LIGHTING FIXTURE SCHEDULE

SYMBOL	TYPE	DESCRIPTION	LAMPS NO.	LAMPS TYPE	LAMPS WATT	BALLAST TYPE	VOLTAGE	MOUNTING	REMARKS
⊠	A	2'x2' LED TROFFER WITH FLUSH STEEL DOOR, WHITE BAKED ENAMEL FINISH AND CLEAR PHILIPS DAYBRITE "DuraLED" SERIES.	–	LED 3500'K	45	– –	MULTI TAP	CEILING RECESSED	1
◪	A1	2'x2' FLUORESCENT TROFFER SAME AS TYPE "A" EXCEPT WITH FLUORESCENT EMERGENCY LIGHTING BATTERY PACK CHLORIDE CSOST (1400 LUMEN OUTPUT).	–	LED 3500'K	45	– –	MULTI TAP	CEILING RECESSED	1
⊠	B	2'x2' LED TROFFER WITH FLUSH STEEL DOOR, WHITE BAKED ENAMEL FINISH AND CLEAR PHILIPS DAYBRITE "DuraLED" SERIES.	–	LED 3500'K	31	– –	MULTI TAP	CEILING RECESSED	1
◪	B1	2'x2' FLUORESCENT TROFFER SAME AS TYPE "A" EXCEPT WITH FLUORESCENT EMERGENCY LIGHTING BATTERY PACK CHLORIDE CSOST (1400 LUMEN OUTPUT).	–	LED 3500'K	31	– –	MULTI TAP	CEILING RECESSED	1
◈	C	FLUORESCENT OPEN REFLECTOR DOWN LIGHT WITH 6" APERTURE, CLEAR TRIM AND SPECULAR LOW IRIDESCENT FINISH. INFINITY "PH60" SERIES.	1	QUAD 3500'K	26	ELECTRONIC	MULTI TAP	CEILING RECESSED	1
◆	C1	FLUORESCENT DOWN LIGHT SAME AS TYPE "B" EXCEPT WITH FLUORESCENT EMERGENCY LIGHTING BATTERY PACK.	1	QUAD 3500'K	26	ELECTRONIC	MULTI TAP	CEILING RECESSED	1
⊡	D	FLUORESCENT WALL SCONCE. SPECIFIED BY OWNER.	1	QUAD 3500'K	26	ELECTRONIC	MULTI TAP	WALL MOUNTED	
⊗		SINGLE FACE THERMOPLASTIC EXIT SIGN/LIGHT WITH WHITE HOUSING AND RED LETTERS. PROVIDE DIRECTIONAL ARROWS AS INDICATED. MCPHILBEN "CXXLI" SERIES. PROVIDE FIXTURE WITH A 90 MINUTE BATTERY BACK UP.	–	LED	–	– –	DUAL	UNIVERSAL	

NOTES:

1. VERIFY CEILING TYPES PRIOR TO ORDERING FIXTURES.
2. PROVIDE ALL FLUORESCENT FIXTURES THAT UTILIZE DOUBLE-ENDED LAMPS AND CONTAIN BALLAST'S WITH A BUILT-IN MEANS TO DISCONNECT THE BALLAST FROM THE SOURCE OF SUPPLY.

GENEREAL NOTE:
NO SUBSTITUTIONS TO THE LIGHT FIXTURE SCHEDULE CONTAINED IN THESE DOCUMENTS WILL BE CONSIDERED WITHOUT PRIOR REVIEW AND/OR APPROVAL BY THE ARCHITECT AND ELECTRICAL ENGINEER.

ELECTRICAL SPECIFICATIONS

PART 1 – GENERAL

A. THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL NEW ELECTRICAL WORK INDICATED. CONSTRUCTION SHALL BE IN ACCORDANCE WITH DRAWINGS AND APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER AS SOON AS POSSIBLE AFTER DISCOVERY OF THE PROBLEM AND SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL ARCHITECT/ENGINEER HAS DIRECTED CORRECTIVE ACTION TO BE TAKEN.
B. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BID AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING ELECTRICAL AND COMMUNICATIONS INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF.
C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (AS ADOPTED BY THE AUTHORITY HAVING JURISDICTION) AND ALL CODES AND ORDINANCES OF THE AUTHORITY HAVING JURISDICTION. THE SPECIFICATION, CODES AND STANDARDS LISTED BELOW ARE UTILIZED IN THIS PROJECT.
   1. NATIONAL ELECTRICAL CODE (NFPA-70)
   2. CODE FOR SAFETY TO LIFE (NFPA_101)
   3. STANDARD FOR THE INSTALLATION, MAINTENANCE AND USE OF LOCAL PROTECTIVE SIGNALING SYSTEMS (NFPA-72)
   4. UNDERWRITERS' LABORATORIES (UL)
   5. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
   6. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
   7. FEDERAL SPECIFICATION (FED. SPEC.)
   8. INSULATED POWER CABLE ENGINEERS ASSOCIATION (IPCEA)
   9. FLORIDA BUILDING CODE. 2010 EDITION
   10. INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE)
   11. CITY OF PALM BEACH GARDENS BUILDING CODE. (AMMENDMENTS TO FLORIDA BUILDING CODE 2010)
   12. ADDITIONALLY, DESIGNS, WORK PRACTICES AND CONDITIONS MUST CONFORM WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA)
D. DO NOT SCALE THE ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION OF ALL EQUIPMENT. CONFIRM WITH OWNER'S REPRESENTATIVE.
E. IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
F. CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FROM A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE.
G. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THERE BY.
H. ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
I. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TESTING. CONTRACTOR TO OBTAIN PERMIT AND APPROVED SUBMITTALS PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT.
J. THE TERM "PROVIDE" USED IN THE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS SHALL MEAN THAT THE CONTRACTOR IS TO FURNISH, INSTALL AND CONNECT COMPLETE.

PART 2 – PRODUCTS

A. MINIMUM WIRE SIZE SHALL BE #12 A.W.G. (EXCEPT AS NOTED OTHERWISE FOR CONTROL WIRING). ALL CONDUCTORS SHALL BE 98% CONDUCTIVITY, COPPER WITH "THHN-THWN" INSULATION UNLESS OTHERWISE NOTED.
B. ELECTRICAL METALLIC TUBING (EMT) SHALL BE OF BEST QUALITY STEEL, SMOOTH INSIDE AND OUT AND SHALL BE HOT-DIPPED GALVANIZED.
C. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS, CAST ALLOY WITH THREADED HUBS IN WET OR DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
D. RIGID NONMETALIC CONDUIT SHALL BE SCHEDULE 40 PVC.
E. ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITERS' LABELS WHERE APPLICABLE.
F. PANELBOARDS:
   1. CURRENT CARRYING BUSES SHALL BE COPPER. GROUND BUS BARS SHALL BE COPPER.
   2. ALL CIRCUIT BREAKERS SHALL BE BOLT ON. PLUG-IN BREAKERS ARE NOT ACCEPTABLE.
   3. CIRCUIT BREAKERS USED AS SWITCHES IN FLUORESCENT OR HID LIGHTING CIRCUITS SHALL BE LISTED AND MARKED "SWD"
   4. ALL CIRCUIT BREAKERS FEEDING MECHANICAL EQUIPMENT SHALL BE HACR TYPE.
   5. A.I.C. RATINGS SHALL BE AS INDICATED ON PANELBOARD SCHEDULES.
   6. ALL PANELBOARDS SHALL BE FURNISHED WITH PLASTIC LAMINATE NAMEPLATES WITH 1/4" ENGRAVED LETTERING FOR PANEL IDENTIFICATION.
   7. ALL PANELBOARDS SHALL BE PROVIDED WITH TYPE-WRITTEN DIRECTORY OF BRANCH CIRCUIT DESIGNATIONS.
G. DISCONNECT SWITCHES SHALL BE H.P. RATED, HEAVY DUTY, QUICK-MAKE, QUICK-BREAK. ENCLOSURES SHALL BE NEMA-1 FOR INDOOR LOCATIONS, NEMA 3R FOR OUTDOOR LOCATIONSOR AS OTHERWISE NOTED.
H. MOTOR STARTERS SHALL BE MANUAL OR MAGNETIC AS INDICATED ON THE ELECTRICAL DRAWINGS, WITH OVERLOAD RELAYS IN EACH PHASE.
I. WIRING DEVICES (GENERAL PURPOSE RECEPTACLES AND WALL SWITCHES) COLOR SHALL BE COORDINATED WITH CLIENT.

PART 3 – EXECUTION

A. COLOR CODING OF CONDUCTORS SHALL BE AS FOLLOWS:
   1. 208/120 VOLTS, 3 PHASE, 4-WIRE SYSTEM: UNGROUNDED CONDUCTORS: 1 BLACK, 1 RED AND 1 BLUE. GROUNDED (NEUTRAL) CONDUCTOR; WHITE. GROUNDING CONDUCTORS SHALL BE GREEN.
   2. 480/277 VOLT, 3-PHASE, 4-WIRE SYSTEM: UNGROUNDED CONDUCTORS: 1 BROWN, 1 YELLOW, AND 1 PURPLE. GROUNDED (NEUTRAL) CONDUCTORS; GREY. GROUNDING CONDUCTORS SHALL BE GREEN.
   3. BRANCH CIRCUIT WIRING (#6 AND SMALLER) SHALL BE COLOR CODED BY CONTINUOUS INSULATION COLOR AND FEEDERS AND SERVICES (#4 AND LARGER) SHALL BE CODED AT ALL JUNCTION OR PULL POINTS (EXCEPT LB'S OR LBD'S) USING COLOR MARKERS OR PLASTIC TAPE MANUFACTURED FOR THE PURPOSE.
B. WIRING METHODS
   1. ALL CONDUCTORS SHALL BE INSTALLED IN ELECTRICAL METALLIC TUBING (EMT) UNLESS OTHERWISE NOTED, SPECIFIED OR AS SPECIFICALLY PROHIBITED BY THE AUTHORITY HAVING JURISDICTION. ALL FITTINGS AND COUPLINGS FOR EMT CONDUIT SHALL BE ALL STEEL RAIN TIGHT COMPRESSION TYPE OR ALL STEEL CONCRETE TIGHT SET SCREW TYPE.
   2. SCHEDULE 40 PVC CONDUIT, WITH FITTINGS AND COUPLINGS APPROPRIATE FOR THE USE, SHALL BE INSTALLED UNDERGROUND OR BELOW SLABS ON GRADE.
   3. TYPE MC CABLE WITH ALUMINUM ARMOR AND INTERNAL GROUND IS ACCEPTABLE FOR USE AS GENERAL BRANCH CIRCUIT WIRING FOR CIRCUITS 20 AMPERES OR LESS AND CONCEALED IN WALLS OR ABOVE SUSPENDED CEILING AND AS APPROVED BY THE AUTHORITY HAVING JURISDICTION.
C. ELECTRICAL SYSTEM SHALL BE COMPLETE AND EFFECTIVELY GROUNDED AS REQUIRED BY THE LATEST EDITION OF THE N.E.C. AND LOCAL CODES.
D. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/ARCHITECT.
E. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
F. THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF POWER AND TELEPHONE COMPANIES, AND SHALL BE FULLY COORDINATED WITH THEM PRIOR TO COMMENCEMENT OF WORK.
G. PROVIDE AND INSTALL CONDUIT, CONDUCTORS, PULL WIRES, BOXES, COVER PLATES, AND WIRING DEVICES, FOR ALL OUTLETS AS INDICATED.
H. MATERIALS, PRODUCTS, AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SUCH AS APPEAR ON THE UL LIST OF APPROVED ITEMS AND SHALL MEET OR EXCEED THE REQUIREMENTS OF NEC, NEMA, AND IECE.
I. CONTRACTOR SHALL SUBMIT AT LEAST FIVE (5) SETS OF SHOP DRAWINGS OR CUT SHEETS OF LIGHTING FIXTURES, SWITCHES, AND OTHER ELECTRICAL ITEMS FOR APPROVAL BY ENGINEER/ARCHITECT.
J. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED OF HIS WORK.
K. ALL LAY-IN LIGHTING FIXTURES SHALL BE SECURED TO THE SUSPENDED CEILING GRID AT EACH CORNER.
L. CONTRACTOR SHALL COORDINATE WITH MECHANICAL DRAWINGS AND PROVIDE ALL NECESSARY CONTROL WIRING.
M. ALL ELECTRICAL POWER WIRING FOR THE HVAC SYSTEM INCLUDING WIRING THRU LINE VOLTAGE CONTROL DEVICES SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
N. CONDUCTORS FOR BRANCH CIRCUITS SHALL BE INCREASED FROM SIZES INDICATED ON PANEL SCHEDULES TO PREVENT VOLTAGE DROP EXCEEDING 3% AT THE FARTHEST DEVICE. LOADS FOR DETERMINING CONDUCTOR SIZE SHALL BE BASED ON ACTUAL CONNECTED LOAD OR 80% OF BREAKER SIZE, WHICHEVER IS GREATER. CONTACT ENGINEER OF RECORD FOR ALL RUNS IN EXCESS OF 100 FT. FOR DETERMINATION OF WIRE SIZE. FOR BID PURPOSES, INCREASE WIRE BY ONE (1) WIRE SIZE FOR RUNS 100 FT. TO 200 FT. AND TWO (2) WIRE SIZES FOR RUNS OVER 200 FT.
O. FEEDER CONDUCTORS SHALL BE INCREASED FROM SIZES INDICATED ON RISER DIAGRAM TO PREVENT VOLTAGE DROP EXCEEDING 2% LOADS FOR DETERMINING CONDUCTOR SIZE SHALL BE BASED ON ACTUAL CONNECTED LOAD OR 80% OF BREAKER SIZE, WHICHEVER IS GREATER.
P. THE CONTRACTOR SHALL CONFIRM WITH THE ELECTRICAL UTILITY COMPANY ANY AND ALL REQUIREMENTS SUCH AS: METERING EQUIPMENT REQUIREMENTS AND METERING EQUIPMENT LOCATION, TRANSFORMER SIZE AND LOCATION OR SERVICE POINT, CONDUIT ENTRY AND LUG SIZE RESTRICTIONS. THE CONTRACTOR SHALL SCHEDULE ALL REQUIRED DOWN TIME FOR THE OWNERS CONFIRMATION.
Q. ANY CONFLICTS AND DESCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK.
R. PER NEC 210.8(B)(3) ALL 15- AND 20-AMPERE, 125-VOLT RECEPTACLES IN NONDWELLING-TYPE KITCHENS TO BE GFCI PROTECTED.

