REFER TO MEP PLANS TO COORDINATE WALL PENETRATION AT EXISTING EXTERIOR CMU WALL
- EXISTING AHU TO BE REMOVED COORDINATE WITH MEP PLANS
- EXISTING CU TO BE REMOVED COORDINATE WITH MEP PLANS
- COORDINATE REMOVAL AND/OR RELOCATION OF EXISTING ELECTRICAL OUTLETS WITH MEP PLANS
- REMOVE EXISTING CEILING TILES & GRID IN THIS AREA

DEMOLITION PLAN LEGEND

- N.T.S.
- EXISTING 1 HR. FIRE RATED WALL TO REMAIN - SEE GENERAL NOTES
  - EXISTING 2 HR. FIRE RATED WALL TO REMAIN - SEE GENERAL NOTES
  - EXISTING COLUMN TO REMAIN
  - EXISTING CMU WALL TO REMAIN
  - EXISTING PARTITION TO REMAIN
  - EXISTING WALL/DOOR TO REMAIN
  - EXISTING WINDOW TO REMAIN
  - DEMO WALL/DOOR

FLOOR PLAN LEGEND

- N.T.S.
- EXISTING 1 HR. FIRE RATED WALL
  - EXISTING 2 HR. FIRE RATED WALL
  - EXISTING COLUMN TO REMAIN
  - EXISTING CMU WALL TO REMAIN
  - EXISTING PARTITION TO REMAIN
  - NEW PARTITION.
  - EXISTING WALL/DOOR TO REMAIN
  - EXISTING WINDOW TO REMAIN
  - NEW DOOR. SEE DOOR SCHEDULE AND DETAILS
  - INDICATES EXISTING AREA NOT IN CONTRACT
  - PROJECT LIMIT LINE
  - 1/A-102
  - 1/A-103
  - MATCHLINE

FLOOR PLAN KEY NOTES

- PREPARE EXISTING CONCRETE SLAB & WALLS TO APPLY NEW LIQUID APPLIED FLOOR FINISH WITH INTEGRAL BASE (MIN. 3" HT.). PROVIDE FINISH SAMPLE FOR APPROVAL. TYPICAL AT ADMINISTRATION AREA AND MAINTENANCE OFFICE
- PREPARE EXIST CONCRETE FLOOR SLAB AND INSTALL NEW FLOOR FINISH AS REQ'D BY THE FLOORING MFR. REPAINT ALL TRAFFIC & SAFETY DEMARCATIONS TO MATCH EXIST. SEE SHEET A-102.
- PAINT ALL INTERIOR WALLS U.O.N. AS FOLLOWS:
  - WALLS AND SOLID WOOD SHELVES SHALL BE SHERWIN WILLIAMS SUPER PAINT SATIN, OR APPROVED EQUAL
  - METAL DOORS AND FRAMES SHALL BE SHERWIN WILLIAMS OR APPROVED EQUAL
  - ALL COLORS TO BE SELECTED BY THE CITY OF OCALA
  - PROVIDE SAMPLES FOR APPROVAL
- PROPOSED UPPER AND BASE CABINETS, COUNTERTOP W/ 4" HT. BACKSPLASH. ARCHITECT TO PROVIDE SAMPLES FOR APPROVAL
- LED STRIP LIGHTS ABOVE COUNTER WITH SEPARATE LIGHT SWITCH (COORD. W/ENGINEER), COUNTER LIGHT SHALL EXTEND ALONG COUNTERTOP LENGTH
- RELOCATED REFRIGERATOR, COORD. W/OWNER FINAL LOCATION
- PROPOSED SINK W/ TALL FAUCET (INCLUDE SPRAYER). REFER TO MEP DWG. FOR PLUMBING DETAILS
- FOR ALL PROPOSED KITCHEN APPLIANCES, REFER TO SHEET A-102
- REFER TO ELECTRICAL PLANS FOR NEW LED LIGHTS AT MAINTENANCE BAY AND STORAGE (ROOM 123)
- REPLACE EXIST THRU WALL A/C HEAT UNIT WITH NEW, REFER TO MEP PLANS FOR MORE DETAILS
- FOR AHU REPLACEMENT UNIT, REFER TO MEP PLANS FOR MORE DETAILS
- FOR CU REPLACEMENT UNIT, REFER TO MEP PLANS FOR MORE DETAILS
- NEW SOLID WOOD DOOR
- NEW PARTITION WALL
- PREP AND REPAINT ALL EXTERIOR WALLS, DOORS & FRAMES, ETC. - REFER TO EXTERIOR ELEVATIONS SHEET A- 201 FOR ADDITIONAL INFORMATION.
- INSTALL NEW CEILING GRID AND TILE IN NEW QUIET ROOM AREA TO MATCH THE EXISTING. LAYOUT GRID BASED ON NEW ROOM DIMENSIONS

FLOOR PLAN GENERAL NOTES

- ALL EXISTING AREAS AFFECTED BY CONSTRUCTION SHALL BE PATCHED/REPAIRED TO MATCH EXISTING OR NEW FINISHES.
- SEAL ANY PENETRATIONS THROUGH EXISTING FIRE RATED PARTITIONS WITH CONTINUOUS FIRE CAULKING.
- DOOR FRAMES SHALL BE LOCATED 4" FROM ADJACENT WALL UNLESS NOTED OTHERWISE. TYPICAL FOR ALL NEW DOORS ONLY.
- PROVIDE 1-6" MIN CLEAR ON PULL SIDE OF ALL DOORS. FOR DOORS WITH CLOSERS, PROVIDE 1-0" MIN ON THE PUSH SIDE. TYPICAL FOR ALL NEW DOORS ONLY.
- ALL DIMENSIONS ARE TO THE FACE OF STUD, OR CMU/CONCRETE, UNLESS OTHERWISE NOTED.
- CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL DIMENSIONS.
- CONTRACTOR SHALL COORDINATE REQUIREMENTS OF ANY & ALL APPLIANCES.
- APPLIANCES AND FURNITURE TO PROVIDED BY THE OWNER/INSTALLED BY THE CONTRACTOR. ALL OTHER MATERIALS AND EQUIPMENT TO BE PROVIDED AND INSTALLED BY THE CONTRACTOR. COORDINATE THE LOCATIONS FOR ELECTRICAL, PLUMBING AND MECHANICAL CONNECTIONS WITH THE EQUIPMENT INSTALLATION CUT SHEETS.
- PRIOR TO ERECTING PARTITIONS, THE GENERAL CONTRACTOR MUST VERIFY WITH THE VENDOR / SUPPLIER/ FABRICATOR OF MILLWORK / CASEWORK WHERE BLOCKING WILL BE REQUIRED AND MUST SUBMIT SHOP DRAWINGS TO THE ARCHITECT FOR APPROVAL BEFORE COMMENCEMENT OF PARTITIONS AND MILLWORK / CASEWORK CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING STEEL BACKING AS REQUIRED FOR PLUMBING FIXTURES, WALL HUNG CABINETS, COUNTERTOPS, EQUIPMENT, ETC. TO ENSURE ADEQUATE SUPPORT.
- CONTRACTOR SHALL SUPPLY AND INSTALL ALL ACCESS PANELS AS REQUIRED BY PLUMBING, AIR CONDITIONING AND OTHER TRADES, AND AS REQUIRED BY CODE. LOCATIONS AND TYPE OF PANEL TO BE REVIEWED AND APPROVED BY ARCHITECT.
- ALL NEW WALLS ARE TO BE TAPED AND SPACKLED AND ARE TO APPEAR HOMOGENEOUS WITH EXISTING CONSTRUCTION WHEN COMPLETED.
- CONTRACTOR SHALL COORDINATE LOCATIONS OF EXISTING SECURITY DEVICES, CARD READERS, SECURITY CAMERAS, ETC & AVOID DAMAGING OR COMPROMISING THE CONTINUED FUNCTIONING OF THOSE SYSTEMS DURING CONSTRUCTION.
- REFER TO ENLARGED PLAN SHEETS FOR ADDITIONAL INFORMATION.

SUBMITTALS	
PHASE	DATE
100% CDs	11/11/2022

REVISIONS

NO.	DESCRIPTION	DATE

PROJECT TEAM

PROFESSIONAL IN CHARGE

ADOLFO J. COTILLA, JR., AIA

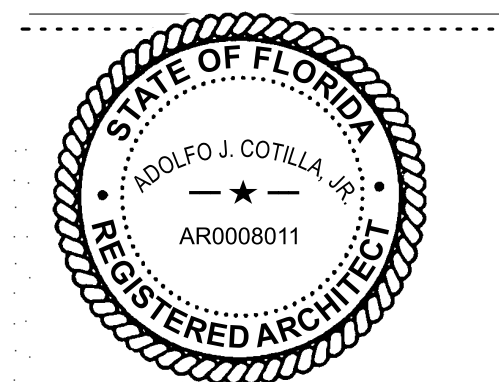
REGISTRATION NUMBER AR-0008011

APPROVED BY AIC

DESIGNED BY DMW/DM

DRAWN BY DM

CHECKED BY DMW



11/15/2022  
This form has been electronically signed and sealed by Adolfo J. Cotilla, Jr. on the date adjacent to this seal.  
Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

DESIGN CONSULTANT

SunTran AMF Renovations  
1805 NE 30th Ave., Ocala,  
Florida 34470

GROUND FLOOR  
PLAN AND  
DEMOLITION PLAN

SHEET TITLE

**ACAI**  
associates, inc.  
architecture engineering  
roofing consulting  
construction management

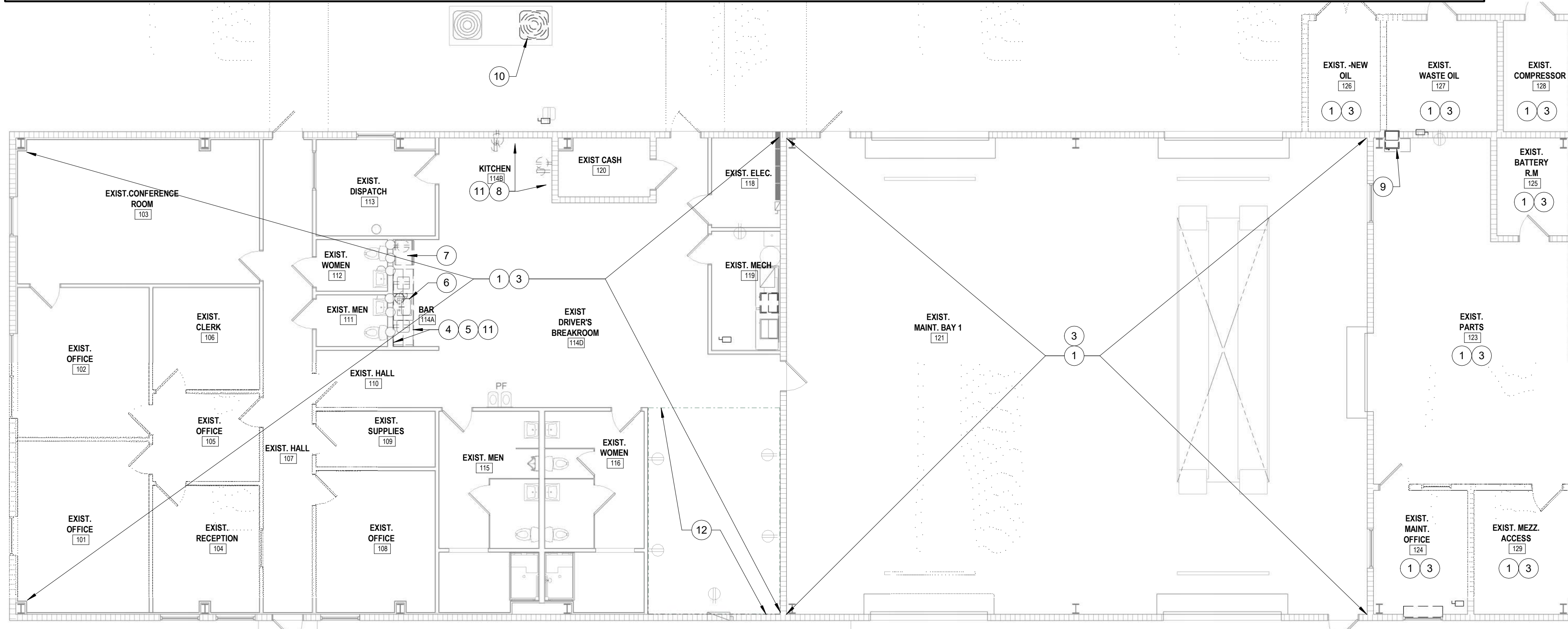
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19-031 P02

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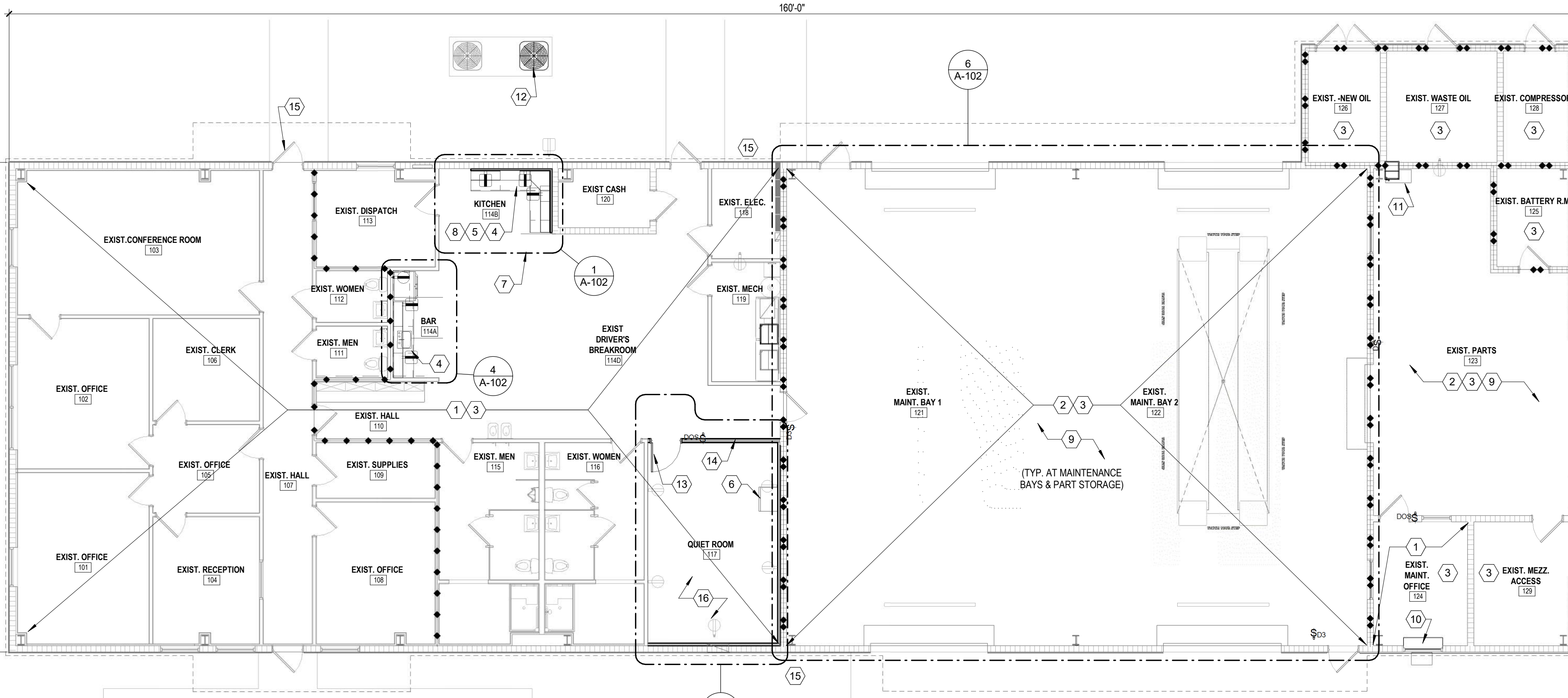
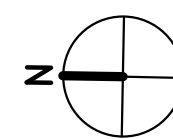
**A-101**

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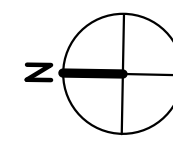
2 GROUND FLOOR- DEMOLITION PLAN

1/8" = 1'-0"

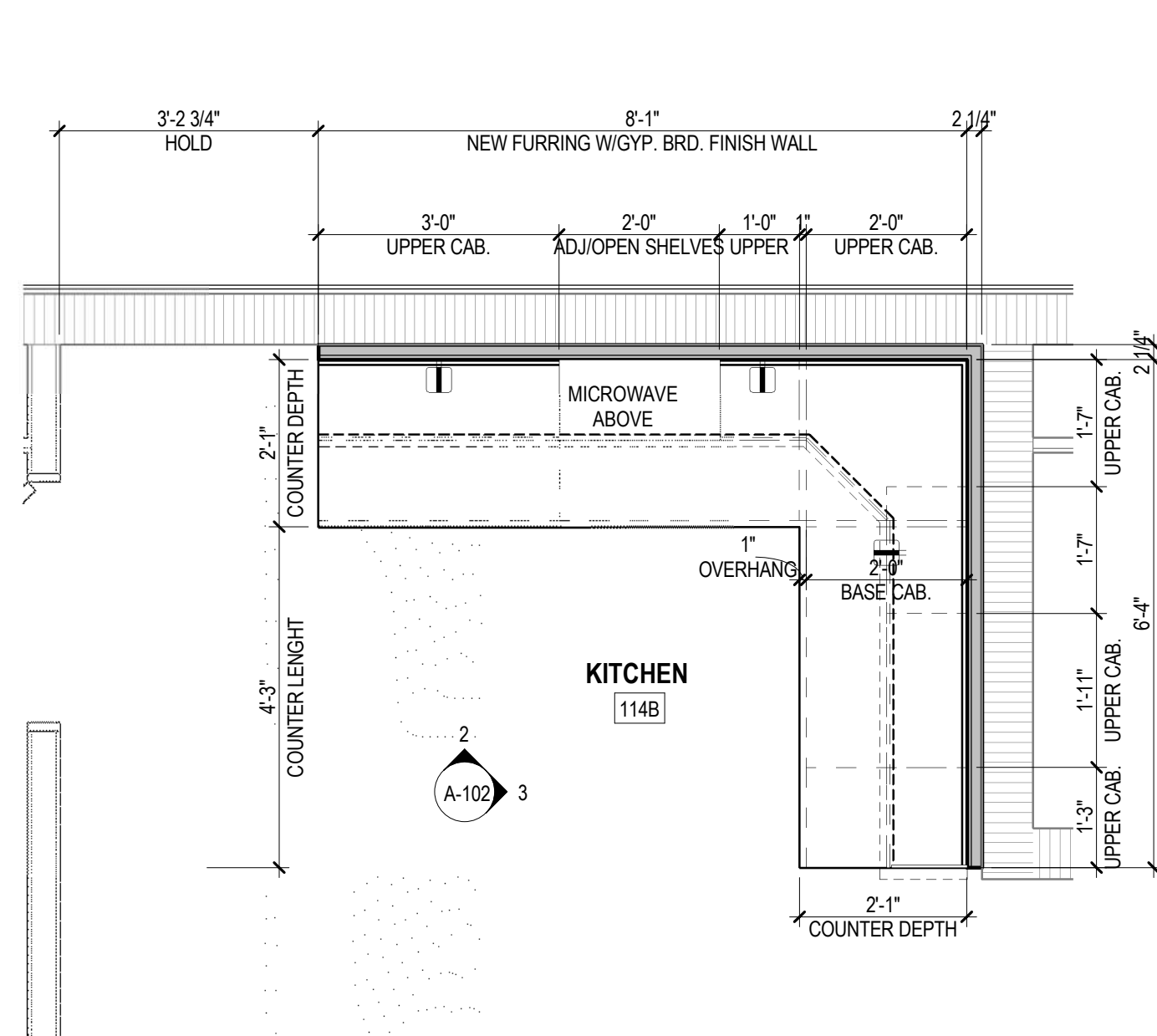


1 GROUND FLOOR - FLOOR PLAN

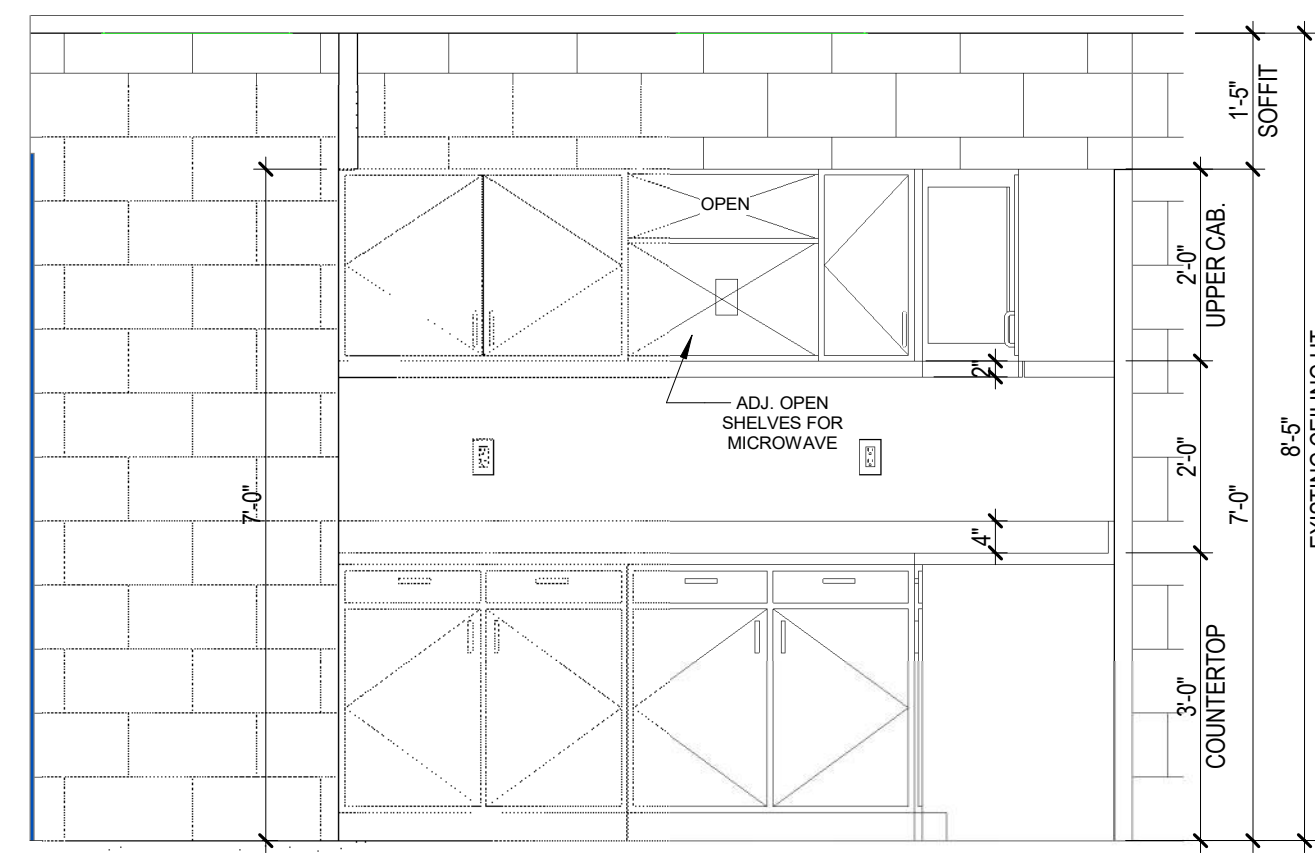
1/8" = 1'-0"



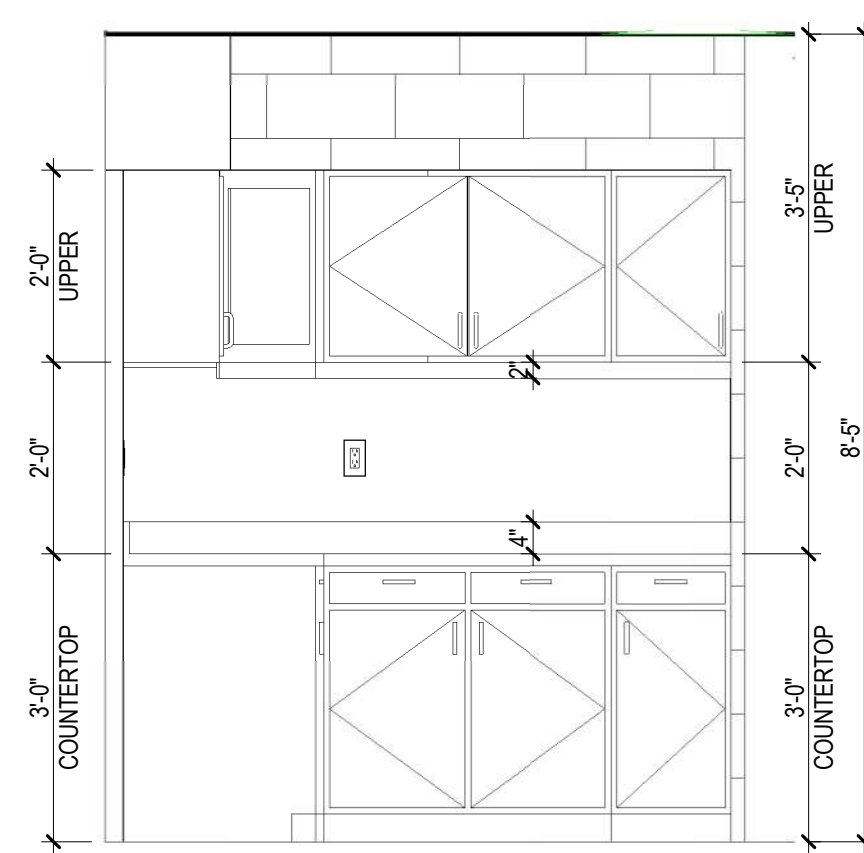




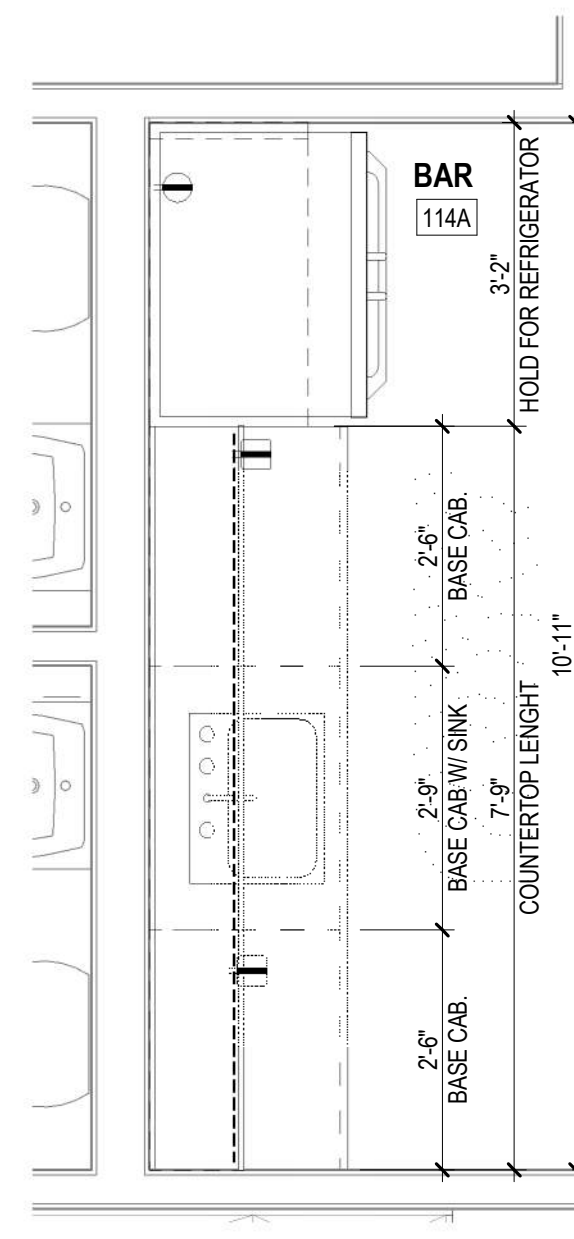
1 KITCHEN - ENLARGED FLOOR PLAN  
1/2" = 1'-0"



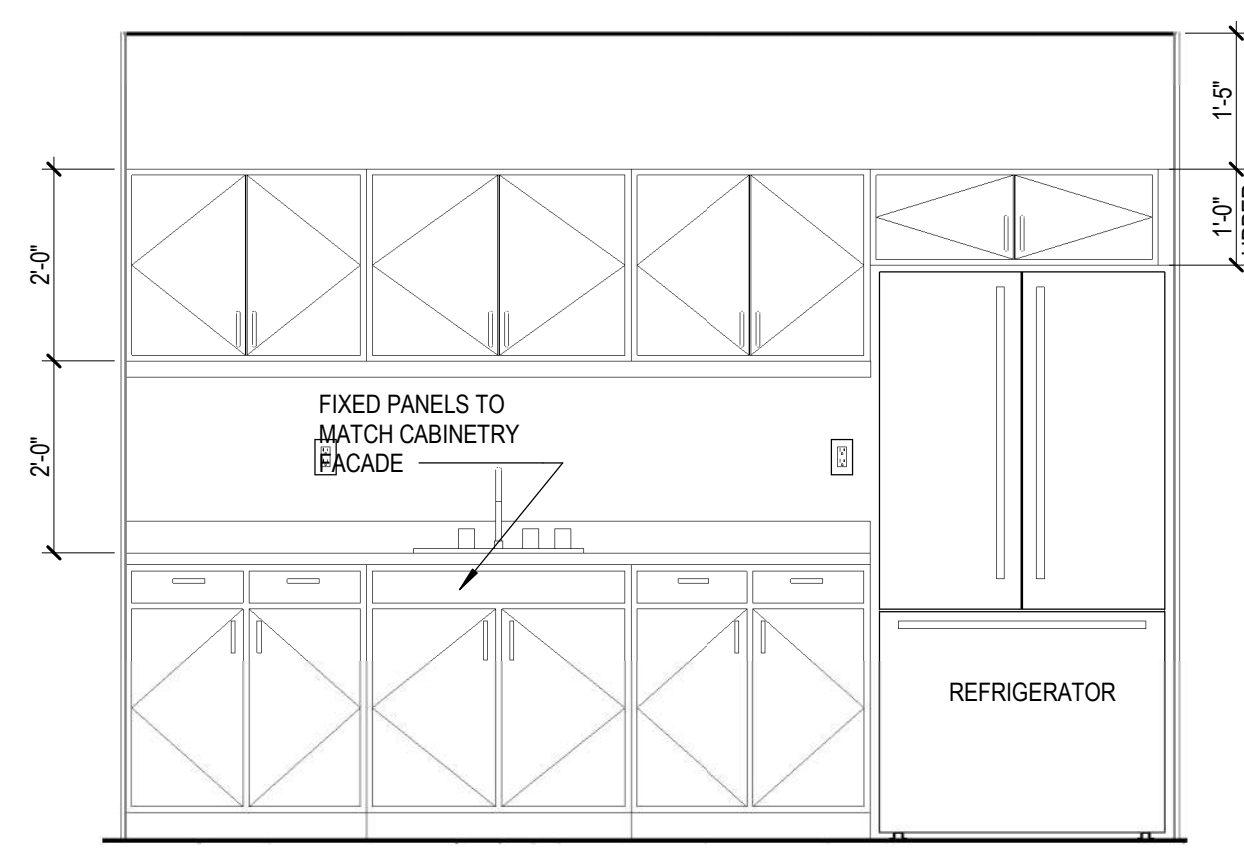
2 KITCHEN - ELEVATION A  
1/2" = 1'-0"



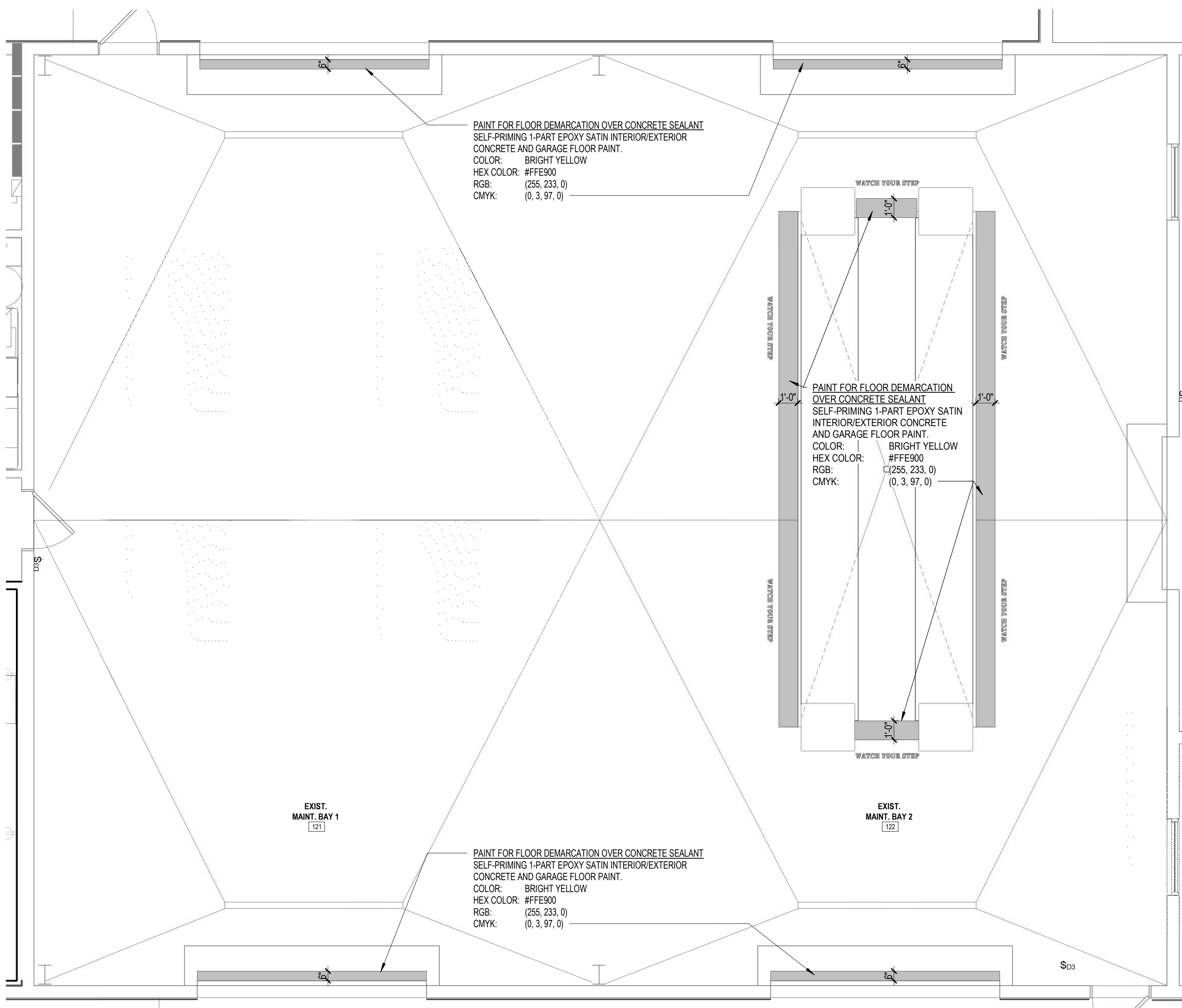
3 KITCHEN - ELEVATION B  
1/2" = 1'-0"



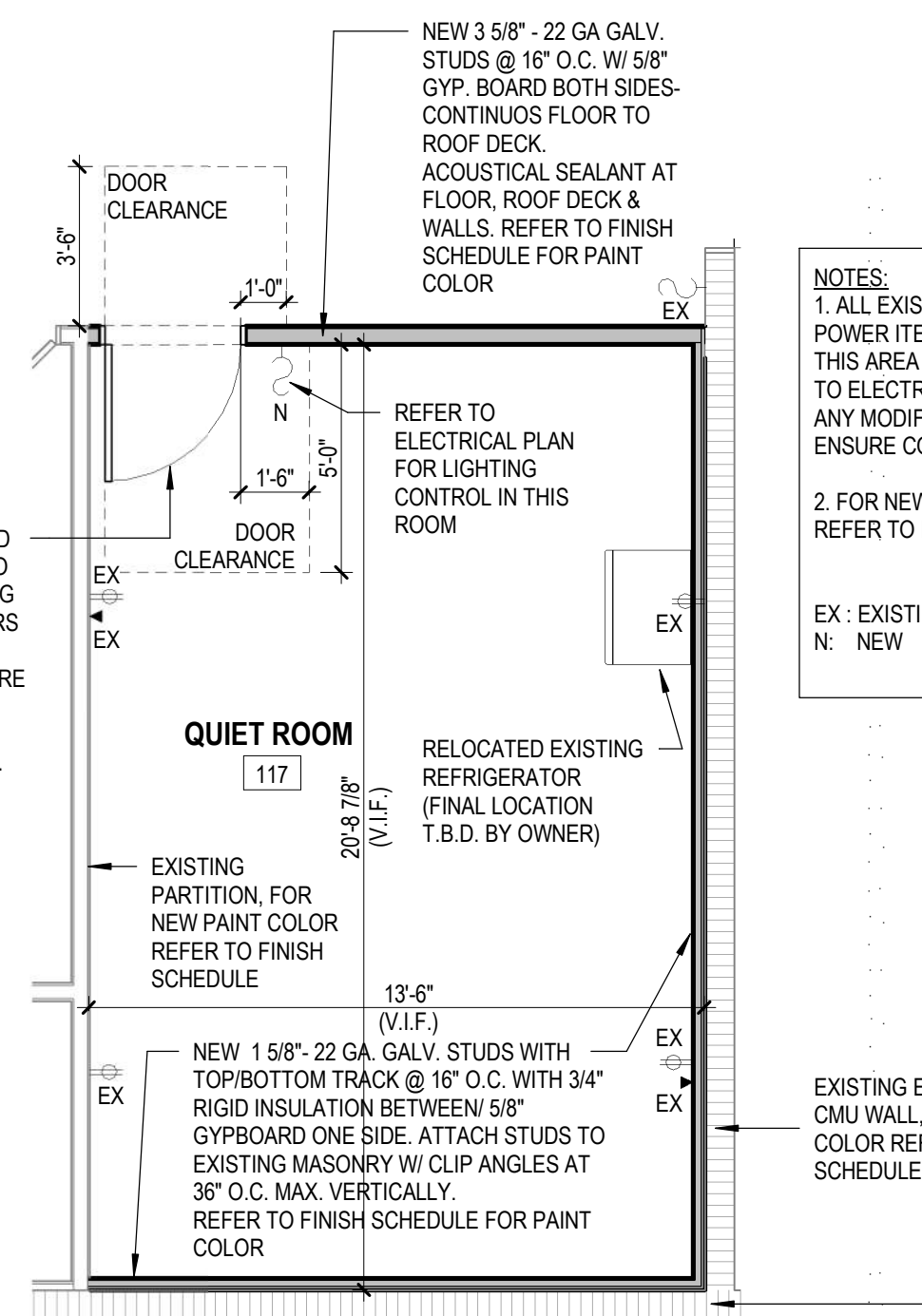
4 BAR - ENLARGED FLOOR PLAN  
1/2" = 1'-0"



5 BAR - ELEVATION  
1/2" = 1'-0"



6 MAINTENANCE BAY-ENLARGED FLOOR PLAN  
1/4" = 1'-0"



7 QUIET ROOM - ENLARGED FLOOR PLAN  
1/4" = 1'-0"

FINISHES LIST				
SYMBOL	FINISH/MATERIAL	PRODUCT	MANUFACTURER	COLOR
FLOORING				
EPF-1	MODULAR CARPET	NETWORK 1842/ MODULAR 24 X 24	KINETEX	MAZE 2910
EPF-2	EPOXY FLOORING	STONTEC ERF	STONHARD	BLUE QUARRY-LARGE FLAKES
SC-1	SEALED CONCRETE	SKYGARD HD	NEOGARD	CLEAR
WALL BASE				
IEPB-1	4" HT. KINETEX	KINETEX- WALL BASE	KINETEX	MAZE 2910
IEPB-2	INTEGRAL BASE		STONHARD	MATCH FLOORING EBF-2
PAINT/STAIN				
PT-1	INTERIOR PAINT	SEMI-GLOSS	SHERWIN WILLIAMS	HIGH REFLECTIVE WHITE
PT-2	INTERIOR PAINT	SATIN	SHERWIN WILLIAMS	SILENT RIPPLE
PT-3	INTERIOR PAINT	SATIN	SHERWIN WILLIAMS	QUICKSILVER
PT-4	* INTERIOR PAINT-DOOR/FRAMES/SHELVES	DTM	SHERWIN WILLIAMS	TIN LIZZIE
CEILING				
ACT-1	ACOUSTICAL CEILING TILE		ARMSTRONG	TO MATCH EXISTING
	CEILING GRID		ARMSTRONG	TO MATCH EXISTING
MILLWORK				
PL-1	HIGH PRESSURE LAMINATE	** VANTAGE	KRAFTMAID OR EQUAL	TO MATCH INGOT GRAY FROM PANOLAM OR EQUAL
S-1	SOLID SURFACE	QUARTZ/RESIN	LX HAUSYS	TO MATCH INGOT GRAY FROM PANOLAM OR EQUAL
TRANSITION STRIP				
TH-1	ALUMINUM THRESHOLD		JOHNSONITE	
WALL PROTECTION				
CG	CORNER GUARD	METAL		SCO-8 18GA TYPE 316 STAINLESS STEEL
NOTES:				
1. ALL EXISTING ELECTRICAL POWER ITEMS IN BETWEEN THIS AREA TO REMAIN. REFER TO ELECTRICAL PLANS FOR ANY MODIFICATIONS TO ENSURE CODE COMPLIANCE				
2. FOR NEW FLOOR FINISH REFER TO FINISH SCHEDULE				
EX - EXISTING TO REMAIN N - NEW				
* PT-4 PAINT FOR ALL INTERIOR DOOR FRAME, PAINTED INTERIOR DOORS AND SHELVES				
** ALL CABINETS TO BE EQUAL TO KRAFTMAID VANTAGE. DOOR STYLE AND FINISHES TO BE SELECTED BY THE OWNER. INSTALLATION BY THE CONTRACTOR				

FINISH SCHEDULE						
ROOM NO.	ROOM NAME	FLOOR	BASE	WALL		COMMENTS
				FIELD	ACCENT	
101	EXIST. OFFICE	EPF-1	IEPB-1	PT-2		
102	EXIST. OFFICE	EPF-1	IEPB-1	PT-2		
103	EXIST. CONFERENCE ROOM	EPF-1	IEPB-1	PT-2	PT-3	ACCENT WALL AT WINDOW LOCATOIN
104	EXIST. RECEPTION	EPF-1	IEPB-1	PT-2	PT-3	ACCENT WAL OPPOSITE TO PASS-TROUGH
105	EXIST. OFFICE	EPF-1	IEPB-1	PT-1		
106	EXIST. CLERK	EPF-1	IEPB-1	PT-2		
107	EXIST. HALL	EPF-1	IEPB-1	PT-3		
108	EXIST. OFFICE	EPF-1	IEPB-1	PT-2		
109	EXIST. SUPPLIES	EPF-1	IEPB-1	PT-2		
110	EXIST. HALL	EPF-2	IEPB-2	PT-2		
111	EXIST. MEN	EPF-2	IEPB-1	PT-2		
112	EXIST. WOMEN	EPF-2	IEPB-1	PT-2		
113	EXIST. DISPATCH	EPF-2	IEPB-2	PT-2		
114	DRIVER'S INSTRUCTION/BREAKROOM	EPF-2	IEPB-2	PT-2		
114A	BAR	EPF-2	IEPB-2	PT-2		
114B	KITCHEN	EPF-2	IEPB-2	PT-2		
114D	EXIST. DRIVER'S BREAKROOM	EPF-2	IEPB-2	PT-2		
115	EXIST. MEN	EPF-2	IEPB-2	PT-2		
116	EXIST. WOMEN	EPF-2	IEPB-2	PT-2		
117	QUIET ROOM	EPF-2	IEPB-2	PT-2	PT-3	ACCENT WALL- OPPOSITE TO DOOR WALL
118	EXIST. ELEC.	EPF-2	IEPB-1	PT-2		
119	EXIST. MECH	EPF-2	IEPB-1	PT-2		
120	EXIST. CASH	EPF-2	IEPB-1	PT-1		
121	EXIST. MAINT. BAY 1	SC-1		PT-1		
122	EXIST. MAINT. BAY 2	SC-1		PT-1		
123	EXIST. PARTS	SC-1		PT-1		
124	EXIST. MAINT. OFFICE	EPF-1	IEPB-1	PT-2		
125	EXIST. BATTERY R.M	SC-1		PT-1		
126	EXIST. -NEW OIL	SC-1		PT-1		
127	EXIST. WASTE OIL	SC-1		PT-1		
128	EXIST. COMPRESSOR	SC-1		PT-1		
129	EXIST. MEZZ. ACCESS	SC-1		PT-1		

SUBMITTALS:	
PHASE	DATE
100% CDs	11/11/2022

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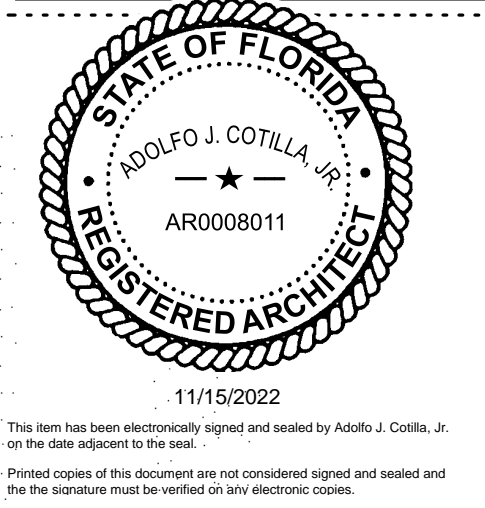
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DESIGN CONSULTANT

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ENLARGED PLANS -  
ELEVATIONS AND  
DETAILS

SHEET TITLE

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19-031 P02

PROJECT NUMBER

A-102

SHEET NUMBER  
TO THE BEST OF MY KNOWLEDGE  
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ELEVATION GENERAL NOTES

1.

EXTERIOR PAINTING INCLUDES THE EXISTING PAINTED ACCENT BANDS AND DOORS AS SHOWN ONLY. COLOR: TO MATCH EXISTING BLUE

2.

EXISTING SPLIT FACED DECORATIVE BLOCK AND METAL SIDING TO REMAIN AS IS - DO NOT PAINT THOSE AREAS.

3.

CONTRACTOR RESPONSIBLE TO FIELD VERIFY THE DIMENSIONS OF THE LOCATIONS IDENTIFIED TO BE REPAINTED INCLUDING THE ACCENT BANDS, DOORS AND FRAMES.