ELECTRICAL SHEET INDEX

E0.1	ELECTRICAL NOTES, LEGEND & INDEX
E2.1	2ND LIGHTING PLAN
E2.2	4TH FLOOR LIGHTING PLAN
E2.3	5TH FLOOR LIGHTING PLAN
E2.4	6TH FLOOR LIGHTING PLAN
E2.5	7TH FLOOR LIGHTING PLAN
E2.6	8TH FLOOR LIGHTING PLAN

ELECTRICAL LEGEND

▽	TELEPHONE OUTLET WITH 3/4" CONDUIT STUBBED OUT FROM WALL 6" ABOVE CEILING. MOUNT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS OTHERWISE NOTED.
▼	DATA OUTLET WITH 3/4" CONDUIT STUBBED OUT FROM WALL 6" ABOVE CEILING. MOUNT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS OTHERWISE NOTED.
▽▼	TELEPHONE/DATA OUTLET WITH 3/4" CONDUIT STUBBED OUT FROM WALL 6" ABOVE CEILING. MOUNTED ABOVE COUNTER, SEE ARCHITECTURAL DRAWING FOR SPECIFIC REQUIREMENTS.
▽▼	TELEPHONE/DATA OUTLET WITH 3/4" CONDUIT STUBBED OUT FROM WALL 6" ABOVE CEILING. MOUNT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS OTHERWISE NOTED.
▽	TELEPHONE/DATA OUTLET WITH 3/4" CONDUIT RUN TO THE NEAREST STUD WALL AND STUBBED OUT FROM WALL 6" ABOVE CEILING. PROVIDE BRASS COVER PLATE AND CARPET FLANGE.
▣	TELEVISION OUTLET WITH 3/4" CONDUIT STUBBED OUT FROM WALL 6" ABOVE CEILING. MOUNT AT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS OTHERWISE NOTED.
⏚	20 AMP DUPLEX RECEPTACLE (NEMA 5-20R) MOUNTED AT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS NOTED OTHERWISE.
⏚	20 AMP QUADRUPLEX RECEPTACLE (NEMA 5-20R) MOUNTED AT 18" A.F.F. TO CENTER LINE OF OUTLET UNLESS NOTED OTHERWISE.
⏚GFI	20 AMP DUPLEX RECEPTACLE (NEMA 5-20R) WITH GROUND FAULT CIRCUIT INTERRUPTER, MOUNT AT 18" A.F.F. TO CENTER LINE OF OUTLET. UNLESS NOTED OTHERWISE.
⏚	20 AMP DUPLEX RECEPTACLE (NEMA 5-20R) MOUNTED ABOVE COUNTER SEE ARCHITECTUAL DRAWINGS FOR SPECIFIC REQUIREMENTS.
⏚	20 AMP DUPLEX RECEPTACLE (NEMA 5-20R) WITH ISOLATED GROUND, MOUNT AT 18" A.F.F. TO CENTERLINE OF OUTLET UNLESS OTHERWISE NOTED.
⏚	20 AMP QUADRUPLEX RECEPTACLE (NEMA 5-20R) WITH ISOLATED GROUND, MOUNT AT 18" A.F.F. TO CENTERLINE OF OUTLET UNLESS OTHERWISE NOTED.
⏚	20 AMP DUPLEX RECEPTACLE (NEMA 5-20R), RECESS FLOOR MOUNTED. PROVIDE BRASS COVER PLATE AND CARPET FLANGE.
⏚	20 AMP DUPLEX RECEPTACLE (NEMA 5-20R), CEILING MOUNTED.
⏚	SPECIAL-PURPOSE RECEPTACLE
J	JUNCTION BOX
EF	EXHAUST FAN. SEE MECHANICAL DRAWINGS FOR SPECIFICATIONS.
$	SINGLE POLE, 20 AMP, SWITCH. MOUNT 42" A.F.F. TO CENTERLINE OF SWITCH UNLESS OTHERWISE NOTED.
$3	3-WAY, 20 AMP, SWITCH. MOUNT 42" A.F.F. TO CENTERLINE OF SWITCH UNLESS OTHERWISE NOTED.
$D	SINGLE POLE, 20 AMP, SWITCH WITH DIMMER. MOUNT 42" A.F.F. TO CENTERLINE OF SWITCH UNLESS OTHERWISE NOTED.
$M	MOTOR RATED SWITCH
$MD	MOTION DETECTOR SWITCH, OSW-DT-0601-MV-X, COOPER CONTROLS.
$	TWO POLE, 30 AMP SWITCH. MOUNT ADJACENT EQUIPMENT TO BE CONTROLLED.
⊠	FACTORY MOUNTED DISCONNECT/STARTER (SEE MECHANICAL SCHEDULE)
A B C	FUSIBLE DISCONNECT SWITCH A = POLES, B= FRAME SIZE, C= FUSE RATING
A B C	FUSIBLE MOTOR STARTER DISCONNECT SWITCH A = POLES, B= NEMA SIZE, C= FUSE RATING
⏚	GROUNDING ELECTRODE & CONDUCTOR SYSTEM
▽	TRANSFORMER
▬	ELECTRICAL PANELBOARD
———	TELEPHONE WOOD BACKBOARD
WP	WEATHERPROOF
T/C	TIME CLOCK
RE	RELOCATED
E	EXISTING TO REMAIN
A.F.F.	ABOVE FINISH FLOOR
⊙	CEILING MOUNTED DUAL TECHNOLOGY MOTION SENSOR BY WATTSTOPPER.
P	FIRE ALARM MANUAL PULL STATION.
P	PHOTOELECTRIC SMOKE DETECTOR.
⊠	FIRE ALARM HORN / STROBE COMBINATION.
⊠	FIRE ALARM STROBE.

ELECTRICAL NOTES

ISSUED FOR REVIEW -

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PROJECT MANAGER: DUANE MILLAR

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fax 772-409-8684
AA26001615

COMMON AREA UPGRADE
4400 PGA BLVD
PALM BEACH GARDENS, FL
PROJECT NUMBER 4405

REVISIONS
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2 _____
3 _____
4 _____
5 _____

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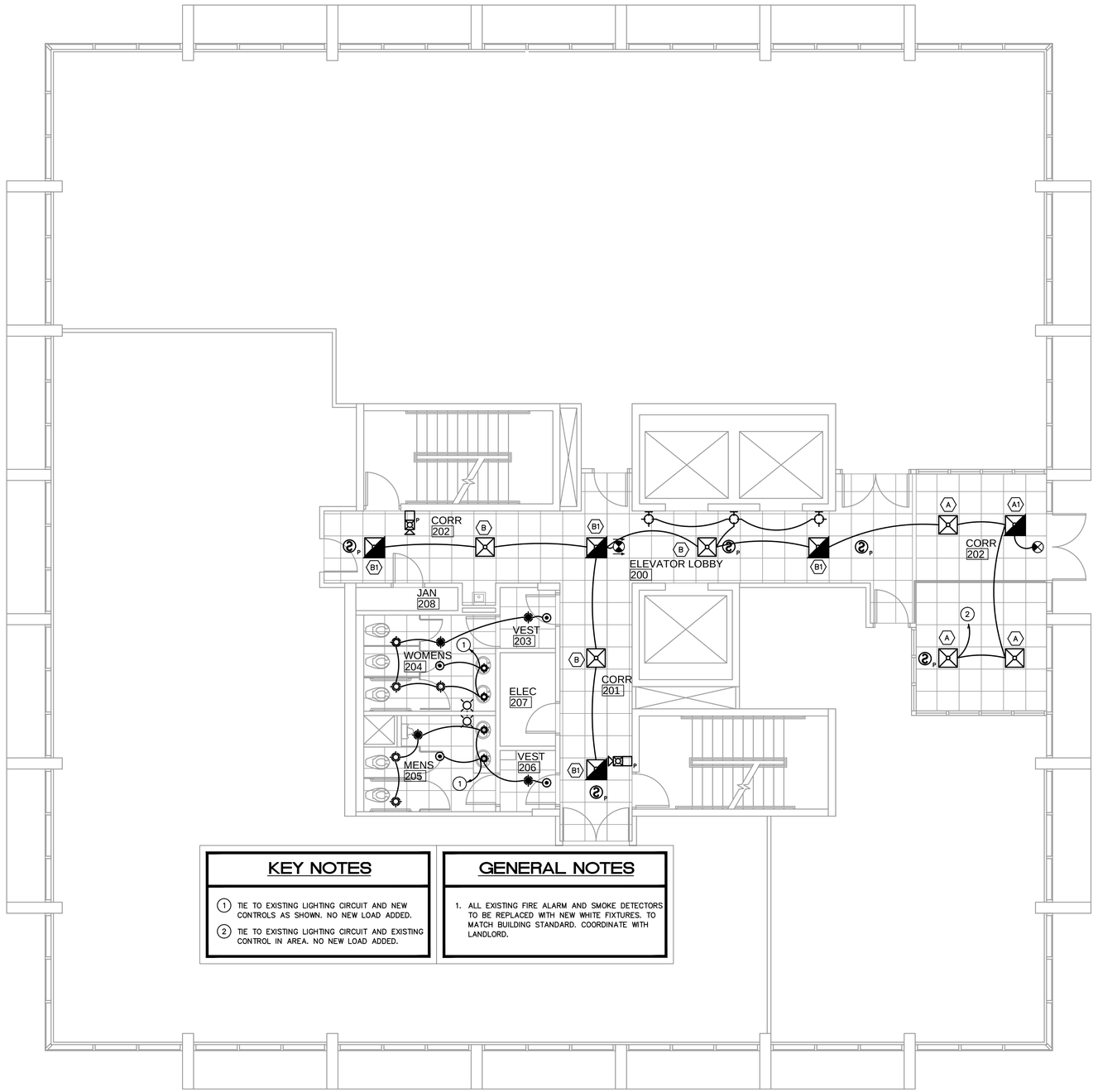
E0.1



KEY NOTES

1. TIE TO EXISTING LIGHTING CIRCUIT AND NEW CONTROLS AS SHOWN. NO NEW LOAD ADDED.
2. TIE TO EXISTING LIGHTING CIRCUIT AND EXISTING CONTROL IN AREA. NO NEW LOAD ADDED.

GENERAL NOTES

1. ALL EXISTING FIRE ALARM AND SMOKE DETECTORS TO BE REPLACED WITH NEW WHITE FIXTURES. TO MATCH BUILDING STANDARD. COORDINATE WITH LANDLORD.

SECOND FLOOR LIGHTING PLAN

3/16"=1'-0"

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LIGHTING PLAN
SECOND FLOOR

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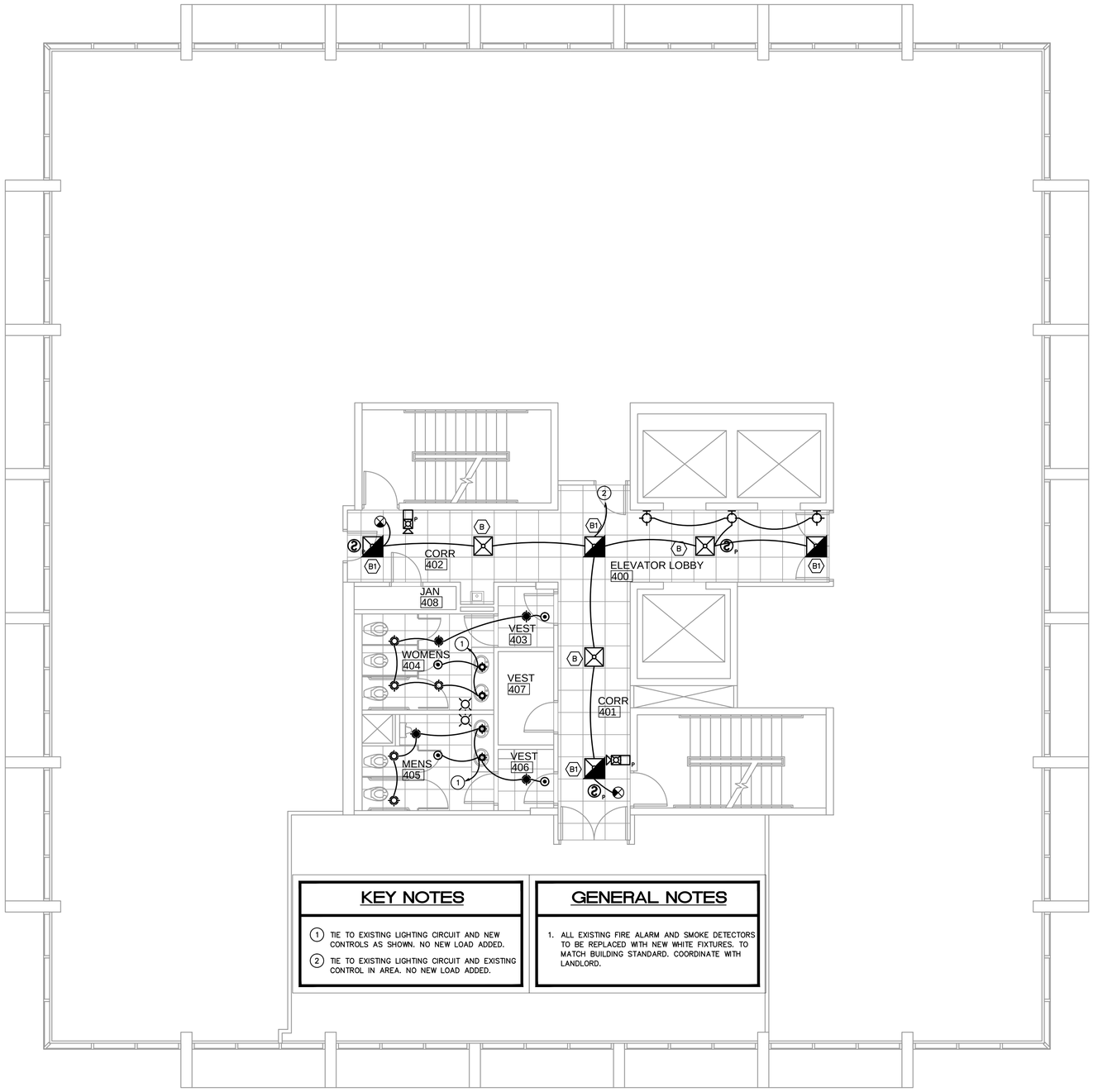

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FOURTH FLOOR LIGHTING PLAN

3/16"=1'-0"

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LIGHTING PLAN
FOURTH FLOOR

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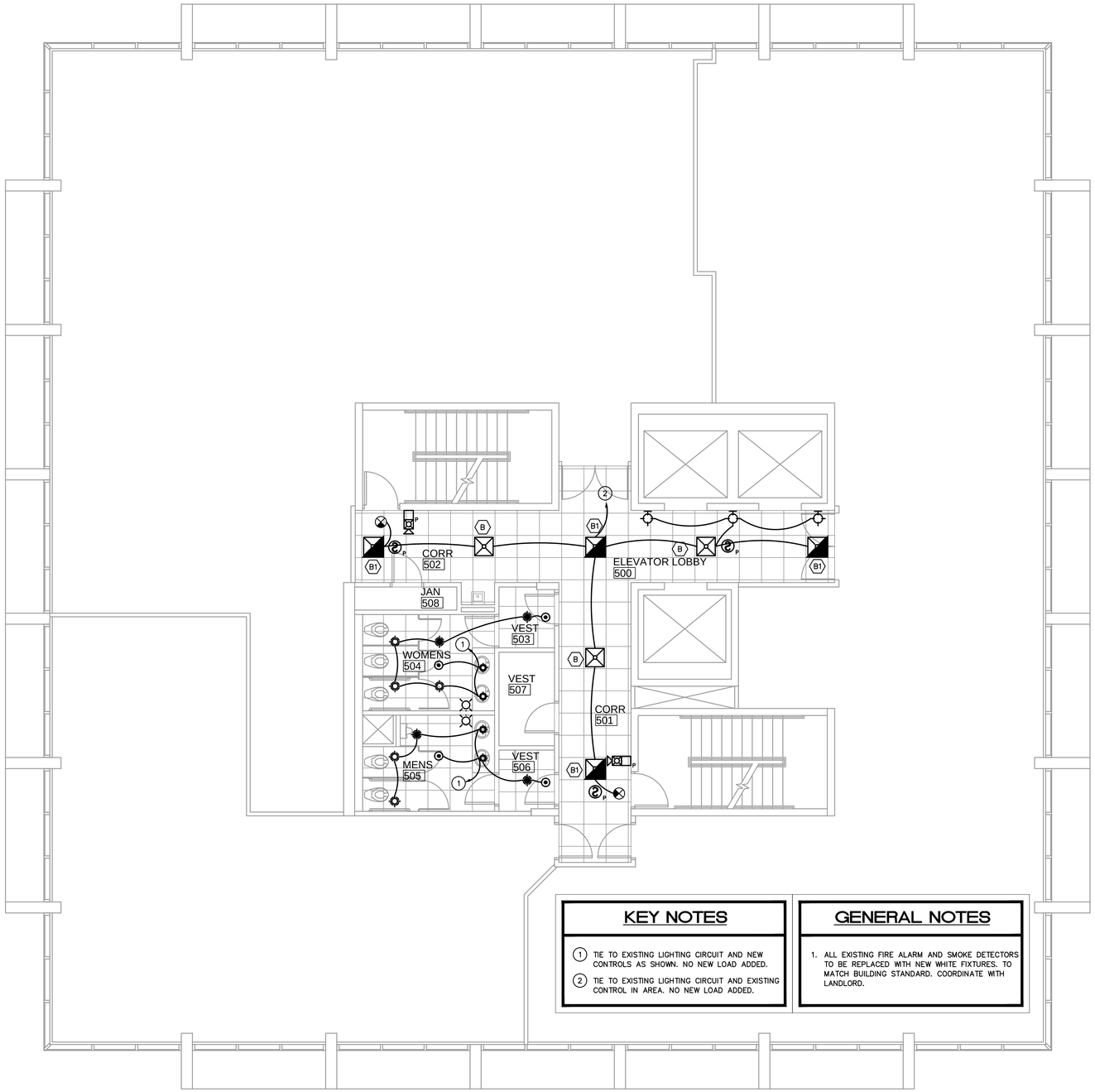

KEY NOTES

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GENERAL NOTES

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FIFTH FLOOR LIGHTING PLAN

3/16"=1'-0"

Bd

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LIGHTING PLAN
FIFTH FLOOR

DRAWN BY ASB

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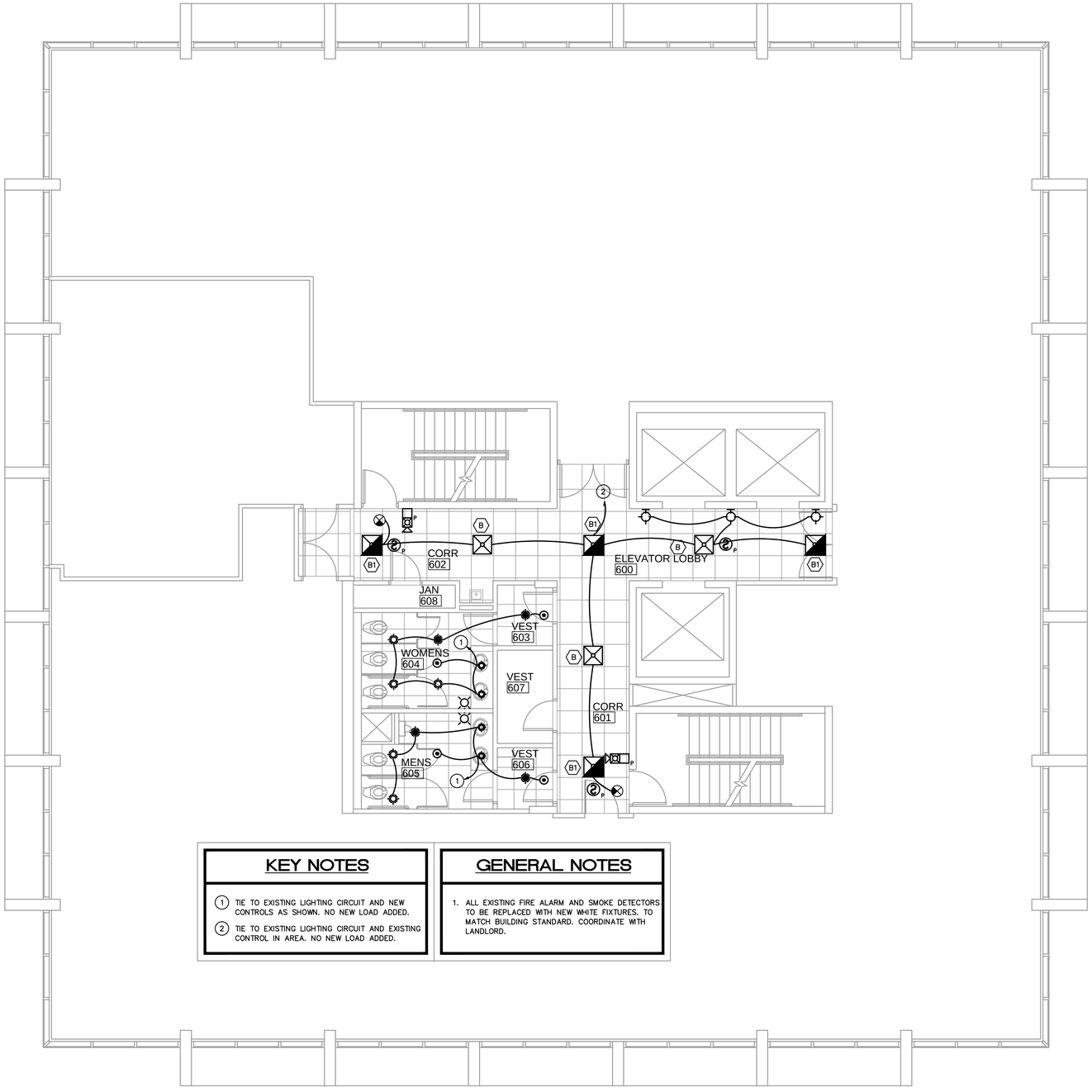

KEY NOTES

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GENERAL NOTES

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SIXTH FLOOR LIGHTING PLAN

3/16"=1'-0"