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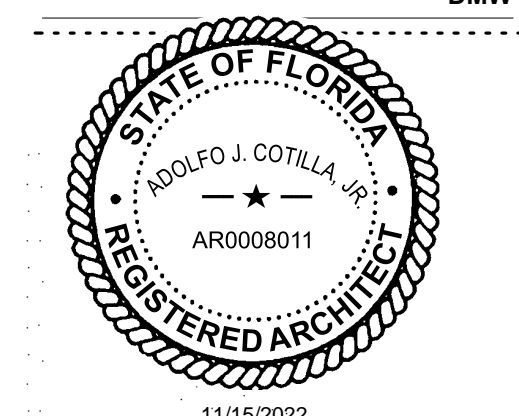
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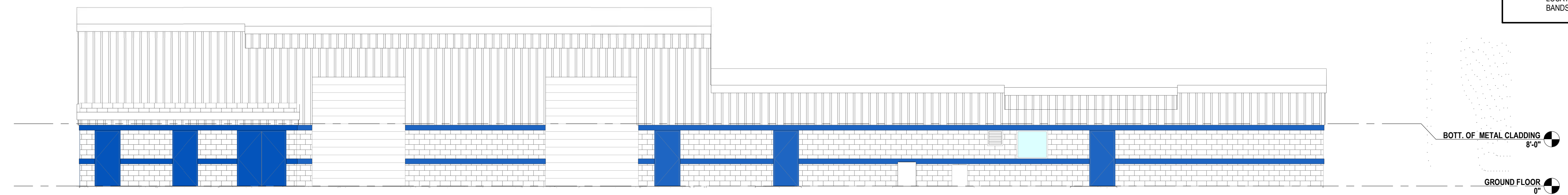
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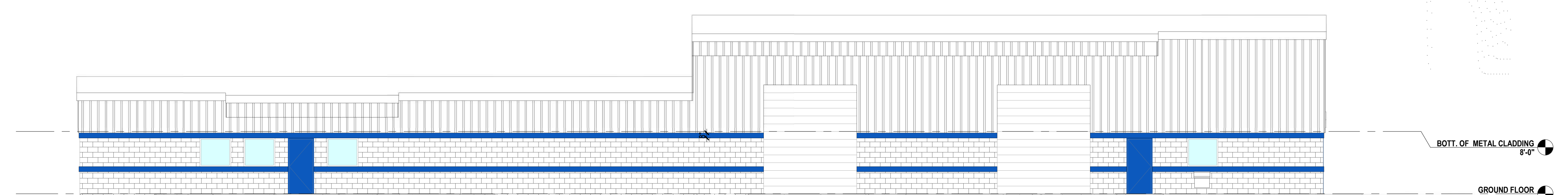
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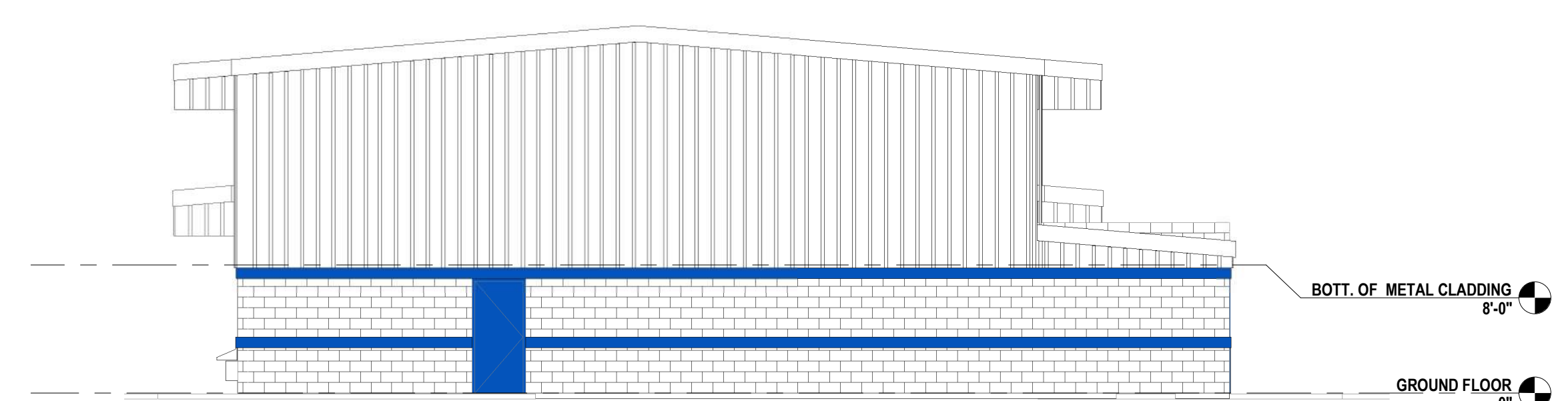
This form has been electronically signed and sealed by Adolfo J. Cotilla, Jr. on the date adjacent to this seal.  
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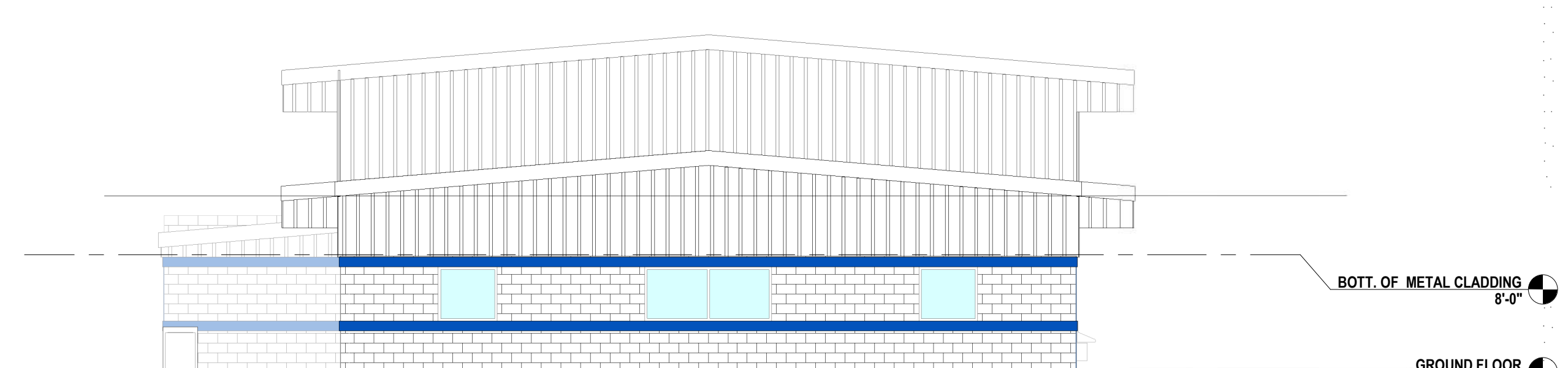
1 EXISTING EAST ELEVATION  
1/8" = 1'-0"



2 EXISTING WEST ELEVATION  
1/8" = 1'-0"



3 EXISTING SOUTH ELEVATION  
1/8" = 1'-0"



4 EXISTING NORTH ELEVATION  
1/8" = 1'-0"

DESIGN CONSULTANT

SunTran AMF Renovations

1805 NE 30th Ave. Ocala,  
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EXTERIOR ELEVATIONS

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
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## SunTran AMF Renovations

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LEGEND -  
ELECTRICAL

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SPECIFICATIONS - ELECTRICAL

260100 - BASIC ELECTRICAL SCOPE OF WORK REQUIREMENTS:

- A. ALL WORK SHALL BE IN COMPLIANCE WITH THE LATEST APPLICABLE CODES, LAWS AND ORDINANCES AND THE NATIONAL ELECTRICAL CODE. PROVIDE AND INSTALL ALL LABOR, MATERIALS, PERMITS AND INCIDENTALS REQUIRED TO COMPLETE ALL WORK AS SHOWN ON CONTRACT DOCUMENTS.
- B. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL SCOPE AND ARRANGEMENT OF THE ELECTRICAL INSTALLATION AND ARE NOT INTENDED TO SHOW EVERY CONNECTION. CONDUIT OR EXACT LOCATION AND EXTENT OF WORK. CONTRACTOR SHALL INSTALL THE WORK COMPLETE, INCLUDING DETAILS AND EQUIPMENT NECESSARY TO PERFORM THE FUNCTION INDICATED ON THE DRAWINGS. SUBMIT SHOP DRAWINGS FOR ALL ELECTRICAL EQUIPMENT ASSOCIATED WITH THE PROJECT UNDER ONE SUBMITTAL. SEPARATE SUBMITTALS MAY BE REJECTED. SUBMIT DIMENSIONED ELECTRICAL ROOM LAYOUTS TO 1/4" SCALE WITH MANUFACTURERS EQUIPMENT LOCATIONS SHOWN THEREIN.
- C. ALL MATERIALS SHALL BE NEW AND FREE OF DEFECTS AND SHALL BE U.L. LISTED OR BE LISTED WITH AN APPROVED, NATIONALLY RECOGNIZED ELECTRICAL TESTING AGENCY.
- D. INSPECT ALL NEW MATERIAL AND EQUIPMENT PRIOR TO INSTALLATIONS FOR DAMAGES AND SHALL VERIFY EQUIPMENT OPERATES SATISFACTORILY.
- E. WARRANT ALL MATERIAL AND EQUIPMENT FURNISHED TO COMPLETE ALL WORK FOR ONE YEAR AFTER FINAL ACCEPTANCE OF COMPLETION. MATERIALS AND EQUIPMENT DEFECTS OF FAILURES DUE TO ABUSE OR WORKMANSHIP NEGLECT SHALL BE MADE GOOD BY THE CONTRACTOR WITHOUT COST TO THE OWNER.
- F. PROVIDE ONLY NEW, STANDARD UNDERWRITERS LABORATORY INC. LISTED FIRST-GRADE MATERIALS THROUGHOUT AND SHALL BE MARKED WITH UNDERWRITERS LABORATORY INC. LISTED AND WITH MANUFACTURER'S BRAND OR TRADEMARK. ALL MATERIALS SHALL BE OF ONE MANUFACTURER.
- G. CONTRACTOR SHALL BE EXPERIENCED IN THEIR TRADE. CONTRACTOR'S WORK SHALL PRESENT A NEAT APPEARANCE UPON COMPLETION. MATERIALS AND EQUIPMENT INSTALLED SHALL BE PLUMB, STRAIGHT AND LEVEL.
- H. COORDINATE WITH THE ARCHITECT AND OWNER ON EXACT LOCATION OF WIRING DEVICES AND RACEWAYS FOR OWNER-FURNISHED EQUIPMENT PRIOR TO ROUGH-IN. COORDINATE ELECTRICAL EQUIPMENT AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS AND TRADES. REVIEW AND COORDINATE BETWEEN ALL CONSTRUCTION DOCUMENTS AND PROJECT SPECIFICATIONS.
- I. COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES AND SLEEVES TO BE SET IN POURED IN PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS AS THEY ARE CONSTRUCTED. COORDINATE THE CUTTING AND PATCHING OF BUILDING COMPONENTS TO ACCOMMODATE THE INSTALLATION OF ELECTRICAL EQUIPMENT AND MATERIALS IN RENOVATION PROJECTS.
- J. COORDINATE CONNECTION OF ELECTRICAL SYSTEMS AND EQUIPMENT REQUIREMENTS WITH LOCAL UTILITY SERVICES TO PROVIDE AND COMPLY WITH THE REQUIREMENTS FOR EACH SERVICE.
- K. UPON COMPLETION OF WORK, TEST ALL WIRING AND EQUIPMENT INSTALLATION AND SHALL BE IN PERFECT WORKING CONDITION IN ACCORDANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS. MARK DRAWINGS TO INDICATE ACTUAL FIELD CONDITIONS.
- L. THE WORD 'PROVIDE' MEANS FOR THE CONTRACTOR TO FURNISH AND INSTALL.

260519 - CONDUCTORS AND CABLES:

- A. WIRING INSULATION: CONDUCTORS SHALL BE COPPER AND HAVE CURRENT CARRYING CAPACITIES AS PER N.E.C. WITH 600 VOLT GENERAL AND COMPLY WITH NEMA WC 70. ALUMINUM CONDUCTORS ARE NOT APPROVED. CONDUCTORS SHALL BE #12 MINIMUM, EXCEPT FOR CONDUIT AND FIXTURE WIRE. SOLID FOR #10 AND SMALLER CONDUCTORS, STRANDED FOR #8 AND LARGER.
- B. FEEDERS: BRANCH CIRCUITS, CLASS 1 AND CLASS 2 CIRCUITS SHALL BE INSULATION TYPE XHHW OR THWN.
- C. MAINTAIN STANDARD COLOR CODING OF BLACK, RED AND BLUE FOR 120/208 VOLT, 3 PHASE WIRING AND BROWN, ORANGE AND YELLOW FOR 277/480 VOLT, 3 PHASE WIRING. COLOR CODING SHALL MATCH EXISTING FACILITIES WHERE THE COLOR CODING IS NOT STANDARD. WHITE NEUTRAL AND GREEN GROUND.
- D. CONCEAL CABLES IN FINISHED WALLS, CEILINGS AND FLOORS UNLESS OTHERWISE INDICATED. INSTALL EXPOSED CABLES PARALLEL AND PERPENDICULAR TO SURFACES OF EXPOSED STRUCTURAL MEMBERS AND FOLLOW SURFACE CONTOURS WHERE POSSIBLE.
- E. MAKE SPLICES AND TAPS THAT ARE COMPATIBLE WITH CONDUCTOR MATERIAL AND THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN UNSPLICED CONDUCTORS. SERVICE ENTRANCE AND PANEL FEEDERS SHALL NOT BE SPLICED. TIGHTEN ELECTRICAL CONNECTORS AND TERMINALS ACCORDING TO MANUFACTURER'S PUBLISHED TORQUE-TIGHTENING VALUES. IF MANUFACTURER'S TORQUE VALUES ARE NOT INDICATED, USE THOSE SPECIFIED IN UL 486A AND UL 486B.
- F. WIRING AT OUTLETS: INSTALL CONDUCTOR AT EACH OUTLET WITH AT LEAST 12 INCHES OF SLACK. WIRING IN LIGHT POLE HANDHOLES: PROVIDE AT LEAST 18" OF SLACK AT HANDHOLE.

260529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS:

- A. HANGERS AND SUPPORTS FOR ELECTRICAL EQUIPMENT AND RACEWAYS SHALL COMPLY WITH THE NEC AND NECA 1 AND NECA 101. SPACE SUPPORTS FOR EMT, IMC AND RMC AS REQUIRED BY THE NEC. MINIMUM ROD SIZE SHALL BE 1/4 INCH IN DIAMETER.
- B. CONDUIT AND CABLE SUPPORT DEVICES: STEEL HANGERS, CLAMPS AND ASSOCIATED FITTINGS, DESIGNED FOR TYPES AND SIZES OF RACEWAY OR CABLE TO BE SUPPORTED. EXTERIOR AND WET LOCATIONS SHALL BE STAINLESS STEEL OR ALUMINUM WITH STAINLESS STEEL HARDWARE.
- C. SUPPORT FOR CONDUCTORS IN VERTICAL CONDUIT: FACTORY - FABRICATED ASSEMBLY CONSISTING OF THREADED BODY AND INSULATING WEDGING PLUG OR PLUGS FOR NON-ARMORED ELECTRICAL CONDUCTORS OR CABLES IN RISER CONDUITS. PLUGS SHALL HAVE NUMBER, SIZE AND SHAPE OF CONDUCTOR GRIPPING PIECES AS REQUIRED TO SUIT CABLES SUPPORTED.
- D. MOUNTING, ANCHORING AND ATTACHMENT COMPONENTS: ITEMS FOR FASTENING ELECTRICAL ITEMS OR THEIR SUPPORTS TO BUILDING SURFACES INCLUDE: MECHANICAL EXPANSION ANCHORS, INSERT - WEDGE TYPE, ZINC-COATED STEEL OR STAINLESS STEEL FOR USE IN HARDENED PORTLAND CEMENT CONCRETE WITH TENSION, SHEAR AND PULLOUT CAPACITIES APPROPRIATE FOR SUPPORTED LOADS AND BUILDING MATERIALS IN WHICH USED. CONCRETE INSERTS, STEEL OR MALLEABLE-IRON, SLOTTED SUPPORT SYSTEM UNITS SIMILAR TO MSS TYPE 18, COMPLYING WITH MFMA-4 OR MSS SP-58. CLAMPS FOR ATTACHMENT TO STEEL STRUCTURAL ELEMENTS, MSS SP-58, TYPE SUITABLE FOR ATTACHED STRUCTURAL ELEMENT. THROUGH BOLTS, STRUCTURAL TYPE, HEX HEAD AND HIGH STRENGTH. COMPLY WITH ASTM A-325. TOGGLE BOLTS, ALL STEEL SPRINGHEAD TYPE. HANGER RODS, THREADED STEEL. MOUNTING APPARATUS FOR EXTERIOR APPLICATIONS SHALL BE STAINLESS STEEL. EXTERIOR LOCATED SUPPORT APPARATUS SHALL CONSIST OF DIRECT BURIAL CONCRETE POSTS, STAINLESS STEEL OR ALUMINUM CHANNEL AND STAINLESS STEEL SPRINGS, BOLTS, WASHERS, ETC.
- E. MULTIPLE RACEWAYS OR CABLES SHALL HAVE L-TRAPEZE TYPE SUPPORTS FABRICATED WITH STEEL SLOTTED OR OTHER SUPPORT SYSTEM, SIZED SO CAPACITY CAN BE INCREASED BY AT LEAST 25 PERCENT IN FUTURE WITHOUT EXCEEDING SPECIFIED DESIGN LOAD LIMITS. SECURE RACEWAYS AND CABLES TO THESE SUPPORTS WITH TWO-BOLT CONDUIT CLAMPS USING SPRING FRICTION ACTION FOR RETENTION IN SUPPORT CHANNELS. SPRING-STEEL CLAMPS DESIGNED FOR SUPPORTING SINGLE CONDUITS WITHOUT BOLTS MAY BE USED FOR 1-1/2 INCH AND SMALLER RACEWAYS SERVING BRANCH CIRCUITS AND COMMUNICATION SYSTEMS ABOVE SUSPENDED CEILINGS.
- F. SUPPORTING RACEWAYS VIA OTHER RACEWAYS CABLE TRAYS AND WIREWAYS ARE NOT APPROVED.

260533 - RACEWAYS AND BOXES:

- A. LISTING AND LABELING: METAL CONDUITS AND NON-METALLIC CONDUITS, TUBING AND FITTINGS SHALL BE LISTED AND LABELED AS DEFINED IN NFPA 70 AND MARKED FOR INTENDED LOCATION AND APPLICATION.
- B. CONDUIT GENERAL: RIGID SHALL BE MINIMUM 1", GALVANIZED OUTSIDE AND INSIDE BY HOT DIPPING, E.M.T. SHALL BE MINIMUM 3/4" AND SHALL BE ELECTRO-GALVANIZED. CONDUITS SHALL BE AS MANUFACTURED BY ALLED, PITTSBURGH STANDARD, REPUBLIC, THOMAS & BETTS, TRIANGLE, WHEATLAND OR YOUNGSTOWN.
- C. PROVIDE END BUSHINGS ON ALL CONDUITS. PROVIDE PULL STRINGS IN ALL EMPTY RACEWAYS. PULL STRINGS SHALL BE NYLON AND SHALL BE IMPERVIOUS TO MOISTURE. PULL STRINGS SHALL HAVE A TENSILE STRENGTH NOT LESS THAN 200 LBS. METALLIC RACEWAY MAY BE BONDED TO CABINETS, BOXES AND PANELBOARDS BY DOUBLE LOCKNUT AND BUSHING TO ENSURE THE METALLIC PARTS ARE ALL EFFECTIVELY GROUNDED.
- D. CONDUIT ABOVE GRADE OR CONCEALED IN WALLS SHALL BE EMT (INTERIOR ONLY), IMC OR GALVANIZED. CONDUIT BELOW GRADE SHALL BE RIGID GALVANIZED (HEAVY WALL), IMC OR PVC (SCHEDULE 40). CONNECTION TO VIBRATING EQUIPMENT, (INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC, ELECTRIC SOLENOID OR MOTOR-DRIVEN EQUIPMENT), FMC, EXCEPT USE LFMC IN DAMP OR WET LOCATIONS, MAXIMUM LENGTH 72 INCHES. CONCEAL CONDUIT WITHIN FINISH WALLS, CEILINGS AND FLOORS UNLESS OTHERWISE INDICATED.
- E. CONDUIT OUTSIDE AND EXPOSED TO PHYSICAL DAMAGE OR IN DAMP OR WET LOCATIONS SHALL BE RIGID GALVANIZED (HEAVY WALL).
- F. SEALANT: PROVIDE A CLOSED CELL SILICONE FOAM SEALANT RATED TO PROVIDE A RATING EQUAL TO THE WALL, CEILING OR FLOOR ASSEMBLY RATED. PROVIDE SEALS FOR THE EXTERIOR OF CONDUIT PENETRATIONS CONSISTING OF A CAST-IN-PLACE SLEEVE WITH A COMPRESSIBLE RUBBER GASKET BETWEEN THE CONDUIT AND THE SLEEVE. PROVIDE SEALS FOR THE INTERIOR OF THE CONDUIT PENETRATIONS CONSISTING OF GLAND TYPE SEALING BUSHING OR CLOSED CELL SILICONE FOAM. PROVIDE DUCT SEAL INSIDE AN APPROPRIATE SEAL-OFF FITTING TO SEAL THE INTERIOR OF THE CONDUIT SYSTEM FROM WATER SEEPAGE OR HAZARDOUS GASES.
- G. COUPLINGS: ALL COUPLINGS AND CONNECTORS FOR EMT SHALL BE OF COMPRESSION TYPE.
- H. OUTLET SHALL BE STANDARD TYPE WITH KNOCKOUTS, MADE OF HOT DIPPED GALVANIZED STEEL, AS MANUFACTURED BY STEEL CITY, RACO OR APPLETON. BOX EXTENSIONS USED TO ACCOMMODATE NEW BUILDING FINISHES SHALL BE OF SAME MATERIAL AS RECESSED BOX.
- I. CEILING OUTLET BOXES SHALL BE 4 INCH OCTAGON, 1-1/2 INCH DEEP OR LARGER WHEN REQUIRED DUE FOR NUMBER OF CONDUCTORS OR CONDUIT ENTRY. LUMINAIRE OUTLET BOXES: NON-ADJUSTABLE, DESIGNED FOR ATTACHMENT OF LUMINAIRE WEIGHING 50 LB. OUTLET BOXES DESIGNED FOR ATTACHMENT OF LUMINAIRES WEIGHING MORE THAN 50 LB. SHALL BE LISTED AND MARKED FOR THE MAXIMUM ALLOWABLE WEIGHT.
- J. OUTLET BOXES SHALL BE PROVIDED WITH APPROVED 3/8 INCH FIXTURE STUDS WHERE REQUIRED. PROVIDE JUNCTION OR PULL BOXES WHERE SHOWN ON THE DRAWINGS AS REQUIRED TO FACILITATE INSTALLING CONDUCTORS. BOXES SHALL BE SIZED IN ACCORDANCE WITH THE NEC. ALL JUNCTION BOXES SHALL BE ACCESSIBLE, HORIZONTALLY SEPARATE BOXES MOUNTED ON OPPOSITE SIDES OF WALLS SO THEY ARE NOT IN THE SAME VERTICAL CHANNEL AND TO MAINTAIN WALL FIRE RATING.
- K. METAL FLOOR BOXES: CAST METAL FOR SLAB ON SLAB ON GRADE OR SHEET METAL, FULLY ADJUSTABLE, RECTANGULAR. METAL FLOOR BOXES SHALL BE LISTED AND LABELED AS DEFINED IN NFPA 70, BY A QUALIFIED TESTING AGENCY AND MARKED FOR INTENDED LOCATION AND APPLICATION.

260544 - SLEEVES AND SEALS FOR ELECTRICAL RACEWAYS AND CABLING:

- A. COORDINATE SLEEVE SELECTION AND APPLICATION FOR RACEWAYS AND CABLES THROUGH FIRE RATED PENETRATIONS WITH THROUGH-PENETRATION FIRESTOP SYSTEMS SPECIFIED IN ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. FOR FIRE-RATED ASSEMBLY PENETRATIONS, MAINTAIN INDICATED FIRE RATING OF WALLS, PARTITIONS, CEILINGS AND FLOORS AT CABLE PENETRATIONS. INSTALL SLEEVES AND SEAL WITH FIRESTOP MATERIALS ACCORDING TO LISTING.
- B. SLEEVE INSTALLATION FOR NON-FIRE-RATED ELECTRICAL PENETRATIONS: WALL SLEEVES, GALVANIZED-STEEL SHEET, 0.0239 INCH MINIMUM THICKNESS; ROUND TUBE CLOSED WITH TABS FOR SCREW-FASTENING THE SLEEVE TO THE BOARD. SLEEVES FOR RECTANGULAR OPENINGS: FOR SLEEVE CROSS-SECTION RECTANGLE PERIMETER LESS THAN 50 INCHES AND WITH NO SIDE LARGER THAN 16 INCHES, THICKNESS SHALL BE 0.062 INCH FOR SLEEVE CROSS-SECTION RECTANGLE PERIMETER 50 INCHES OR MORE AND ONE OR MORE SIDES LARGER THAN 16 INCHES, THICKNESS SHALL BE 0.138 INCH. CUT SLEEVES TO LENGTH FOR MOUNTING FLUSH WITH BOTH WALL SURFACES. EXTEND SLEEVES INSTALLED IN FLOORS 2 INCHES ABOVE FINISHED FLOOR LEVEL. SIZE PIPE SLEEVES TO PROVIDE 1/4 INCH ANNULAR CLEAR SPACE BETWEEN SLEEVE AND CABLE UNLESS SLEEVE SEAL IS TO BE INSTALLED. SEAL SPACE OUTSIDE OF SLEEVES WITH GROUT FOR PENETRATIONS OF CONCRETE AND MASONRY AND WITH APPROVED JOINT COMPOUND FOR GYPSUM BOARD ASSEMBLIES. ROOF PENETRATION SLEEVES - SEAL PENETRATION OF INDIVIDUAL CABLES WITH FLEXIBLE BOOT-TYPE FLASHING UNITS APPLIED IN COORDINATION WITH ROOFING WORK. ABOVE GROUND EXTERIOR-WALL PENETRATIONS - SEAL PENETRATIONS USING SLEEVES AND MECHANICAL SLEEVE SEALS AND SIZE SLEEVES TO ALLOW FOR 1 INCH ANNULAR CLEAR SPACE BETWEEN PIPE AND SLEEVE FOR INSTALLING MECHANICAL SLEEVE SEALS. UNDERGROUND EXTERIOR-WALL PENETRATIONS - INSTALL CAST-IRON WALL PIPES FOR SLEEVES. SIZE SLEEVES TO ALLOW FOR 1 INCH ANNULAR CLEAR SPACE BETWEEN CABLE AND SLEEVE FOR INSTALLING MECHANICAL SLEEVE SEALS.