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LIGHTING PLAN
SIXTH FLOOR

DRAWN BY ASB

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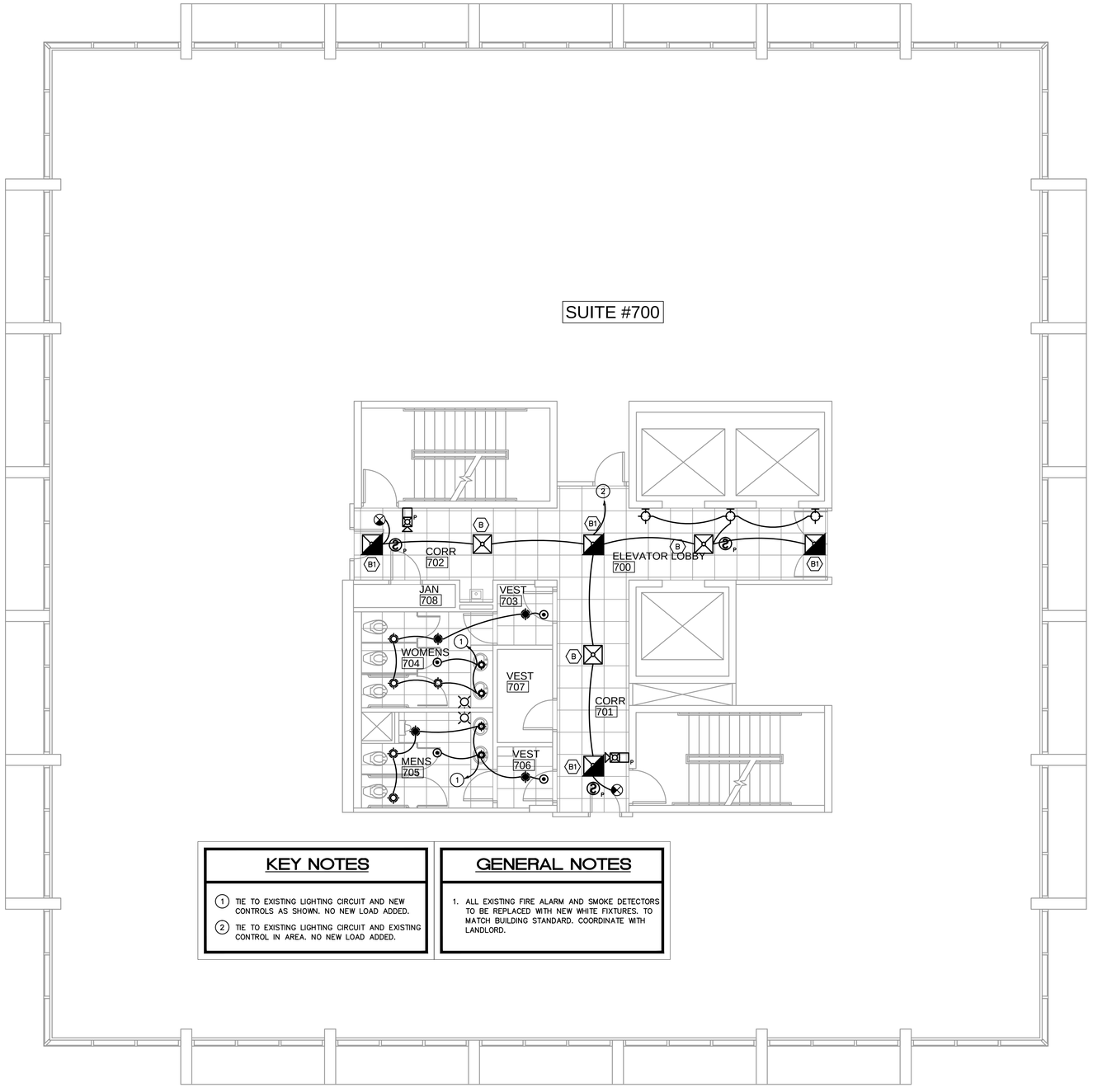
Certification of Authorization #8189

PRINCIPAL
Bradly L Brown Florida License #58232

date

signed

E2.4



KEY NOTES

1. TIE TO EXISTING LIGHTING CIRCUIT AND NEW CONTROLS AS SHOWN. NO NEW LOAD ADDED.
2. TIE TO EXISTING LIGHTING CIRCUIT AND EXISTING CONTROL IN AREA. NO NEW LOAD ADDED.

GENERAL NOTES

1. ALL EXISTING FIRE ALARM AND SMOKE DETECTORS TO BE REPLACED WITH NEW WHITE FIXTURES. TO MATCH BUILDING STANDARD. COORDINATE WITH LANDLORD.

SEVENTH FLOOR LIGHTING PLAN

3/16"=1'-0"

Bd

birse design inc.

5300 woodland lakes drive
palm beach gardens, fl 33418

phone 561-249-4001
fax 772-409-8684
AA26001615

COMMON AREA UPGRADE

4400 PGA BLVD
PALM BEACH GARDENS, FL

PROJECT NUMBER 4405

REVISIONS

1 _____
2 _____
3 _____
4 _____
5 _____

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LIGHTING PLAN
SEVENTH FLOOR

DRAWN BY ASB

CD

10/08/13

ISSUED FOR REVIEW -

KAMM CONSULTING PROJECT #: 2013-0758
PROJECT MANAGER: DUANE MILLAR

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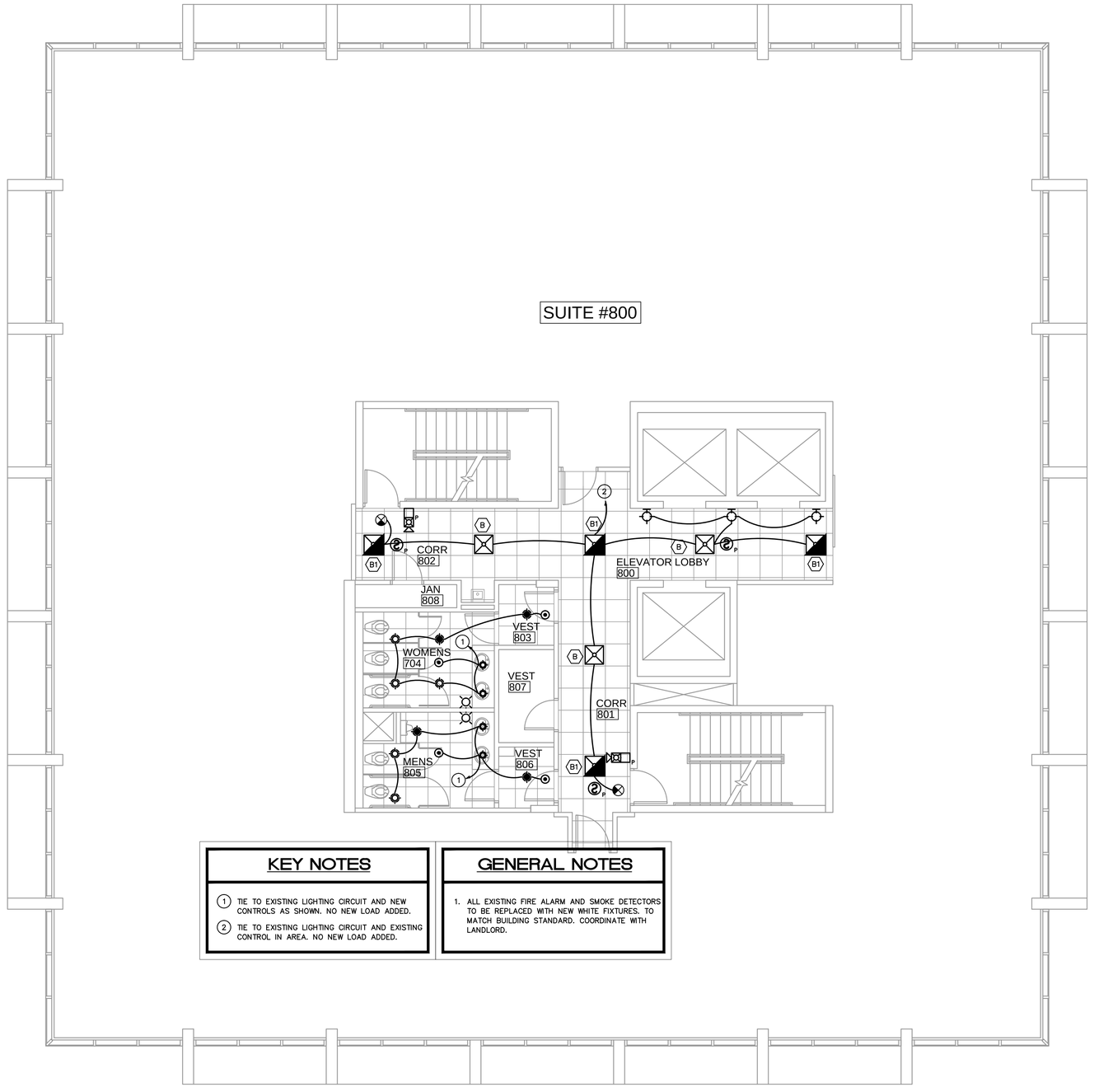
E2.5



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EIGHTH FLOOR LIGHTING PLAN

3/16"=1'-0"

Bd

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5300 woodland lakes drive
palm beach gardens, fl 33418

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LIGHTING PLAN
EIGHTH FLOOR

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MECHANICAL NOTES

1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE SYSTEM IN ACCORDANCE WITH THESE DRAWINGS, THE FLORIDA BUILDING CODE 2010 AND ALL OTHER APPLICABLE STATE, COUNTY AND LOCAL ORDINANCES AND THE LATEST ADDITION OF THE FOLLOWING PUBLICATIONS; SMACNA–85, 92, 95; ASHRAE 15–01, 34–01, 62–04; NFPA 70–02, 72–02, 90A–02, 90B–02, 91–99, 96–01; ANSI Z10.1–98, Z10.3–98, Z21.8–94, Z21.83–98.

2. THE CONTRACTOR SHALL PAY ALL COSTS OF PERMIT, INSPECTIONS AND ALL OTHER COSTS INCIDENTAL TO THE COMPLETION AND TESTING OF THIS WORK.

3. THE CONTRACTOR SHALL VISIT THE SITE AND COORDINATE WORK WITH OTHER TRADES.

4. THE CONTRACTOR SHALL SUPPLY THE ARCHITECT WITH "AS–BUILT" DRAWINGS.

5. CONTRACTOR SHALL SUBMIT, FOR APPROVAL FIVE [5] COPIES OF MANUFACTURER'S DRAWINGS FOR EACH PIECE OF EQUIPMENT AND CONTROLS INCLUDED IN CONTRACT.

6. ALL MATERIAL SHALL BE NEW OF U.S. MANUFACTURER OF GOOD QUALITY. ALL WORK SHALL BE PERFORMED AT INDUSTRY STANDARD QUALITY LEVEL BY CERTIFIED PROFESSIONALS.
   ALL EQUIPMENT SHALL BE UL OR ETL LISTED.
   ALL INSTALLATIONS SHALL COMPLY WITH FMC 2010, CH. 3, GENERAL REGULATIONS. BUILDINGS LOCATED WITHIN 3,000 FT FROM THE OCEAN SHALL UTILIZE NON–FERROUS MATERIALS FOR ALL OUTDOOR EXPOSED SUPPORTS, STANDS, FASTENERS, ETC.

7. DUCTWORK:
   A. ALL DUCTWORK SHALL BE GALVANIZED SHEETMETAL WITH SEALED SEAMS AND JOINTS WITH EXTERNAL BLANKET INSULATION R–6 MIN.
   THE CONTRACTOR SHALL PROVIDE ALL SHEETMETAL DUCTWORK, HANGERS, AUX. SUPPORT STEEL, ETC., ALL FLEX DUCT SHALL BE RATED CLASS I, UL–181 LISTED WITH METALLIZED INNER AND OUTER FOIL LINERS, MIN. R–6 WITH A MAX. TOTAL LENGTH NOT TO EXCEED 15 FT. INSTALL UL LISTED FOR PLENUM, FLEXIBLE DUCTWORK ELBOW SUPPORTS AT EACH DIFFUSER, GRILLE, AND REGISTER EQUAL TO "FLEXFLOW ELBOW" AS MANUFACTURED BY "THERMAFLEX". ALL METAL DUCTS SHALL BE FABRICATED IN ACCORDANCE WITH LATEST EDITION OF S.M.A.C.N.A.

   B. ALL OUTDOOR EXPOSED DUCTWORK SHALL BE GALVANIZED, DOUBLE WALL SHEETMETAL EQUAL TO UNITED McGILL "K–27", WITH MIN. R–8 INSULATION AND SEALED SEAMS AND JOINTS. THE CONTRACTOR SHALL PROVIDE ALL SHEETMETAL DUCTWORK, HANGERS, AUX. SUPPORT STEEL, ETC. PROVIDE SOLID LINER AND COAT WITH TWO COATS OF CORROSION–RESISTANT PAINT OR EQUIVALENT. PROVIDE OPTIONAL (OWNER'S DECISION) ALUMINUM OR STAINLESS STEEL CONSTRUCTION.

   C. ALL FLEX DUCT SHALL BE RATED CLASS I, UL–181 LISTED WITH METALLIZED INNER AND OUTER FOIL LINERS, MIN. R–6 WITH A MAX. TOTAL LENGTH NOT TO EXCEED 15 FT. FLEXIBLE DUCTWORK ELBOW SUPPORTS AT EACH DIFFUSER, GRILLE, AND REGISTER EQUAL TO "FLEXFLOW ELBOW" AS MANUFACTURED BY "THERMAFLEX".

   D. ALL METAL EXHAUST, MAKE–UP OR OTHERWISE DUCTS INSTALLED IN LOCATIONS WHERE DEWPOINT CONDITIONS CAN OCCUR INSIDE THE DUCT SHALL BE EXTERNALLY INSULATED WITH R–6 MIN.

   E. ALL AIR CONDITIONING DUCT WORK ENCLOSED IN A CHASE SHALL BE SHEETMETAL GALVANIZED WITH EXTERNAL BLANKET INSULATION R–6 MIN. PROVIDE INNER LINER FOR THE FIRST 10 FEET OF THE MAIN TRUNKS CONNECTING TO THE UNIT AND INCLUDING THE FIRST ELBOW OR AS INDICATED ON THE PLANS.

   THE CONTRACTOR SHALL PROVIDE ALL SHEETMETAL DUCTWORK, HANGERS, AUX. SUPPORT STEEL, ETC.
   ALL METAL DUCTS SHALL BE FABRICATED IN ACCORDANCE WITH LATEST EDITION OF S.M.A.C.N.A.

   SPECIAL NOTE:
   SMACNA DUCT PRESSURE CLASSES BASED ON OPERATING PRESSURE ARE: 1/2", 1", 2", 3", 4", 6", AND 10". EACH DUCT SYSTEM SHALL BE CONSTRUCTED FOR THE SPECIFIC DUCT PRESSURE CLASS SHOWN ON PLANS.
   WHERE NO PRESSURE CLASS IS SPECIFIED FOR CONSTANT VOLUME SYSTEMS, 1" W.G. PRESSURE CLASS IS THE BASIS OF COMPLIANCE WITH THE SMACNA STANDARDS REGARDLESS OF VELOCITY.
   WHERE NO PRESSURE CLASS IS SPECIFIED FOR VARIABLE VOLUME SYSTEMS, 2" W.G. PRESSURE CLASS IS THE BASIS OF COMPLIANCE WITH THE SMACNA STANDARDS FOR DUCTWORK UPSTREAM OF VAV BOXES.
   ALL DUCTWORK SHALL BE SEALED TO SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" FOR ITS PRESSURE CLASS SEALING METHODS.

8. ALL EXHAUST DUCTS AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED SHEET METAL WITH SEALED SEAMS AND JOINTS. ALL OUTSIDE AIR DUCT SHALL BE INSULATED WITH EXTERNAL BLANKET INSULATION R–6 MIN.
   ALL METAL EXHAUST, MAKE–UP OR OTHERWISE DUCTS INSTALLED IN LOCATIONS WHERE DEWPOINT CONDITIONS CAN OCCUR INSIDE THE DUCT SHALL BE EXTERNALLY INSULATED WITH R–6 MIN.

9. OUTSIDE AIR INTAKES SHALL BE SCREENED WITH A CORROSION RESISTANT MATERIAL NOT LARGER THAN 1/2" MESH. O/A INTAKES SHALL NOT BE TAKEN FROM A LOCATION CLOSER THAN 10 FT. FROM ANY CHIMNEY, VENT OUTLET OR SANITARY SEWER VENT OUTLET, UNLESS SUCH VENT IS NOT LESS THAN 24 INCHES ABOVE THE OUTSIDE AIR VENT.
   OUTSIDE AIR INTAKE VENTS LOCATED ON ROOFS WILL BE PROPERLY MARKED WITH A UNIVERSAL MARKING "INTAKE", PERMANENTLY ATTACHED PER FMC 2010, SEC. 401.5.1

10. DUCT SIZES SHOWN ARE INSIDE DIMENSIONS.

11. ALL AIR DEVICES (DIFFUSERS, REGISTERS AND GRILLES) SHALL BE ALL ALUMINUM CONSTRUCTION WITH EXPOSED SURFACE OFF WHITE BAKED ENAMEL FINISH OR AS SPECIFIED BY ARCHITECT. DEVICES SHALL BE AS SPECIFIED OR EQUAL TO TITUS OR METALAIRE. PROVIDE OPPOSED BLADE DAMPERS AT ALL DIFFUSERS AND REGISTERS AS INDICATED ON PLANS. PROVIDE BALANCING DAMPERS FOR ALL SUPPLY AND RETURN DIFFUSERS AND REGISTERS TO ENSURE COMPLAINCE WITH FMC 2010, PAR. 601.4 AND PAR. 603.15 FOR BALANCED AIR FLOW.

12. TEMPERATURE CONTROLS/THERMOSTAT: – COLOR WHITE.
    A. SHALL BE COMBINATION COOLING/HEATING, WITH SYSTEM "COOL–AUTO–HEAT–OFF" AND FAN "ON–AUTO" SELECTOR SWITCHES. THERMOSTATS AND CONTROLS SHALL BE INTEGRATED TO THE JOHNSON CONTROLS METASYS BUILDING CONTROL SYSTEM

13. THERMOSTAT LOCATION SHALL BE APPROVED BY OWNER, ENGINEER AND USER BEFORE INSTALLATION. INSTALL THERMOSTAT 48" TO 54" A.F.F. PER A.D.A REQUIREMENTS WHERE APPLICABLE. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR ALL REQUIREMENTS FOR JUNCTION BOXES, CONDUITS, CONTROL WIRING, POWER, ETC. AND DEFINE RESPONSIBILITIES AND SCOPE OF WORK FOR EACH TRADE PRIOR TO ANY PURCHASING OR INSTALLATION.

    WHENEVER THERE ARE MORE THAN ONE SENSOR OR THERMOSTAT, SIDE BY SIDE, THEY SHALL BE GANGED TOGETHER WITHIN THE SAME COVER PLATE WHEREVER POSSIBLE.
    CONTRACTOR SHALL COORDINATE THIS ISSUE WITH ARCHITECT/OWNER PRIOR TO INSTALLATION AND SHALL BRING ANY DISCREPANCY TO THE ENGINEER'S ATTENTION.

14. REFRIGERANT LINES SHALL BE COPPER, TYPE "L" HARD DRAWN WITH WROUGHT COPPER BRAZING–JOINT TYPE FITTINGS, USE BRAZING MATERIALS FOR HIGH PRESSURE PIPING PER AWS A5.8: BCuP SERIES COPPER–PHOSPHORUS ALLOY OR BAg1 SILVER ALLOY. REFRIGERANT LINES SHALL BE SIZED PER MANUFACTURER'S RECOMMENDATIONS. SOFT COPPER TYPE "M" SHALL BE ALLOWED FOR RISER PIPING INSIDE CHASE TO LIMIT NUMBER OF JOINTS. COORDINATE WITH ENGINEER FOR PRIOR APPROVAL.
    ALL EXPOSED INSULATION SHALL BE PROTECTED WITH UV RESISTANT PAINT OR ALUMIN. SHIELD.

15. ARMAFLEX INSULATION SHALL BE USED FOR SUCTION LINES (1/2" FOR ABOVE 40° F AND 1" FOR BELOW 40° F) PER FLORIDA ENERGY CODE TABLE 4–11 FOR PIPING INSULATION. FILTER/DRYER AND SIGHT GLASS SHALL BE PROVIDED AT LIQUID LINES.

16. ALL BRANCH TAKE–OFFS TO BE PROVIDED W/ MANUAL VOLUME DAMPERS. PROVIDE RADIUS ELBOWS WHERE FEASIBLE, SQUARE ELBOWS AND TEE'S SHALL BE FURNISHED W/SINGLE FOIL TURNING VANES. PROVIDE MANUAL VOLUME DAMPERS WITH EXTRACTOR AT ALL FLEX TAKE–OFFS.
    PROVIDE REMOTE, CABLE OPERATED VOLUME DAMPERS IN INACCESIBLE AND HARD CEILING AREAS, "YOUNG REGULATOR" OR EQUAL.

17. PROVIDE NEW FILTERS FOR ALL AIR CONDITIONING EQUIPMENT BEFORE START–UP, REPLACE PRIOR TO FINAL ACCEPTANCE BY OWNER.

18. PROVIDE SMOKE DETECTORS WITH SERVICE ACCESS DOORS IN ALL SUPPLY AIR DUCTS FOR FANS AND AHU'S SERVING A COMMON PLENUM OF 2000 CFM OR ABOVE.
    FOR SMOKE DETECTORS NOT VISIBLE, IN CONCEALED SPACES, PROVIDE REMOTE ANNUNCIATION/TEST STATION AS REQUIRED BY AUTHORITY HAVING JURISDICTION, COORDINATE PRIOR TO INSTALLATION.
    DETECTORS SHALL BE BY ONE MANUFACTURER, COORDINATE VOLTAGE ETC. WITH ELECTRICAL CONTRACTOR AND FIRE ALARM SYSTEM BEFORE ORDERING. UPON DETECTION, SMOKE DETECTORS SHUT DOWN ASSOCIATED AIR MOVING EQUIPMENT AND ALL AIR MOVING EQUIPMENT SERVING THAT COMMON PLENUM.

19. PROVIDE TYPE "B" DYNAMIC FIRE DAMPERS WITH SERVICE ACCESS DOORS IN ALL DUCTS AND OPENINGS PENETRATING FIRE RATED WALLS, MECHANICAL AND ELECTRICAL EQUIPMENT ROOMS, TENANT SEPARATION, PARTITIONS, FLOOR OR ROOF SLABS AND AT OUTSIDE AIR INTAKES AS REQUIRED. PROVIDE RADIATION DAMPERS IN RATED CEILINGS FOR ALL CEILING OPENINGS, CEILING FANS, DIFFUSERS OR GRILLES RATED FOR USE IN THE CEILING ASSEMBLY.
    PROVIDE LOW–LEAKAGE CLASS DAMPERS FOR ALL SITUATIONS WHERE THE AIRFLOW CFM HAS TO BE CONTROLLED. VERIFY AND REPLACE AS REQUIRED FOR EXISTING SYSTEMS.

20. HVAC CONTRACTOR SHALL PROVIDE A T & B REPORT PER F.B.C. 2010, CH. 13, 410.1.ABCD.4 (THE T & B REPORT SHALL BE INDEPENDENT FOR SYSTEMS OVER 15 TONS) FOR ALL MECHANICAL EQUIPMENT, AIR DEVICES, DAMPERS, AHU'S AND FANS.
    THE TEST AND BALANCE REPORT SHALL BE IN ACCORDANCE WITH THE AIR BALANCE COUNCIL STANDARDS AND SHALL INCLUDE AIR QUANTITIES FOR ALL SUPPLY GRILLES, RETURN GRILLES AND EXHAUST GRILLES AND THE LEAVING AND ENTERING AIR TEMPERATURE (°F) FROM SUPPLY GRILLES AND EVAPORATORS.
    FOR (EXISTING) SMOKE EVACUATION SYSTEMS HVAC CONTRACTOR SHALL PROVIDE A T & B REPORT PRIOR TO ANY NEW WORK, PROVING THAT THE SMOKE EVACUATION SYSTEM PERFORMS PER ORIGINAL DESIGN DOCUMENTS AND IS COMPLIANT WITH LOCAL CODE REQUIREMENTS.

21. RUN INSULATED FIRE RATED CONDENSATE DRAINS AS REQUIRED.

22. ALL INSULATION WILL HAVE FIRE/SMOKE RATING LESS THAN 25/50.

23. MECHANICAL EQUIPMENT ON ROOF OR ELEVATED STRUCTURES SHALL COMPLY WITH FBC 2010 PAR. 306.5 IF INSTALLED HIGHER THAN 16 FEET A.F.F.
    MECHANICAL EQUIPMENT INSTALLED IN ATTICS SHALL MEET THE REQUIREMENTS OF FBC 2010 PAR. 306.3 IF THE EQUIPMENT CAN NOT BE SERVICED/REMOVED THROUGH REQUIRED OPENING.
    MECHANICAL EQUIPMENT SHALL BE PROTECTED WITH MECHANICAL BARRIERS IF EXPOSED TO MECH. DAMAGE. ALL EQUIPMENT SHALL BE INSTALLED ON 6" CONCRETE PAD AT GRADE LEVEL .