260553 - ELECTRICAL IDENTIFICATION:

- A. NAMEPLATES: ENGRAVED PLASTIC LAMINATE NAMEPLATES. PROVIDE ENGRAVING PHENOLIC PLASTIC LAMINATE IN SIZES AND THICKNESS INDICATED, ENGRAVED WITH 1/16 INCH THICK LINES WITH SQUARE STANDARD PICA LETTERING AND WORDING AS SPECIFIED HEREIN, BLACK FACE AND WHITE LETTER FOR NORMAL SYSTEMS AND RED AND WHITE FOR EMERGENCY AND FIRE ALARM SYSTEMS. PUNCH FOR MECHANICAL FASTENING, EXCEPT WHERE ADHESIVE MOUNTING IS NECESSARY BECAUSE OF SUBSTRATE. MATERIAL THICKNESS SHALL BE 1/16 INCH. PROVIDE BEVELED EDGE IN ORDER TO ELIMINATE SHARP CORNERS. PROVIDE SELF-TAPPING STAINLESS STEEL ROUND HEAD SCREWS. PROVIDE CONTACT TYPE PERMANENT ADHESIVE WHERE SCREWS CANNOT OR SHALL NOT PENETRATE THE SUBSTRATE. ADHESIVE NAMEPLATE SHALL BE PERMANENTLY INSTALLED. TITLES SHALL BE 1/2" INCH HIGH AND ALL OTHER LETTERING SHALL BE 1/4 INCH HIGH.
- B. JUNCTION BOX IDENTIFICATION: PROVIDE NEAT INDELIBLE FELT TIP, STENCILED MARKING ON JUNCTION BOXES. LETTER SIZES SHALL BE 1 INCH HIGH MINIMUM. PROVIDE NON-STENCILED MARKINGS INSIDE THE JUNCTION BOX. LABEL TO INDICATE THE CIRCUITS CONTAINED THEREIN.
- C. PULLBOX IDENTIFICATION: PROVIDE NEAT INDELIBLE FELT TIP, STENCILED MARKING ON PULLBOX COVERS. LETTER SIZES SHALL BE 1 INCH HIGH MINIMUM. PROVIDE NON-STENCILED MARKINGS INSIDE THE PULLBOX AND ON THE EXTERIOR EDGE TO MATCH THE COVER MARKINGS. LABEL TO INDICATE THE CIRCUITS CONTAINED THEREIN, SOURCE PANEL AND DESTINATION.

262416 - PANELBOARDS:

- A. ELECTRICAL COMPONENTS, DEVICES AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70 BY A QUALIFIED TESTING AGENCY AND MARKED FOR INTENDED LOCATION AND APPLICATION. PANELBOARDS SHALL BE AS MANUFACTURED BY EATON, GENERAL ELECTRIC, SIEMENS OR SQUARE D.
- B. PROVIDE PANELBOARDS WITH MAIN BREAKER OR MAIN LUBS WHERE SHOWN ON THE DRAWINGS, OF A DEAD FRONT, INSTALLED PHASE SEQUENCE DESIGN. PROVIDE WITH HARD-DRAWN, 98 PERCENT CONDUCTIVITY BUSSES. PANELBOARDS SHALL BE EQUIPPED WITH HINGED TRIM FRONT COVER AND KEYS ALIKE.
- C. DISTRIBUTION TYPE PANELBOARDS SHALL BE USED FOR 600 AMP AND LARGER PANELBOARDS. CIRCUIT BREAKERS AND MAIN CIRCUIT BREAKERS SHALL BE ELECTRONIC TRIP CIRCUIT BREAKERS WITH RMS SENSING, FIELD REPLACEABLE RATING PLUG OR ELECTRONIC TRIP WITH FIELD ADJUSTABLE SETTINGS FOR INSTANTANEOUS TRIP, LONG AND SHORT-TIME PICKUP AND ADJUSTABLE LEVELS. FRAME AND TRIP SIZES INDICATED IN THE SCHEDULES. MAIN CIRCUIT BREAKERS SHALL BE 100 PERCENT RATED MAINS.
- D. LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS SHALL BE USED FOR 400 AMP AND SMALLER PANELBOARDS UNLESS OTHERWISE NOTED. CIRCUIT BREAKERS SHALL BE BOLT-ON QUICK-MAKE, QUICK-BREAK THERMAL-MAGNETIC TYPE WITH FRAME AND TRIP SIZES INDICATED IN THE SCHEDULES. ADJUSTABLE-MAGNETIC TRIP SETTING FOR CIRCUIT-BREAKER FRAME SIZES 250 AMP AND LARGER. BREAKERS SHALL TRIP FREE OF THE HANDLE AND TRIPPING SHALL BE INDICATED BY THE HANDLE ASSUMING A POSITION BETWEEN OFF AND ON. MULTI-POLE BREAKERS SHALL BE INTERNAL, COMMON TRIP WITH SINGLE OPERATING HANDLE. EXTERNAL HANDLE TIES ARE NOT ACCEPTABLE.
- E. FOR FLUSH MOUNTED PANELBOARDS STUB FOUR (4) 1 INCH EMPTY CONDUITS FROM PANELBOARD INTO ACCESSIBLE CEILING SPACE OR SPACE DESIGNATED TO BE CEILING SPACE IN THE FUTURE. ARRANGE CONDUCTORS IN GUTTERS INTO GROUPS AND BUNDLE AND WRAP WITH WIRE TIES.
- F. FIELD QUALITY CONTROL: PERFORM TESTS AND INSPECTIONS. TEST INSULATION RESISTANCE FOR EACH PANELBOARD BUSS, COMPONENT, CONNECTING SUPPLY, FEEDER AND CONTROL CIRCUIT. TEST CONTINUITY OF EACH CIRCUIT. PERFORM EACH VISUAL AND MECHANICAL INSPECTION AND ELECTRICAL TEST STATED IN NETA ACCEPTANCE TESTING SPECIFICATION. CERTIFY COMPLIANCE WITH TEST PARAMETERS AND CORRECT MALFUNCTIONING UNITS ON-SITE, WHERE POSSIBLE AND RE-TEST TO DEMONSTRATE COMPLIANCE; OTHERWISE, REPLACE WITH NEW UNITS AND RE-TEST.
- G. DIRECTORIES: A TYPE PANELBOARD DIRECTORY SHALL BE PROVIDED FOR EACH PANELBOARD AND SHALL INDICATE THE ACTUAL CIRCUIT NUMBER USED, ROOM NAME AND TYPE OF LOAD. ROOM NAMES SHALL BE THE ACTUAL NAME OR ROOM NUMBER USED NOT NECESSARILY AS SHOWN ON THE DRAWINGS. WHERE PANEL SCHEDULES ARE INDICATED ON THE DRAWINGS AS 'RECEPTACLES' OR 'LIGHTING', ETC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INCLUDE THE SPECIFIC AREA SERVED.

262726 - WIRING DEVICES:

- A. WIRING DEVICES, COMPONENTS AND ACCESSORIES SHALL BE LISTED AND LABELED AS DEFINED IN NFPA 70 BY A QUALIFIED TESTING AGENCY AND MARKED FOR INTENDED LOCATION AND APPLICATION. WIRING DEVICES SHALL BE AS MANUFACTURED BY COOPER, HUBBELL, LEVITON OR PASS & SEYMOUR.
- B. PROVIDE WHITE COLORED DEVICES FOR NORMAL POWER, UNLESS OTHERWISE NOTED. PROVIDE RED COLORED DEVICES FOR EMERGENCY POWER. PROVIDE BRUSHED STAINLESS STEEL COVER PLATES. COORDINATE WITH ARCHITECT FOR FINAL COLOR SELECTION OF DEVICES AND COVER PLATES.
- C. RECEPTACLES: SPECIFICATION GRADE 20 AMP, 125 VOLT, 3 WIRE GROUNDED, MOUNTED AT 18" A.F.F. TO THE CENTERLINE UNLESS NOTED OTHERWISE. COLOR SHALL MATCH TOGGLE SWITCHES.
- D. TOGGLE SWITCHES: HEAVY DUTY SPECIFICATION GRADE 20 AMP, 120/277 VAC, HEAVY DUTY, QUIET TYPE: SINGLE POLE, TWO POLE, THREE WAY OR FOUR WAY AS REQUIRED FOR APPLICATION.
- E. INSTALL DEVICE PLATES IN FULL CONTACT WITH WALL SURFACE OR SURFACE MOUNTED BOX. PLATES SHALL NOT PROJECT OUT FROM THE WALL OR FROM THE EDGE OF THE BOX.
- F. ALL DEVICE PLATES FOR RECEPTACLES AND SWITCHES SHALL BE LABELED. SHOW PANEL DESIGNATION AND BRANCH CIRCUIT SERVING EACH RECEPTACLE.

262813 - FUSES:

- A. FUSES SHALL BE LISTED AND LABELED AS DEFINED IN NFPA 70, BY A QUALIFIED TESTING AGENCY AND MARKED FOR INTENDED LOCATION AND APPLICATION. PANELBOARDS SHALL BE AS MANUFACTURED BY COOPER BUSSMANN, FERRAS SHAWMUT, LITTELFUSE OR EDISON. FUSES SHALL BE NON-RENEWABLE CARTRIDGE TYPE RATED 600 V AC AND LESS FOR USE IN ENCLOSED SWITCHES, FUSIBLE PANELBOARDS, SWITCHBOARDS, ENCLOSED CONTROLLERS, MOTOR CONTROL CENTERS AND CONTROL CIRCUITS.
- B. FUSE APPLICATIONS: SERVICE ENTRANCE, CLASS L, TIME DELAY. FEEDERS, CLASS RK5, FAST ACTING, MOTOR BRANCH CIRCUITS AND OTHER BRANCH CIRCUITS. CLASS RK5, TIME DELAY. CONTROL CIRCUITS: CLASS CC, TIME DELAY.
- C. INSTALLATION: INSTALL FUSES IN FUSIBLE DEVICES, ARRANGE FUSES SO RATING INFORMATION IS READABLE WITHOUT REMOVING FUSE. FUSES SHALL BE SIZED IN ACCORDANCE WITH THE MANUFACTURER'S MAXIMUM OVER-CURRENT NAMEPLATE RATING.

262816 - ENCLOSED SWITCHES:

- A. GENERAL: ALL DISCONNECT SWITCHES SHALL BE HEAVY-DUTY TYPE, UNLESS SPECIFICALLY NOTED OTHERWISE. SWITCHES SHALL BE FUSIBLE OR NON-FUSIBLE AND SIZED AS NOTED ON THE DRAWINGS.
- B. FUSES SHALL BE 240 VOLT RATED ON SYSTEMS UP TO AND INCLUDING 120/240V. ALL SWITCHES SERVING MOTOR LOADS SHALL BE HORSEPOWER RATED. ALL SWITCHES SERVING VFD'S SHALL HAVE AN AUXILIARY CONTACT TO DIS-ENGAGE THE VFD WHEN SWITCHED OFF.
- C. PROVIDE SWITCHES WITH AN EXTERNALLY OPERATED HANDLE: QUICK MAKE QUICK BREAK MECHANISM; THE HANDLE SHALL BE INTERLOCKED WITH THE SWITCH COVER BY MEANS OF A DEFEATABLE INTERLOCK DEVICE. THE SWITCH SHALL BE LOCKABLE IN THE 'OFF' POSITION WITH A PADLOCK.

265100 - INTERIOR LIGHTING:

- A. LUMINAIRES SHALL BE FURNISHED AS SHOWN IN THE LUMINAIRE SCHEDULE AND BE LISTED AND LABELED AS DEFINED IN NFPA 70, BY A QUALIFIED TESTING AGENCY AND MARKED FOR INTENDED LOCATION AND APPLICATION. IT SHALL SPECIFICALLY BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY EXACT TYPE OF CEILING AND RECESSING DEPTH OF ALL RECESSED FIXTURES AND TO FURNISH THE MOUNTING TRIMS AND ACCESSORIES OF THE SPECIFIED AND / OR APPROVED FIXTURES FOR THE CEILING TO BE INSTALLED. FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF CEILING SYSTEMS.
- B. LED LUMINAIRES SHALL BE UL 8750 LISTED AND TESTED IN ACCORDANCE WITH LM-79 AND LM-80 STANDARDS. THE LED LUMINAIRE SHALL HAVE A LUMINOUS EFFICACY OF AT LEAST 90 LUMENS / W, A COLOR TEMPERATURE OF 3500K OR 4000K, A CRI OF AT LEAST 80, AN ESTIMATED LIFE OF AT LEAST 50,000 HOURS AT L70 LUMEN MAINTENANCE AND SHALL INCLUDE A MINIMUM 5 YEAR WARRANTY ON THE ENTIRE LUMINAIRE INCLUDING THE DRIVER.
- C. REFER TO LUMINAIRE SCHEDULE AND LIGHTING CONTROL DETAIL FOR MORE INFORMATION.

SUBMITTALS:	
PHASE	DATE
100% CDs	11/11/2022

REVISIONS:		
NO.	DESCRIPTION	DATE

PROJECT TEAM  
PROFESSIONAL IN CHARGE

ADOLFO J. COTILLA, JR., AIA

REGISTRATION  
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APPROVED BY G.C.

DESIGNED BY A.J.

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SPECIFICATIONS -  
ELECTRICAL

SHEET TITLE

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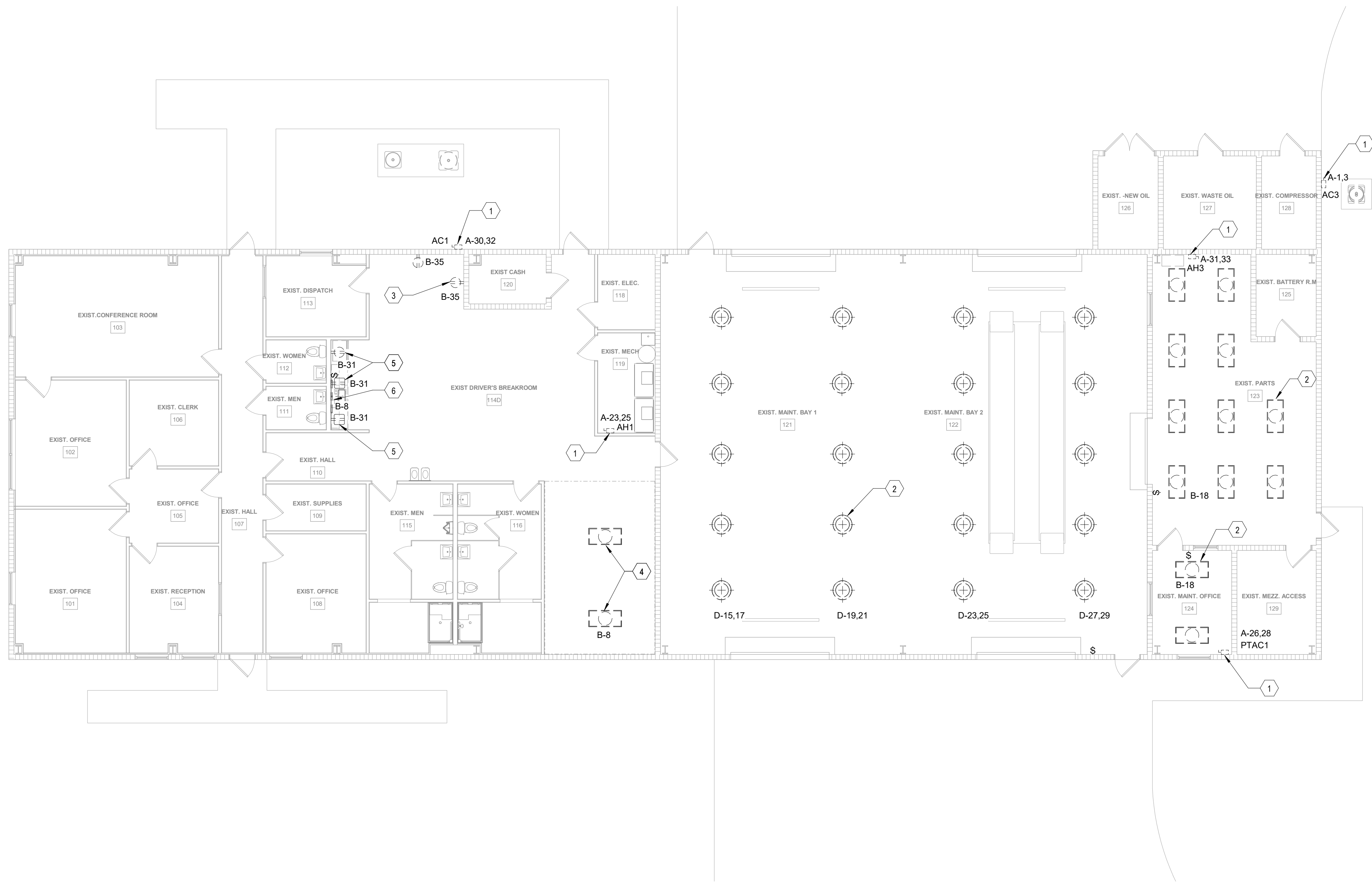
PROJECT NUMBER

E-001

SHEET NUMBER

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1 FIRST FLOOR PLAN - ELECTRICAL DEMOLITION  
1/8" = 1'-0"

0' 4' 8' 16' 32'  
SCALE: 1/8" = 1'-0"

## GENERAL NOTES

- CONTRACTOR SHALL REVIEW NEW FLOOR PLANS FOR CIRCUITS TO BE REUSED PRIOR TO DEMOLITION. DEVICE / EQUIPMENT TO BE DEMOLISHED ARE SHOWN WITH DASHED LINES. CIRCUIT INFORMATION IS SHOWN NEXT TO DEVICE / EQUIPMENT. FIELD VERIFY CIRCUIT INFORMATION SHOWN.
- EXISTING CONCEALED WIRING TO BE REMOVED SHALL BE DISCONNECTED FROM ITS SOURCE, REMOVE CONDUCTORS, CUT CONDUIT FLUSH WITH FLOOR, UNDERSIDE OF FLOOR, AND THROUGH WALLS, AND SEAL OPENINGS.
- MAINTAIN CONTINUITY TO EXISTING CIRCUITS OF WIRED DEVICES AND EQUIPMENT TO REMAIN. EXISTING CIRCUITS OF EQUIPMENT SHALL REMAIN ENERGIZED. CIRCUITS WHICH ARE TO REMAIN BUT WERE DISTURBED DURING DEMOLITION SHALL HAVE WIRING AND POWER RESTORED BACK TO ORIGINAL CONDITION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS.
- THE OWNER RESERVES THE RIGHT TO INSPECT THE MATERIAL SCHEDULED FOR REMOVAL AND SALVAGE ANY ITEMS DEEMED USEABLE AS SPARE PARTS.
- EXISTING CONDITIONS INDICATED ON THIS DRAWING ARE TAKEN FROM EXISTING DOCUMENTS AND FIELD INVESTIGATION. IT IS RECOMMENDED FOR CONTRACTOR TO VISIT PROJECT AREA AND VERIFY EXISTING CONDITIONS PRIOR TO DEMOLITION.
- THE DEMOLITION PLAN IS NOT INCLUSIVE OF ALL ELECTRICAL DEVICES, FITTINGS, CONDUITS, ETC. IT IS INTENDED TO PROVIDE THE CONTRACTOR WITH A GENERAL KNOWLEDGE OF EXISTING CONDITIONS WITHIN THE PROJECT AREA.
- THE CONTRACTOR SHALL INSURE THAT CONDUITS REMAINING WITHIN THE PROJECT AREA ARE SUPPORTED IN ACCORDANCE WITH NEC AND/OR SPECIFICATIONS. CONDUITS THAT ARE ATTACHED TO ITEMS BEING REMOVED DURING DEMOLITION SHALL BE SUPPORTED FROM THE STRUCTURE PRIOR TO REMOVING ITEM.
- EXISTING PANEL SCHEDULES SHALL BE UPDATED WITH TYPEWRITTEN SCHEDULES TO REFLECT CURRENT CONDITIONS. UNUSED BREAKERS SHALL BE SWITCHES OFF AND NOTED AS 'SPARE'.

SUBMITTALS	
PHASE	DATE
100% CDs	11/11/2022

## REVISIONS

NO.	DESCRIPTION	DATE

PROJECT TEAM  
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## KEY NOTES

NUMBER	NOTES
1	DISCONNECT, REMOVE HVAC EQUIPMENT DISCONNECT SWITCH AND ASSOCIATED FEEDER BACK TO SOURCE.
2	TYPICAL, DISCONNECT, REMOVE LUMINAIRE AND ITS ASSOCIATED CONTROL SWITCH(ES). MAKE CIRCUIT SAFE TO REUSE. ELSE REMOVE FEEDER BACK TO SOURCE OR TO NEAREST EXISTING DEVICE TO REMAIN.
3	TYPICAL, DISCONNECT, REMOVE RECEPTACLE OUTLET AND FEEDER BACK TO SOURCE OR TO NEAREST EXISTING DEVICE(S) TO REMAIN.
4	DISCONNECT AND REMOVE LUMINAIRE.
5	DISCONNECT, REMOVE RECEPTACLE OUTLET AND MAKE CIRCUIT SAFE TO REUSE.
6	DISCONNECT AND REMOVE LUMINAIRE AND ITS ASSOCIATED CONTROL SWITCH. MAKE CIRCUIT SAFE TO REUSE.

## DESIGN CONSULTANT

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FIRST FLOOR PLAN -  
ELECTRICAL  
DEMOLITION

## SHEET TITLE

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19-031 P02

PROJECT NUMBER

**E-101**

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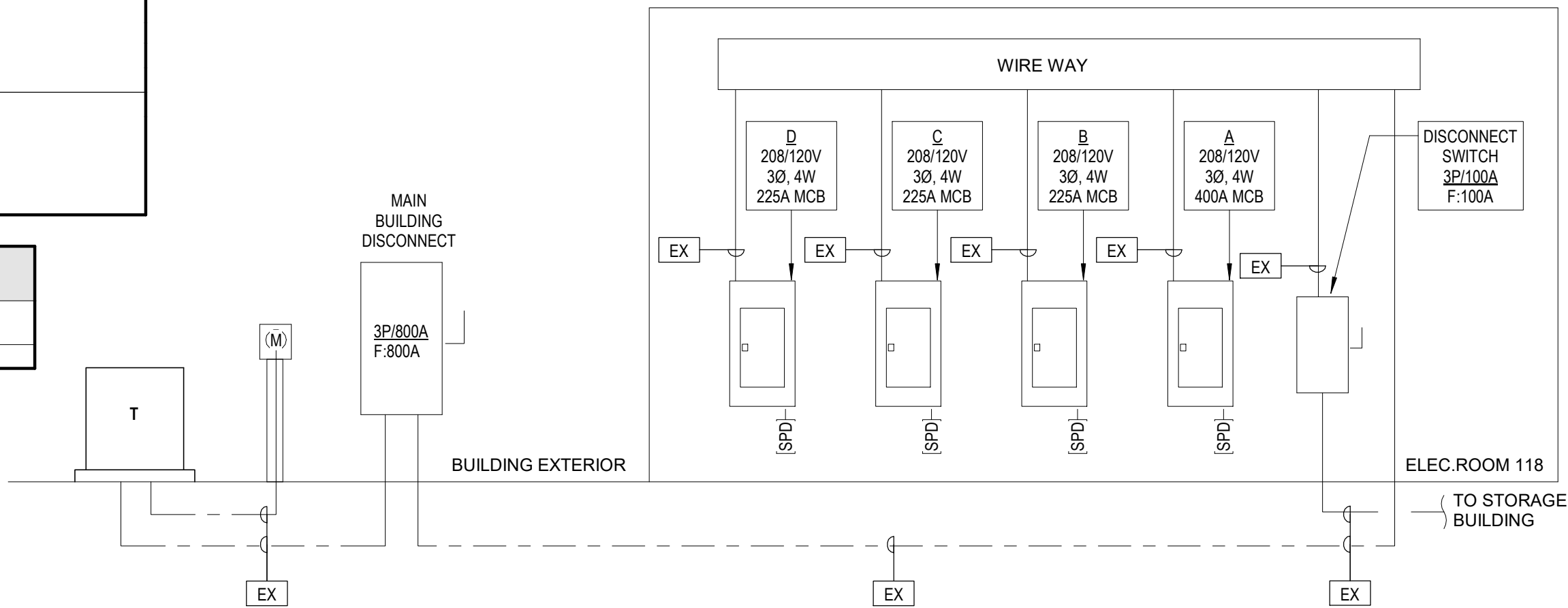


MAIN BREAKER 225A MAIN LUGS					PANEL B					BUS RATING 225 A AIC RATING 42KA					
					PHASE	CIRCUIT	MOUNT	NEMA	VOLTAGE						
					3	42	SURFACE	1	120/208 Wye						
NOTES	CKT #	CIRCUIT DESCRIPTION	TRIP AMPS	BRKR. POLES	A PHASE LOAD KVA		B PHASE LOAD KVA		C PHASE LOAD KVA		BRKR. POLES	TRIP AMPS	CIRCUIT DESCRIPTION	CKT #	NOTES
	1	RM 101 - REC	20 A	1	0 VA	0 VA					1	20 A	101-103 LTS	2	
	3	RM 102 - REC	20 A	1			0 VA	0 VA			1	20 A	104-113 LTS	4	
	5	RM 103 - REC	20 A	1					0 VA	0 VA	1	20 A	BATH LTS	6	
	7	RM 103 - REC	20 A	1	0 VA	0 VA					1	20 A	114,117-120 LTS	8	
	9	RM 104 - REC	20 A	1			0 VA	0 VA			1	20 A	SPARE	10	1
	11	RM 105 - REC	20 A	1					0 VA	0 VA	1	20 A	SPARE	12	1
	13	RM 124 - REC	20 A	1	0 VA	0 VA					1	20 A	SPARE	14	1
	15	RM 111-112 - REC	20 A	1			0 VA	0 VA			1	20 A	SPARE	16	1
	17	RM 107 - REC	20 A	1					0 VA	466 VA	1	20 A	RM 123/124 LIGHTS	18	2
	19	RM 108-109 - REC	20 A	1	0 VA	0 VA					1	20 A	RM 128 - REC	20	
	21	RM 124 - REC	20 A	1			0 VA	0 VA			1	20 A	ME22 LIGHTS	22	
	23	RM 124 - REC	20 A	1					0 VA	0 VA	1	20 A	SPARE	24	
	25	EWC	20 A	1	0 VA	0 VA					1	20 A	HUB	26	1
	27	VENDING MACHINE	20 A	1			0 VA	0 VA			1	20 A	PHONE BOARD	28	
	29	VENDING MACHINE	20 A	1					0 VA	0 VA	1	20 A	RM 117 - REC	30	
	31	RM 114 - REC	20 A	1	0 VA	0 VA					1	20 A	BATHM RM GFCI	32	
1	33	SPARE	20 A	1			0 VA							34	
	35	RM 120 - REC	20 A	1					0 VA	0 VA	1	20 A	EXTERIOR REC	36	
	37	RM 123 - REC	20 A	1	0 VA	0 VA								38	
	39	RM 124 - REC	20 A	1			0 VA	0 VA			3	20 A	SPD	40	
	41	COPIER	20 A	1					0 VA	0 VA				42	
					PHASE KVA		0 VA		0 VA		466 VA				
					TOTAL KVA		466 VA				TOTAL AMPS		1 A		
					TOTAL DEMAND KVA		582 VA				DEM LOAD AMPS		2 A		
Lighting					466 VA		125.00%				582 VA				
PANEL NOTES: 1. VERIFY SPARE CIRCUIT BREAKER. 2. REUSE EXISTING BREAKER.															