    SPECIAL NOTE:
    ALL WIND LOAD AND OTHER COMPLIANCE CALCULATIONS AND/OR INSTALLATION DETAILS FOR ROOF MOUNTED EQUIPMENT AS REQUIRED BY FBC 2010, SEC. 1509, 1522 AND CHAPTER 16, SHALL BE PROVIDED BY STRUCTURAL ENGINEER/ARCHITECT.

24. PROVIDE A MIN. OF 36" CLEARANCE IN FRONT OF ALL 120–208 VOLT PANELS AND MIN. 42" CLEARANCE IN FRONT OF ANY 240–480 VOLT PANEL. PROVIDE ADEQUATE SIDE CLEARANCE PER NEC.

25. MECHANICAL PLANS IN GENERAL, ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, PLUMBING, ELECTRICAL, FIRE SPRINKLER, AND STRUCTURAL PLANS AND SHALL BE CONSIDERED AS ONE SET OF DOCUMENTS.
    DUCT AND PIPING OFFSETS, BENDS AND TRANSITIONS SHALL BE REQUIRED TO PROVIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. CHANGES IN DUCTWORK SIZE AND ROUTE WILL BE REQUIRED TO AVOID STRUCTURAL, PLUMBING, FIRE SPRINKLER AND ARCHITECTURAL BUILDING FEATURES. DUCTWORK CHANGES MAY BE MADE BY CONTRACTOR USING EQUIVALENT SIZED DUCT. CONTACT ENGINEER IF DUCT AREA WILL NOT FIT.

26. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO BIDDING, ORDERING, FABRICATION OR INSTALLATION OF MATERIALS OR EQUIPMENT, IN ORDER TO PROVIDE A FULLY INTEGRATED MECHANICAL AND CONTROLS SYSTEMS WITH THE EXISTING ONES. ANY DISCREPANCY BETWEEN EXISTING CONDITIONS AND PLANS, OR ADDITIONAL CLARIFICATION REQ'D SHALL BE BROUGHT TO THE ATTENTION OF ENGINEER PRIOR TO FINAL BIDDING AND WORK.

27. NO COMBUSTIBLE MATERIALS ARE ALLOWED IN RETURN AIR PLENUMS OR ABOVE CEILINGS USED AS RETURN AIR PLENUM. IF SPACE WITH RETURN AIR PLENUM HAS ANY DECK TO DECK PARTITIONS, AIR TRANSFER DUCTS MUST BE INSTALLED.
    WHEN CPVC PIPING IS USED FOR FIRE SPRINKLER SYSTEMS, THE R/A GRILLES LAYOUT SHALL BE (FIELD) COORDINATED WITH SUCH PIPING SO THAT NO PORTION OF THE GRILLES WILL BE DIRECTLY BELOW THE CPVC PIPING.

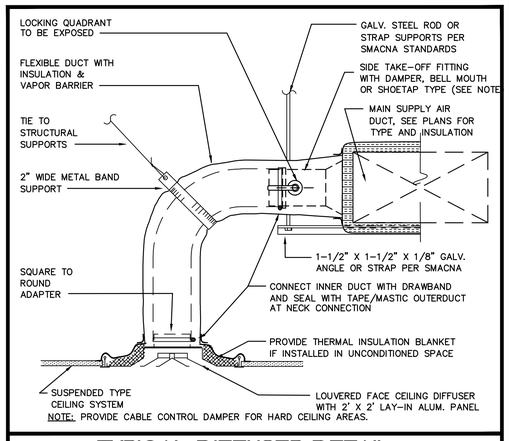
28. CONDENSATE DRAIN PIPING TO BE AS SPECIFIED PER PLUMBING PLANS, IF NOT SPECIFIED TO BE TYPE "L" COPPER OR PVC WHERE ALLOWED BY CODE WITH 1/2" ARMAFLEX INSULATION. PROVIDE APPROVED WATER LEVEL DETECTOR OR FLOAT SWITCH TO AUTOMATICALLY SHUT DOWN THE AIR COND. UNIT, AS A SECONDARY DRAIN SYSTEM TO COMPLY WITH FMC 2010, SEC. 307 SUPPLY CONDENSATE PUMP WHERE NECESSARY AS IMPOSED BY FIELD CONDITIONS OR INSTALLATION CHANGES AND PIPE TO CONDENSATE DRAIN PER PLUMBING PLANS.

29. MANUFACTURER'S WARRANTY: CONTRACTOR SHALL PROVIDE WARRANTY FOR A PERIOD OF (1) ONE YEAR AFTER BUILDING C.O. FOR ALL MECHANICAL SYSTEMS, DUCTWORK, CONTROLS ACCESSORIES AND ALL OTHER EQUIPMENT, PARTS AND LABOR UNDER THESE DRAWINGS AND AND SPECIFICATIONS. CONTRACTOR SHALL PROVIDE WARRANTY FOR COMPRESSORS FOR (5) FIVE YEARS. ANY REPAIRS REQUIRING SYSTEM SHUTDOWN WILL BE DONE DURING NON–OPERATIONAL PERIODS OR AS AGREED WITH OWNER.

MECHANICAL LEGEND

- SUPPLY AIR CEILING DIFFUSER
- RETURN AIR CEILING GRILLE
- WALL LOUVER / WALL DIFFUSER.
- LINEAR DIFFUSER
- MANUAL VOLUME CONTROL DAMPER
- MD — MOTORIZED DAMPER
- FD — FIRE DAMPER
- REDUCER OR INCREASER
- FLEX DUCT
- EXISTING FLEX DUCT
- EXISTING DUCTWORK
- UP — SUPPLY & OUTSIDE AIR SECTION (UP)
- DN — SUPPLY & OUTSIDE AIR SECTION (DN)
- UP — RETURN OR EXHAUST DUCT SECTION (UP)
- DN — RETURN OR EXHAUST DUCT SECTION (DN)
- ROUND UP
- SHOE TAP DAMPER
- ROOFTOP UNIT
- SOLENOID VALVE.
- RE — RELOCATE
- EF — CEILING OR INLINE EXHAUST FAN
- STANDARD SINGLE DUCT VVT BOX (3'0" SERVICE CLEARANCE)
- T — THERMOSTAT
- H — HUMIDISTAT
- RT — REMOTE TEST SWITCH
- OA — OVERTIME AC SWITCH
- DD — DUCT SMOKE DETECTOR
- AP – ACCESS PANEL
- AD – ACCESS DOOR
- VCD — VOLUME CONTROL DAMPER
- MOD — MANUALLY OPERATED DAMPER
- TAG / CFM — SUPPLY AIR DIFFUSER OR GRILLE DESIGNATION
- TAG / CFM — RETURN/EXHAUST AIR DIFFUSER OR GRILLE DESIGNATION
- VARIABLE FREQ. DRIVE CONTROL PANEL
- SUPPLY AIR
- RETURN AIR
- u/c — DOOR UNDER CUT
- TAG - # — EQUIPMENT TAG
  - OARTU– OUTSIDE AIR ROOF TOP UNIT
  - RTU– ROOF TOP UNIT
  - VAV– VARIABLE VOLUME BOX
  - EF – EXHAUST FAN

NOT ALL SYMBOLS MAY APPLY TO THESE PLANS



NOTE: PROVIDE CABLE CONTROL DAMPER FOR HARD CEILING AREAS.

TYPICAL DIFFUSER DETAIL

NOT TO SCALE

MECHANICAL SHEET INDEX

SHEET #	DESCRIPTION
M0.1	MECHANICAL NOTES, LEGEND & INDEX
M2.1	2ND FLOOR MECHANICAL FLOOR PLAN
M2.2	4TH FLOOR MECHANICAL FLOOR PLAN
M2.3	5TH FLOOR MECHANICAL FLOOR PLAN
M2.4	6TH FLOOR MECHANICAL FLOOR PLAN
M2.5	7TH FLOOR MECHANICAL FLOOR PLAN
M2.6	8TH FLOOR MECHANICAL FLOOR PLAN

HVAC ABBREVIATION LEGEND

AC	AIR CONDITIONING
AFF	ABOVE FINISH FLOOR
BDD	BACK DRAFT DAMPER
CD	CONDENSATE DRAIN
COP	COEFFICIENT OF PERFORMANCE
DB	DRY BULB
DIA.	DIAMETER
E	EXISTING TO REMAIN
EER	ENERGY EFFICIENCY RATIO
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
F	FILTER
FD	FIRE DAMPER
FLA	FULL LOAD AMPS.
FMS	FLOW MEASURING STATION
IPLV	INTEGRATED PART–LOAD VALUE.
MCA	MINIMUM CIRCUIT AMPS (FOR WIRE SIZING)
MOD	MANUALLY OPERATED DAMPER
MOCP	MAXIMUM OVERCURRENT PROTECTION DEVICE AMPS
NC	NOISE CRITERIA
O/A	OUTSIDE AIR
OBD	OPOSITE BLADE DAMPER
PD	PRESSURE DROP.
R	EXISTING TO BE RELOCATED
R/A	RETURN AIR
RLA	RATED LOAD AMPS.
SEER	STANDARD ENERGY EFFICIENCY RATIO
TSP	TOTAL STATIC PRESSURE
VD	VOLUME CONTROL DAMPER
VFD	VARIABLE FRECUENCY DRIVE
WB	WET BULB

NOTE: NOT ALL SYMBOLS MAY APPLY TO THESE PLAN.

NOTE: EXISTING AIR CONDITIONED BUILDING, ENERGY CALCULATIONS NOT REQUIRED PER FLORIDA ENERGY CODE 101.5.1.

SUPPLY AIR GRILLE SCHEDULE

TAG / CFM

TAG	MANUF. & MODEL	FACE SIZE	NECK SIZE	MATERIAL	FRAME	FINISH	DAMPER	THROW	NC	CFM RANGE	NOTES
A	TITUS/ TDCA–AA	24X24	SEE SCH.	ALUM.	NOTE #3	WHITE	OBD	4–WAY	MAX. 30	SEE SCH.	1–6
B	TITUS/ TDCA–AA	12X12	SEE SCH.	ALUM.	NOTE #3	WHITE	OBD	4–WAY	MAX. 30	SEE SCH.	1–6

(*) EQUIVALENT MANUFACTURER: METALAIRE, PRICE, CARNES, T & B, NAILOR

GENERAL NOTES:
1. PROVIDE SPIN–IN COLLAR AT TRUNK TO FLEX DUCT CONNECTION.
2. PROVIDE TYPICAL 4–WAY DIFFUSION, 2–WAY OR 3–WAY ONLY WHERE INDICATED ON PLAN
3. REFER TO ARCHITECT PLANS FOR CEILING TYPE.
4. FINAL COLOR SELECTION SUBJECT TO ARCHITECT APPROVAL.
5. FLEX DUCT SIZE TO BE SAME AS DIFFUSER NECK SIZE.
6. PROVIDE INSULATION ON THE BACK OF DIFFUSER IF IN UNCONDITIONED SPACE.

FLEX SCHEDULE	
6ø"	50–125 CFM
8ø"	130–200 CFM
10ø"	205–330 CFM
12ø"	335–450 CFM
14ø"	455–600 CFM
16ø"	605–700 CFM

CONTRACTOR SHALL VERIFY WITH ARCHITECT AND TENANT/OWNER, PRIOR TO ANY PURCHASING OR INSTALLATION, IF A BULDING STANDARD HAS TO BE FOLLOWED REGARDING A SPECIFIC MODEL OR MANUFACTURER AND SHALL BRING ANY DISCREPANCY TO THE ATTENTION OF ENGINEER.

RETURN AIR GRILLE SCHEDULE

TAG / CFM

TAG	MANUF. & MODEL	FACE SIZE	NECK SIZE	MATERIAL	FRAME	FINISH	DAMPER	THROW	NC	CFM RANGE	NOTES
AA	TITUS/ PAR–AA	12X12	SEE SCH.	ALUM.	NOTE #1	WHITE	OBD	–	MAX. 30	SEE SCH.	2–3

(*) EQUIVALENT MANUFACTURER: METALAIRE, PRICE, CARNES, T & B, NAILOR

GENERAL NOTES:
1. REFER TO ARCHITECT PLANS FOR CEILING TYPE.
2. FINAL COLOR SELECTION SUBJECT TO ARCHITECT APPROVAL.
3. PROVIDE INSULATION ON THE BACK OF DIFFUSER IF IN UNCONDITIONED SPACE

CONTRACTOR SHALL VERIFY WITH ARCHITECT AND TENANT OR OWNER, PRIOR TO ANY PURCHASING OR INSTALLATION, IF A BUILDING STANDARD HAS TO BE FOLLOWED REGARDING A SPECIFIC MODEL OR MANUFACTURER AND SHALL BRING ANY DISCREPANCY TO THE ATTENTION OF ENGINEER.