MAIN BREAKER 225A					PANEL D					BUS RATING 225 A AIC RATING 42KA					
EXISTING SIEMENS PANEL					PHASE	CIRCUIT	MOUNT	NEMA	VOLTAGE						
					3	42	SURFACE	1	120/208 Wye						
NOTES	CKT #	CIRCUIT DESCRIPTION	TRIP AMPS	BRKR. POLES	A PHASE LOAD KVA		B PHASE LOAD KVA		C PHASE LOAD KVA		BRKR. POLES	TRIP AMPS	CIRCUIT DESCRIPTION	CKT #	NOTES
	1	EXISTING LOAD	20 A	1	0 VA	0 VA					1	20 A	EXISTING LOAD	2	
	3	EXISTING LOAD	20 A	1			0 VA	0 VA			1	20 A	EXISTING LOAD	4	
	5	EXISTING LOAD	20 A	1					0 VA	0 VA	1	20 A	EXISTING LOAD	6	
	7	EXISTING LOAD	20 A	1	0 VA	0 VA					1	20 A	EXISTING LOAD	8	
	9	EXISTING LOAD	20 A	1			0 VA	0 VA			1	20 A	EXISTING LOAD	10	
	11	EXISTING LOAD	20 A	1					0 VA	0 VA	1	20 A	EXISTING LOAD	12	
	13	EXISTING LOAD	20 A	1	0 VA	0 VA					1	20 A	EXISTING LOAD	14	
2	15	BAY 121 LIGHTS	20 A	1			600 VA	1200 VA			1	20 A	RM 114B MIRCOWAVE	16	1
2	17	BAY 122 LIGHTS	20 A	1					600 VA	0 VA	2	20 A	EXISTING LOAD	18	
	19	SPARE	20 A	2	0 VA	0 VA								20	
	21						0 VA	0 VA						22	
	23	SPARE	20 A	2	0 VA	0 VA			0 VA	0 VA	2	20 A	EXISTING LOAD	24	
	25													26	
	27	SPARE	20 A	2			0 VA	0 VA			2	20 A	EXISTING LOAD	28	
	29								0 VA	0 VA				30	
	31	EXISTING LOAD	20 A	2	0 VA	0 VA								32	
	33						0 VA	0 VA						34	
	35	EXISTING LOAD	20 A	2					0 VA	0 VA	2	20 A	EXISTING LOAD	36	
	37	EXISTING LOAD	20 A	2	0 VA	0 VA								38	
	39	EXISTING LOAD	20 A	2			0 VA	0 VA			3	20 A	SPD	40	
	41								0 VA	0 VA				42	
					PHASE KVA		0 VA		1800 VA		600 VA				
					TOTAL KVA		2400 VA				TOTAL AMPS		7 A		
					TOTAL DEMAND KVA		2700 VA				DEM LOAD AMPS		7 A		
Lighting					1200 VA		125.00%		1500 VA						
MISC.					1200 VA		100.00%		1200 VA						
PANEL NOTES:															
1. PROVIDE NEW BRANCH BREAKER. BREAKER SHALL MATCH EXISTING MANUFACTURER TYPE AND AIC RATING.															
2. REPLACE EXISTING BAY LIGHTING BRANCH CIRCUIT BREAKER WITH NEW BRANCH BREAKER. BREAKER SHALL MATCH EXISTING MANUFACTURER TYPE AND AIC RATING															

### COPPER CONDUCTOR FEEDER SCHEDULE (90/75 RATED)

SYMBOL	NUMBER OF SETS	PHASE CONDUCTORS (QUANTITY) SIZE - AWG	NEUTRAL CONDUCTORS (QUANTITY) SIZE - AWG	GROUNDING CONDUCTORS (QUANTITY) SIZE - AWG	CONDUIT SIZE (QUANTITY) SIZE	REMARKS
EX	---	---	---	---	---	EXISTING TO REMAIN



1 RISER DIAGRAM - ELECTRICAL  
NO SCALE

### ELECTRICAL MECHANICAL EQUIPMENT SCHEDULE

TAG	HP	LOAD	FLA (AMPS)	VOLTAGE	PHASE	CONDUIT/WIRE (AWG)	PANEL	CIRCUIT NUMBER	SWITCH SIZE	DISCONNECT	ENCLOS. TYPE	FURN. BY (DIV.)	COMMENTS
AC1	---	4757 VA	22.9	208 V	1	1" CONDUIT WITH 3#8 AND 1#10 GROUND	A	30.32	60A	2	NEMA 3R	26	
AC3	---	2454 VA	11.8	208 V	1	3/4" CONDUIT WITH 3#12 AND 1#12 GROUND	A	1.3	30A	2	NEMA 3R	26	
AH1	3/4	14400 VA	69.2	208 V	1	1 1/2" CONDUIT WITH 3#3 AND 1#6 GROUND	A	23.25	100A	2	NEMA 1	26	
AH3	1/3	6344 VA	30.5	208 V	1	1" CONDUIT WITH 3#8 AND 1#10 GROUND	A	31.33	60A	2	NEMA 1	26	
PTAC1	---	2900 VA	14	208 V	1	3/4" CONDUIT WITH 3#12 AND 1#12 GROUND	A	26.28	---	---	---	26	PROVIDE 6-20R RECEPTACLE

### GENERAL NOTES

- THE EXISTING ELECTRICAL DISTRIBUTION SYSTEM, AS DEPICTED WITHIN THESE CONTRACT DOCUMENTS, IS DERIVED FROM PRIOR CONSTRUCTION DOCUMENTS, AS-BUILT DOCUMENTS, LIMITED INSPECTION, AND WITH THE ASSUMPTION THAT THIS INSTALLATION HAD BEEN PREVIOUSLY PERMITTED, INSPECTED, AND SATISFIED THE APPLICABLE BUILDING CODES AT THE TIME OF CONSTRUCTION.
- PRIOR TO STARTING ANY NEW WORK, THE ELECTRICAL CONTRACTOR SHALL OPEN ALL PANELBOARDS, DISCONNECT SWITCHES, AND WIREWAYS, INSPECT THE PORTIONS OF THE ELECTRICAL DISTRIBUTION SYSTEM BEING REUSED, AND CONFIRM THE SIZE AND INTEGRITY OF THE EXISTING INSTALLATION.
- ALL EQUIPMENT AND/OR GEAR SHOWN ON RISER DIAGRAM - ELECTRICAL ARE EXISTING TO REMAIN UNLESS OTHERWISE NOTED.

SUBMITTALS	
PHASE	DATE
100% CDs	11/11/2022

### REVISIONS

NO.	DESCRIPTION	DATE

PROJECT TEAM  
PROFESSIONAL IN CHARGE

ADOLFO J. COTILLA, JR., AIA

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RISER DIAGRAM -  
ELECTRICAL

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19-031 P02

PROJECT NUMBER

E-501

SHEET NUMBER

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EQUIPMENT GROUND CONDUCTOR

WIRE NUT

TERMINATE GROUND CONDUCTORS UNDER GROUND SCREW

SHOWN WITHOUT PLASTER RING FOR CLARITY

#12 AWG GREEN GROUND "PIG TAIL"

**GENERAL NOTES**

1. DUPLEX RECEPTACLE SHOWN, SIMILAR FOR ALL WIRING DEVICES.

UNIT AHU

60A PULL-OUT TYPE DISCONNECT

SEE UNIT PANEL SCHEDULES

600V

AHU-x

3P/xxA

F:xxA

SEE UNIT PANEL SCHEDULES

UNIT CU

60A PULL-OUT TYPE DISCONNECT

WP

SEE UNIT PANEL SCHEDULES

600V

CU-x

3P/xxA

F:xxA

3R

SEE UNIT PANEL SCHEDULES

**GENERAL NOTES**

1. VERIFY ALL MECHANICAL EQUIPMENT NAME PLATE RATINGS PRIOR TO ROUGH-IN AND ORDERING ELECTRICAL EQUIPMENT INTENDED TO SERVE THE HVAC SYSTEM.

2. ALL MECHANICAL EQUIPMENT POWER CONNECTIONS SHOWN ON THESE DRAWINGS ARE BASED ON INFORMATION SHOWN ON MECHANICAL DRAWINGS DURING THE DESIGN PROCESS. THE MECHANICAL / GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CHANGES IN THE ELECTRICAL EQUIPMENT DUE TO ACCEPTANCE OF APPROVED EQUAL OR SUBSTITUTIONS OF ANY MECHANICAL EQUIPMENT.

3. STARTERS PROVIDED BY THE MECHANICAL CONTRACTOR SHALL BE INSTALLED AND CONNECTED TO THE LINE VOLTAGE BY THE ELECTRICAL CONTRACTOR. ALL FACTORY INSTALLED STARTERS SHALL BE WIRED BY THE ELECTRICAL CONTRACTOR (SEE NOTE 2).

4. ELECTRICAL CONTRACTOR SHALL PROVIDE 3/4" EMPTY CONDUIT THROUGH ANY INACCESSIBLE LOCATIONS (I.E.: UNDER SLAB, CONCRETE DECK) FOR CONTROL WIRING. COORDINATE ALL LOCATIONS WITH MECHANICAL PRIOR TO ROUGH-IN.

5. ALL DISCONNECT SWITCHES SHALL BE EASILY ACCESSIBLE. DO NOT INSTALL ANY DISCONNECT SWITCH ABOVE AN ACCESS PANEL. COORDINATE EXACT LOCATION WITH EQUIPMENT SUPPLIER.

6. PROVIDE PHENOLIC LABEL FOR EACH DISCONNECT SWITCH, IDENTIFYING THE EQUIPMENT, THE PANEL AND CIRCUIT NUMBER SERVING THE EQUIPMENT.

EQUIPMENT NAME

1/2" HIGH LETTERING FOR PANELBOARD NAME

EQUIPMENT VOLTAGE

1/4" HIGH LETTERING FOR REMAINING TEXT

1/16" THICK WHITE PLASTIC WITH COLORED FACE PER SPECIFICATIONS

EQUIPMENT SOURCE

PANEL 'XXXX'

120/208V

FED FROM PANEL 'XXXX'-CIRCUIT NUMBER

**TYPICAL (HVAC) EQUIPMENT**

**WIRING DEVICE GROUNDING**

NTS

4

**HVAC / MECHANICAL EQUIPMENT POWER CONNECTION**

NTS

3

**EQUIPMENT NAMEPLATE**

NTS

1

DOUBLE DUPLEX-POWER (QUADRUPLEX)

DUPLEX-POWER

**OUTLET BOXES**

NTS

5

WALL MOUNTED LIGHT FIXTURES AS NOTED ON PLANS

PANELBOARD

DUPLEX RECEPTACLE

9" AFF

36" AFF

78" MAXIMUM TO TOP DEVICE

42" A.F.F. WITH 36" COUNTER,

39" A.F.F. WITH 30" COUNTER,

48" A.F.F. WITHOUT COUNTER OR AS NOTED ON PLANS

EXIT

CLOCK OUTLET

FIRE HORN (OR CHIME) AND LIGHT 60" AFF

TELEVISION OUTLET [TV]

REMOTE TEST [RT]

VOLUME CONTROL [VC]

TELE. OUTLET

FA PULL STATION SWITCH

DUPLEX RECEPTACLE

COMPUTER OUTLET

SPECIAL POWER OUTLET

TELEPHONE OUTLET

FINISHED FLOOR

80"

54"

60"

48"

18" AFF

**DEVICE MOUNTING HEIGHTS**

NTS

2

**SUBMITTALS:**

PHASE	DATE
100% CDs	11/11/2022

**REVISIONS:**

NO.	DESCRIPTION	DATE

**PROJECT TEAM**

PROFESSIONAL IN CHARGE

ADOLFO J. COTILLA, JR., AIA

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SEAL OF GERALD A. CRINKOVICH P.E. #42527  
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**DETAILS - ELECTRICAL**

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**19-031 P02**

**PROJECT NUMBER**

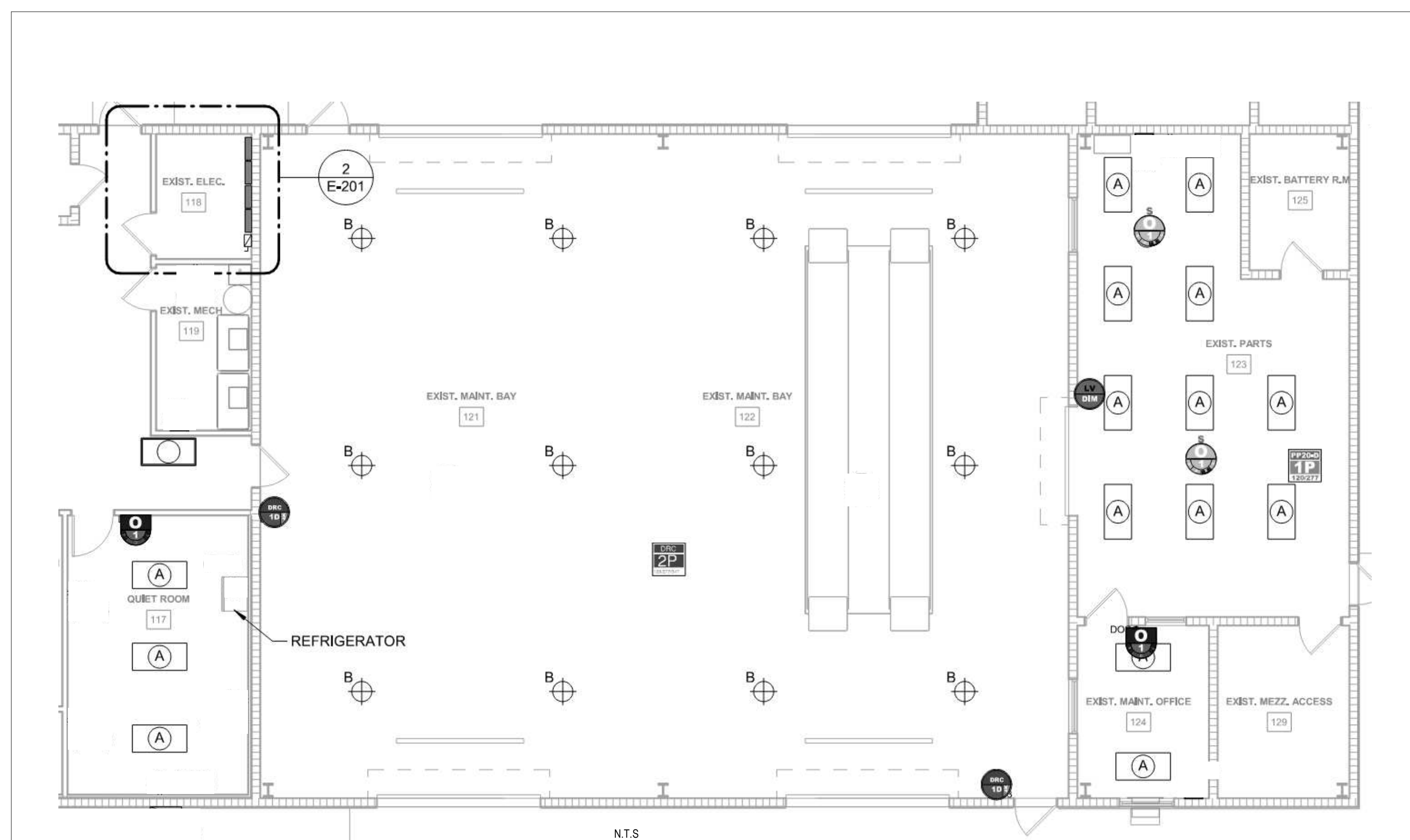
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**SHEET NUMBER**

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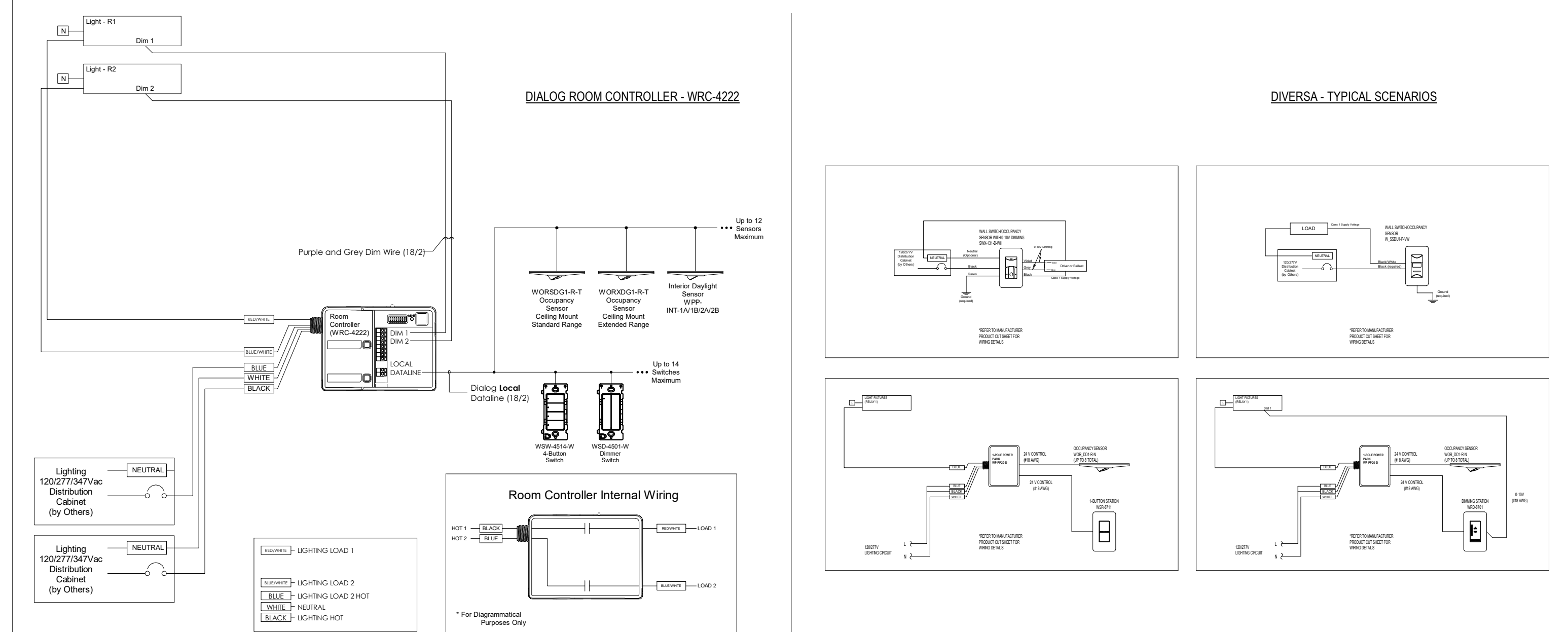
NOTE  
A. LIGHTING CONTROLS SHOWN ON THIS PAGE ARE FOR REFERENCE ONLY. FINAL LIGHTING CONTROLS SHALL CORRELATE WITH LIGHTING PLANS.  
B. PROVIDE SHOP DRAWINGS SHOWING ALL LIGHTING CONTROL COMPONENTS, OCCUPANCY SENSORS, WALL PUSHBUTTON STATIONS, RELAYS AND RELATED SYSTEM COMPONENTS ON SCALED FLOOR PLAN DRAWINGS. INCLUDE LIGHTING CONTROLS SYSTEM RISER DRAWING SHOWING HOW ALL COMPONENTS ARE INTERCONNECTED AND TYPE/QUANTITY OF WIRE AND CABLES REQUIRED.

Lighting Controls - Legend		
Description	Quantity	Comments
SWW-131-D-WH-2	2	Wall Dimmer Occupancy Sensor DT 0-10V (120/277)
WORSDD1-R-N-2	2	Diversa DT Ceiling Mount Occ Sensor, Std Range, 1P, Aux Relay, 24V
WP-PP20-D	1	Power Pack, 120/277, 20A 1-Pole, 24VAC Power, Diode Pulse
WRC-4222	1	Dialog Room Controller w/Digital 2-Ch On/Off/0-10v, Recept Ctrl
WRD-8701	1	Hardwired Switch - Dim 1 Button
WSD-4501-W	2	Dialog 1-Zone Wall Dimmer BT (Local Bus)

## LIGHTING CONTROL LAYOUT

NTS

1



## TYPICAL, LIGHTING CONTROL WIRING

NTS

2

SUBMITTALS:	
PHASE	DATE
100% CDs	11/11/2022

REVISIONS:		
NO.	DESCRIPTION	DATE

PROJECT TEAM  
PROFESSIONAL IN CHARGE

ADOLFO J. COTILLA, JR., AIA

REGISTRATION  
NUMBER AR-0008011

APPROVED BY G.C.

DESIGNED BY A.J.

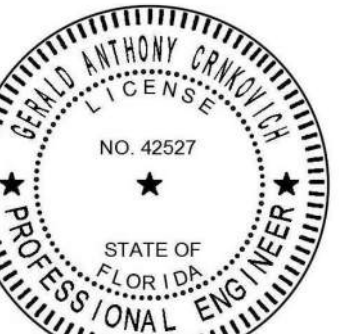
DRAWN BY A.J.

CHECKED BY R.F.W.

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COA #27158 Project #0122008

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DETAILS -  
ELECTRICAL

SHEET TITLE

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ARCHITECT OF RECORD

19-031 P02

PROJECT NUMBER

**E-902**

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NO.	DESCRIPTION	DATE

PROJECT TEAM  
PROFESSIONAL IN CHARGE

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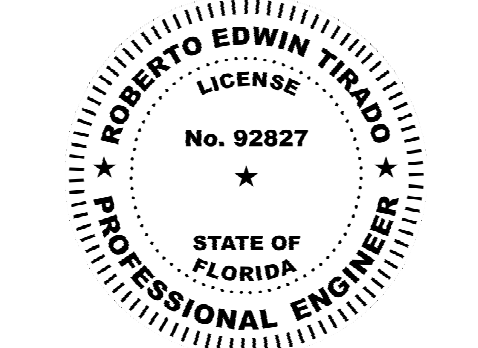
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LEGEND - HVAC

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19-031 P02

PROJECT NUMBER

M-000

SHEET NUMBER

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DEMOLITIONS NOTES

EXISTING CONDITIONS

THE EXISTING MECHANICAL SYSTEMS INDICATED ON THESE DRAWINGS WAS COMPILED FROM ORIGINAL CONSTRUCTION DRAWINGS, AS-BUILT DRAWINGS AND ENGINEERS' FIELD OBSERVATIONS. THE EXISTING SYSTEMS INDICATED REPRESENT A BEST FAITH EFFORT BY THE ENGINEER TO DEMONSTRATE THE CONDITIONS UNDER WHICH THE WORK IS TO BE EXECUTED.

VISIT THE SITE AND FAMILIARIZE YOURSELF WITH THE EXISTING CONDITIONS AND SATISFY YOURSELF AS TO THE NATURE AND SCOPE OF THE WORK AND DIFFICULTIES ASSOCIATED WITH THE EXECUTION OF THE DRAWINGS. ALL DISCREPANCIES OR POTENTIAL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER PRIOR TO BIDDING IN WRITING.

GENERAL HVAC DEMOLITION NOTES

- ALL ITEMS TO BE DEMOLISHED SHALL BE REMOVED FROM THE PREMISES AND DISPOSED OF IN A SAFE WAY AND MEETING ALL LEGAL REQUIREMENTS. THE OWNER SHALL HAVE THE FIRST RIGHT OF REFUSAL TO ALL ITEMS BEING DISPOSED.
- DEMOLISH EXISTING MECHANICAL EQUIPMENT AS INDICATED. COORDINATE THE DEMOLITION OF ALL APPURTENANCES ASSOCIATED WITH EQUIPMENT INCLUDING BUT NOT LIMITED TO CONTROLS, POWER CONDUITS, DUCTWORK, PIPING, HANGERS, SUPPORTS AND ALL OTHER APPURTENANCES.
- DEMOLISH ALL EXISTING HVAC DIFFUSERS, REGISTERS, GRILLES AND AIR DISTRIBUTION DEVICES AND APPURTENANCES AS INDICATED.
- DEMOLISH EXISTING DUCTWORK, DAMPERS AND APPURTENANCES, LOCATED WITHIN THE SPACE AS INDICATED ON THE PLANS.
- ALL MECHANICAL PENETRATIONS SHALL BE SEALED WEATERTIGHT.
- PROVIDE PROPER METHODS TO RECOVER REFRIGERANT IN ACCORDANCE APPLICABLE STANDARDS AND CODES.
- REPORT ANY EXISTING ITEMS TO BE REUSED WHICH ARE IN POOR SHAPE TO BE REUSED, NOT PROPERLY SUPPORTED, AND NOT INSTALLED PROPERLY. EXISTING ITEMS TO BE REUSED ARE EXPECTED TO BE SATISFACTORY DURING THE SUBSTANTIAL INSPECTION.
- INTERRUPTION OF EXISTING SERVICES: ANY INTERRUPTION OF EXISTING MECHANICAL SERVICES SHALL BE COORDINATED IN ADVANCE WITH THE OWNER'S REPRESENTATIVE. THIS INCLUDES, BUT IS NOT LIMITED TO, SERVICES PROVIDING CHILLED WATER, ELECTRICITY OR OTHER CRITICAL SYSTEMS AS MAY BE PERTINENT TO THIS PARTICULAR PROJECT. SERVICE INTERRUPTION TIMES AND DURATION OF INTERRUPTION OF SERVICES SHALL BE DECIDED BY THE OWNER. PROVIDE APPROPRIATE PROVISIONS (E.G., ISOLATION SHUT-OFF VALVES, DAMPERS, END CAPS AND SIMILAR ITEMS) AS NECESSARY TO ACCOMMODATE THE REQUIRED SERVICE INTERRUPTIONS. IF SHUTDOWNS CANNOT BE ACCOMMODATED, PROVIDE MEANS FOR CONNECTIONS INTO THE CURRENTLY OPERATIONAL SYSTEMS. COORDINATE WITH OWNER THE REQUIREMENTS FOR TEMPORARY COOLING WITHIN THE FACILITY IF THE SYSTEM WILL REMAIN NON-OPERATIONAL.
- PATCH TO MATCH EXISTING FLOORS, WALLS, CEILINGS, AND / OR ROOF MATERIALS WHEN REMOVING ANY MECHANICAL SYSTEMS.

SCOPE OF WORK

- AIR HANDLING EQUIPMENT REPLACEMENT IN KIND.
- BREAKROOM AND CASH ROOM RENOVATION.

HVAC DUCTWORK SCHEDULE

TYPE / LOC.	SUPPLY AIR	RETURN AIR	EXHAUST AIR	OUTSIDE AIR
ABOVE CEILING				
EXPOSED (MECH. RM.)		SHEET METAL EXT. FIBERGLASS WRAP		
EXPOSED (OCCUPIED AREAS)				

NOTES:

- EXTERIOR WRAPPED DUCTS SHALL HAVE TWO COATS OF FABRIC AND MASTIC.
- INSULATED DUCTS LOCATED IN OUTDOOR AREAS SHALL HAVE 1/2" THICKER INSULATION THAN INDOOR APPLICATIONS.
- FOR GENERAL DUCTWORK CONSTRUCTION ONLY. SEE PLANS FOR INDIVIDUAL CASES.
- EXPOSED DUCTS LOCATED IN FINISHED SPACES SHALL BE PAINTED TO MATCH SURROUNDING STRUCTURE ABOVE THE DUCT UNLESS NOTED OTHERWISE.
- EXPOSED DUCTS LOCATED IN FINISHED SPACES SHALL BE SUPPORTED BY CABLES. REFER TO DETAILS.
- MAXIMUM DISTANCE OF FLEXIBLE BRANCH DUCTWORK TO AIR DEVICES SHALL BE 6 FEET.
- FLEXIBLE DUCTWORK SHALL BE FLEXMASTER TYPE 1M OR EQUAL.

LEGEND - HVAC

SYMBOL	DESCRIPTION
	NEW DUCTWORK TO BE PROVIDED
	EXISTING DUCTWORK TO REMAIN
	EXISTING DUCTWORK TO BE REMOVED
	NEW PIPING TO BE PROVIDED
	EXISTING PIPING TO REMAIN
	EXISTING PIPING TO BE REMOVED
	CONNECT TO EXISTING
	DEMOLISH TO POINT INDICATED
	VALVES
	CONTROL VALVE
	ELBOW, TURNED DOWN
	ELBOW, TURNED UP
	TEE, OUTLET DOWN
	TEE, OUTLET UP

CONTROLS

SYMBOL	DESCRIPTION
	THERMOSTAT / TEMPERATURE SENSOR
	HUMIDISTAT / HUMIDITY SENSOR
	MOTORIZED CONTROL DAMPER
	CO <sub>2</sub> SENSOR

AIR DISTRIBUTION

SYMBOL	DESCRIPTION
	AIR DISTRIBUTION DEVICE: SUPPLY (4-WAY BLOW UNLESS INDICATED BY ARROWS)
	AIR DISTRIBUTION DEVICE: RETURN
	AIR DISTRIBUTION DEVICE: EXHAUST
	AIR DISTRIBUTION TAG: A: TYPE, (XXX); CFM
	AIR TERMINAL DEVICE: SIDEWALL MOUNTED
	DOOR GRILLE SEE ARCHITECTURAL DRAWINGS
	UNDERCUT DOOR: SEE ARCHITECTURAL DRAWINGS

GENERAL TAGS

SYMBOL	DESCRIPTION
	AIR HANDLING UNIT
	EXHAUST FAN
	ROOF TOP UNIT
	CONDENSING UNIT
	CHILLER
	ELECTRIC DUCT HEATER
	PUMP
	REVISION REFERENCE
	KEY NOTE
	DETAIL REFERENCE: TOP, DETAIL NO. BOTTOM, DRAWING NO. DETAIL SHOWN ON

LIFE SAFETY

SYMBOL	DESCRIPTION
	FIRE DAMPER WITH ACCESS DOOR PANEL
	SMOKE DAMPER WITH ACCESS DOOR PANEL
	FIRE AND SMOKE DAMPER WITH ACCESS DOOR PANEL
	EXISTING FIRE DAMPER TO REMAIN WITH ACCESS DOOR PANEL, UNLESS OTHERWISE NOTED
	EXISTING SMOKE DAMPER TO REMAIN WITH ACCESS DOOR PANEL, UNLESS OTHERWISE NOTED
	EXISTING FIRE AND SMOKE DAMPER TO REMAIN WITH ACCESS PANEL, UNLESS OTHERWISE NOTED
	DUCT SMOKE DETECTOR

DUCTWORK

SYMBOL	DESCRIPTION
	NEW DUCTWORK, FIRST DIMENSION IS SIDE SHOWN PROVIDE EXTERNALLY INSULATED SHEET-METAL
	DUCT ELBOW POSITIVE PRESSURE (SUPPLY)
	DUCT ELBOW NEGATIVE PRESSURE (EXHAUST)
	DUCT ELBOW NEGATIVE PRESSURE (RETURN)
	CHANGE OF ELEVATION
	FLEXIBLE DUCT
	TRANSITION, CONCENTRIC
	TRANSITION, ECCENTRIC
	TRANSITION, SQUARE TO ROUND
	SQUARE THROAT ELBOW WITH TURNING VANES
	RADIUS ELBOW
	RECTANGULAR / ROUND BRANCH TAKE-OFF OR ROUND / ROUND BRANCH TAKE-OFF
	RECTANGULAR DUCTWORK
	FLAT OVAL DUCTWORK
	ROUND DUCTWORK

DUCT ACCESSORIES

SYMBOL	DESCRIPTION
	SOUND ATTENUATION DEVICE
	MOTOR OPERATED CONTROL DAMPER (MOD)
	AIR FLOW MEASURING STATION
	MANUAL BALANCING DAMPER
	BACKDRAFT DAMPER

GENERAL NOTES

1. SCOPE

WORK SHALL INCLUDE ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY FOR A COMPLETE AND PROPERLY FUNCTIONING MECHANICAL INSTALLATION IN ACCORDANCE WITH ALL APPLICABLE CODES, AND CONTRACT DRAWINGS AND SPECIFICATIONS. WORK SHALL INCLUDE ALL WORK NORMALLY SPECIFIED IN DIVISION 23.

PAY FOR ALL REQUIRED LICENSES, FEES, INSPECTIONS AND PERMITS.

2. CODES

INSTALL ALL WORK IN ACCORDANCE WITH THE LATEST EDITION OF ALL APPLICABLE REGULATIONS AND GOVERNING CODES, INCLUDING THE REGULATIONS OF THE UTILITY COMPANIES SERVING THE PROJECT. WHERE A CONFLICT IN CODE REQUIREMENTS OCCURS THE MORE STRINGENT REQUIREMENT SHALL GOVERN.

3. STANDARDS

- ALL EQUIPMENT AND DEVICES SHALL BEAR U.L. LABEL, THE LABEL OF AN INDUSTRY RECOGNIZED APPROVED TESTING AGENCY FOR SAID ITEM OF EQUIPMENT OR DEVICE.
- ALL ELECTRICAL DEVICES MUST BE U.L. LISTED
- DUCT CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARD.
- MAINTAIN CLEARANCE OF A MINIMUM OF 6" BETWEEN DUCTWORK, PIPING, EQUIPMENT, ETC. AND ALL FIRE RATED AND FIRE/SMOKE RATED PARTITIONS TO ALLOW FOR INSPECTIONS OF RATED WALLS.
- LOCATE ALL OUTSIDE AIR INTAKES A MINIMUM OF 10'-0" CLEAR FROM ALL PLUMBING VENTS AND EXHAUST AIR DISCHARGE LOCATIONS. LOWEST POINT OF EACH OUTSIDE AIR INTAKE ON ROOF SHALL BE A MINIMUM OF 24" ABOVE ROOF.
- ALL EQUIPMENT, DUCTWORK, ETC., SHALL BE SUPPORTED AS DETAILED AND/OR SPECIFIED. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED TO PROVIDE A VIBRATION-FREE, RIGID INSTALLATION.
- ALL PRODUCTS USED INDOORS SHALL BE OF THE LOW VOLATILE ORGANIC COMPOUNDS (LOW-VOC) TYPE, INCLUDING BUT NOT LIMITED TO PAINTS, SEALANTS, ADHESIVES AND MASTICS, ETC.
- PRIOR TO START UP OF AIR HANDLING SYSTEMS AND EXHAUST SYSTEMS, INSTALL AND MAINTAIN TEMPORARY FILTERS OVER ALL RETURN, EXHAUST AND RELIEF GRILLES AND OPENINGS. FILTRATION MEDIUM SHALL HAVE A RATING OF MERV 8 OR BETTER.

4. DRAWINGS

DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT AND EXTENT OF WORK. EXACT LOCATIONS AND ARRANGEMENT OF MATERIALS AND EQUIPMENT SHALL BE DETERMINED, WITH THE ACCEPTANCE OF THE ARCHITECT/ENGINEER, AS CONSTRUCTION PROGRESSES TO CONFORM IN THE BEST POSSIBLE MANNER WITH THE SURROUNDINGS AND WITH THE ADJOINING WORK OF OTHER TRADES. WHERE LOCATIONS OF EQUIPMENT, DEVICES OR FIXTURES ARE CONTROLLED BY ARCHITECTURAL FEATURES, ESTABLISH SUCH LOCATIONS BY REFERRING TO DIMENSIONS ON ARCHITECTURAL DRAWINGS AND NOT BY SCALING DRAWINGS. THE FOLLOWING ITEMS ARE UNDERSTOOD TO BE INCLUDED AS PART OF THE DRAWINGS UNLESS NOTED OTHERWISE:

- ALL DUCT SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
- ALL DUCTWORK AND PIPING IS SHOWN SCHEMATICALLY. PROVIDE ALL TRANSITIONS, TURNING VANES, ELBOWS, FITTINGS, ETC. TO ALLOW SMOOTH FLOWS. ALL SPLIT DUCT FITTINGS SHALL TRANSITION TO FULL SIZE OF THE SUM OF BOTH BRANCHES UPSTREAM OF SPLIT.
- PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS IN CHILLED WATER AND HEATING HOT WATER PIPING.
- REFER TO TYPICAL DETAILS FOR PIPING AND INSTALLATION OF EQUIPMENT.

5. DISCREPANCIES

IN CASE OF DIFFERENCES BETWEEN DRAWINGS AND SPECIFICATIONS, OR WHERE DRAWINGS AND SPECIFICATIONS ARE NOT CLEAR OR DEFINITE, THE SUBJECT SHALL BE REFERRED TO ARCHITECT/ENGINEER FOR CLARIFICATION AND INSTRUCTIONS.

6. ELECTRICAL PROVISIONS

WORK INCLUDES VARIOUS ELECTRICAL REQUIREMENTS (A) WHICH INCORPORATE SPECIFIC ELECTRICAL FEATURES AND COMPONENTS WHICH ARE REQUIRED TO BE PHYSICALLY INTEGRAL WITH MECHANICAL EQUIPMENT, OR (B) WHICH REQUIRE NECESSARY ELECTRICAL INTERCONNECTING COMPONENTS FOR THE MECHANICAL SYSTEMS.

DEFINITIONS:

- "FURNISH" MEANS TO PROCURE AN ITEM AND TO DELIVER IT TO THE PROJECT FOR INSTALLATION.
- "INSTALL" MEANS TO DETERMINE (IN COORDINATION WITH OTHERS AS NECESSARY) THE APPROPRIATE INTENDED LOCATION OF AN ITEM AND TO SET AND CONNECT IT IN PLACE.
- "PROVIDE" MEANS TO BOTH FURNISH AND INSTALL.
- COORDINATE WITH OTHER ASSOCIATED TRADES FOR DUCT MOUNTED FIRE ALARM DEVICES.

7. AUXILIARIES AND ACCESSORIES

INCLUDE ALL AUXILIARIES AND ACCESSORIES FOR COMPLETE AND PROPERLY OPERATING SYSTEMS.

- PROVIDE AIR TURNING VANES IN ALL 45 AND 90 DEGREE RECTANGULAR DUCT ELBOWS.
- PROVIDE MANUAL VOLUME DAMPERS AT ALL BRANCH DUCTS FROM MAIN DUCT TO AIR DEVICES. POSITION DAMPERS IN ACCESSIBLE LOCATION. IF NOT ACCESSIBLE PROVIDE A REMOTELY-OPERATED VOLUME DAMPER AT ACCESSIBLE LOCATION.
- PROVIDE FLEXIBLE DUCT CONNECTIONS ON ALL DUCTWORK CONNECTING TO EACH FAN, AIR HANDLING UNIT, FAN COIL UNIT, AND ANY EQUIPMENT WITH ROTATING OR POTENTIALLY VIBRATION-CAUSING COMPONENTS.
- DAMPERS AND INSIDES OF DUCTS VISIBLE THROUGH GRILLES, REGISTERS, AND DIFFUSERS SHALL BE PAINTED FLAT BLACK.
- UNLESS OTHERWISE NOTED, ALL EQUIPMENT AND VALVE DRAINS SHALL BE INDEPENDENTLY PIPED FULL SIZE TO THE NEAREST PLUMBING DRAIN.
- PROVIDE CONCRETE HOUSEKEEPING PAD UNDER ALL FLOOR-MOUNTED EQUIPMENT.
- PROVIDE ALL REQUIRED OPENINGS TO ACCOMPLISH THE WORK. PROVIDE SLEEVES OR OTHER APPROVED METHODS TO ALLOW PASSAGE OF ITEMS INSTALLED. SEAL ALL OPENINGS AFTER INSTALLATION OF PIPE, DUCT, ETC. TO MATCH RATING OF THE PENETRATED SURFACE.

8. COORDINATION

- PROVIDE ALL REQUIRED COORDINATION AND SUPERVISION WHERE MECHANICAL WORK INTERFACES DIRECTLY OR INDIRECTLY WITH WORK OF ANY TRADES. PROVIDE A COORDINATED SET OF SHOP DRAWINGS THAT INCLUDE ALL OTHER TRADES WITHIN THE BUILDING TO ENSURE THAT THE INSTALLATION OF THE MECHANICAL ITEMS DOES NOT CONFLICT WITH ANY OTHER TRADE.
- CONNECTION TO EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S CERTIFIED DRAWINGS. TRANSITIONS TO ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR EQUIPMENT FURNISHED.
- DIMENSIONS AND CODE/MANUFACTURER REQUIRED CLEARANCES SHALL BE FIELD-VERIFIED AND COORDINATED PRIOR TO PROCUREMENT OR FABRICATION. COORDINATE THE WORK WITH OTHER TRADES INVOLVED. FIELD MODIFICATIONS SUCH AS OFFSETS IN PIPING OR DUCTWORK (INCLUDING DIVIDED DUCTWORK) NEEDED DUE TO OBSTRUCTIONS OR INTERFERENCES SHALL BE PROVIDED AT NO ADDITIONAL COST.
- DUCT SIZES AND ALL OPENINGS THROUGH BUILDING CONSTRUCTION SHALL SUIT EQUIPMENT FURNISHED.
- ACCESS PANELS IN DUCTWORK AND CEILINGS SHALL BE PROVIDED WHERE REQUIRED FOR OPERATION, BALANCING, OR MAINTENANCE OF ALL MECHANICAL EQUIPMENT.
- VERIFY FINISH WITH ARCHITECT PRIOR TO PURCHASING GRILLES, REGISTERS, DIFFUSERS, LOUVERS, AND OTHER AIR DISTRIBUTION DEVICES.
- COORDINATE DIFFUSER, GRILLE, AND REGISTER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND EQUIPMENT OF ALL TRADES.
- LOCATE THERMOSTATS, TEMPERATURE SENSORS, HUMIDISTATS, AND HUMIDITY SENSORS AT 48" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. COORDINATE LOCATIONS WITH DOOR SWINGS, FURNITURE, AND OTHER EQUIPMENT. DO NOT LOCATE ON EXTERIOR WALL NOWHERE DIRECT SUNLIGHT OR HVAC AIR WILL STRIKE SENSOR.
- ANY INTERRUPTION OF EXISTING MECHANICAL AND ELECTRICAL SERVICES SHALL BE COORDINATED IN ADVANCE WITH THE OWNER'S REPRESENTATIVE. THIS INCLUDES, BUT IS NOT LIMITED TO, SERVICES PROVIDING CHILLED WATER, ELECTRICITY OR OTHER CRITICAL SYSTEMS AS MAY BE PERTINENT TO THIS PROJECT. SERVICE INTERRUPTION TIMES AND DURATION OF INTERRUPTION OF SERVICES SHALL BE DECIDED BY THE OWNER. PROVIDE APPROPRIATE PROVISIONS (E.G., ISOLATION SHUT-OFF VALVES, DAMPERS, END CAPS AND SIMILAR ITEMS) AS NECESSARY TO ACCOMMODATE THE REQUIRED SERVICE INTERRUPTIONS. IF SHUTDOWNS CANNOT BE ACCOMMODATED, PROVIDE MEANS FOR "WET" TAPPING OR "HOT" TAPPING OF PIPING SYSTEMS.

ABBREVIATIONS - HVAC

SYMBOL	DESCRIPTION
AD	AIR DEVICE
AFR	ABOVE FINISHED FLOOR
AFR	ABOVE FINISHED ROOF
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
BD	BACKDRAFT DAMPER
BO	BASIS OF DESIGN
BOP	BOTTOM OF PIPE
BHP	BRAKE HORSEPOWER
BTU	BRITISH THERMAL UNIT
CD	CONDENSATE
CFM	CUBIC FEET PER MINUTE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CR	CONDENSATE RETURN
CT	COOLING TOWER
CU	CONDENSING UNIT
CWS	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
DDC	DIRECT DIGITAL CONTROLS
DN	DOWN
(E)	EXISTING
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EDH	ELECTRIC DUCT HEATER
EF	EXTERNAL FAN
ESP	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
EWT	ENTERING WATER TEMPERATURE
FCU	FAN COIL UNIT
FF	FULL FILTERS
FLA	FULL LOAD AMPS
FOB	FLAT ON TOP
FOT	FLAT ON BOTTOM
FSM	FEET PER MINUTE
GPW	GALLONS PER MINUTE
HW	HEATING HOT WATER RETURN
HWWS	HEATING HOT WATER SUPPLY
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MBH	THOUSAND BTUS PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MCD	MOTORIZED DAMPER
MOCP	MAXIMUM OVER CURRENT PROTECTION
NC	NORMALLY CLOSED
NT	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OA	OUTSIDE AIR
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	PSI GAUGE
PTAC	PACKAGED TERMINAL AIR CONDITIONER
RA	RETURN AIR
RHC	REHEAT COIL
RPM	REVOLUTIONS PER MINUTE
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SP	STATIC PRESSURE
TA	TRANSFER AIR
TEMP	TEMPERATURE
TSP	TOTAL STATIC PRESSURE
UNO	UNLESS NOTED OTHERWISE
V / PH	VOLTS / PHASE
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE

CODE COMPLIANCE

- TO THE BEST OF MY KNOWLEDGE, THESE PLANS AND SPECIFICATIONS ARE COMPLETE AND COMPLY WITH THE 2020 FLORIDA BUILDING CODE, 2020 FLORIDA MECHANICAL CODE, 2020 FLORIDA FIRE PREVENTION CODE, LOCAL MUNICIPALITY AMENDMENTS AND THE CODES REFERENCED WITHIN.

SHEET INDEX

SHEET NUMBER	SHEET NAME
M-000	LEGEND - HVAC
M-001	SPECIFICATIONS - HVAC
M-201	FIRST FLOOR PLAN - HVAC DEMOLITION
M-201	FIRST FLOOR PLAN - HVAC DEMOLITION
M-801	SCHEDULES - HVAC
M-901	DETAILS - HVAC



SPECIFICATIONS - HVAC

MATERIALS AND METHODS:

1. GENERAL

MATERIALS AND METHODS PROVIDED SHALL BE IN ACCORDANCE WITH THE BELOW DESCRIPTIONS OR SHALL MATCH THE QUALITY AND TYPE OF MATERIALS WHICH ARE PRESENTLY USED ON PROJECT FOR THE SAME FUNCTION.