NECK SIZE	CFM RANGE	NECK SIZE	CFM RANGE
6X6	0–150 CFM	15X15	0–900 CFM
8X8	0–250 CFM	18X18	0–1350 CFM
10X10	0–400 CFM	22x22	0–2000 CFM
12X12	0–600 CFM		

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fax 772-409-8684
AA26001615

COMMON AREA UPGRADE
4400 PGA BLVD
PALM BEACH GARDENS, FL
PROJECT NUMBER 4405

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MECHANICAL NOTES

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KAMM CONSULTING PROJECT #: 2013-0758
PROJECT MANAGER: DUANE MILLAR
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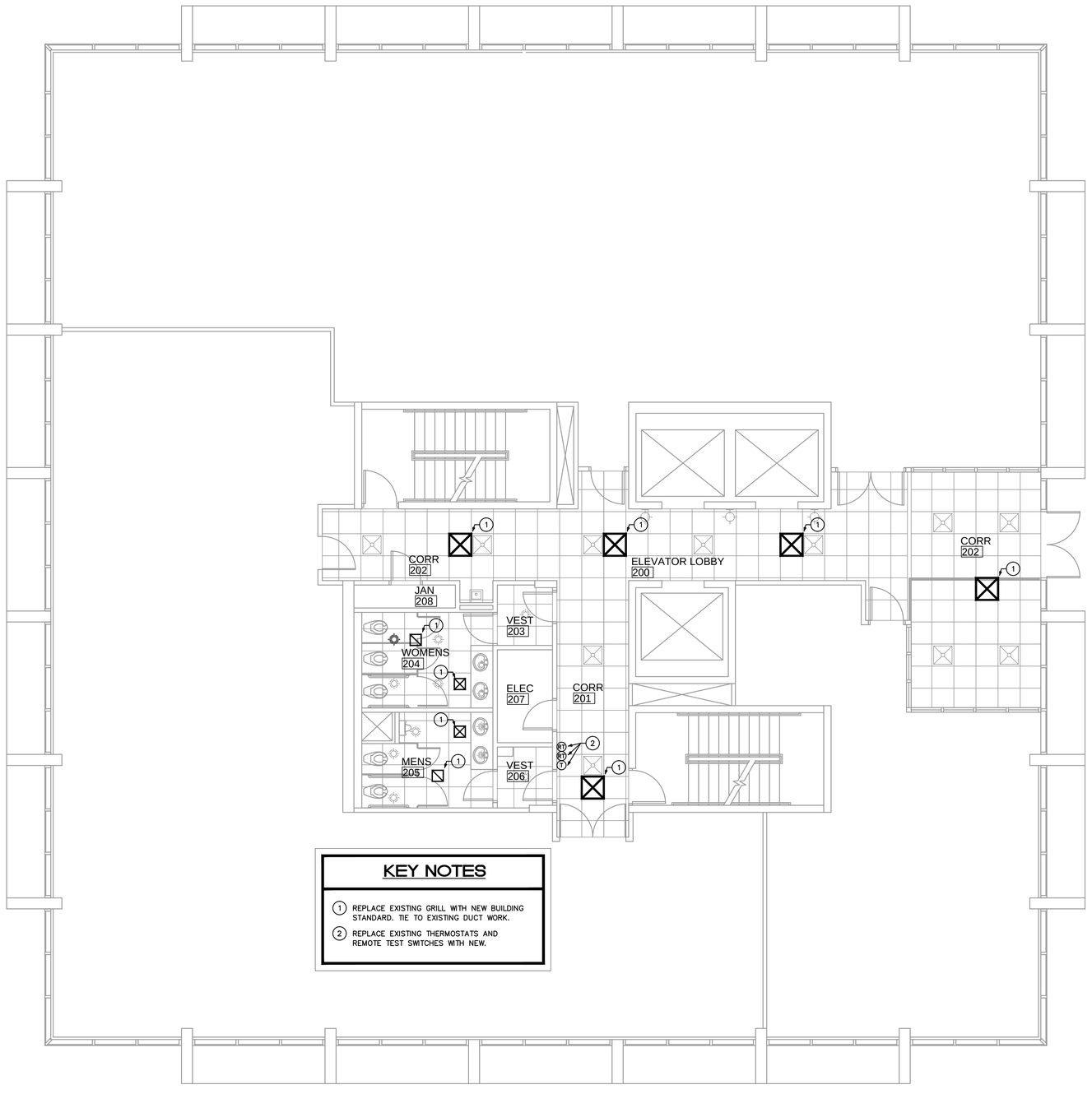

KEY NOTES

1. REPLACE EXISTING GRILL WITH NEW BUILDING STANDARD. TIE TO EXISTING DUCT WORK.
2. REPLACE EXISTING THERMOSTATS AND REMOTE TEST SWITCHES WITH NEW.

SECOND FLOOR MECHANICAL PLAN

3/16"=1'-0"

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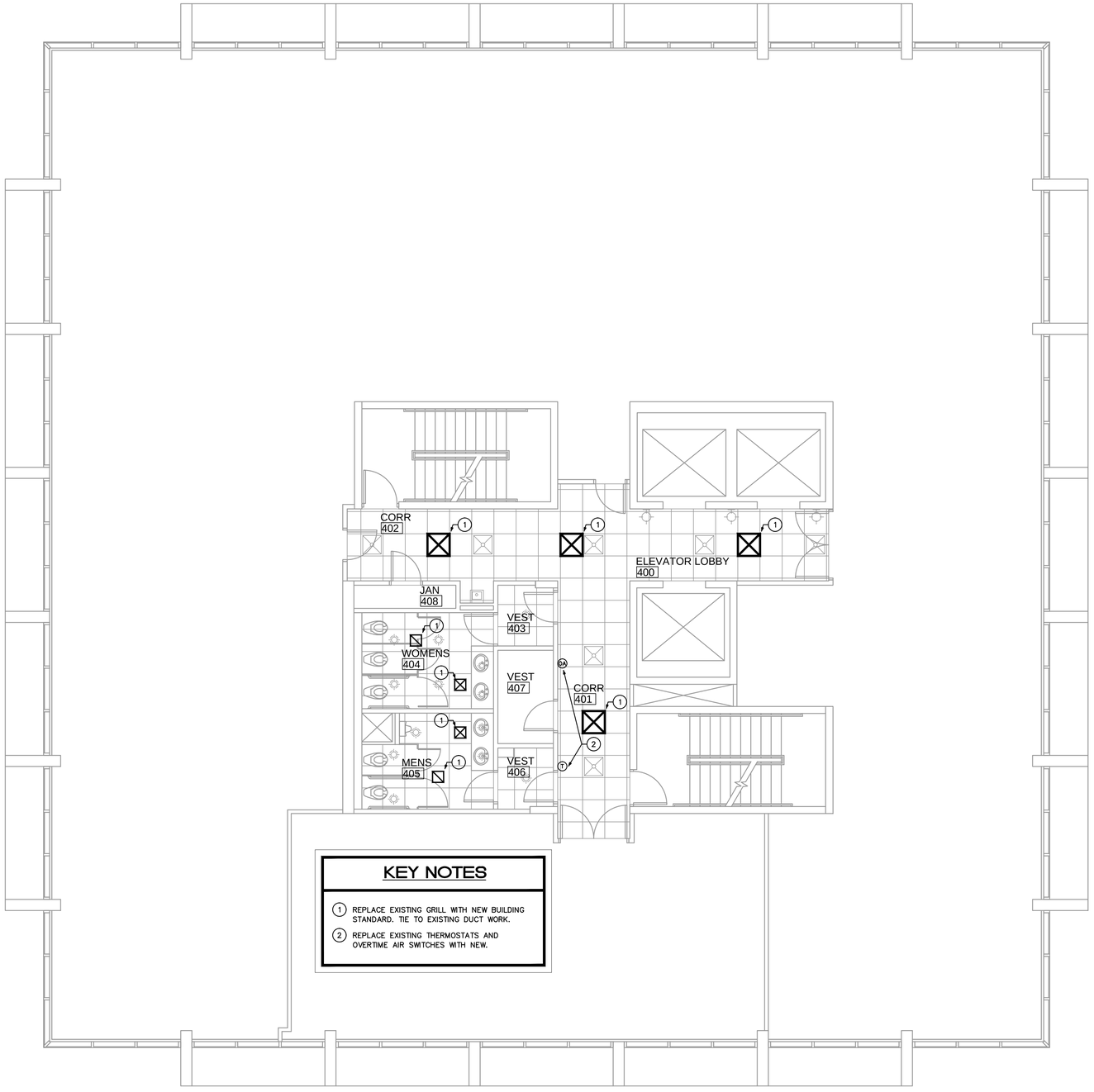
MECHANICAL PLAN
SECOND FLOOR

M2.1



FOURTH FLOOR MECHANICAL PLAN

3/16"=1'-0"

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MECHANICAL PLAN
FOURTH FLOOR

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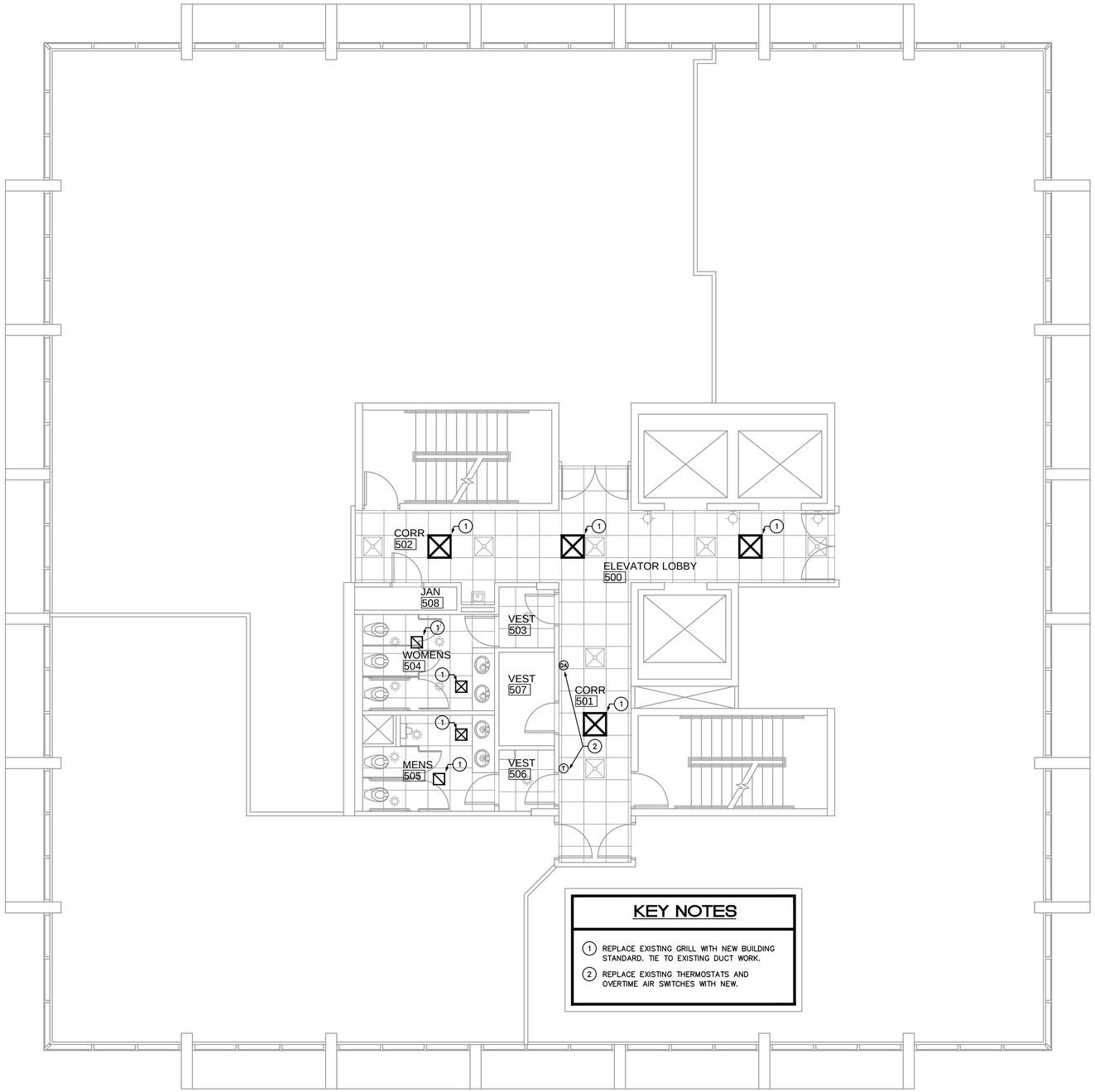

FIFTH FLOOR MECHANICAL PLAN

3/16"=1'-0"

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MECHANICAL PLAN
FIFTH FLOOR

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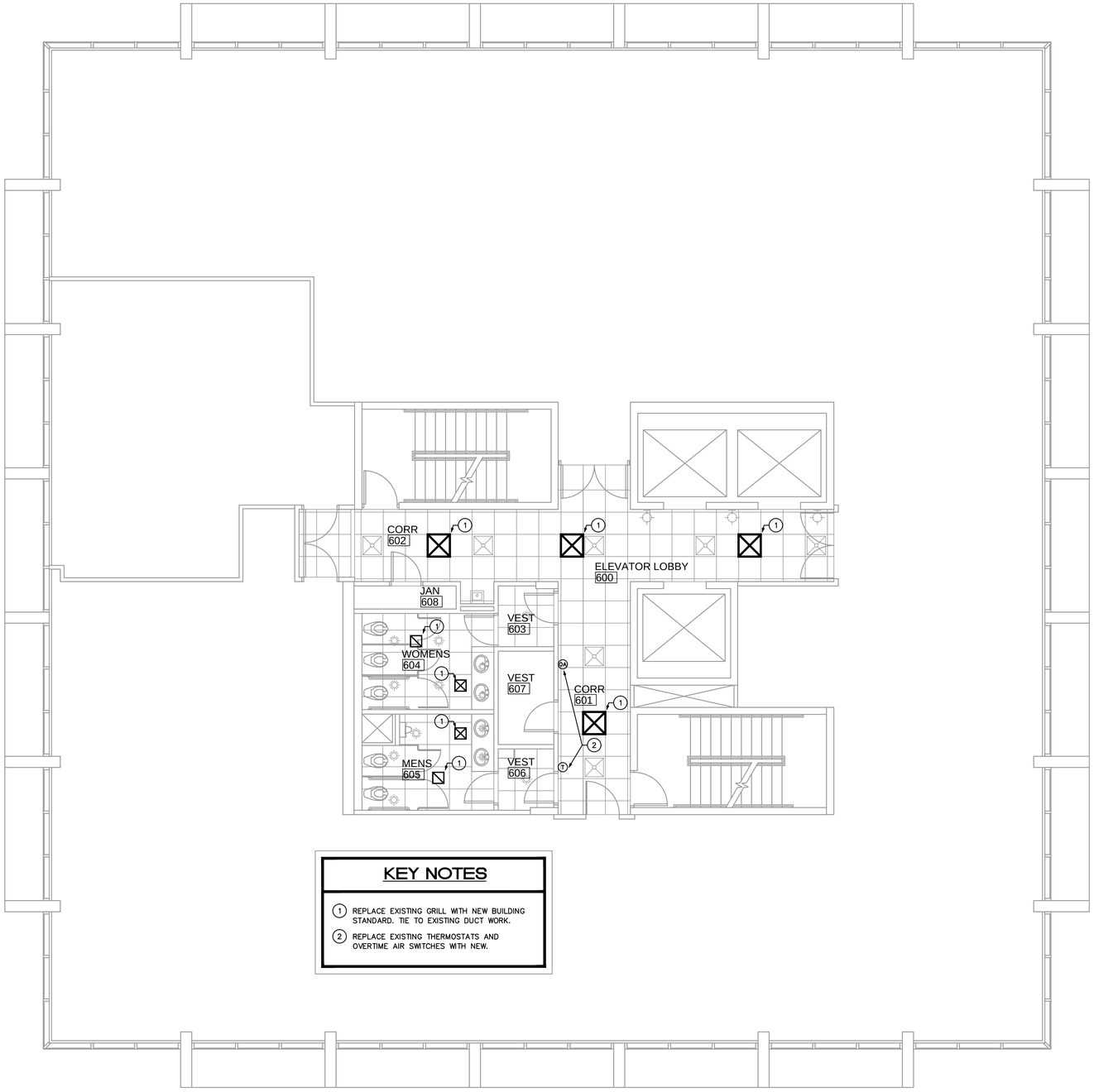

KEY NOTES

1. REPLACE EXISTING GRILL WITH NEW BUILDING STANDARD. TIE TO EXISTING DUCT WORK.
2. REPLACE EXISTING THERMOSTATS AND OVERTIME AIR SWITCHES WITH NEW.

SIXTH FLOOR MECHANICAL PLAN

3/16"=1'-0"

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MECHANICAL PLAN
SIXTH FLOOR

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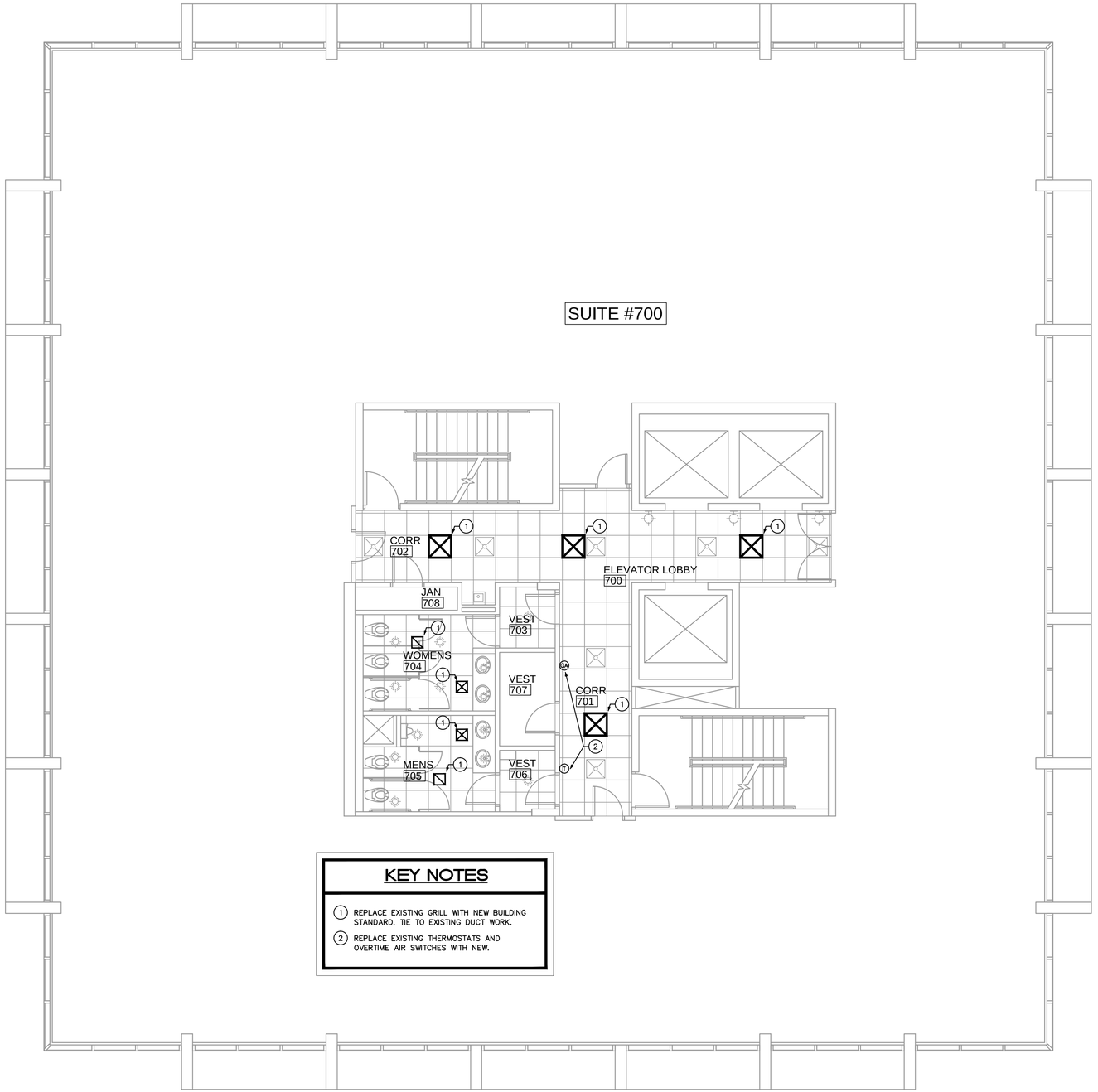

KEY NOTES

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2. REPLACE EXISTING THERMOSTATS AND OVERTIME AIR SWITCHES WITH NEW.

SEVENTH FLOOR MECHANICAL PLAN

3/16"=1'-0"

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MECHANICAL PLAN
SEVENTH FLOOR

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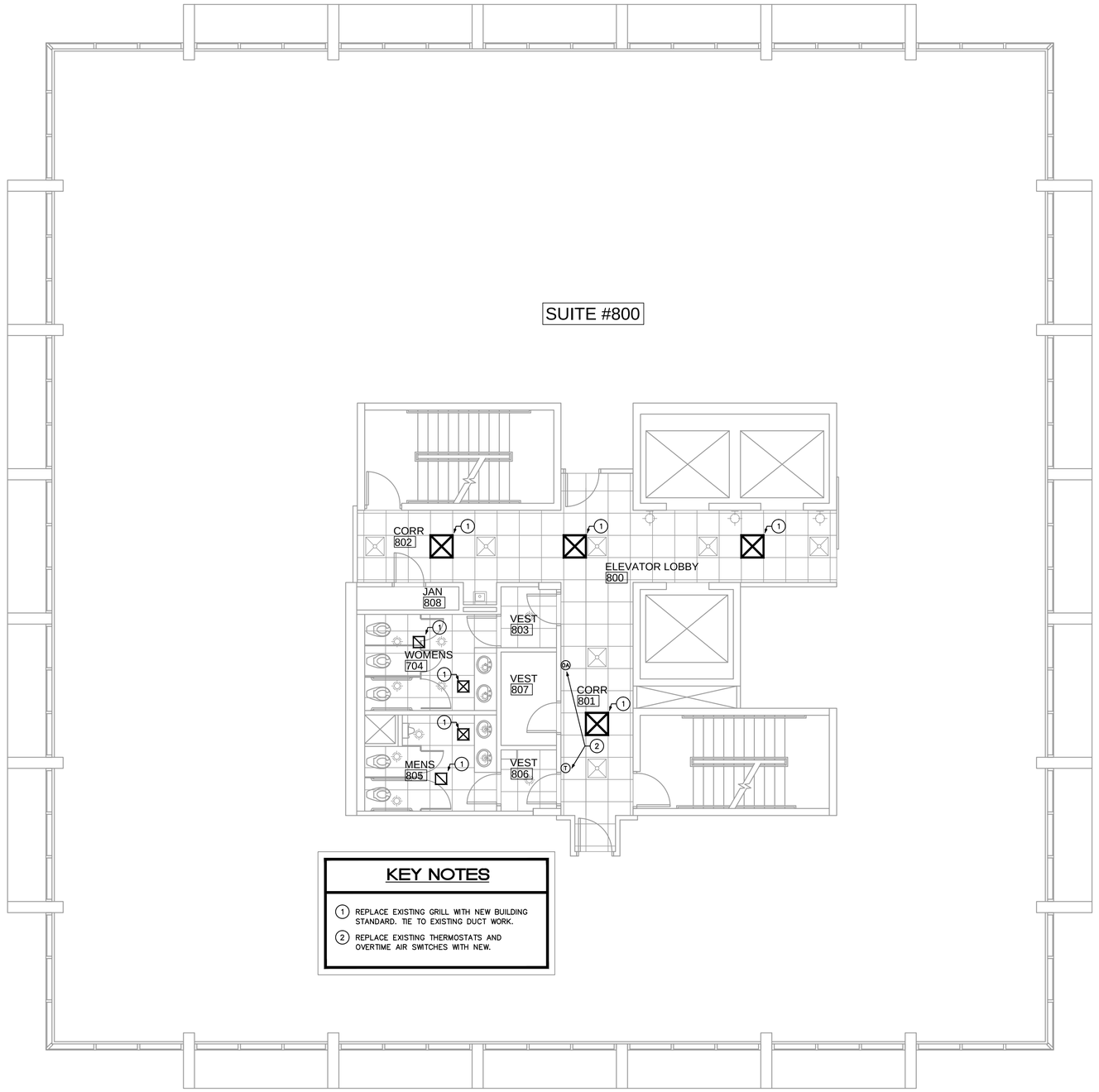

KEY NOTES

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EIGHTH FLOOR MECHANICAL PLAN

3/16"=1'-0"

MECHANICAL PLAN
EIGHTH FLOOR

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