2. BASIC MECHANICAL REQUIREMENTS

COORDINATE SPACE REQUIREMENTS, SUPPORTS AND INSTALLATION OF MECHANICAL WORK WHICH ARE INDICATED DIAGRAMMATICALLY ON DRAWINGS. FOLLOW PIPE ROUTING SHOWN AS CLOSELY AS PRACTICABLE; PLACE RUNS PARALLEL WITH LINES OF BUILDING. UTILIZE SPACES EFFICIENTLY TO MAXIMIZE ACCESSIBILITY FOR OTHER INSTALLATIONS, MAINTENANCE AND REPAIRS.

MATERIALS LISTED ARE THOSE USED AS BASIS OF DESIGN; EQUIVALENT PRODUCTS OF ACCEPTABLE MANUFACTURERS WILL BE ACCEPTED. MATERIALS MUST BE APPROVED AND RECOMMENDED BY THE PRODUCT MANUFACTURER FOR THE PARTICULAR APPLICATION(S).

SUBMIT SHOP DRAWINGS OF ALL MAJOR COMPONENTS FOR ENGINEER REVIEW AND OWNER RECORD. SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE COMPLETE AND DESCRIPTIVE AND CONTAIN ENGINEERING DATA.

3. SPECIFIC EQUIPMENT ITEMS

EQUIPMENT AND MATERIALS WHICH ARE DESCRIBED BY EQUIPMENT SCHEDULES AND OTHERWISE NOTED ON THE DRAWINGS SHALL BE EQUAL TO THE LEVEL OF QUALITY FOR THE PARTICULAR EQUIPMENT ITEM USED AS A DESIGN BASIS. THE EQUIPMENT ITEM SHALL HAVE ALL OF THE MANUFACTURER'S STANDARD FEATURES AND SHALL ALSO BE PROVIDED WITH ALL ADDITIONAL ACCESSORIES, FEATURES AND ENHANCEMENTS AS MAY BE NOTED ON THE SCHEDULE OR OTHERWISE ON THE DRAWINGS.

4. AIR HANDLING UNITS AND DEDICATED OUTSIDE UNITS

DESIGN BASIS: REFERENCE SCHEDULE AND ASSOCIATED SCHEDULE NOTES FOR ALL UNIT SPECIFIC REQUIREMENTS, BASIS OF DESIGN, CONTRACTOR REQUIREMENTS, ETC.

ACCEPTABLE ALTERNATIVE MANUFACTURERS: TRANE, DAIKIN, YORK

5. REFRIGERANT PIPING SYSTEMS

A. GENERAL: PROVIDE REFRIGERANT PIPING SYSTEMS, COMPLETE IN ALL RESPECTS, BETWEEN THE SYSTEM COMPONENTS AND CONNECTED EQUIPMENT. ARRANGE PIPING GENERALLY AS SHOWN AND SUCH THAT SERVICE ACCESS IS FACILITATED. KEEP REFRIGERANT LINES AS SHORT AND DIRECT AS POSSIBLE WITH A MINIMUM NUMBER OF JOINTS. PROVIDE SLEEVES THROUGH FLOORS, WALLS OR CEILINGS, SIZED TO PERMIT INSTALLATION OF FULL-THICKNESS INSULATION, SEAL AIR TIGHT AFTER INSTALLATION OF PIPING AND INSULATION. COORDINATE ALL ROUTING WITH NOTES AND INDICATORS SHOWN ON PLANS.

B. PIPE AND FITTINGS: REFRIGERANT SYSTEM PIPING SHALL BE COPPER TYPE ACR OR MANUFACTURER RECOMMENDED, DEHYDRATED AND SEALED, SEAMLESS, UNIFORMLY DEAD SOFT TEMPER. FITTINGS SHALL BE REFRIGERANT GRADE, WROUGHT COPPER, LONG RADIUS, SOLDER JOINT TYPE.

C. PIPE SIZES: REFRIGERANT PIPE SIZES WHICH MAY BE SHOWN ON DRAWINGS ARE NOMINAL. PROVIDE SIZES NOT LESS THAN SIZES INDICATED AND IN COMPLIANCE WITH SIZE RECOMMENDED BY THE MANUFACTURER(S) AT THE CONNECTED EQUIPMENT. PROVIDE CHANGE IN SIZES IF SUCH CHANGE IS IN ACCORD WITH MANUFACTURER'S RECOMMENDATION AND WITH ARCHITECT/ENGINEER'S APPROVAL.

D. REFRIGERANT SYSTEM SPECIALTIES: REFRIGERANT VALVES, DRIERS, EXPANSION VALVES, AND SIMILAR ITEMS SHALL BE PROVIDED WITH EACH SYSTEM WHERE REFRIGERANT ACCESS VALVES ARE NOT FURNISHED BY THE MANUFACTURER, THEY SHALL BE FIELD INSTALLED TO ENABLE CHARGING AND CHECKING THE SYSTEM.

E. JOINTS AND CONNECTIONS: ALL JOINTS AND CONNECTIONS SHALL BE MADE PERMANENTLY REFRIGERANT TIGHT. WHERE THE CONTRACTOR USES REFRIGERANT TUBING SETS, FOLLOW THE MANUFACTURER'S INSTALLATION INSTRUCTIONS EXPLICITLY, INCLUDING THE USE OF SPECIAL TOOLS, WHEN MAKING UP THE JOINTS. WHERE PRECHARGED TUBING AND EQUIPMENT IS PROVIDED, DO NOT CUT INTO THE SYSTEM TO INSTALL ACCESS VALVES.

F. HANGERS AND SUPPORTS: ISOLATE COPPER TUBING FROM CONTACT WITH ANY DISSIMILAR METALS.

G. REFRIGERANT PIPING CONDUIT: INSTALL ANY REFRIGERANT PIPING WHICH IS BELOW SLAB OR GRADE IN SCHEDULE 40 PVC PIPING, SIZE CONDUIT AS NECESSARY TO PROPERLY INSTALL PIPING. PROVIDE LONG BEND SWEEPS. INSTALL SO THAT CONDUIT WILL DRAIN AND NOT TRAP WATER. PROTECT ENDS OF CONDUIT FROM ENTRY BY VERMIN, INSECTS AND WATER.

H. INSULATION: INSULATE SUCTION PIPING WITH NOT LESS THAN 1 INCH THICK OR AS RECOMMENDED BY MANUFACTURER, NITRILE-BASED FIRE-RETARDANT ELASTOMERIC INSULATION SUCH AS ARMAFLEX, RUBATEX OR EQUAL FOR ALL PIPING INSULATION EXPOSED TO THE ELEMENTS, PROVIDE ALUMINUM JACKETING TO PROTECT FROM PHYSICAL AND UV DAMAGE.

6. CONDENSATE DRAIN PIPING FROM AHU TO POINTS OF DISCHARGE

A. PIPE: TYPE L HARD DRAWN COPPER. FITTINGS: WROUGHT COPPER, SOLDER JOINT, PRESSURE TYPE.

B. INSULATION: NOT LESS THAN 3/4" THICK NITRILE-BASE FIRE-RETARDANT ELASTOMERIC INSULATION SUCH AS ARMAFLEX, RUBATEX OR EQUAL. FOR ALL PIPING INSULATION EXPOSED TO THE ELEMENTS, PROVIDE ALUMINUM JACKETING TO PROTECT FROM PHYSICAL AND UV DAMAGE.

7. SUPPORTS AND ANCHORS

A. GENERAL

PROVIDE ALL ANGLES, BRACKETS, CLAMPS, ANCHORS, INSERTS, RODS, BRACES, FRAMES, HANGERS NUTS AND BOLTS AND OTHER MISCELLANEOUS STEEL AND HARDWARE ITEMS AS MAY BE REQUIRED FOR THE PROPER SUPPORT OF EQUIPMENT AND PIPING SYSTEMS.

INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

8. DUCTWORK

DUCTWORK, GENERAL

A. PROVIDE COMPLETE DUCT SYSTEMS AS INDICATED. SYSTEMS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: OUTSIDE AIR, EXHAUST AIR, AND AIR CONDITIONING SUPPLY AND RETURN AIR DUCT SYSTEMS AS SHOWN ON DRAWINGS. DRAWING SCALES PROHIBIT THE INDICATION OF ALL OFFSETS, FITTINGS, AND LIKE ITEMS; HOWEVER, THESE ITEMS SHALL BE INSTALLED AS REQUIRED.

B. PROVIDE ALL DUCTWORK AND COMPONENTS THEREOF IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. ALL DUCTWORK DIMENSIONS INDICATED ARE NOMINAL FREE CLEARANCE INTERNAL DIMENSIONS WHICH DO NOT INCLUDE INSULATION THICKNESS.

C. "SMACNA" MEANS "SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC." MATERIALS SHALL COMPLY WITH CURRENT SMACNA STANDARDS. CONSTRUCT ALL DUCTWORK AND ACCESSORIES IN ACCORDANCE WITH THE LATEST INDICATED EDITIONS OF APPLICABLE SMACNA CONSTRUCTION STANDARDS.

D. PRIOR TO DUCTWORK FABRICATION, VERIFY IF ALL DUCTWORK AS DIMENSIONED AND GENERALLY SHOWN WILL SATISFACTORILY FIT ALLOCATED SPACES INCLUDING ABOVE CEILINGS. TAKE PRECAUTIONS TO AVOID SPACE INTERFERENCES WITH BEAMS, COLUMNS, JOISTS, PIPES, LIGHTS, CONDUIT, OTHER DUCTS, EQUIPMENT, ETC. NOTIFY ARCHITECT/ENGINEER IF ANY SPATIAL CONFLICTS EXIST, AND THEN OBTAIN ARCHITECT/ENGINEER'S APPROVAL OF NECESSARY ROUTING. MAKE ANY SUCH NECESSARY REVISIONS AT NO ADDITIONAL COST.

E. PROVIDE ALL CURVED ELBOWS WITH RADIUS RATIOS OF NOT LESS THAN 1.5 UNLESS OTHERWISE SHOWN OR APPROVED BY ARCHITECT/ENGINEER. PROVIDE ALL MITERED ELBOWS WITH TURNING VANES UNLESS SYSTEM TYPE (GREASE, ETC.) PROHIBITS TURNING VANES.

F. RECTANGULAR BRANCH DUCT TAKE-OFFS FROM LARGER MAIN DUCTS IN LOW PRESSURE SYSTEMS SHALL BE 45 DEGREE ANGULAR ENTRY BRANCH CONNECTIONS WHERE THE LENGTH OF THE PORTION OF THE BRANCH TAKE-OFF WHICH ACCOMMODATES THE 45 DEGREE ANGLE ENTRY MUST BE NOT LESS THAN 25% OF THE WIDTH OF THE BRANCH TAKE-OFF OR A MINIMUM OF 4-INCHES (WHICHEVER IS GREATER). REFER TO SMACNA "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE," FIG. 2-5, "BRANCH CONNECTIONS."

H. FLEXIBLE DUCT CONNECTIONS

MANUFACTURERS: VENTFABRICS MODEL VENTGLAS, DURODYNE, ELGIN. FABRICATE IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS. METAL AND FLEXIBLE AND AS INDICATED. CONNECTOR: FABRIC CRIMPED INTO METAL EDGING STRIP. FABRIC: UL LISTED FIRE RETARDANT NEOPRENE COATED WOVEN GLASS FIBER FABRIC TO NFPA 90A, MINIMUM DENSITY 30 OZ PER SQ. YD. NET FABRIC WIDTH: APPROXIMATELY 6 INCHES WIDE. METAL: 3 INCH WIDE, 24 GAUGE GALVANIZED STEEL.

I. RIGID DUCTWORK - ROUND AND RECTANGULAR

SHEET METAL, SMACNA PRESSURE CLASS OF 4" FOR SUPPLY AIR, 2" FOR RETURN AIR, OUTSIDE AIR AND EXHAUST AIR.

J. FLEXIBLE DUCTWORK TO AIR DISTRIBUTION DEVICES

FACTORY FABRICATED PRE-INSULATED TYPE WITH SEAMLESS VAPOR BARRIER. DUCT SHALL BEAR UL 181 CLASS 1 AIR DUCT LABEL AND SHALL COMPLY WITH NFPA 90A AND 90B. FIBERGLASS INSULATION NOMINAL 1 INCH THICKNESS WITH THERMAL CONDUCTANCE OF 0.23 BTU / HR - FT2 OF MAXIMUM AT 75°F MEAN TEMPERATURE. MAXIMUM 6 FEET.

9. INSULATION

INSULATED EXTERNALLY WITH 2-INCH THICK FIBER GLASS DUCT WRAP. DUCT WRAP SHALL BE A FLEXIBLE BLANKET OF GLASS FIBER FACTORY LAMINATED TO A REINFORCED FOIL KRAFT (FRK) VAPOR BARRIER WITH A MINIMUM 2-INCH TAPING AND STAPLING FLANGE ON ONE EDGE AND BE SUITABLE FOR OPERATION AT TEMPERATURES FROM 40 DEG F TO 250 DEG F AND HAVE A THERMAL CONDUCTIVITY OF 0.23 AT 75 DEG F WITH A MINIMUM DENSITY OF THREE-QUARTER (3/4) POUND PER CUBIC FOOT. PROVIDE IN THICKNESS OF TWO (2) INCHES UNLESS OTHERWISE SPECIFIED. ALL JOINTS AND SEAMS SHALL BE SEALED WITH GLASS FABRIC AND MASTIC.

10. DUCTWORK SUPPORTS

ALL DUCTWORK SHALL BE SUPPORTED BY EITHER OF THE FOLLOWING TWO METHODS OR AS OTHERWISE APPROVED BY THE ARCHITECT HAVING JURISDICTION:

A. PROVIDE SUITABLE STEEL STRAPS PER SMACNA STANDARDS BUT NOT LESS THAN 1 INCH WIDE, 22 GAUGE SECURELY ATTACHED TO THE STRUCTURE ABOVE AND TO THE DUCT SYSTEM.

B. WHERE REQUIRED, DUCT MAY BE SUPPORTED WITH HORIZONTAL ANGLE IRON SUPPORTS WITH THREADED RODS ATTACHED TO STRUCTURE ABOVE.

11. LOW PRESSURE FLEXIBLE DUCTS

INSULATED FLEXIBLE DUCTS: FLEXIBLE DUCT SHALL BE FACTORY-FABRICATED PREINSULATED TYPE WITH SEAMLESS VAPOR BARRIER. DUCT SHALL BEAR UL 181 CLASS 1 AIR DUCT LABEL AND SHALL COMPLY WITH NFPA 90A AND 90B. FIBERGLASS INSULATION NOMINAL 1-INCH THICKNESS WITH THERMAL CONDUCTANCE OF 0.23 BTU/HR-FT2 OF MAXIMUM AT 75°F MEAN TEMPERATURE. FLEXIBLE DUCT SHALL HAVE AN OPERATING RANGE OF MINUS 0.5-INCH W.G. TO PLUS 2-INCHES W.G. CORE SHALL BE CONTINUOUS AND CONSIST OF ALUMINIZED MYLAR LAMINATED TO CORROSION RESISTANT STEEL WIRE HELIX.

BOD: FLEXIBLE DUCT SHALL BE FLEXMASTER TYPE 1M, THERMAFLEX M-KC, ATCO #036 OR APPROVED EQUAL

12. TEST, ADJUST AND BALANCE

CONTRACTUAL RELATIONSHIP

A. PERFORMANCE VERIFICATION SHALL BE PERFORMED AS A SERVICE OF THE T & B AGENCY DIRECTLY TO THE CONSTRUCTION MANAGER OR OWNER WITH NO OTHER SUBCONTRACTORS AS PART OF THE AGREEMENT.

B. TEST, ADJUST AND BALANCE ALL AIR SYSTEMS IN ACCORDANCE WITH ASSOCIATED AIR BALANCE COUNCIL (AABC) OR NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB).

C. THE HEATING, VENTILATING AND/OR COOLING SYSTEMS INSTALLED UNDER THIS CONTRACT SHALL BE TESTED TO DEMONSTRATE THAT SPECIFIED CAPACITIES OF THE VARIOUS PARTS OF THE SYSTEM AS SHOWN ON THE DRAWINGS CAN BE MET.

D. A DIRECT READING VELOCITY INSTRUMENT THAT HAS BEEN PREVIOUSLY TESTED (WITHIN 1 YEAR PREVIOUS FROM DATE OF TAB) AND CALIBRATED SHALL BE USED TO TEST THE AIR FLOW IN THE VARIOUS DUCT INLETS AND OUTLETS.

E. REGULATE AND ADJUST ALL SPLITTER, DEFLECTORS AND DAMPERS SO THAT THE INLET OR OUTLET SHALL DELIVER OR REMOVE THE REQUIRED NUMBER OF CUBIC FEET OF AIR PER MINUTE (CFM) AT THE RESPECTIVE OPENINGS. THIS SHALL INCLUDE SETTING UP DAMPER POSITION FOR MINIMUM OUTSIDE AIR DAMPERS AND SHALL BE MARKED AS SAME.

F. ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE CONSTRUCTION SUPERINTENDENT, OR HIS REPRESENTATIVE

G. FLUID FLOW DATA SHALL BE BALANCED TO BE WITHIN +/- 10% OF THE DESIGN VALUES.

H. FURNISH ALL INSTRUMENTS, TESTING EQUIPMENT AND PERSONNEL THAT MAY BE REQUIRED FOR THE TESTS.

I. SUBMIT TO ARCHITECT / ENGINEER ELECTRONIC COPY OF HIS FINAL CERTIFIED TEST READINGS WITH THE FOLLOWING INFORMATION:

- THE RPM OF EACH FAN OR UNIT
- THE VOLUME OF AIR HANDLED BY EACH FAN OR UNIT (QUANTITIES OF SUPPLY, RETURN, OUTSIDE AIR)
- VOLUME OF AIR AT EACH AIR DEVICE
- SUPPLY TEMPERATURES OF EACH UNIT
- MOTOR BHP
- OUTSIDE AIR CONDITIONS AT TIME OF TEST
- ANY AND ALL WATER FLOW RATES AND ENTERING / LEAVING TEMPERATURES AT EQUIPMENT
- STATIC PRESSURE PROFILE OF ALL AIR-MOVING EQUIPMENT
- PERCENT DEVIATION FROM DESIGN VALUES

13. CONTROLS

A. MANUFACTURER PROVIDED CONTROLS

PROVIDE WIFI COMPATIBLE, 7 DAY PROGRAMMABLE THERMOSTAT. COORDINATE THERMOSTAT SELECTION WITH THE ABILITY TO CONTROL ANY AND ALL STAGES OF COOLING / HEATING / DEHUMIDIFICATION AS SCHEDULED.

SUBMITTALS:	
PHASE	DATE
100% CDs	11/11/2022

REVISIONS:

NO.	DESCRIPTION	DATE

PROJECT TEAM  
PROFESSIONAL IN CHARGE

ADOLFO J. COTILLA, JR., AIA

REGISTRATION  
NUMBER AR-0008011

APPROVED BY R.E.T.

DESIGNED BY R.E.T.

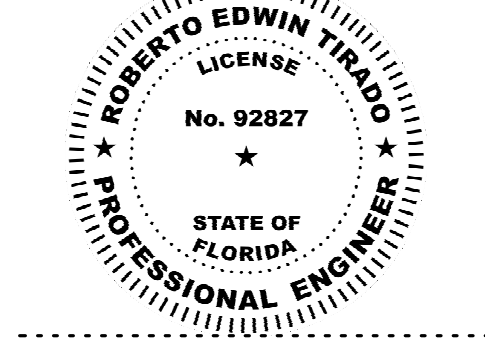
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SPECIFICATIONS -  
HVAC

SHEET TITLE

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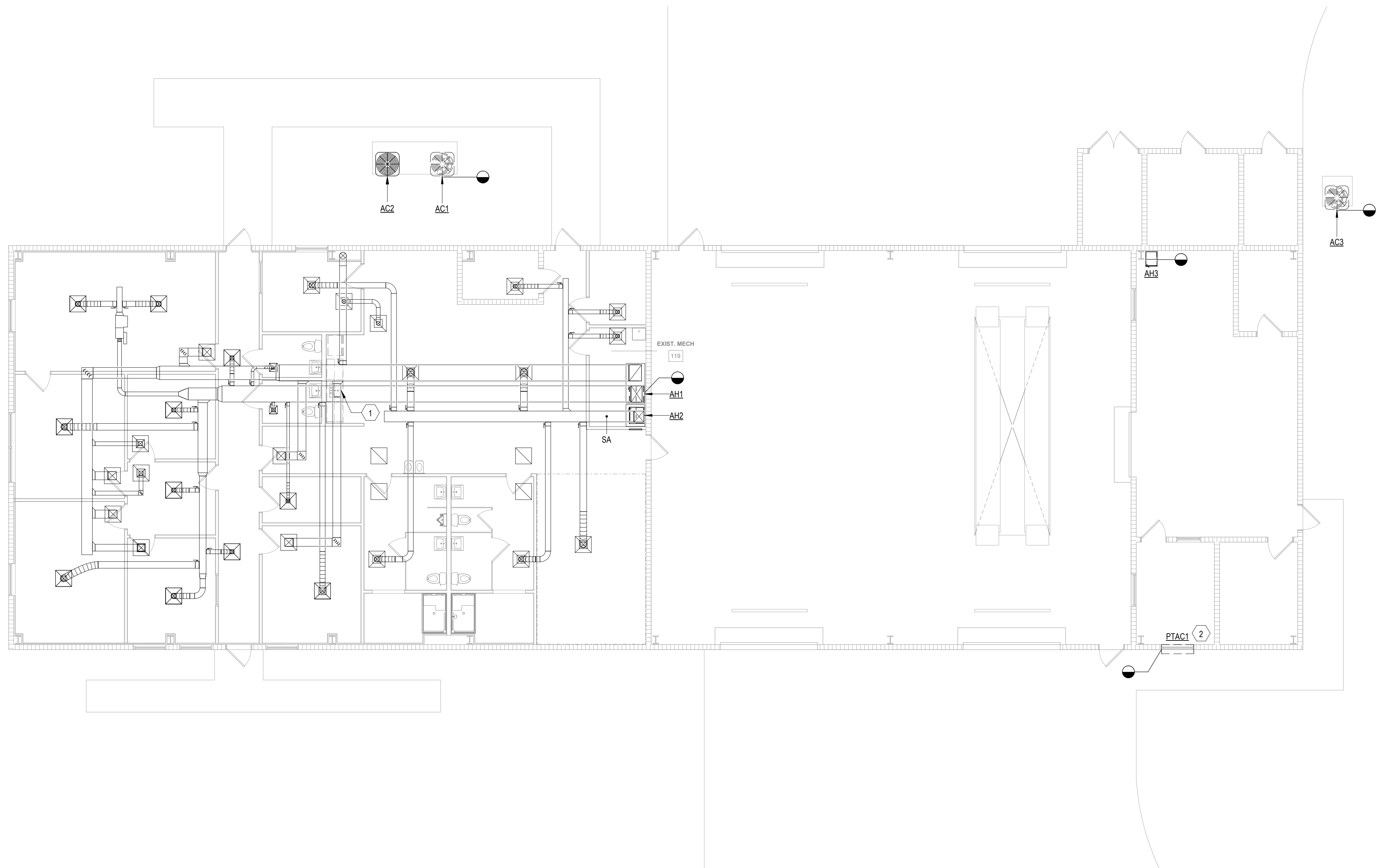
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1 FIRST FLOOR PLAN - HVAC DEMOLITION  
1/8" = 1'-0"

0' 4' 8' 16' 32'  
SCALE: 1/8" = 1'-0"

## GENERAL NOTES

- REVIEW THE SITE CONDITIONS PRIOR TO DEMOLITION. IF ANY CONFLICTS ARE NOTICED, INFORM THE ENGINEER IMMEDIATELY PRIOR TO STARTING DEMOLITION.
- COORDINATE ALL DEMOLITION WORK WITH THE ARCHITECTURAL, AND ELECTRICAL PLANS.
- OWNER SHALL HAVE FIRST RIGHT OF REFUSAL FOR ANY PARTS. DO NOT DEMOLISH PRIOR TO DETERMINING WHICH PARTS SHOULD BE SALVAGED, IF ANY.
- EXISTING BUILDING, WALLS, FLOORING, ALL ITEMS TO REMAIN ETC. SHALL BE PROTECTED FROM DAMAGE AT ALL TIMES PRIOR TO AND DURING DEMOLITION WORK.
- ALL REFRIGERANT SYSTEMS SCHEDULED FOR DEMOLITION SHALL FIRST HAVE ALL THE REFRIGERANT CAPTURED AND PROPERLY DISPOSED OF.
- DEMOLISH EXISTING THERMOSTATS. PROVIDE NEW THERMOSTATS WITH NEW AIR HANDLING UNIT.

SUBMITTALS:	
PHASE	DATE
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## REVISIONS:

NO.	DESCRIPTION	DATE

## PROJECT TEAM

PROFESSIONAL IN CHARGE

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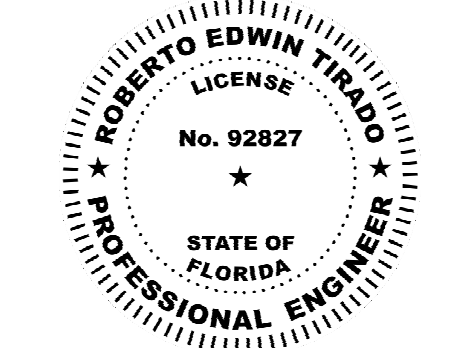
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## FIRST FLOOR PLAN - HVAC DEMOLITION

## SHEET TITLE

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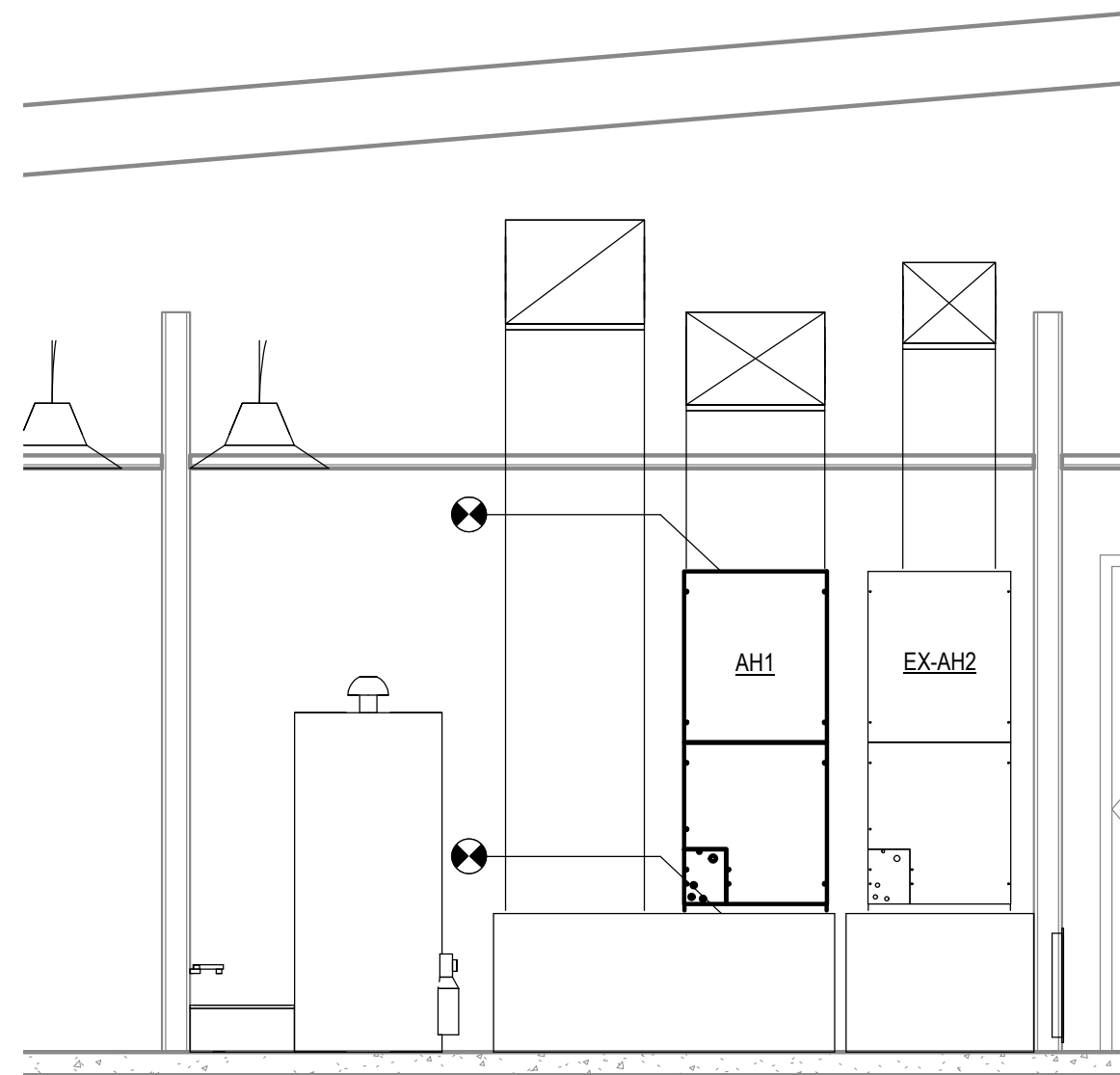
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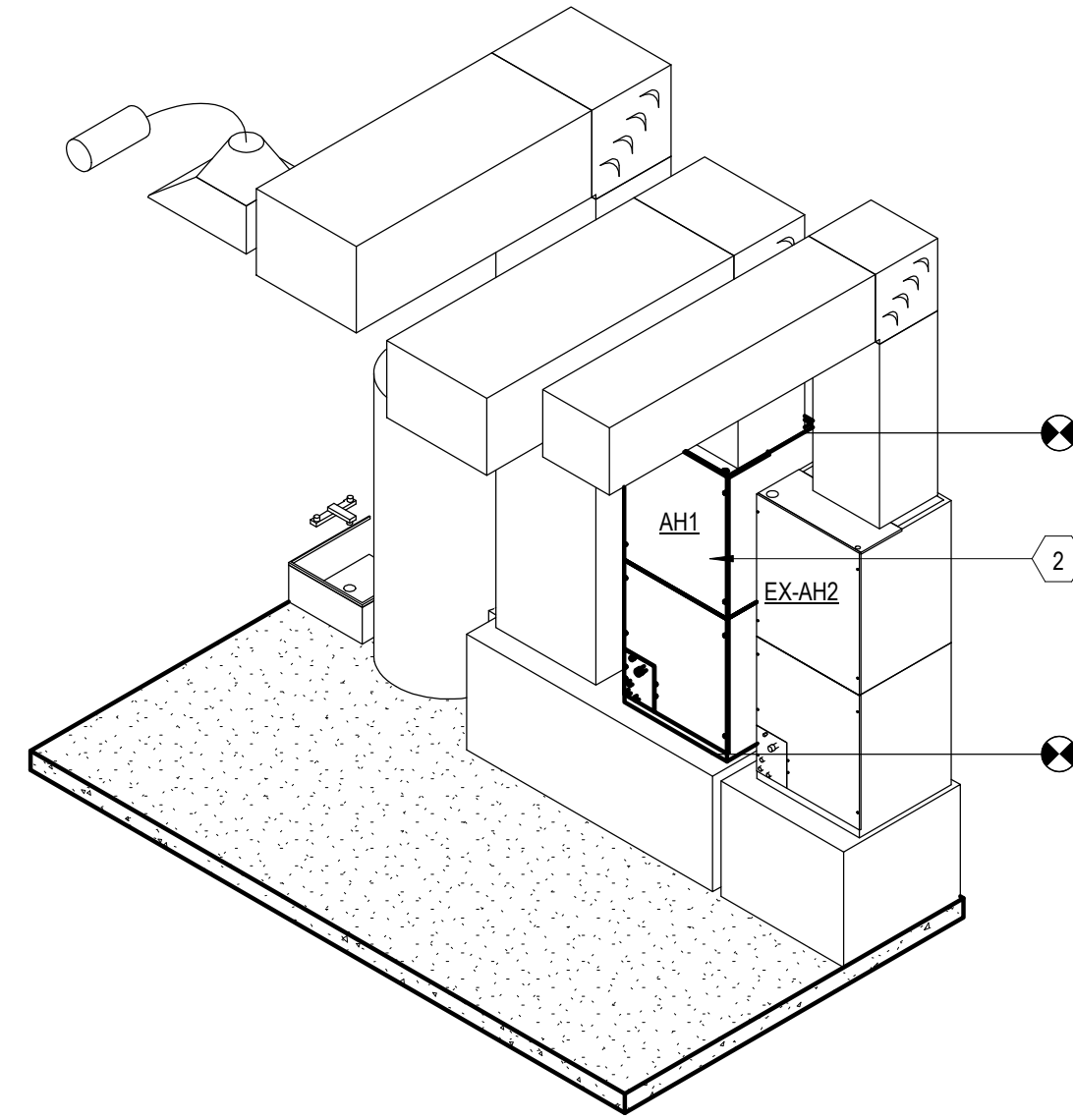
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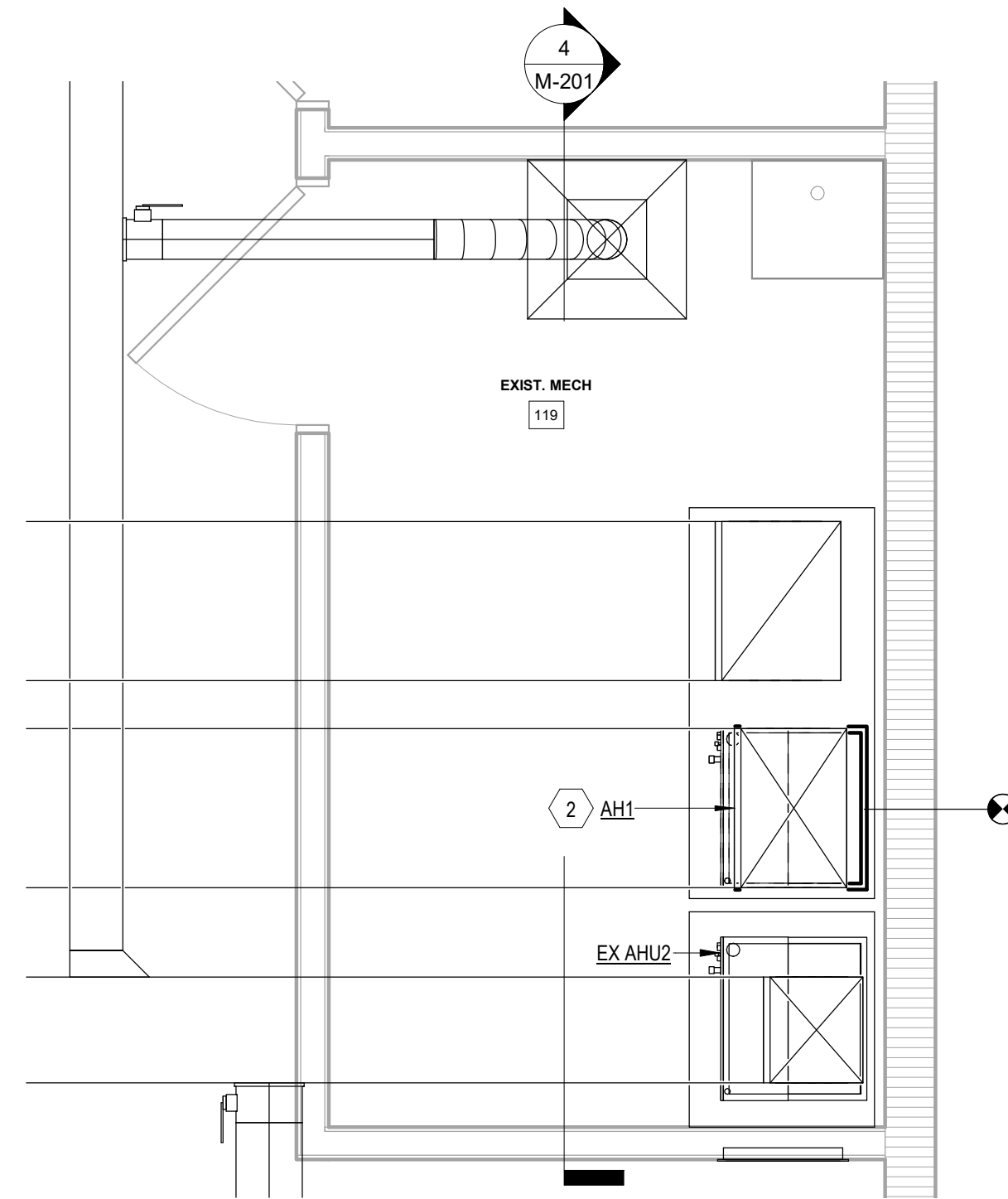




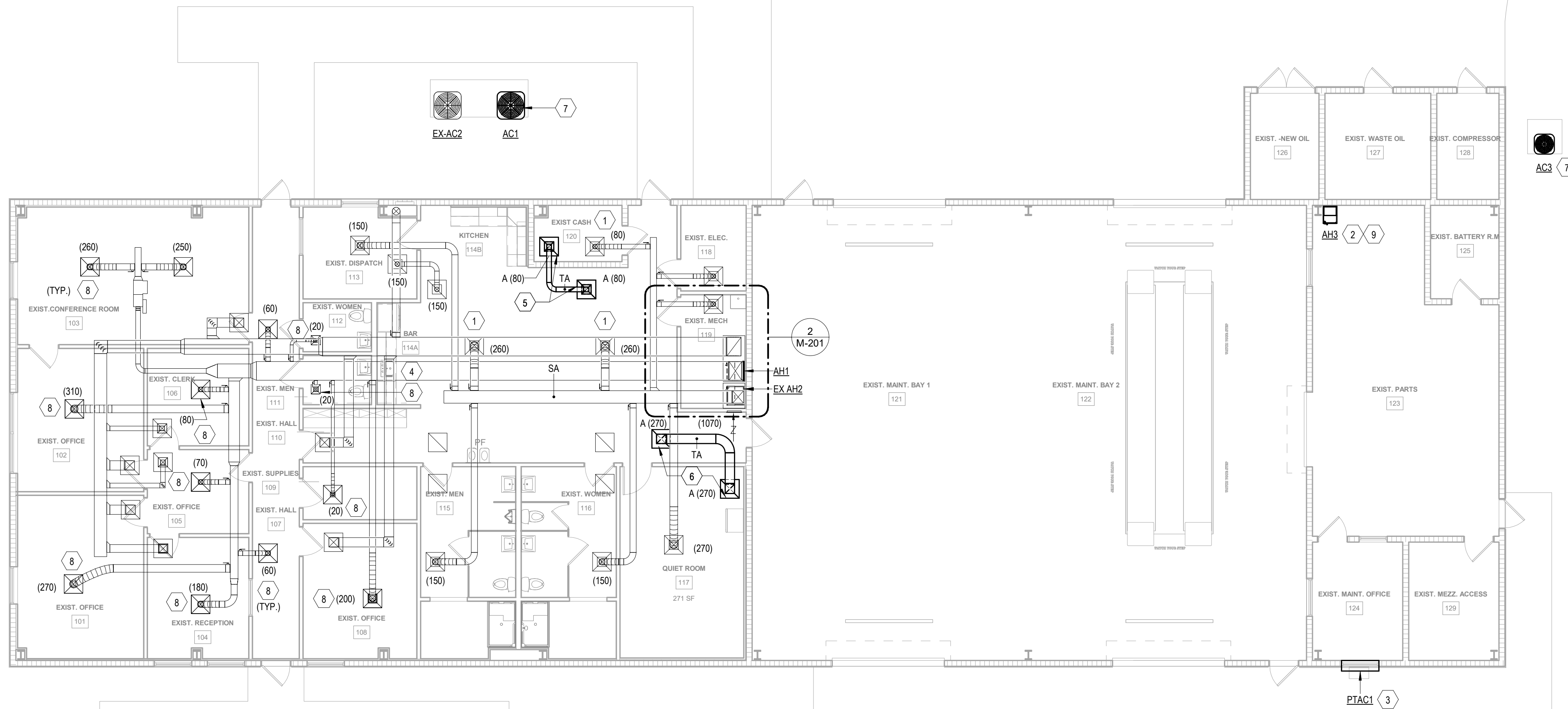
4 HVAC ROOM SECTION  
3/8" = 1'-0"



3 HVAC ROOM ISOMETRIC



2 ENLARGED HVAC ROOM  
1/2" = 1'-0"



1 FIRST FLOOR PLAN - HVAC RENOVATION  
1/8" = 1'-0"

0' 4' 8' 16' 32'  
SCALE: 1/8" = 1'-0"

## GENERAL NOTES

## KEY NOTES

- | NUMBER | NOTES   |
|--------|---|
| 1      | REBALANCE EXISTING DIFFUSERS TO NEW AIRFLOWS.   |
| 2      | REUSE EXISTING PLENUM/DUCTWORK. ENSURE EXISTING AIR HANDLER SUPPORT IS CAPABLE OF SUPPORTING NEW UNIT. PROVIDE DUCTWORK/DUCT ACCESSORIES REQUIRED TO INSTALL NEW AIR HANDLER. REBALANCE EXISTING ASSOCIATED DUCTWORK SYSTEMS TO AIRFLOWS INDICATED. ROUTE CONDENSATE TO EXISTING DRAIN. |
| 3      | PTAC DIMENSIONS DIFFER FROM EXISTING UNIT. POTENTIAL FOR MINOR DEMO WORK. PROVIDE WITH ARCHITECTURAL GRILL. REFER TO ARCHITECTURAL PLANS.   |
| 4      | PROVIDE NEW STAINLESS STEEL SINGLE COMPARTMENT SINK MATCHING EXISTING OPENING WITH CRUMB STAINER. PROVIDE STAINLESS STEEL PULL DOWN KITCHEN FAUCET (AMERICAN STANDARD MODEL #4931410.002). REUSE EXISTING SANITARY PIPING AND TRAP.   |
| 5      | PROVIDE RETURN GRILL. BOD: PRICE 630. 24" X 24" FACE SIZE. 6" X 6" OR 6"Ø DUCT/NECK SIZE. 3/4" FIXED SPACED LOUVERS. 22" X 22" X 3" BACK CAN FOR DUCT CONNECTION. ALUMINUM, COLORED WHITE.  |
| 6      | PROVIDE RETURN GRILL. BOD: PRICE 630. 24" X 24" FACE SIZE. 12" X 12" OR 12"Ø DUCT/NECK SIZE. 3/4" FIXED SPACED LOUVERS. 22" X 22" X 3" BACK CAN FOR DUCT CONNECTION. ALUMINUM, COLORED WHITE.   |
| 7      | PROVIDE, ROUTE AND SIZE REFRIGERANT PIPING PER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR CONDENSING UNIT LOCATED OUTSIDE AND RESPECTIVE INDOOR UNIT. PROVIDE LONG RADIUS ELBOWS AND ALL REFRIGERANT PIPING SPECIALTIES PER MANUFACTURER'S REQUIREMENTS/RECOMMENDATIONS.              |
| 8      | REBALANCE EXISTING DIFFUSER TO AIRFLOW INDICATED.   |
| 9      | REBALANCE SUPPLY AND RETURN GRILLE TO 525 CFM.  |

SUBMITTALS	
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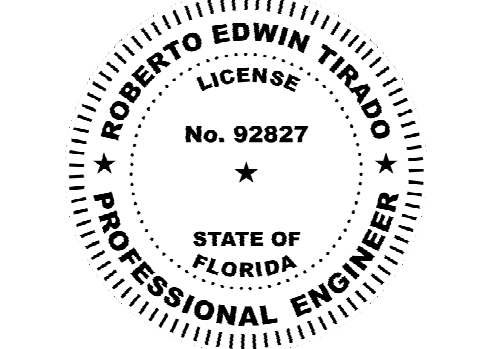
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DX AIR HANDLING UNIT SCHEDULE																											
PLAN MARK	AREA SERVED	MODEL NUM.	FAN DATA					COOLING DATA														FILTER TYPE	BASIS OF DESIGN DIMENSIONS			OPERATING WEIGHT (LBS)	
			SUPPLY AIR CFM	OUTSIDE AIR CFM	E.S.P. (IN)	DRIVE TYPE	MOTOR (HP)	DESIGN CONDITIONS				CAPACITY											H (IN)	W (IN)	L (IN)		
								ENTERING DB/WB (°F)		LEAVING DB/WB (°F)		TOT/SENS CAPACITY (MBTU/HR)		VOLT / PHASE	MCA	MOCP	CALC. HEATING KW	HEATING KW	STEPS	HEATING CFM	EAT (°F)						LAT (°F)
AH1	OFFICES	TE	1,835	280	0.50	DIRECT	0.75	77.5	64.5	53.0	52.5	66.3	48.8	208 / 1	94.0	100.0	-	20.0	2	734	70.0	84.0	1" THROWAWAY	22	19	58	174
AH3	PARTS STORAGE	TE	525	0	0.50	DIRECT	0.33	75.0	62.5	53.0	52.5	15.0	12.5	208 / 1	38.0	40.0	-	8.0	2	525	70.0	84.0	1" THROWAWAY	19	17	45	117
PTAC1	OFFICE 124	PBH113	276	30	-	-	-	75.0	62.5	53.0	52.5	7.9	6.6	208 / 1	15.0	20.0	-	3.5	1	276	70.0	84.0	-	16	26	17	86

GENERAL NOTES

1. BOD: TRANE  
2. FOR AH1 PROVIDE A SINGLE POINT POWER ENTRY KIT, PART #: BAYSPEKT201A  
3. PROVIDE UNITS WITH DIRECT DRIVE FANS.  
4. CAPACITIES SHOWN ARE MINIMUM.  
5. ALL AIR HANDLING UNITS SHALL BE PROVIDED WITH PAINTED GALVANIZED STEEL EXTERIOR CONSTRUCTION MEETING ASTM-117B 600 HOUR SALT SPRAY TEST.  
6. PROVIDE WITH SINGLE POINT ELECTRICAL CONNECTION FOR EACH MOTOR.  
7. PTAC1 BOD: AMANA PBH113G3GCC. PROVIDE WITH INSULATED SLEEVE AND ARCHITECTURAL GRILLE KIT.

AIR COOLED DX CONDENSING UNIT SCHEDULE											
PLAN MARK	BASIS OF DESIGN	MODEL NUMBER	SEER (AHRI)	COOLING CAPACITY			ELECTRICAL DATA				SYSTEM CAPACITY STEPS
				AMB. TEMP	REF. TYPE	NO. COMP.	NO. FANS	MCA	MOCP	VOLT / PHASE	
AC1	TRANE	4TTR4	14.6	95°F	R410A	1	1	28.0	50.0	208 / 1	1
AC3	TRANE	4TTR4	14.6	95°F	R410A	1	1	13.0	20.0	208 / 1	1

GENERAL NOTES

1. ALL REFRIGERANT PIPING SHALL BE PROVIDED WITH LONG RADIUS ELBOWS. ALL LINE SETS OVER 100' SHALL BE APPROVED BY MANUFACTURER.  
2. PROVIDE ALL CONDENSING UNITS WITH COMPRESSOR CRANKCASE HEATER.  
3. PROVIDE ALL UNITS WITH ANTI-SHORT CYCLE TIME DELAY.  
4. PROVIDE ALL UNITS WITH REFRIGERANT LIQUID LINE SIGHT GLASS.  
5. PROVIDE SERVICE CONNECTIONS TO EQUIPMENT AS SHOWN ON PLANS, ELEVATIONS, SECTIONS, AND AS REQUIRED BY SPECIFICATIONS.  
6. PROVIDE EACH SYSTEM WITH A THERMOSTAT TO BE WI-FI ENABLED AND ACCESSED ON A HANDHELD MOBILE DEVICE.  
7. PROVIDE WITH 5 YEAR COMPRESSOR WARRANTY, LUVATA COIL CORROSION PROTECTION COATING OR EQUAL.

SUBMITTALS:	
PHASE	DATE
100% CDs	11/11/2022

REVISIONS:		
NO.	DESCRIPTION	DATE

PROJECT TEAM  
PROFESSIONAL IN CHARGE

ADOLFO J. COTILLA, JR., AIA

REGISTRATION  
NUMBER AR-0008011

APPROVED BY R.E.T.

DESIGNED BY R.E.T.

DRAWN BY R.E.T.

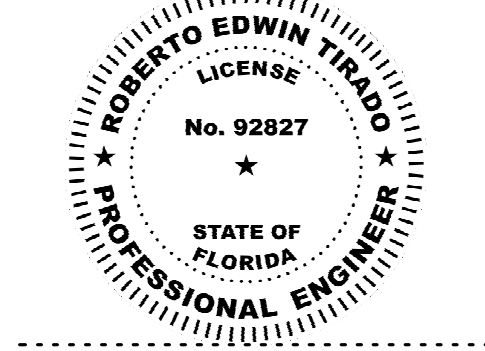
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COA #27158 Project #0122008

Engineer of Record  
ROBERT E. TRADLO, P.E. #92827

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SCHEDULES - HVAC

SHEET TITLE

ACAI

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19-031 P02

PROJECT NUMBER

M-801

SHEET NUMBER

TO THE BEST OF MY KNOWLEDGE  
AND ABILITY THESE PLANS ARE  
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